

**INTRODUCTION TO THE**  
**NAVY**

**JUNIOR RESERVE OFFICERS TRAINING CORPS**



**INSTRUCTOR'S**  
**GUIDE**

**(NS-1)**

# INTRODUCTION TO THE NAVY JUNIOR RESERVE OFFICER TRAINING CORPS - INSTRUCTOR GUIDE

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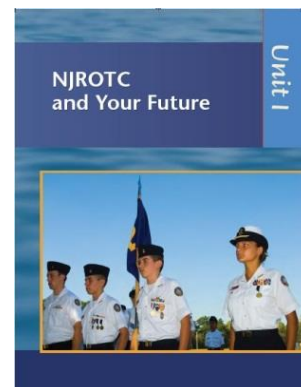
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## UNIT 1: NJROTC AND YOUR FUTURE

### Unit Overview

#### Unit Objective:

In this unit, you will learn about the NJROTC's history, mission, and curriculum and the benefits of belonging to the program. You will also learn about the difference between a job and a career and how to start planning now for your future career.



#### Unit Organization:

Chapter Number	Chapter Name	Instructional Section / PowerPoint
1	Intro to the NJROTC Program	NS1-U1C1S1 – Overview of NJROTC
		NS1-U1C1S2 – Focus on You
		NS1-U1C1S3 – Core Values and Curriculum
		NS1-U1C1S4 – NJROTC Unit Activities
		NS1-U1C1S5 – NJROTC Program Benefits
2	Career Planning	NS1-U1C2S1 – Your Career Path
		NS1-U1C2S2 – Career Direction and Choices
		NS1-U1C2S3 – The Navy as a Career Option
		NS1-U1C2S4 – Navy Jobs
		NS1-U1C2S5 – Developing Good Study Habits

## **Unit 1 Chapter 1: NS1U1C1 – Introduction to the NJROTC Program**

### **What Students Will Learn to Do:**

This chapter will introduce you to the Navy Junior Reserve Officers Training Corps—its background, mission, curriculum, and activities, as well as, its benefits to cadets.

### **Skills and Knowledge to be Gained:**

1. Explain the history and background of the NJROTC
2. Describe the NJROTC's mission, goals, and policies

### **Linked Standards in this Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

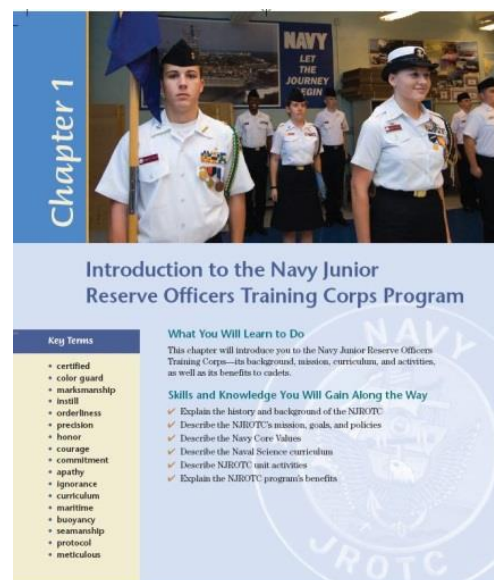
##### Writing

- W.9-10.6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products...
- W.9-10.9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...
- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.



## **Chapter 1 / Section 1: NS1-U1C1S1 – Intro to NJROTC**

(Section 1 of 5)

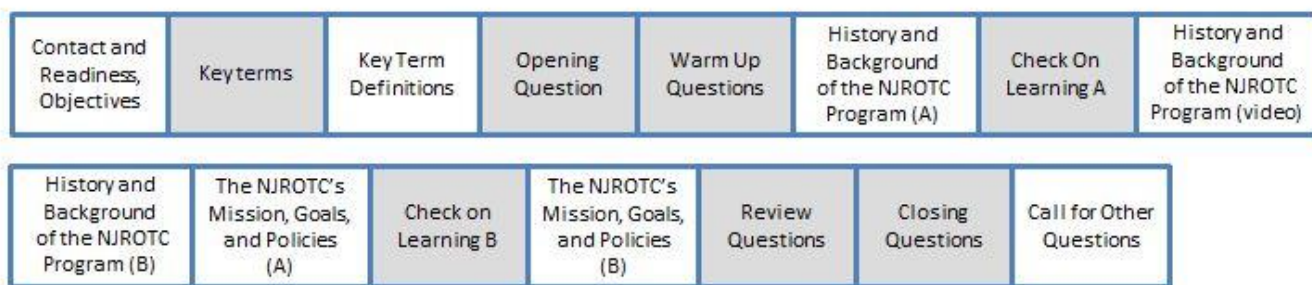
### **What Students Will Learn to Do:**

This chapter will introduce you to the Navy Junior Reserve Officers Training Corps—its background, mission, curriculum, and activities, as well as its benefits to cadets.

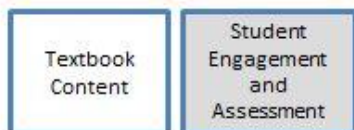
### **Skills and Knowledge to be Gained:**

1. Explain the history and background of the NJROTC
2. Describe the NJROTC's mission, goals, and policies

### **LESSON FLOW OUTLINE**



Key:



### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database and expand folders until you see Unit 1, Chapter 1. Place a checkmark beside the NS1-U1C1S1 PowerPoint presentation and these two CPS question deck files:  
NS1-U1C1S1 - Key Terms and NS1-U1C1S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## **Chapter 1 / Section 1: NS1-U1C1S1 – Intro to NJROTC**

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, students will learn about the NJROTC program. In addition they will:</p> <ol style="list-style-type: none"> <li>1. Be able to state the program's mission, goals, and policies.</li> <li>2. Learn that the Navy Core Values- honor, courage, and commitment- are important parts of the NJROTC program, what they mean and how they are exemplified.</li> <li>3. Learn what the Naval Science curriculum is all about</li> <li>4. Learn the various activities in which NJROTC units participate.</li> <li>5. Learn the benefits of belonging to the NJROTC</li> </ol>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – "RPS")</b>	This Opening Question is "List the 2-3 reasons you chose to enroll in JROTC." Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student's name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on intro to the NJROTC.	<b>7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>History and Background of the NJROTC Program</b>	Explain that you have chosen to take part in one of the most diverse and interesting programs in which a high school student can participate, joining more than half a million other students across the United States. The Junior Reserve Officers Training Corps, or JROTC, program currently enrolls students in more than 3,000 programs ranging from Alaska, Hawaii, and the continental United States to Japan, Italy, and Spain.	<b>9</b>
<b>History and Background of the NJROTC Program</b>	Explain that the JROTC program was the brainchild of Army inspector Lt Edgar R. Stevens, who in 1911 began teaching high school students the values and discipline of a military life in the hopes of molding these students into better citizens. From this idea came the formation of the JROTC program with the signing of the National Defense Act of 1916 and the establishment of the first JROTC at Leavenworth High School in Kansas in 1917. After World Wars I and II, the JROTC program saw little to no growth because of limited funding and personnel. This lack of growth prompted Congress to pass the JROTC Vitalization Act of 1964, which allowed the other service branches to offer JROTC as well.	<b>10-11</b>

## **Chapter 1 / Section 1: NS1-U1C1S1 – Intro to NJROTC**

<b>History and Background of the NJROTC Program</b>	Explain that the first Navy Junior Reserve Officers Training Corps (NJROTC) programs began in 1966. Today there are 620 NJROTC programs. The JROTC Vitalization Act charges the Secretary of the Navy with the maintenance and continued support of the NJROTC program. To this end, the Naval Service Training Command (NSTC), was established in Great Lakes, Illinois to manage funding as well as the personnel and materials the NJROTC program's use. The Program Office is in Pensacola, Florida. Directly beneath NSTC are Area Managers, who control the NJROTC's areas of operation and are responsible for maintaining the integrity of the programs in their areas through annual inspections. Beneath the Area Managers are Program Managers, or NJROTC instructors.	<b>12-15</b>
<b>History and Background of the NJROTC Program</b>	Explain that NJROTC instructors must be certified by the Navy. They are retired Navy, Marine Corps and Coast Guard officers as well as enlisted personnel. Senior Naval Science Instructors (SNSI) are retired officers in charge of the individual programs, while Naval Science Instructors (NSI) are retired officers or senior petty officers who assist the SNSIs. The Naval Service Training Command certifies instructors on the basis of their active-duty records in positions of responsibility, meaning that most instructors have extensive experience in leadership and management positions. Some instructors also have experience as teachers and counselors.	<b>16-17</b>
<b>Check on Learning Questions A (Lesson Questions 3-4)</b>	Check in on student's understanding of information covered thus far by engaging lesson questions 3 and 4, with follow-up discussion as necessary.	<b>18</b>
<b>History and Background of the NJROTC Program</b>	Show video on the History and Background of the NJROTC Program	<b>19</b>
<b>History and Background of the NJROTC Program</b>	Explain that the Navy provides textbooks, computers, audio-visual equipment, and other materials for the Naval Science classroom, as well as uniforms for students to wear while they are in the program. Each unit also receives equipment for extracurricular activities like color guard, drill team, and marksmanship, as well as funding for orientation trips to military bases and other sites of importance to unit members.	<b>20-22</b>
<b>History and Background of the NJROTC Program</b>	Explain that the NJROTC program is a joint effort of the U.S. Navy and local school systems to enhance the education of students who join. But the instructors work for the principals of their schools, just as any other teacher does. Local educators are responsible for administering the NJROTC program at their schools and for assisting the program as needed.	<b>23</b>
<b>The NJROTC's Mission Goals, and Policies</b>	Explain that the JROTC program's mission is stated in the National Defense Act of 1916: The purpose of JROTC is "to instill in students the value of citizenship, service to the United States, personal responsibility, and a sense of accomplishment."	<b>24</b>
<b>Check on Learning Questions B (Lesson Questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>25</b>

## **Chapter 1 / Section 1: NS1-U1C1S1 – Intro to NJROTC**

<b>The NJROTC's Mission Goals, and Policies</b>	<p>Explain that, to this end, the NSTC has established specific goals for the NJROTC program. These goals are as follows:</p> <ul style="list-style-type: none"> <li>• Promote patriotism. This means love of country, respect for the flag, and pride in the government and the American way of life.</li> <li>• Develop informed and responsible citizens. NJROTC should make students aware of their responsibilities, duties, and rights.</li> <li>• Promote habits of orderliness and precision. Experience shows that such habits help people succeed in life.</li> <li>• Develop a high degree of personal honor, self-reliance, self-discipline, and leadership. These qualities are embodied by the Navy's Core Values of Honor, Courage, and Commitment.</li> <li>• Promote an understanding of the basic elements and requirements for national security. Students should understand the need for armed forces and their relationship to a democratic government.</li> <li>• Develop respect for and an understanding of the need for constituted authority in a democratic society. Students should understand why we have laws and governments.</li> <li>• Provide incentives to live healthy and drug-free lives. Students should know how drug use and other harmful actions affect both themselves and others.</li> <li>• Develop leadership potential. The NJROTC program provides students with a wide range of opportunities to test themselves in leadership roles such as leading a drill team and performing a staff job.</li> <li>• Promote high school completion. Students should know the value of their education.</li> <li>• Provide information on the military services as a possible career.</li> </ul>	<b>26-30</b>
<b>Review Question</b>	The Review Question is, "What was the most important thing you learned in this lesson that you didn't already know? Why was it important to you?" This question is designed to provide an opportunity for some reflection and assimilation of the content covered and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>31</b>
<b>Closing Questions (Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>32</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>33</b>

## **Chapter 1 / Section 1: NS1-U1C1S1 – Intro to NJROTC**

### III. Supplemental Activities -

#### A. In Class Activity 1:

Supplies Required: Multiple (6-8) soft throwables (nerf balls, fleece balls, koosh balls, bean bags, stuffed toys) for each group

When: Can open or close a class

- This activity requires breaking the class into groups of 8-12. Good for bonding and introducing students to each other and identifying potential leaders. 20-30 minutes. During this activity, look for who is taking charge. Are they listening to everyone, leaders standing out?

#### Group Juggling:

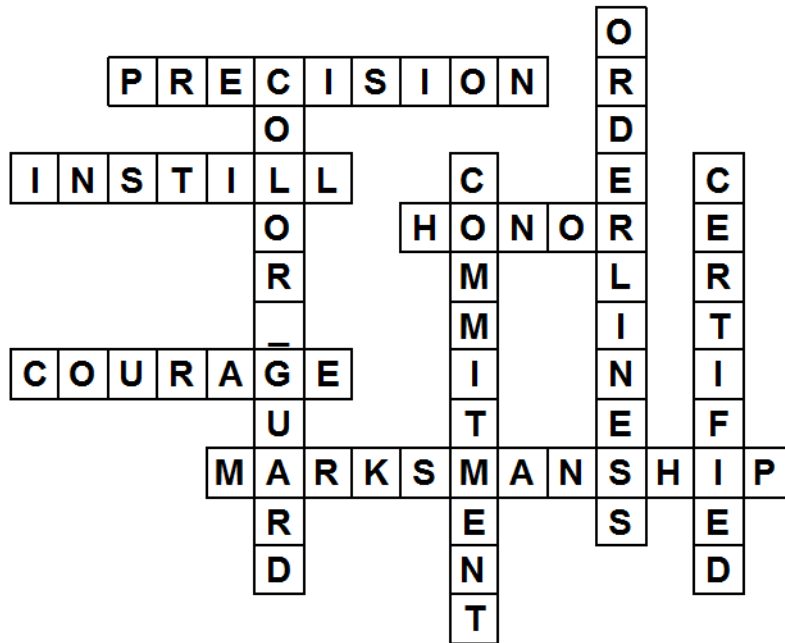
- Form groups into circle.
- Can only have one object in their hand at one time.
- Cannot drop any balls
- Give 1 throwable to someone in the group, “The Starter”. They must throw the object to someone who has not caught the ball.
  - The person must not be directly next to them. They must call the person they are throwing it to by name (If you do not know the name, ask the person their name, then say their name and throw them the object.
  - The person catching the ball follows the same procedure in throwing the ball to the next person.
  - When everyone has caught the ball, the ball is thrown back to the person who threw it first. This person calls the person they originally threw it to by name and throws the object to them. The pattern is repeated so everyone knows the pattern.
  - When the object gets back to the start, facilitator asks if anyone can name everyone in the circle. Allow people in the circle to try.
  - Have the start person start the ball again (same pattern). Insert a second, a third ...ball into the system. They must call the name of the person they are throwing to; each time they throw it.
  - Stop the cycle. Ask them what happened? How many objects can they handle at one time? Give them 1 minute to discuss strategy. Try it.
  - Ask people to name everyone in the circle. Reflect on how they did? Did they improve? What caused improvement? Did you communicate?



## **Chapter 1 / Section 1: NS1-U1C1S1 – Intro to NJROTC**

B. Homework Activity: Have the students fill out the crossword puzzle handout with the key terms from the lesson.

Solution:



IV. Evaluation - see CPS database for chapter test questions.

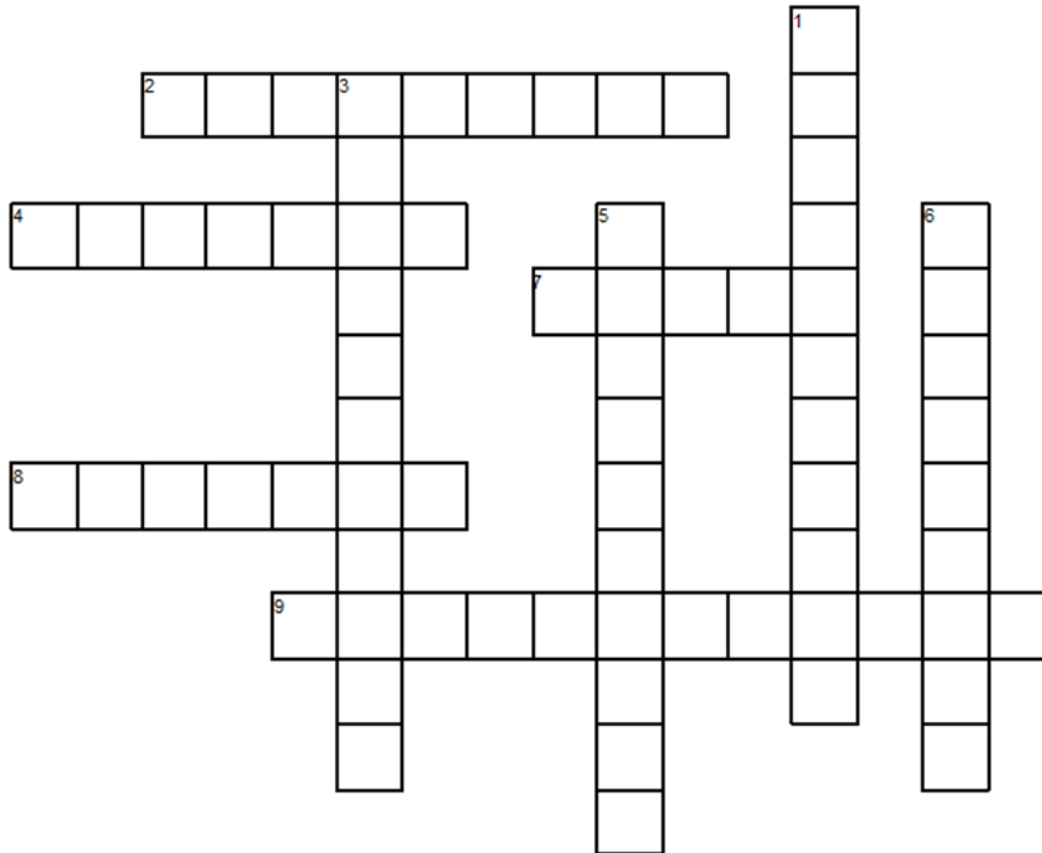
## **Chapter 1 / Section 1: NS1-U1C1S1 – Intro to NJROTC**

NS1 U1C1S1: Introduction to NJROTC

Activity 1: Take Home Activity – Crossword Puzzle

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Fill the blank crossword puzzle with key terms from this lesson using the clues below. The answer to one clue consists of two words with a space.



[www.CrosswordWizard.com](http://www.CrosswordWizard.com)

### **ACROSS**

- 2 Exactness
- 4 to introduce by gradual persistent efforts
- 7 A keen sense of ethical conduct
- 8 Mental or moral strength to venture, persevere and withstand danger, fear or difficulty
- 9 Skill in shooting at a target

### **DOWN**

- 1 Neatness; freedom from disorder
- 3 The ceremonial escort for the flag
- 5 A state of being bound, emotionally or intellectually, to a course of action, or to a person or persons
- 6 Officially approved

## **Chapter 1 / Section 2: NS1-U1C1S2 – Focus on You**

(Section 2 of 5)

### **What Students Will Learn to Do:**

This chapter will introduce you to the Navy Junior Reserve Officers Training Corps—its background, mission, curriculum, and activities, as well as its benefits to cadets.

### **Skills and Knowledge to be Gained:**

1. Explain the history and background of the NJROTC
2. Describe the NJROTC's mission, goals, and policies

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	A Focus on You	Check On Learning A	Navy Core Values	Definitions of Navy Core Values
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Check on Learning B	Behaviors that Detract from Navy Core Values (A)	Behaviors that Detract from Navy Core Values (Video)	Behaviors that Detract from Navy Core Values (B)	Review Questions	Closing Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 1, chapter 1. Place a checkmark beside the NS1-U1C1S2 PowerPoint presentation, and these two CPS question deck files: NS1-U1C1S2 - Key Terms and NS1-U1C1S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 2: NS1-U1C1S2 – Focus on You

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, students will learn about the NJROTC program. In addition they will:</p> <ol style="list-style-type: none"> <li>1. Be able to state the program's mission, goals, and policies.</li> <li>2. Learn that the Navy Core Values- honor, courage, and commitment- are important parts of the NJROTC program, what they mean and how they are exemplified.</li> <li>3. Learn what the Naval Science curriculum is all about</li> <li>4. Learn the various activities in which NJROTC units participate.</li> <li>5. Learn the benefits of belonging to the NJROTC</li> </ol>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5</b>
<b>Opening Question(Random Pick a Student – "RPS")</b>	This Opening Question is "What are the core values of the Navy" Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student's name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on the student.	<b>6</b>
<b>Warm-Up Questions (Lesson Questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>A Focus on you</b>	Explain that the focus of the NJROTC program is on you. The opportunities provided by the instructors, the school, the area manager, the NSTC, the Secretary of the Navy, and the Congress itself are designed to assist you in improving yourself and your fellow cadets. These opportunities are provided in the hope that you will learn through the NJROTC program the Core Values of honor, courage, and commitment, as well as qualities such as self-discipline, cooperation, and teamwork. Mastering the military skills that your instructors will teach you will give you confidence in yourself and those around you, as well as the pride of a job well done. Moreover, your actions through community service will allow you to play a role in the development and betterment of your community and to discover what it really means to be a citizen.	<b>8-11</b>
<b>A Focus on you</b>	Explain that another advantage of the NJROTC program is the opportunity to lead and to teach your fellow cadets what you have learned during your time in the program. Many cadet graduates of these programs say these opportunities were the most lasting benefit of NJROTC. They say that these opportunities provided them with connections and friendships that lasted long after they graduated from high school.	<b>12-13</b>

## Chapter 1 / Section 2: NS1-U1C1S2 – Focus on You

<b>A Focus on you</b>	<p>Explain that NJROTC, however, is still a military-sponsored program and as such has requirements for your continued participation. These requirements mean that a cadet must:</p> <ul style="list-style-type: none"> <li>• Be enrolled as a regular student in Grades 9 through 12 at the school hosting the unit</li> <li>• Be a citizen or legal permanent resident of the United States</li> <li>• Be sufficiently fit to participate in the school's physical education program</li> <li>• Be selected by the NJROTC instructor with the approval of the school principal</li> <li>• Have acceptable grades in school</li> <li>• Maintain acceptable standards of conduct</li> <li>• Meet NJROTC personal-grooming standards.</li> </ul>	<b>14-15</b>
<b>A Focus on you</b>	<p>Explain that NJROTC is responsible for maintaining its standards of enrollment. Unfortunately, some individuals cannot meet these standards. When a cadet chooses to leave the program or fails to live up to its standards, he or she is dis-enrolled. Standards for disenrollment include the following:</p> <ul style="list-style-type: none"> <li>• Failure to maintain academic standards</li> <li>• Poor behavior or lack of aptitude</li> <li>• Leaving school (dropping out or moving)</li> <li>• Cadet's own request</li> <li>• Physical conditions, such as injury or inability to meet fitness standards.</li> </ul>	<b>16-17</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>18</b>
<b>Navy Core Values</b>	Explain that a goal of the NJROTC program is to teach and instill the value of citizenship. Through the Core Values of the Navy—honor, courage, and commitment—you will learn to become a better citizen, regardless of whether you chose to continue on into the Navy or another of the armed forces.	<b>19</b>
<b>Navy Core Values</b>	<p>Explain that values are your most deeply held ideals, beliefs, or principles. You learn values all your life, often without realizing it, from</p> <ul style="list-style-type: none"> <li>• family</li> <li>• faith community or spiritual tradition</li> <li>• school</li> <li>• friends</li> <li>• community</li> <li>• country</li> </ul>	<b>20-21</b>
<b>Navy Core Values</b>	Explain that these values affect your thoughts, feelings, and behavior. They are the basis on which you make many of the difficult decisions that you face throughout your life. People who have compromised or lost touch with their values may engage in lawless or unethical behavior, which can lead to unfortunate consequences. The Navy's Core Values are heavily emphasized during your involvement with the NJROTC program, in the hopes that you will learn from them and avoid the traps that apathy or ignorance can create.	<b>22-23</b>

## Chapter 1 / Section 2: NS1-U1C1S2 – Focus on You

<b>Definitions of Navy Core Values</b>	<p>Explain that as a member of the NJROTC program, you have chosen to dedicate yourself to the Core Values of honor, courage, and commitment. These build a foundation of trust and leadership upon which your NJROTC unit is based. These values are the principles that will give you strength and guide you in your daily activities throughout your stay in the program. Your duty as a cadet is to be faithful to these Core Values and to exemplify their true worth through your words and actions:</p> <ul style="list-style-type: none"> <li>• Honor—I am accountable for my professional and personal behavior. I will be mindful of the privilege I have to serve my fellow Americans.</li> <li>• Courage—Courage is the value that gives me the moral and mental strength to do what is right, with confidence and resolution, even in the face of temptation or adversity.</li> <li>• Commitment—the day-to-day duty of every man and woman in the NJROTC program is to join together as a team to improve the quality of their unit, their fellow cadets and classmates, and themselves.</li> </ul>	<b>24-27</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>28</b>
<b>Behaviors that Detract from Navy Core Values</b>	<p>Explain that four patterns of behavior detract from the Navy Core Values: hazing, discrimination, sexual harassment, and fraternization. Explain that hazing is any conduct that causes another person to suffer to be exposed to an activity that is:</p> <ul style="list-style-type: none"> <li>• cruel</li> <li>• abusive</li> <li>• humiliating</li> <li>• oppressive</li> <li>• demeaning</li> <li>• harmful</li> </ul>	<b>29</b>
<b>Behaviors that Detract from Navy Core Values Video</b>	Show video on behaviors that detract from Navy Core Values	<b>30</b>
<b>Behaviors that Detract from Navy Core Values</b>	Explain that Hazing can be especially damaging to people in high school. In their vulnerable teenage years, young people long for friendship, approval, and acceptance. This leaves them open to peer pressure, which can lead them to do foolish or even dangerous things they would otherwise avoid. You could be vulnerable to peer pressure which can lead you to do foolish or even dangerous things you would otherwise avoid. Be careful	<b>31-33</b>
<b>Behaviors that detract from Navy Core Values</b>	Explain that discrimination is any act that denies equal treatment to individuals because of their race, gender, ethnicity, religion, or other differences.	<b>33</b>
<b>Behaviors that detract from Navy Core Values</b>	Explain that sexual harassment is a particular form of gender discrimination. It involves unwanted sexual advances, direct or indirect requests for sexual favors, verbal or physical conduct of a sexual nature, or the creation of an atmosphere of fear and distrust. For instance, if you hang a suggestive photo in your locker, that may be a form of sexual harassment because it may cause someone else who sees it discomfort or embarrassment.	<b>34</b>

## **Chapter 1 / Section 2: NS1-U1C1S2 – Focus on You**

<b>Behaviors that detract from Navy Core Values</b>	Explain that fraternization is an inappropriate relationship between a superior and a subordinate—between a boss and an employee, or a teacher and a student, for instance—that could result in favoritism or discipline problems on the job. The rules on this are not as strict in NJROTC as in the Navy itself. Nevertheless, cadet officers should avoid dating their subordinates. In fact, they should avoid any friendships that could create, or even be perceived as, unfair or favoritism.	<b>35</b>
<b>Review Question</b>	The Review Question is “How could the Navy Core Values help you in everyday life?” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>36</b>
<b>Closing Questions (Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>37</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>38</b>

### III. Supplemental Activities -

#### A. In class Activity 1:

Supplies required: Handout

When: At the end of class

- Using complete sentences, correct punctuation and spelling, in your own words, what do the Navy’s Core Values: Honor...Courage...Commitment mean to you?

#### B. In class Activity 2:

- Handout 2 - Using complete sentences, correct punctuation and spelling, answer the following.

Five years from today, what would you like to be doing? (Think: career; education; working; transitioning; experimenting ...) How did you get there? List 5 significant events that helped you get this point. (Be detailed in describing these stepping stones to the 5 year point. Examples: certifications, degrees, employment opportunities, camps, experiences)

- C. Homework Activity: Interview someone you know who has achieved an outstanding accomplishment or reached a difficult goal (e.g., graduated from college, successful at athletics, built a business etc.). Ask him/her to give you five to ten intermediate steps that helped them reach their long-range goal.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 1 / Section 2: NS1-U1C1S2 – Focus on You**

Activity 1: In-Class Activity – Focus on You

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Using complete sentences, correct punctuation and spelling, in your own words, what do the Navy's Core Values: Honor...Courage...Commitment mean to you?

Honor: \_\_\_\_\_

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Courage: \_\_\_\_\_

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Commitment: \_\_\_\_\_

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## Chapter 1 / Section 2: NS1-U1C1S2 – Focus on You

## Activity1: Homework Activity – Focus on You

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Using complete sentences, correct punctuation and spelling, answer the following. Interview someone you know who has achieved an outstanding accomplishment or reached a difficult goal (e.g., graduated from college, successful at athletics, built a business etc.). Describe the accomplishment. Ask him/her to give you five to ten intermediate steps that helped them reach their long-range goal. (Significant events that moved them toward their goal)

[illegible]

## **Chapter 1 / Section 3: NS1-U1C1S3 – Core Values and Curriculum**

(Section 3 of 5)

### **What Students Will Learn to Do:**

This chapter will introduce you to the Navy Junior Reserve Officers Training Corps—its background, mission, curriculum, and activities, as well as its benefits to cadets.

### **Skills and Knowledge to be Gained:**

1. Explain the history and background of the NJROTC
2. Describe the NJROTC's mission, goals, and policies

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Review the Navy Core Values	Practicing the Navy Core Values	When you get into a Gray Area	When I think of Commitment
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Check On Learning A	The Naval Science Curriculum	Team Activities	The Cadet Field Manual (A)	The Cadet Field Manual (Video)	The Cadet Field Manual (B)	Introduction to the NJROTC Program	Maritime History	Nautical Sciences
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Curriculum in Naval Knowledge (A)	Check on Learning B	Curriculum in Naval Knowledge (Video)	Curriculum in Naval Knowledge (B)	Naval Skills	Leadership Theory	Leadership Laboratory	Review Questions	Closing Questions
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Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 1, chapter 1. Place a checkmark beside the NS1-U1C1S3 PowerPoint presentation, and these two CPS question deck files: NS1-U1C1S3 - Key Terms and NS1-U1C1S3 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 3: NS1-U1C1S3 – Core Values and Curriculum

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, students will learn about the NJROTC program. In addition they will:</p> <ol style="list-style-type: none"> <li>1. Be able to state the program's mission, goals, and policies.</li> <li>2. Learn that the Navy Core Values- honor, courage, and commitment- are important parts of the NJROTC program, what they mean and how they are exemplified.</li> <li>3. Learn what the Naval Science curriculum is all about</li> <li>4. Learn the various activities in which NJROTC units participate.</li> <li>5. Learn the benefits of belonging to the NJROTC</li> </ol>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – "RPS")</b>	This Opening Question is "List 2-3 things that you are "committed" to. What does it mean that you are committed to these things?" Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student's name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on core values and curriculum.	<b>7</b>
<b>Warm-Up Questions (Lesson Questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>Review the Navy Core Values</b>	Review and explain that If you value your sense of honor, you won't want to haze or harass anyone. If you have the courage to resist peer pressure, you will be able to avoid misbehavior and even talk others out of it. If you are committed to respect for other people, these behaviors will simply lose their appeal.	<b>9</b>
<b>Practicing the Navy Core Values</b>	<p>Explain that mastering the Core Values is not a matter of instinct. It is something that you must learn through conscious effort. After time, you will act instinctively on these values. The acronym LATAR is one tool that can help you master the Core Values:</p> <ul style="list-style-type: none"> <li>• Learn</li> <li>• Adopt</li> <li>• Think</li> <li>• Act</li> <li>• Reevaluate.</li> </ul>	<b>10-12</b>

## Chapter 1 / Section 3: NS1-U1C1S3 – Core Values and Curriculum

	<p><i>Learn:</i> Know the Core Values and how they contribute to the Navy's readiness.</p> <p><i>Adopt:</i> Adopt the values as your own and live them 24/7—at home, at school, everywhere.</p> <p><i>Think:</i> Recognize when Core Values are being compromised. Speak up if someone makes inappropriate or wrong comments, for instance. The more you live by the Core Values, the more people will notice it. These values, lived, will give you credibility and influence with others. Both you and those you work with will be more effective.</p> <p><i>Act:</i> Do the right thing. Apply the Core Values in your dealings with peers and leaders. Report illegal activities if necessary.</p> <p><i>Reevaluate:</i> Think about how well your life matches up with the Core Values. Are you falling short? If so, how can you improve?</p>	
<b>When you get into a Gray Area</b>	Explain that like a ship that's not securely anchored, you may sometimes find yourself drifting into a moral or ethical gray area. The Core Values can help you navigate around these. Have the courage to examine whether your behavior is honorable. If not, commit to changing your behavior. If your fellow cadets act in a questionable way, have the courage to tell them. This will make it easier to avoid further confrontation.	<b>13</b>
<b>When I think of commitment</b>	Admiral James Stockdale's remarks at the U.S. Naval Academy, 31 July 1997	<b>14</b>
<b>Check on Learning Questions A (Lesson Questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>15</b>
<b>The Naval Science Curriculum</b>	Explain that in addition to your studies into the Navy's Core Values, your studies in Naval Science will cover eight other major areas over the next four years. This curriculum emphasizes two different areas each year and is customized by your school to meet your needs and the needs of your classmates. In general, the program is meant to provide a balance of classroom studies, military activities, physical fitness, and orientation trips.	<b>16-18</b>
<b>Team Activities</b>	Explain that most NJROTC units have teams that compete against other units in military drill, marksmanship, color guard performance, and academics.	<b>19-20</b>
<b>The Cadet Field Manual</b>	Explain that the Cadet Field Manual is your guide to success as an NJROTC cadet. It will show you how to wear and care for a uniform and will explain uniform rates, ranks, and ribbons. The manual also explains military standards of personal appearance. The manual will tell you what you need to know about military customs and courtesies. This includes saluting and proper behavior while in uniform.	<b>21</b>
<b>The Cadet Field Manual</b>	Show Video on the Cadet Field Manual.	<b>22</b>
<b>The Cadet Field Manual</b>	Explain that when you master these standards, you will be able not only to take part in unit activities with pride and confidence but also to assist your fellow cadets in their own mastery and understanding of these important codes of conduct.	<b>23</b>

## **Chapter 1 / Section 3: NS1-U1C1S3 – Core Values and Curriculum**

<b>Introduction to the NJROTC Program</b>	This course will explain the background, purpose, goals, and objectives of the program. It will also help you build important study and time-management skills. These skills will help you in all aspects of your school and professional life, not just in your NJROTC studies. Furthermore, these traits will provide you with the tools required to succeed as a member of your community and as a citizen of the United States.	<b>24</b>
<b>Introduction to the NJROTC Program</b>	Explain that part of learning how to be a cadet in the NJROTC program is learning how to act as a responsible citizen. You'll learn how other forms of government around the world over the past century compare with our own. You'll study the Declaration of Independence and the U.S. Constitution, the founding documents of our republic, and explore how these documents affect your life, the lives of your classmates, and people across the planet. Explain that instructors will explain the role of the armed forces in a democracy, tell you about how these forces are organized, and describe the role of the Defense Department.	<b>25-26</b>
<b>Maritime History</b>	Explain that navies have been an important part of life for thousands of years as seafaring peoples have sought to trade with or even conquer their neighbors and to explore more of the world. Your instructors will introduce you to maritime history—the history of ships and navies—with emphasis on the role of the U.S. Navy.	<b>27</b>
<b>Nautical Sciences</b>	Explain that part of understanding the Navy is learning the sciences that go into the operation of ships and aircraft, including sciences that apply to navigation, keeping the ships afloat, and keeping the planes and helicopters in the sky. Several different fields of study make up the nautical sciences.	<b>28</b>
<b>Curriculum in Naval Knowledge</b>	Explain that you will learn about the concept of sea power as presented by Alfred Thayer Mahan (1840–1914), an influential naval historian who believed that sea power was the key to success in international politics. In his view, the ability of a coastal nation, like the United States, to use the oceans for trade, commerce, science, industry, and national defense would largely determine that nation's role in the world.	<b>29-30</b>
<b>Curriculum in Naval Knowledge</b>	Explain that your studies in Naval Knowledge will consider the history of United States strategy from our country's beginnings to the modern era and how the three classic schools of strategy—sea power, air power, and land power—affect a modern-day engagement. Explain that instructors will explain the national security planning process. You'll learn about how our government looks at current threats to national security and takes steps to counter them with some of the most advanced surveillance methods on the planet. Coupled with the national security unit, you'll learn more about the responsibilities of the Merchant Marine and the Coast Guard in the maritime defense of the United States. Your instructors will explain the role of naval operations, communications, intelligence, logistics, and research and development.	<b>31</b>
<b>Check on Learning Questions B (Lesson Questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>32</b>
<b>Curriculum in Naval Knowledge</b>	Show Video on curriculum in naval knowledge	<b>33</b>

## **Chapter 1 / Section 3: NS1-U1C1S3 – Core Values and Curriculum**

<b>Curriculum in Naval Knowledge</b>	Explain that to wrap up your unit on Naval Knowledge, your instructors will explain the differences between military and civilian law and how the Uniform Code of Military Justice, or UCMJ, is rooted in the Constitution. From this you'll be better able to learn about the sources and principles of international law, and why international law is important to those who go to sea.	<b>34</b>
<b>Naval Skills</b>	Explain that this is where you will learn about the ins and outs of life aboard ship. You'll study shipboard organization and the roles of the commanding officer, the executive officer, and other members of the command structure. You'll also learn about standing watch and such basics of shipboard life as meals and sleeping quarters.	<b>35-37</b>
<b>Naval Skills</b>	Explain that Naval skills include a wide variety of skill sets unique to the naval environment that fall under the definition of seamanship. This term covers handling lines, preparing to get a ship underway, preparing to anchor, handling small boats, and many other skills specialized to life on a ship. Ship driving, for instance, involves knowing the sea "rules of the road," which act in much the same way as traffic laws on a highway and are required knowledge for anyone in command of a ship. Your Naval Skills classes will provide you with both International and Island rules, which cover proper signaling (with lights and other means) as well as guidelines for avoiding other vessels	<b>38-40</b>
<b>Naval Skills</b>	Explain that understanding the 24-hour clock used by all the armed forces is covered by Naval Skills, as is learning about Greenwich Mean Time (GMT). All the Navy's schedules, operational plans, and navigational aids run on GMT. This means you'll be better able to relate navigation and time, and have the opportunity to get practical experience in navigation and maneuvering.	<b>41</b>
<b>Leadership Theory</b>	Explain that in this course instructors will present basic principles of leadership, stressing the importance of leading by example and the role of ethics and morals in leadership. Classes will draw heavily on case studies of actual situations to help students understand the role of the leader in making decisions.	<b>42</b>
<b>Leadership Laboratory</b>	Explain that this is where senior cadets have the opportunity to serve in positions of authority. They are expected to plan, influence, and direct unit members' efforts in accomplishing a mission. Many cadets consider these experiences the most exciting part of their NJROTC careers. They will allow you to evaluate and practice the leadership skills developed in class.	<b>43</b>
<b>Review Question</b>	The Review Question is "What does the acronym LATAR stand for?" Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>44</b>
<b>Closing Questions (Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>45</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>46</b>

## Chapter 1 / Section 3: NS1-U1C1S3 – Core Values and Curriculum

### III. Supplemental Activities -

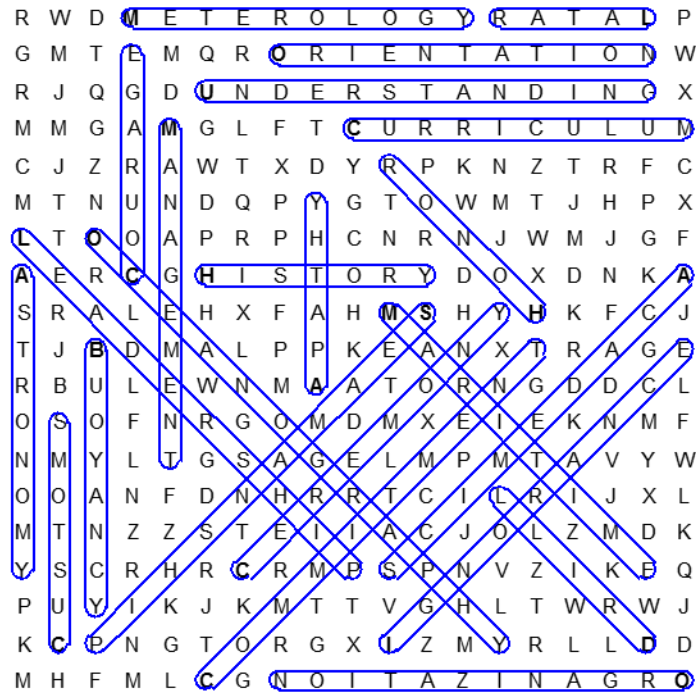
#### A. In class Activity:

Supplies required: Handout

When: At the end of class

- Complete Handout: Have the cadets complete the word search with the key words from the lesson.

Solution:



B. Homework Activity: Have the cadets look at the 9 sections of NS1-4 Curriculum and fill out the handout “3 Curriculum Areas that Interest You”. Using complete sentences, correct grammar and spelling, have them give details why that particular section of curriculum has interest for them.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 1 / Section 3: NS1-U1C1S3 – Core Values and Curriculum**

### Activity 1: In-Class Activity- Core Values and Curriculum

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Find the words in the grid. Words can go horizontally, vertically and diagonally in all eight directions.

R W D M E T E R O L O G Y R A T A L P  
G M T E M Q R O R I E N T A T I O N W  
R J Q G D U N D E R S T A N D I N G X  
M M G A M G L F T C U R R I C U L U M  
C J Z R A W T X D Y R P K N Z T R F C  
M T N U N D Q P Y G T O W M T J H P X  
L T O O A P R P H C N R N J W M J G F  
A E R C G H I S T O R Y D O X D N K A  
S R A L E H X F A H M S H Y H K F C J  
T J B D M A L P P K E A N X T R A G E  
R B U L E W N M A A T O R N G D D C L  
O S O F N R G O M D M X E I E K N M F  
N M Y L T G S A G E L M P M T A V Y W  
O O A N F D N H R R T C I L R I J X L  
M T N Z Z S T E I I A C J O L Z M D K  
Y S C R H R C R M P S P N V Z I K E Q  
P U Y I K J K M T T V G H L T W R W J  
K C P N G T O R G X I Z M Y R L L D D  
M H F M L C G N O I T A Z I N A G R O

[www.WordSearchMaker.com](http://www.WordSearchMaker.com)

Academics

Apathy

Astronomy

Buoyancy

Ceremony

Commitment

Courage

Curriculum

Customs

Drill

History

Honor

Ignorance

LATAR

Leadership

Management

Maritime

Meteorology

Oceanography

Organization

Orientation

Seamanship

Understanding



## **Chapter 1 / Section 3: NS1-U1C1S3 – Core Values and Curriculum**

Activity 1: Take Home Activity - Core Values and Curriculum

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Choose 3 curriculum areas that interest you? Describe your field of interest within the curriculum area and what interests you about the curriculum. (Job opportunities, mission, training, platforms involved (ship, air, land, intelligence) Use complete sentences, correct grammar and spelling.

1. \_\_\_\_\_

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2. \_\_\_\_\_

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3. \_\_\_\_\_

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## **Chapter 1 / Section 4: NS1-U1C1S4 – NJROTC Unit Activities**

(Section 4 of 5)

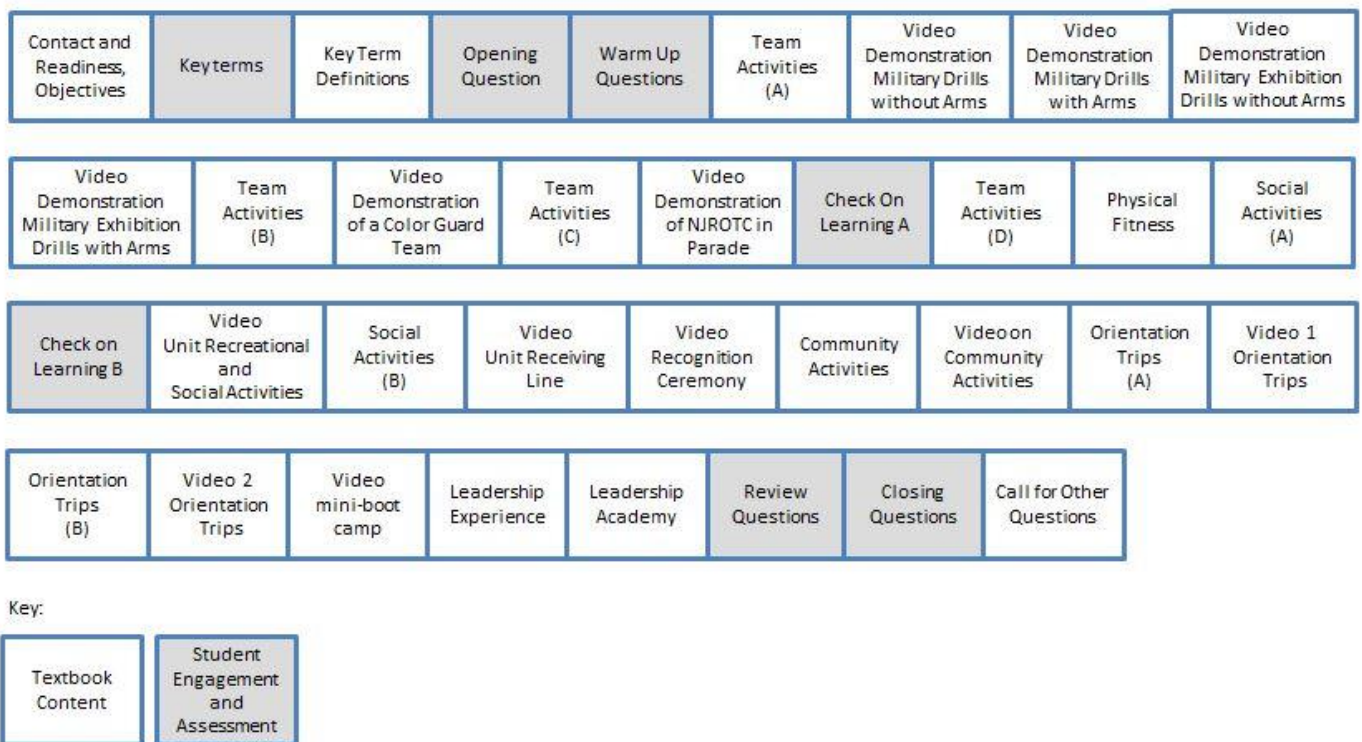
### **What Students Will Learn to Do:**

This chapter will introduce you to the Navy Junior Reserve Officers Training Corps—its background, mission, curriculum, and activities, as well as its benefits to cadets.

### **Skills and Knowledge to be Gained:**

1. Explain the history and background of the NJROTC
2. Describe the NJROTC's mission, goals, and policies

### **LESSON FLOW OUTLINE**



### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 1, chapter 1. Place a checkmark beside the NS1-U1C1S4 PowerPoint presentation, and these two CPS question deck files: NS1-U1C1S4 - Key Terms and NS1-U1C1S4 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## **Chapter 1 / Section 4: NS1-U1C1S4 – NJROTC Unit Activities**

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, students will learn about the NJROTC program. In addition they will:</p> <ol style="list-style-type: none"> <li>1. Be able to state the program's mission, goals, and policies.</li> <li>2. Learn that the Navy Core Values- honor, courage, and commitment- are important parts of the NJROTC program, what they mean and how they are exemplified.</li> <li>3. Learn what the Naval Science curriculum is all about</li> <li>4. Learn the various activities in which NJROTC units participate.</li> <li>5. Learn the benefits of belonging to the NJROTC</li> </ol>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5</b>
<b>Opening Question(Random Pick a Student – "RPS")</b>	<p>This Opening Question is "Where do you think an NJROTC Orientation trip might take you?" Since this is a discussion question, it can be engaged using RPS function, where CPS will display one student's name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on NJROTC unit activities.</p>	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>Team Activities</b>	Explain that along with your fellow cadets, you'll learn the basics of military drill, from simple in-place movements to the manual of arms (drill with a rifle). Most units also offer students the opportunity to participate in after-school drill activities like drill team and color guard. These teams will help develop your skills in military drill as well as provide a chance to join some of your fellow cadets in testing your skills against those of other JROTC units in drill competitions	<b>8</b>
<b>Video Demonstration of Military Drill Without Arms</b>	Show video demonstration of Military Drill Without Arms	<b>9</b>
<b>Video Demonstration of Military Drill With Arms</b>	Show video demonstration of Military Drill With Arms	<b>10</b>

## **Chapter 1 / Section 4: NS1-U1C1S4 – NJROTC Unit Activities**

<b>Video Demonstration of Military Exhibition Drill Without Arms</b>	Show video demonstration of Military Exhibition Drill Without Arms	<b>11</b>
<b>Video Demonstration of Military Exhibition Drill With Arms</b>	Show video demonstration of Military Exhibition Drill With Arms	<b>12</b>
<b>Team Activities</b>	Explain that the role of a color guard team is more ceremonial than that of a drill team. The members represent the national colors and their services at events like football games or patriotic events by carrying our nation's flag. Together drill teams and color guards represent their units both in competition and in the community, participating in school and community events as examples of our nation's youth.	<b>13</b>
<b>Video Demonstration of a Color Guard Team</b>	Show video demonstration of a Color Guard Team	<b>14</b>
<b>Team Activities</b>	Explain that together drill teams and color guards represent their units both in competition and in the community, participating in school and community events as examples of our nation's youth.	<b>15-16</b>
<b>Video Demonstration NJROTC in Parade</b>	Show video demonstration of a NJROTC in Parade	<b>18</b>
<b>Check on Learning Questions A(Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>19</b>
<b>Team Activities</b>	Explain that Leadership Theory presents basic principles of leadership with special emphasis on ethics and morals involved with leadership. Case studies involving leadership decisions about right and wrong will be used to aid cadets' understanding of the role of leaders. In Leadership Laboratory senior cadets are expected to plan, influence and direct the efforts of unit members in accomplishing the NJROTC mission. Cadets will have the opportunity to judge, evaluate and practice leadership skills they develop during NJROTC experience.	<b>20</b>
<b>Team Activities</b>	<p>Explain that in addition to drill, many units offer voluntary classes in range safety and marksmanship training, using precision air rifles. Cadets who excel in marksmanship often form teams to compete with nearby units, sometimes combining drill and marksmanship competitions into a single event. Unlike drill teams, marksmanship teams sometimes compete remotely. Such a competition is called a <i>postal match</i>. Each school team shoots, or completes its course of fire, at its own range and sends the targets to the competition sponsors for scoring. This makes it possible to hold national rifle competitions without spending time and money to travel to a central competition site.</p> <p>Explain that in addition to these competitions, the Secretary of the Navy (SECNAV) sponsors an annual national rifle competition for all NJROTC units.</p>	<b>21</b>

## **Chapter 1 / Section 4: NS1-U1C1S4 – NJROTC Unit Activities**

<b>Team Activities</b>	Explain that the Naval Service Training Command sponsors another kind of annual national contest as well, an academic team competition. Each unit taking part fields a team composed of one to five cadets, all of whom take the same test locally on the same day. The NSTC then scores the results and declares the winners. These competitions can be combined with drill and rifle team meets to form a single grand event.	<b>22</b>
<b>Team Activities</b>	Explain that another team opportunity provided to cadets is orienteering, which challenges cadets to use their land-navigation skills to go on a kind of large-scale treasure hunt. Those taking part must navigate cross-country over unfamiliar territory with a map and compass to locate control markers within a set amount of time. These competitions require speed, accuracy, good decision-making, and teamwork. The objective is to find as many markers as possible in the shortest time.	<b>23</b>
<b>Physical Fitness</b>	Explain that NJROTC encourages students to be physically fit. All students take the NJROTC physical fitness exam. Those who pass are awarded the NJROTC physical fitness ribbon. Some receive a special ribbon in recognition of exceptional performance.	<b>24</b>
<b>Physical Fitness</b>	Explain that throughout the year NJROTC units compete against one another in physical contests. These include individual activities—running, jumping, climbing, and running obstacle courses—as well as team games such as volleyball, basketball, softball, and tug of war.	<b>25-26</b>
<b>Social Activities</b>	<p>Explain that most NJROTC units have parties, picnics, and other social gatherings where cadets can hang up the garrison cap and enjoy the company of their fellow cadets. Some events are more formal than others, but no less enjoyable. Units may sponsor dining-ins, dining-outs, military balls, or honors and award ceremonies. The difference between the two kinds of dinner parties is that dining-ins are for unit members only, and a dining-out may include parents, friends, and other non-NJROTC participants.</p> <p>Explain that dining-outs may be combined with award ceremonies where unit members receive ribbons, medals, and other awards at military formations in recognition of their contributions to their units and their communities.</p>	<b>27</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>28</b>
<b>Video on Unit Recreational and Social Activities</b>	Show video on Unit Recreational and Social Activities	<b>29</b>
<b>Social Activities</b>	Explain that a military ball is a formal dinner dance sometimes shared by multiple JROTC programs. Certain rules, procedures, and protocols govern an event such as a ball; for instance, the senior officer can set a dress code.	<b>30</b>
<b>Video on the Unit Receiving Line</b>	Show video on the Unit Receiving Line	<b>31</b>

## **Chapter 1 / Section 4: NS1-U1C1S4 – NJROTC Unit Activities**

<b>Video on Unit Recognition Ceremony</b>	Show video on Unit Recognition Ceremony	<b>32</b>
<b>Community Activities</b>	Explain that NJROTC cadets can take part in a wide variety of community service work as part of their citizenship training. These events often provide the community with a much-needed service as well as an extremely rewarding experience for the cadets.	<b>33</b>
<b>Video on Community Activities</b>	Show video on Community Activities	<b>34</b>
<b>Orientation Trips</b>	Explain that orientation trips are one of the most important types of unit activities. Many units offer one or more of these, either during the school year or during school vacations. These trips, to military bases, ships, or air stations, bring to life the material cadets have been studying.	<b>35-36</b>
<b>Video 1 on Orientation Trips</b>	Show first video on Orientation Trips	<b>37</b>
<b>Orientation Trips</b>	Explain that these trips can be unforgettable experiences. Often cadets take part in or observe Navy training programs such as damage-control exercises, water survival or flight simulations. Some orientation trips include time training and living aboard a Navy ship. Such events let cadets experience firsthand what a Navy career really offers. Other orientation trips include an experience of basic military training such as Marine Corps boot camp or Navy recruit training. All these activities provide yet another opportunity for students to build and practice leadership skills as well as to meet members of our Navy's fighting force.	<b>38-39</b>
<b>Video 2 on Orientation Trips</b>	Show second video on Orientation Trips	<b>40</b>
<b>Video on mini-boot camp</b>	Show video on mini-boot camp	<b>41</b>
<b>Leadership Experience</b>	Explain that no other school activity offers as many practical leadership opportunities as the NJROTC program. From the first time you serve as a squad leader in your unit until your senior experience as a unit officer, you'll be challenged to lead and direct the efforts of others and to learn to accept responsibility for their successes and failures.	<b>42</b>

## **Chapter 1 / Section 4: NS1-U1C1S4 – NJROTC Unit Activities**

<b>Leadership Academy</b>	<p>Explain that some cadets get the opportunity for advanced training at NJROTC leadership academies. These academies are intended to help prepare these cadets for unit leadership roles.</p> <p>Explain that leadership Academy has four objectives:</p> <ol style="list-style-type: none"> <li>1. To promote habits of orderliness and precision and to develop respect for constituted authority.</li> <li>2. To challenge and motivate cadets to push toward and expand their physical and intellectual limits. Cadets will continually be called upon to meet high standards of personal appearance, self-discipline, and meticulous attention to detail.</li> <li>3. To instill a high degree of personal honor, self-reliance, and confidence in each cadet by presenting a military environment in which cadets will be forced to rely upon themselves and their shipmates to study, work, and learn.</li> <li>4. To enhance the basic attitude, knowledge, and skills required to practice the art of leadership.</li> </ol>	<b>43</b>
<b>Leadership Academy</b>	Explain that the Leadership Academy offers cadets the opportunity to improve their leadership skills and interact with other promising cadet leaders from units across the nation.	<b>44</b>
<b>Review Question</b>	The Review Question is “What are some of the types of team competition in which your NJROTC unit might compete?” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in the RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>45</b>
<b>Closing Questions (Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>46</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>47</b>

## **Chapter 1 / Section 4: NS1-U1C1S4 – NJROTC Unit Activities**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Handout

When: could be used during or at the end of class

- Have the cadets use the handout to rate the NJROTC Activities and circle their response.
- Use the guide below as a gauge:  
1 - Not really interested • 5 - Would like to try • 10 - Already like.

B. Homework Activity: Have the Cadets go to youtube.com and search NJROTC. List at least 5 different activities that they are interested, rate them in order of interest and give reasons why they are interested.

### IV. Evaluation - see CPS database for chapter test questions.



## **Chapter 1 / Section 4: NS1-U1C1S4 – NJROTC Unit Activities**

Activity 1 – In class Activity –

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Rate these NJROTC Activities as to like and dislike. Use the guide below and circle your response:

1- Not really interested • 5 - Would like to try • 10 - Already Enjoy

Armed Drill	1	2	3	4	5	6	7	8	9	10
UnArmed Drill	1	2	3	4	5	6	7	8	9	10
Color Guard	1	2	3	4	5	6	7	8	9	10
Marksmanship	1	2	3	4	5	6	7	8	9	10
Academics	1	2	3	4	5	6	7	8	9	10
Physical Fitness	1	2	3	4	5	6	7	8	9	10
Orienteering	1	2	3	4	5	6	7	8	9	10
Fitness Competitions	1	2	3	4	5	6	7	8	9	10
Social Activities	1	2	3	4	5	6	7	8	9	10
Recreational Activities	1	2	3	4	5	6	7	8	9	10
Basic Leadership Training	1	2	3	4	5	6	7	8	9	10
Leadership Academy	1	2	3	4	5	6	7	8	9	10
Community Service	1	2	3	4	5	6	7	8	9	10

## **Chapter 1 / Section 4: NS1-U1C1S4 – NJROTC Unit Activities**

Activity 1: Take Home Activity –

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Go to youtube.com and search NJROTC. List at least 5 different activities that interested you and rate in order of interest. Give reasons why you found each one interesting.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

## **Chapter 1 / Section 5: NS1-U1C1S5 – NJROTC Program Benefits**

(Section 5 of 5)

### **What Students Will Learn to Do:**

This chapter will introduce you to the Navy Junior Reserve Officers Training Corps, its background, mission, curriculum, and activities, as well as its benefits to cadets.

### **Skills and Knowledge to be Gained:**

1. Explain the history and background of the NJROTC
2. Describe the NJROTC's mission, goals, and policies

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Opening Question	Warm Up Questions	The NJROTC Program's Benefits	Discipline	Video NJROTC Cadet Experience	Video-Reflection by Kim Robertson	Leadership	Check On Learning A
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Military Career Assistance (A)	Check on Learning B	Military Career Assistance (B)	Video Concluding Thoughts	Conclusion	Review Questions	Closing Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 1, chapter 1. Place a checkmark beside the NS1-U1C1S5 PowerPoint presentation, and the following two CPS question deck files: NS1-U1C1S5 - Key Terms and NS1-U1C1S5 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 5: NS1-U1C1S5 – NJROTC Program Benefits

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, students will learn about the NJROTC program. In addition they will:</p> <ol style="list-style-type: none"> <li>1. Be able to state the program’s mission, goals, and policies.</li> <li>2. Learn that the Navy Core Values- honor, courage, and commitment- are important parts of the NJROTC program, what they mean and how they are exemplified.</li> <li>3. Learn what the Naval Science curriculum is all about</li> <li>4. Learn the various activities in which NJROTC units participate.</li> <li>5. Learn the benefits of belonging to the NJROTC</li> </ol>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “Looking back over their NJROTC experience, what do you think cadets said they received from the program?” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the NJROTC program benefits</p>	<b>4</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>5</b>
<b>The NJROTC Program’s Benefits</b>	<p>Explain that you may be used to thinking of your high school courses mainly as preparation for more advanced high school courses. For example, Algebra I prepares you for Algebra II. In contrast, much of the NJROTC course work will prepare you for life after high school—whether you go on to higher education or directly into the workforce. Your classes will help you develop the maturity and responsibility required for success and will be invaluable to you, regardless of the career path you take.</p>	<b>6</b>
<b>Discipline</b>	<p>Explain that many people misunderstand the word discipline, associating it with harshness, unfairness, or undue severity.</p> <p>Explain that the NJROTC program has another view of discipline. This view agrees with Webster’s New Collegiate Dictionary, which defines discipline as “instruction, an orderly or prescribed conduct or pattern of behavior, self-control.” The goal of NJROTC training is to develop self-discipline.</p>	<b>7</b>
<b>Video of NJROTC Cadet Experience</b>	<p>Show video of NJROTC Cadet Experience</p>	<b>8</b>

## Chapter 1 / Section 5: NS1-U1C1S5 – NJROTC Program Benefits

<b>Video- Reflection of NJROTC Experience by Kim Robertson, 1998 high school graduate</b>	<p>Show Video- Reflection of NJROTC experience by Kim Robertson, 1998 high school graduate</p> <p>Explain that Kim Robertson is not alone in her experience. The NJROTC program gives cadets a chance to learn how to do the right thing, accomplish goals, and guide others to do the same. No other high school activity matches the leadership opportunity of NJROTC. Wherever a cadet heads after graduation—college, the workforce, or military service—NJROTC training will provide self-confidence, self-discipline, and self-motivation.</p>	<b>9</b>
<b>Leadership</b>	<p>Explain that the NJROTC program is a leadership lab—fostering skills that will matter in school, in your community, your house of worship, or any other organization. A leader directs others toward a common goal. Leadership is a set of skills that can be taught—if you’re willing to learn them.</p>	<b>10</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	<p>Check in on student’s understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.</p>	<b>11</b>
<b>Military Career Assistance</b>	<p>Explain that if you’re considering a military career, your NJROTC experience will be all the more valuable. You’ll get to meet real Navy people and watch them at work. You can talk with them about military career opportunities and get their real-life perspectives on military life.</p> <p>Explain that if you go into military service directly from high school, the NJROTC program provides advanced pay-grade enlistment. In other words, it gives you a head start up the pay scale. Currently, if you have three years of NJROTC training and the recommendation of your instructor, you can enlist in the Navy at pay grade E-3. Without this experience, you would enlist at grade E-1 and serve for 18 to 24 months before promotion to E-3.</p>	<b>12-14</b>
<b>Military Career Assistance</b>	<p>Explain that other students considering military service can apply for the United States Naval Academy. This is a special university in Annapolis, Maryland, that educates officers for the Navy and the Marine Corps. To enter the Academy, you must be nominated by one of your senators or representatives in Congress or by the Vice President of the United States. Another avenue to a nomination is through your NJROTC unit via your instructors. The requirements are rigorous, but those who are accepted to the program receive a four year college education at no expense to themselves or to their family.</p>	<b>15</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	<p>Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.</p>	<b>16</b>
<b>Military Career Assistance</b>	<p>Explain that if you’re interested in becoming a Navy officer, you might also want to consider the college-level Naval Reserve Officers Training Corps (NROTC). NROTC scholarships provide books, tuition, fees, and a monthly stipend at some of the finest education institutions nationwide. Prior participation in NJROTC can not only help with preparing for these programs but also increase your chances of receiving an NROTC scholarship.</p>	<b>17</b>

## Chapter 1 / Section 5: NS1-U1C1S5 – NJROTC Program Benefits

<b>Military Career Assistance</b>	Explain that there are times, however, when the answer in life is “no.” NJROTC experience has helped some people realize that a career in the military is not for them. That, too, can be a valuable lesson. Whatever your path in life may be, NJROTC is a rewarding and worthwhile experience.	<b>18</b>
<b>Video Concluding Thoughts</b>	Show video of concluding thoughts	<b>19</b>
<b>Conclusion</b>	<p>Explain that the Navy Junior Reserve Officers Training Corps program is a joint effort between the U.S. Navy and local school districts across the country. NJROTC aims to instill patriotism and foster citizenship and leadership skills in America’s youth. Its three-to four-year curriculum balances naval science, military activities, physical fitness, and orientation trips.</p> <p>Explain that the program seeks to instill the Navy Core Values of honor, courage, and commitment and to teach young people how to learn to live those values—even those who never join the Navy. More than any other program a young person is likely to enter in high school, NJROTC provides opportunity for leadership training. Those who complete the program tend to call this its biggest benefit.</p>	<b>20</b>
<b>Review Question</b>	The Review Question is “What does it mean to live the Navy Core Values in your life every day?” The Review Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	
<b>Closing Questions (Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Internet access, Handouts

When: at the end of the lesson

- Have the cadets use the look up on the following website to find colleges that offer a NROTC Program in their state and the states adjacent to their state. Use the Handout to record those colleges. [http://www.nrotc.navy.mil/colleges\\_nrotc\\_unitsXP3.aspx](http://www.nrotc.navy.mil/colleges_nrotc_unitsXP3.aspx)

#### B. Homework Activity: Have the cadets use the handouts for the following:

1. Identify what you need to create a good study workspace in your home create a diagram of your study workspace.
2. Which study method do you think you can implement in your school environment

### IV. Evaluation - see CPS database for chapter test questions.

**Chapter 1 / Section 5: NS1-U1C1S5 – NJROTC Program Benefits**

Activity 1: In-Class Activity- NJROTC Program Benefits

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Using the following website: [http://www.nrotc.navy.mil/colleges\\_nrotc\\_unitsXP3.aspx](http://www.nrotc.navy.mil/colleges_nrotc_unitsXP3.aspx), list the colleges that offer a NROTC Program in your state and the states adjacent to your state.

Name of College or University	State

## **Chapter 1 / Section 5: NS1-U1C1S5 – NJROTC Program Benefits**

NS1 U1C1S5: NJROTC and Your Future

Activity 1: Take Home Activity – NJROTC Program Benefits

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Think of other skills or traits (work ethic, communication skills, time management, self-directed, goal setting, making good choices and motivated) you believe you will be exposed to and have the opportunity to apply in real world activities as a NJROTC Cadet that can be used now and in life after high school.

List the trait and how you will be able to apply it.

1. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## **Unit 1 Chapter 2: NS1U1C2 – Career Planning**

### **What Students Will Learn to Do:**

In this chapter you will learn how to think about your career and your life goals.

### **Skills and Knowledge to be Gained:**

1. Describe career direction – getting to know yourself
2. Explain career choices
3. Explain the US Navy as a career option
4. Explain how to develop good study habits

### **Standards Linked in This Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Writing

- W.9-10.2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately ...
- W.9-10.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- W.9-10.8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively...

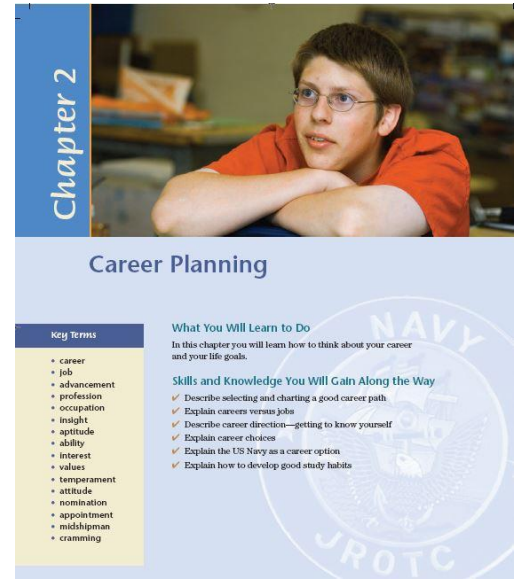
##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...
- SL.9-10.3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.



## **Chapter 2 / Section 1: NS1-U1C2S1 – Your Career Path**

(Section 1 of 5)

### **What Students Will Learn to Do:**

In this chapter you will learn how to think about your career and your life goals.

### **Skills and Knowledge to be Gained:**

1. Describe career direction – getting to know yourself
2. Explain career choices
3. Explain the US Navy as a career option
4. Explain how to develop good study habits

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Selecting and Charting a Good Career Path	Check On Learning A	Career Versus Job (A)	Check on Learning B
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Career Versus Job (B)	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 1, chapter 2. Place a checkmark beside the NS1-U1C2S1 PowerPoint presentation, and these two CPS question deck files: NS1-U1C2S1 - Key Terms and NS1-U1C2S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 2 / Section 1: NS1-U1C2S1 – Your Career Path

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>This lesson will help you plan now for your career after high school. You will learn how to set a career path and you will learn the difference between a career and a job. You will also learn techniques for getting to know yourself and available career choices to help find the right career for you. If you are considering the Navy as a career, this chapter will inform you about the variety of options available in the Navy for both enlisted and officer. In order to help you achieve the grades that will make any career path more available, you will also learn to develop good study habits.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List the 2-3 things that are different between a career and a job.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on career paths.	<b>7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>Selecting and Charting a Good Career Path</b>	<p>Explain that you want a career that is fulfilling, rewarding, and enjoyable, too. Everyone does. After all, people spend too much of their life on the job to want to put up with work they don’t like!</p> <p>Explain that still, finding the right career is not an easy task. The world is getting more competitive and technical every day.</p>	<b>9</b>
<b>Selecting and Charting a Good Career Path</b>	Explain that means new opportunities, sometimes in fields that didn’t even exist when your parents were growing up. That’s a good thing. But these new jobs require skills, especially in math and science. That’s the challenge. And that’s why you should take as many courses in these fields as you can.	<b>10</b>
<b>Selecting and Charting a Good Career Path</b>	Explain that you need to think about grades, too. Good grades will open the door for you to many opportunities. Poor grades will close doors. If you want to be a doctor, for instance, you have to go to college and then medical school after that. You need good grades in high school to get into a good college, and then you need good grades in college to get into medical school.	<b>11</b>

## Chapter 2 / Section 1: NS1-U1C2S1 – Your Career Path

<b>Selecting and Charting a Good Career Path</b>	Explain that all this sounds like something way off in the future. But the future will be here before you know it, and it's never too early to start thinking about where you want to go in life. The NJROTC can help you focus on your goals, and focus will go a long way in school and in life.	<b>12</b>
<b>Check on Learning Questions A(Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>13</b>
<b>Career Versus Job</b>	Explain that people often use the words career and job as if they meant the same thing. But they don't. A job is what someone does to make a living—just to earn money to pay the bills and cover basic needs. Explain that there's nothing necessarily wrong with doing work just for money. Some people take jobs to help meet a special need at home, or to pay for schooling. Others take jobs to finance careers that they care about but that don't pay well. That's why some actors wait tables, and some writers drive taxis.	<b>14</b>
<b>Career Versus Job</b>	Explain that a career, on the other hand, is much more than "just a job." A career defines your working life. It includes learning, advancement, and developing talents. You might think of a career as a kind of story—each phase leads logically, or maybe surprisingly, to the next, and goes forward to a happy ending.	<b>15-16</b>
<b>Career Versus Job</b>	Explain that profession and occupation are two other words with much the same meaning as career. Some professions, such as medicine, require specific courses of study. Other fields are less structured, with less formal education required, or maybe more than one standard way to prepare. Some careers don't even require a college degree.	<b>17</b>
<b>Check on Learning Questions A(Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>18</b>
<b>Career Versus Job</b>	Explain that careers generally involve moving up a ladder of responsibility over a period of years. There's more work, and harder work, but also more authority and more money on those upper rungs. Sometimes people move up within a single company; more often they move from company to company, or maybe even from industry to industry. Technological change has completely transformed some industries, and brought others into being. Your career may someday lead you into a field that doesn't even exist today!	<b>19</b>
<b>Career Versus Job</b>	Explain that it's also possible that you may not get very high up in an organization, but you will still gain valuable experience in such things as self-discipline, pacing yourself at work, and treating others well. And you may find that having a boss willing to give you a good reference for being punctual, reliable, and good with customers is not a bad thing at all—even if you go off to college to study engineering.	<b>20</b>
<b>Career Versus Job</b>	Explain that in your work life, what counts is not where you start but where you finish. You may take a job bussing tables in a restaurant, for instance. This may be just an opportunity to make some spending money before you go off to college to study engineering. Along the way, you may work up the ladder—serving as a server, a short-order cook, assistant chef, and so on. Eventually, you discover that you have a real interest in food. You decide to train as a chef or you find that the business side of the restaurant industry interests you.	<b>21</b>

## Chapter 2 / Section 1: NS1-U1C2S1 – Your Career Path

<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>32</b>
<b>Review Question</b>	The Review Question is “What are some characteristics that you think an employer would value in an employee?” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>31</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>33</b>

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Internet access & Handout

When: Best used at the end of class, can be used as an additional take home activity.

- Have the cadets use the handout to list the top the skills employers want based on the website: <http://www.kent.ac.uk/careers/sk/top-ten-skills.htm>

Solution:

<u><b>VERBAL COMMUNICATION</b></u>	<b>1</b>	Able to express your ideas clearly and confidently in speech
<u><b>TEAMWORK</b></u>	<b>2</b>	Work confidently within a group
<u><b>COMMERCIAL AWARENESS</b></u>	<b>3</b>	Understand the commercial realities affecting the organization.
<u><b>ANALYSING &amp; INVESTIGATING</b></u>	<b>4</b>	Gather information systematically to establish facts & principles. Problem solving.
<u><b>INITIATIVE/SELF MOTIVATION</b></u>	<b>5</b>	Able to act on initiative, identify opportunities & proactive in putting forward ideas & solutions
<u><b>DRIVE</b></u>	<b>6</b>	Determination to get things done. Make things happen & constantly looking for better ways of doing things.
<u><b>WRITTEN COMMUNICATION</b></u>	<b>7</b>	Able to express yourself clearly in writing
<u><b>PLANNING &amp; ORGANIZING</b></u>	<b>8</b>	Able to plan activities & carry them through effectively
<u><b>FLEXIBILITY</b></u>	<b>9</b>	Adapt successfully to changing situations & environments
<u><b>TIME MANAGEMENT</b></u>	<b>10</b>	Manage time effectively, prioritizing tasks and able to work to deadlines

#### B. Homework Activity: Use the handout supplied.

## **Chapter 2 / Section 1: NS1-U1C2S1 – Your Career Path**

Directions: Find another website that has a list of the top 10 employability skills or traits employers are looking for and list them. Once you have completed this task, compare them to the list you made in class. What are the similarities and differences between the two lists? Do you think one list has more value than the other, and if so, explain why?

IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 2 / Section 1: NS1-U1C2S1 – Your Career Path**

### Activity 1: In-Class Activity- Your Career Path

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Use the following website. According to the website, List the Top Ten Skills employers want. <http://www.kent.ac.uk/careers/sk/top-ten-skills.htm>

Skill	Rate of Importance	Description

## **Chapter 2 / Section 1: NS1-U1C2S1 – Your Career Path**

### Activity 1: Take Home Activity – Your Career Path

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Find another website that has a list of the top 10 employability skills (skills or traits) employers are looking for and list them below:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

Compare to the list you made in class. What are the differences between the two lists? Do you think one has more value than the other, and if so explain why.

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## **Chapter 2 / Section 2: NS1-U1C2S2 – Career Direction and Choices**

(Section 2 of 5)

### **What Students Will Learn to Do:**

In this chapter you will learn how to think about your career and your life goals.

### **Skills and Knowledge to be Gained:**

1. Describe career direction – getting to know yourself
2. Explain career choices
3. Explain the US Navy as a career option
4. Explain how to develop good study habits

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Key terms	Key Term Definitions	Opening Question	Warm Up Questions	Career Direction- Getting to Know yourself	Aptitudes And Abilities	Check On Learning A	Interests
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Values	Attitudes	Check on Learning B	Career Choices	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction :**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 1, chapter 2. Place a checkmark beside the NS1-U1C2S2 PowerPoint presentation, and these two CPS question deck files: NS1-U1C2S2 - Key Terms and NS1-U1C2S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 2 / Section 2: NS1-U1C2S2 – Career Direction and Choices

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>This lesson will help you plan now for your career after high school. You will learn how to set a career path and the difference between a career and a job. You will also learn techniques for getting to know yourself and available career choices to help find the right career for you. If you are considering the Navy as a career, this chapter will inform you about the variety of options, both enlisted and officer, available in the Navy. Finally, in order to help you achieve the grades that will make any career path more available, you will learn to develop good study habits.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “Why should you spend time thinking about your career even though you are still in high school?” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on career direction and choices.	<b>7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>Career Direction – Getting to Know Yourself</b>	<p>Explain that students should “Know yourself”. This is the key to finding a satisfying career path. The answers to two simple questions will be a big help here:</p> <ul style="list-style-type: none"> <li>• What do I want to do?</li> <li>• What am I suited to do?</li> </ul>	<b>9</b>
<b>Career Direction – Getting to Know Yourself</b>	Explain that choosing a career involves your feelings, your personal needs, and your insights into yourself. You must be aware of your aptitudes and abilities, interests, values, attitude, and physical abilities.	<b>10</b>
<b>Aptitudes and Abilities</b>	Explain that aptitudes are talents or skills that you have or can develop with practice or training. What do you like to do in your spare time? What subjects do you like most at school? The answers to these questions are clues as to your aptitudes. Your physical abilities—strength, stamina, good eyesight, good hand-eye coordination, for instance—are important here, too.	<b>11-12</b>

## Chapter 2 / Section 2: NS1-U1C2S2 – Career Direction and Choices

<b>Aptitudes and Abilities</b>	Ask do you like to take things apart and put them back together? Explain that is a sign of mechanical ability. You might find your niche as an auto mechanic or an engineer. If you enjoy solving puzzles, you might make a good program analyst or accountant. Do you like to write? That's a talent much needed in the business world.	<b>13</b>
<b>Aptitudes and Abilities</b>	Explain that your experience in part-time jobs could provide clues as to where you'd be happiest later on in your work life. Work gives you experiences that are different from school. Do you like dealing with the public as a salesclerk in a retail store, or are you more interested in the products you were selling—electronics, clothing, books, or do you enjoy both?	<b>14-15</b>
<b>Check on Learning Questions A(Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>16</b>
<b>Interests</b>	Explain that your likes, dislikes, hopes, and dreams are part of your interests. Special interests tests (called inventories), can tell you how your interests match those of people in the field you are considering. For example, if you think you'd like a career in sales, do you know for sure how your interests line up with those of people who have been successful in that field?	<b>17</b>
<b>Interests</b>	Explain that this can be useful to find out, but remember, too, that you need not just interest but aptitudes to make a go of a career. If you want to be a graphic artist, for instance, you not only have to like to draw, you have to be good at it.	<b>18</b>
<b>Values</b>	Explain that values give your life meaning—they help you be the person you want to be. Many people express their values in terms of their moral, religious, or political beliefs. If service to others is a value, you might find a satisfying career in health care or teaching.	<b>19</b>
<b>Attitudes</b>	Explain that some jobs and careers require certain kinds of temperaments. Unflappable calm is a good attitude for a police officer. Air traffic controllers need to be able to deal with stress. Traveling sales reps need to be able to create their own energy. They must keep their spirits up when they're alone on the road, facing clients who can all too easily say no. Firefighters need immense physical courage and energy. They need to be able to rush to the location of a fire.	<b>20-21</b>
<b>Attitudes</b>	Explain that on the other hand, there are some people who play against type. They overcome personality limitations and find success in a field they care deeply about. A naturally shy person may be able to win election to public office. Someone else may work hard to develop courage needed for a career in public safety.	<b>22</b>
<b>Attitudes</b>	Explain that some people get stuck doing the same work for the same salary for a long time even though their heart isn't in their work. It is important to continue to grow and challenge yourself.	<b>23</b>
<b>Check on Learning Questions A(Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>24</b>
<b>Career Choices</b>	Explain that there are several possible careers paths before you. Different paths will require different levels of education and different kinds of experience. You will also want to think about what kind of employer you want. Do you want to work in the private sector for a small business or perhaps a family business whose owners you know? Would you prefer to work for a big company that's known around the country or maybe even around the world? Or do you want to go into business for yourself?	<b>25</b>

## Chapter 2 / Section 2: NS1-U1C2S2 – Career Direction and Choices

	Explain that there's what's known as the public sector—government employees. These include people who work for the federal, state, or local government. Even schoolteachers are government employees, although you may not think of them that way. They typically work for a local school district, or a city's education department.	
<b>Career Choices</b>	Explain that there are other ways careers differ. Do you like to work indoors or outdoors? With a large group of people, or a small team, or on your own? Different careers have different rhythms and paces, too. Sales work, for instance, has its ups and downs. So does construction. Retailing has its end-of-the-year crunch. Schoolteachers have summers off—but very demanding workdays during the school year. Public safety workers have irregular schedules.	<b>26-27</b>
<b>Career Choices</b>	Explain that how do you feel about money? Do you want job security and the promise of steady income—or are you willing to accept more risk for the opportunity to receive higher earnings?	<b>28</b>
<b>Career Choices</b>	Ask what kind of family life would you want? Will the career that appeals to you allow you to support the family you'd like to have someday?	<b>29</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>30</b>
<b>Review Question</b>	The Review Question is “State 2-3 Reasons why it's important that you find a career that matches BOTH your interests and abilities.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>31</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>32</b>

### III. Supplemental Activities -

#### A. In class Activity:

Supplies: Handout 1

When: At the end of class

- List 5 professions that you have ever thought about as the job for you. Save the list for an upcoming presentation and try to match the Military equivalent to it.

B. Homework Activity: Find someone in your community or a family member who is employed in one of the skills you listed in the In-Class Assignment. Interview them about their job and how they chose it. Make a list of 4-5 questions and record their answers.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 2 / Section 2: NS1-U1C2S2 – Career Direction and Choices**

### Activity 1: In-Class Activity – Career Direction and Choices

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

List 5 career choices that you have thought about as the job for you. (Policeman, Fireman, Mechanic, Nurse, EMT, Teacher)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

Save this list for the coming presentations and try and match the Military equivalent.

Military Equivalent:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

## **Chapter 2 / Section 3: NS1-U1C2S3 – The Navy as a Career Option**

(Section 3 of 5)

### **What Students Will Learn to Do:**

In this chapter you will learn how to think about your career and your life goals.

### **Skills and Knowledge to be Gained:**

1. Describe career direction – getting to know yourself
2. Explain career choices
3. Explain the US Navy as a career option
4. Explain how to develop good study habits

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	The U.S. Navy as a Career Option	The U.S. Naval Academy	Naval Academy Prep School	Check On Learning A
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NROTC College Scholarships	Enlisted Careers	Check on Learning B	Advanced Programs	More careers in the Navy	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 1, chapter 2. Place a checkmark beside the NS1-U1C2S3 PowerPoint presentation, and these two CPS question deck files: NS1-U1C2S3 - Key Terms and NS1-U1C2S3 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 2 / Section 3: NS1-U1C2S3 – The Navy as a Career Option

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>This lesson will help you plan now for your career after high school. You will learn how to set a career path and the difference between a career and a job. You will also learn techniques for getting to know yourself and available career choices to help find the right career for you. If you are considering the Navy as a career, this chapter will inform you about the variety of options, both enlisted and officer, available in the Navy. Finally, in order to help you achieve the grades that will make any career path more available, you will learn to develop good study habits.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 positive things about joining the Navy as a career option.” Since this is a discussion question, it can be engaged using the RPS, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the Navy as a career option.	<b>6</b>
<b>Warm-Up Questions (Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>The U.S. Navy as a Career Option</b>	Explain that going into the Navy immediately following high school graduation offers opportunities found in no other career. Sailors meet people from all over the country and have endless opportunities for training. The Navy offers enlisted people more than 65 different technical skills (called ratings) from which to choose. Each rating offers formal training as well as extensive on-the-job experience.	<b>8</b>
<b>The U.S. Navy as a Career Option</b>	<p>Explain that those who complete college before starting their Navy career can choose to become commissioned officers. Officers in the Navy receive their commissions from the President of the United States.</p> <p>Explain that two programs that interest many JROTC students who want to go to college are the U.S. Naval Academy and the Navy Reserve Officers Training Corps (NROTC) college scholarship program, where NJROTC students have an edge.</p>	<b>9</b>

## **Chapter 2 / Section 3: NS1-U1C2S3 – The Navy as a Career Option**

<b>The U.S. Naval Academy</b>	Explain that your naval science instructor can make up to three nominations to the Naval Academy each year. The nominees then compete for appointment to the academy by members of Congress, the president, the vice president, and the secretary of the Navy. Your instructor can help you apply for a nomination.	<b>10-11</b>
<b>The U.S. Naval Academy</b>	Explain that the Naval Academy is located on the Severn River in Annapolis, Maryland.  Explain that the Naval Academy offers a fully subsidized college education—schooling at no cost to the student and his or her family—and pays a monthly salary as well. The academy’s purpose is to prepare young men and women morally, mentally, and physically to serve as officers of the U.S. Navy and Marine Corps.	<b>12</b>
<b>The U.S. Naval Academy</b>	Explain that you must meet some tough academic standards to be admitted to the Naval Academy. In addition, you must be between the ages of 17 and 23, unmarried, not pregnant, and having no legal obligation to support a child. You must also be a United States citizen, be in good physical condition, and be of good moral character.	<b>13</b>
<b>The U.S. Naval Academy</b>	Explain that the Naval Academy, like other colleges and universities, chooses students in large part on the basis of their scores on the SAT or ACT tests.  Explain that you should begin taking the tests by the end of your junior year of high school. Low scores can eliminate a candidate from further consideration, so taking these tests more than once to get the highest possible score is a very good idea.	<b>14</b>
<b>The U.S. Naval Academy</b>	Explain that over 75 percent of the candidates for admission to the Naval Academy rank in the top fifth of their high school class. The subjects they have taken in high school usually looks like this: <ul style="list-style-type: none"> <li>• Mathematics (four years), including algebra, geometry, and trigonometry</li> <li>• Science, including physics and chemistry</li> <li>• English (four years)</li> <li>• History</li> <li>• Government</li> <li>• Computer science (all Naval Academy cadets use personal computers in most courses).</li> </ul>	<b>15-16</b>
<b>The U.S. Naval Academy</b>	Explain that to enter the Academy, you will also need to pass a medical exam as well as a physical fitness test. Every midshipman is required to participate in physical exercise every day. The test consists of six parts: <ul style="list-style-type: none"> <li>• One-mile run</li> <li>• 300-yard shuttle run</li> <li>• Kneeling basketball throw</li> <li>• Abdominal crunches</li> <li>• Push-ups</li> <li>• Pull-ups or a flexed-arm hang (women)</li> </ul>	<b>17</b>
<b>The U.S. Naval Academy</b>	Explain that the academic program at the Naval Academy includes a core curriculum as well as a choice of 25 subject areas to major in. Nine of them are in engineering; Eleven are in science, mathematics, and computer science; and five are in humanities and social science.  Explain that the academy offers a full program of varsity athletics and intramural sports. All midshipmen must take part in one or the other.	<b>18</b>
<b>The U.S. Naval Academy</b>	Explain that all midshipmen receive professional training in naval knowledge, skills, and leadership. Midshipmen train at naval bases, take part in Marine Corps activities, and spend time on Navy ships and aircraft each summer.	<b>19</b>



## Chapter 2 / Section 3: NS1-U1C2S3 – The Navy as a Career Option

<b>The U.S. Naval Academy</b>	Explain that graduates of the academy earn a bachelor of science degree and a commission in the U.S. Navy or Marine Corps. They are then required to serve five years on active duty in the Navy or Marine Corps.	<b>20</b>
<b>Naval Academy Prep School</b>	Explain that promising and highly motivated applicants for Annapolis can be selected for a 10-month college preparatory course at the Naval Academy Preparatory School (NAPS) at Newport, Rhode Island. The school's mission is to prepare candidates who are judged in need of additional academic preparation for admission to the Naval or Coast Guard academies. The ten-month course of instruction at NAPS, lasting from August through May, emphasizes preparation in English Composition, Mathematics, Chemistry, and Physics. Placement depends on demonstrated ability, previous education, and additional needs for success at the respective academies. If you're selected for NAPS, you join the Naval or Coast Guard Reserve before reporting to NAPS in August.	<b>21-22</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>23</b>
<b>NROTC College Scholarships</b>	Explain that the NROTC college program offers four-year scholarships at dozens of institutions. The scholarships go to outstanding high school graduates with top grades, high class ranking, and a recommendation from an interview board of officers. The scholarship recipients take part in the NROTC program on their campus and work toward a degree in a field of study that the Navy deems valuable.  Explain that NROTC scholarship students receive full tuition, their laboratory and administrative fees are covered, and they receive a cash allowance as well.	<b>24-25</b>
<b>NROTC College Scholarships</b>	Explain that in addition to the four-year scholarships, the Navy also offers two- and three-year programs for students who are already in college and completing their sophomore or freshman years. Approximately 1,200 officers are commissioned annually through the NROTC program.	<b>26</b>
<b>NROTC College Scholarships</b>	Upon graduation and commissioning in either the U.S. Naval Reserve or Marine Corps Reserve, they must serve on active duty for at least five years.	<b>27</b>
<b>Enlisted Careers</b>	Explain that if you want to join the Navy, stay in school. A high school diploma is required for enlistment. If you enlist, your years in NJROTC will give you a leg up toward advancement. Two years of NJROTC will let you enlist at pay grade E-2, instead of the E-1 grade, where most enlistees start out. Three years of NJROTC will let you enter the Navy at pay grade E-3. With three years of NJROTC and a letter from your Senior Naval Science Instructor confirming your time in the program, you can enter the Army or Marine Corps at pay grade E-2 or the Air Force at pay grade E-3.	<b>28-29</b>
<b>Enlisted Careers</b>	Explain that students who haven't yet finished high school, or who have, but want to better prepare for Navy life, can take advantage of the Navy's Delayed Entry Program. It allows enlistees to report for duty up to a year after signing up.  Explain that if you choose this option, during that period you can: <ul style="list-style-type: none"> <li>• Attend meetings and classes set up by your recruiter</li> <li>• Start getting in shape for Primary Training and learning basics such as Navy policies, terminology, and rank structure</li> <li>• Work with your recruiter to set goals for your Navy career</li> <li>• Refer friends and classmates to your recruiter. Each of your referrals who enlist gets you credits toward advancement rate which equals higher pay.</li> </ul>	<b>30</b>

## Chapter 2 / Section 3: NS1-U1C2S3 – The Navy as a Career Option

<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>31</b>
<b>Advanced Programs</b>	Explain that along with regular enlistment, the Navy has three particularly demanding Advanced Programs: the Nuclear Power Program, the Advanced Electronics Program, and the Advanced Technical Program. To qualify for any of these, you must be a U.S. citizen with a high school diploma or college degree and a good academic record. Qualifying scores on the Armed Services Vocational Aptitude Battery (ASVAB) and sometimes an advanced placement test are also required.	<b>32-33</b>
<b>Advanced Programs</b>	<p>Explain that men and women accepted into these programs enter the service at pay grade E-3 and enlist for six years instead of the usual four.</p> <p>Explain that men and women with Navy Advanced Program training are in great demand in the civilian world and can expect to find much opportunity open to them. If these sound interesting to you, they are three more reasons to take all the advanced math and science classes you can in high school.</p>	<b>34</b>
<b>Advanced Programs</b>	Explain that those accepted into the Nuclear Power Program have their recruit training at Navy Station Great Lakes, Illinois. They then attend the Nuclear Field (NF) "A" school at Charleston, South Carolina. On completion of the "A" school they are advanced to the E-4 pay grade. Then comes Nuclear Power School, also in Charleston. Men and women who complete this training may be assigned to nuclear aircraft carriers. (Only men are assigned to nuclear submarines at this time.)	<b>35-36</b>
<b>Advanced Programs</b>	Explain that the Navy Advanced Electronics Program provides training in the most sophisticated technology. After initial electronics training, which usually takes 22 to 36 weeks, participants are promoted to E-4. They may then receive further training, or may be given assignment in data systems, electronics, electronic warfare, cryptological maintenance, missile and sonar operation, or fire control. Training schools are located in Great Lakes, IL.	<b>37-38</b>
<b>Advanced Programs</b>	Explain that the men and women in the Advanced Technical Program are assigned to work on small ship engines or gas turbine systems, or in damage control, interior communications electronics, or cryptology.	<b>39</b>

## **Chapter 2 / Section 3: NS1-U1C2S3 – The Navy as a Career Option**

<b>More Careers in the Navy</b>	<p>Explain that you may be surprised at the wide range of career fields in which the Navy offers training, here is a list of some of them:</p> <ul style="list-style-type: none"> <li>• Arts and photography</li> <li>• Aviation</li> <li>• Business management</li> <li>• Computers</li> <li>• Construction and building</li> <li>• Education</li> <li>• Emergency, fire and rescue</li> <li>• Energy and power</li> <li>• Engineering</li> <li>• Finance and accounting</li> <li>• Food, restaurant and lodging</li> <li>• Human Resources</li> <li>• Information Technology</li> <li>• Intelligence and Communications</li> <li>• Law enforcement and security</li> <li>• Office and administrative support</li> <li>• Purchasing and supply</li> <li>• Religion</li> <li>• Science</li> <li>• Legal support services</li> <li>• Mechanical and industrial repair</li> <li>• Medical and dental support services</li> <li>• Music</li> <li>• News and media</li> <li>• Special-operations warfare</li> <li>• Telecommunications</li> <li>• Transportation and logistics</li> <li>• World languages</li> </ul>	<b>40-41</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>42</b>
<b>Review Question</b>	The Review Question is “List 2-3 incentives that would apply at enlistment if you have completed 3 years of NJROTC.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>43</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>44</b>

## **Chapter 2 / Section 3: NS1-U1C2S3 – The Navy as a Career Option**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies: Handout

When: at the end of the lesson

- Use the supplied handout – Ask Cadets: When do you start working on creating a resume for careers after high school? Have them make a list of things you should be doing now to open doors regardless of what direction you choose after high school?

B. Homework Activity: Use the handout and have Cadets Interview a service member or recruiter.

Directions: Use the internet or interview with an active service member or recruiter to list the benefits an active duty service member receives. Benefits include medical, dental, and vision care, vacation time, education opportunities, allowances and life insurance. When do they start? Any costs to the service member? Extent of coverage, where applicable

### IV. Evaluation - see CPS database for chapter test questions.

## Chapter 2 / Section 3: NS1-U1C2S3 – The Navy as a Career Option

### Activity 1: In-Class Activity- The Navy as a Career Option

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

When do you start working on creating a resume for careers after high school? What should you be doing now to open doors regardless of what direction you choose after high school?

Write a one page summary of things you action items you can be working on now to kick-start your future career.

[illegible]

## **Chapter 2 / Section 3: NS1-U1C2S3 – The Navy as a Career Option**

### Activity 1: Take Home Activity – The Navy as a Career Option

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Interview with an active service member or recruiter to list the benefits an active duty service member receives. If you can't find a service member you can use the internet.

Benefits include medical, dental, and vision care, vacation time, education opportunities, allowances, life insurance etc. When do they start? Any costs to the service member? Extent of coverage, where applicable.

Benefit	When does it Start	Cost	Extent of Coverage

## **Chapter 2 / Section 4: NS1-U1C2S4 – Navy Jobs**

(Section 4 of 5)

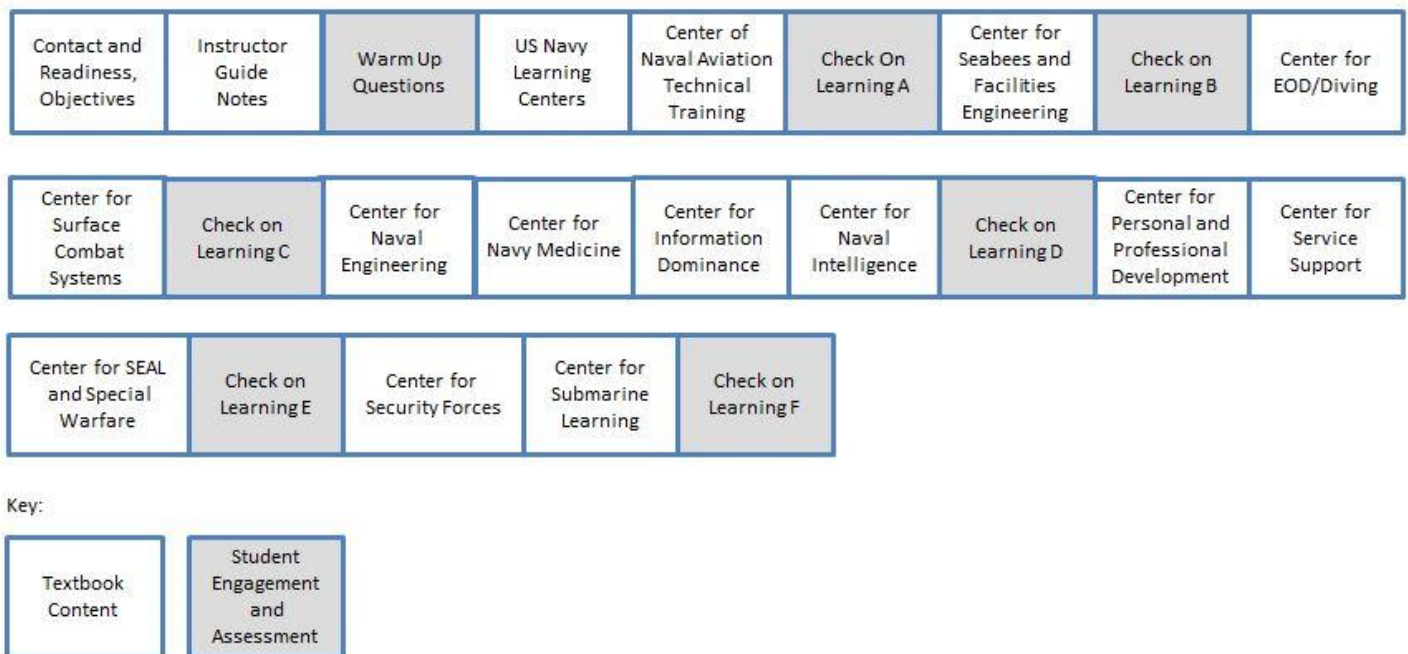
### **What Students Will Learn to Do:**

In this chapter you will learn how to think about your career and your life goals.

### **Skills and Knowledge to be Gained:**

1. Describe career direction – getting to know yourself
2. Explain career choices
3. Explain the US Navy as a career option
4. Explain how to develop good study habits

### **LESSON FLOW OUTLINE**



### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 1, chapter 2. Place a checkmark beside the NS1-U1C2S4 PowerPoint presentation, and these two CPS question deck files: NS1-U1C2S4 - Key Terms and NS1-U1C2S4 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 2 / Section 4: NS1-U1C2S4 – Navy Jobs

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>This lesson will help you plan now for your career after high school. You will learn how to set a career path and the difference between a career and a job. You will also learn techniques for getting to know yourself and available career choices to help find the right career for you. If you are considering the Navy as a career, this chapter will inform you about the variety of options, both enlisted and officer, available in the Navy. Finally, in order to help you achieve the grades that will make any career path more available, you will learn to develop good study habits.</p>	<b>1-3</b>
<b>Instructor Guide Notes</b>	<p>This lesson is not a typical NJROTC lesson. It describes a long list of Navy jobs and career options. Here are some ideas on how the lesson could be delivered:</p> <ol style="list-style-type: none"> <li>1. Present just 8-12 jobs at a time throughout the year. Have students answer the CPS questions that follow.</li> <li>2. Engage the CPS database “Navy Jobs Survey” in Student Paced Mode and use CPS “Opinion Survey” Report to evaluate the interest ratings of the class and students.</li> <li>3. As a homework assignment, have cadets go to the Navy Career website: (<a href="http://www.navy.com/careers/">http://www.navy.com/careers/</a>) and write a paper on the two jobs that interest them most.</li> </ol>	<b>4</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>5</b>
<b>US Navy Learning Centers</b>	<p>Explain the list of US Navy Learning Centers across the country:</p> <ul style="list-style-type: none"> <li>• Center for Seabees and Facilities Engineering - Port Hueneme, CA</li> <li>• Training Support Center – San Diego, CA</li> <li>• Center for Naval Aviation Technical Training/Center for Information Dominance – Pensacola, FL</li> <li>• Center for Explosive Ordinance Disposal (EOD)/Diving – Panama City, FL</li> <li>• Training Support Center – Great Lakes, IL</li> <li>• Submarine Learning Center – Groton, CT</li> <li>• Center for Service Support – Newport, RI</li> <li>• Training Support Center – Roads, VA</li> <li>• Center for Service Support – Newport, RI</li> <li>• Center for Surface Combat Systems – Dahlgren, VA</li> <li>• Center for Personal and Professional Development / Center for Security Forces – Virginia Beach, VA</li> </ul>	<b>6</b>



## Chapter 2 / Section 4: NS1-U1C2S4 – Navy Jobs

<b>Center for Naval Aviation Technical Training</b>	Explain that the Center for Naval Aviation and Technical Training is located in Pensacola, FL	<b>7</b>
<b>Center for Naval Aviation Technical Training</b>	Explain the Aviation Boatswain's Mate (ABE/ABF/ABH) Explain ABEs are individuals who operate and maintain aircraft launching and recovery equipment. ABFs are individuals that operate and maintain aviation lubricating oil and fueling systems and ABHs direct the movement and securing of aircraft ashore and afloat and provide crash rescue services	<b>8</b>
<b>Center for Naval Aviation Technical Training</b>	Explain that Air Traffic Controllers (ACs) assist with the speedy airflow of traffic by directing and controlling aircraft. The Aviation Machinist's Mate (AD) are responsible for the maintenance and replacement of turbo-jet and turbo-prop aircraft engines and accessories. Aviation Electrician's mate, (AE) are responsible for aircraft electrical, AC/DC power control, power generating, converting and indicating systems.	<b>9-11</b>
<b>Center for Naval Aviation Technical Training</b>	Explain that the Aerographer's Mates (AG) are the US Navy's weather forecasters and are trained in meteorology and the use of aero-logical instruments. The Aviation Structural Mechanic (AM) are responsible for the maintenance of many aircraft parts, such as wings, fuselage, tail, control surfaces, landing gear, hydraulic systems, ejection seats, breathing and survival gear.	<b>12-13</b>
<b>Center for Naval Aviation Technical Training</b>	Explain that Aviation Ordnanceman (AOs) operates and handles aviation ordnance equipment. They are responsible for the maintenance of guns, bombs, torpedoes, rockets and missiles. The Aviation Support Equipment Technicians (AS) perform maintenance on aviation accessory equipment such as gasoline and diesel engines, gas turbine compressor units and electrical systems.	<b>14-15</b>
<b>Center for Naval Aviation Technical Training</b>	Explain that the Aviation Electronics Technicians (AT) are responsible for the maintenance of all aircraft navigation, radio, radar and other rapid communications devices. Aviation Warfare Systems Operators (AW) operate airborne radar and electronic equipment used in detecting, locating, and tracking submarines and provide information for aircraft and surface navigation.	<b>16-17</b>
<b>Center for Naval Aviation Technical Training</b>	Explain that the Aviation Maintenance Administrationman (AZ) performs administrative, clerical and managerial duties necessary to keep aircraft maintenance activities running smoothly. The Aircrew Survival Equipmentman (PR) is responsible for the packing and care of parachutes. They maintain flight clothing, rubber life rafts, life jackets, oxygen-breathing apparatus, protective clothing, and air-sea rescue equipment.	<b>18-19</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>20</b>
<b>Center for Seabees and Facilities Engineering</b>	Explain that the Center for Seabees and Facilities Engineering is located in Port Hueneme, CA.	<b>21</b>
<b>Center for Seabees and Facilities Engineering</b>	Explain that the Builders (BU) are like civilian construction workers. They are skilled carpenters, plasterers, roofers, cement finishers, asphalt workers, masons and painters. The Construction Electricians (CE) are responsible for the power production and electrical work required to build and operate airfields, roads, barracks and hospitals.	<b>22-23</b>
<b>Center for Seabees and Facilities</b>	Explain that the Construction Mechanics (CM) maintain many types of machinery including buses, dump trucks, bulldozers, rollers, cranes, backhoes and pile drivers.	<b>24-25</b>

## Chapter 2 / Section 4: NS1-U1C2S4 – Navy Jobs

<b>Engineering</b>	The Engineering Aide (EAs) provides construction engineers with information needed to develop final construction plans. They conduct surveys for roads, airfields, buildings, etc.	
<b>Center for Seabees and Facilities Engineering</b>	Explain that the Equipment Operators (EO) work with heavy machinery such as power shovels, pile drivers, bulldozers, etc. Steel Workers (SWs) rig, manufacture, repair and operate all special equipment used to move or hoist structural steel or shapes and similar material. They are skilled in welding.	<b>26-27</b>
<b>Center for Seabees and Facilities Engineering</b>	Explain that the Utilitiesman (UT) supervises and performs tasks involved in the installation and maintenance of plumbing, steam, compressed air and fuel storage systems. They maintain air conditioning and refrigeration systems.	<b>28</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>29</b>
<b>Center for EOD/Diving</b>	Explain that the Center for EOD/Diving is located in Panama City, FL. Jobs at the center include the Explosive Ordnance Disposal (EOD) and Navy Diver (ND).  Explain that Explosive Ordnance Disposal (EOD) locate, identify, render safe, and dispose of all forms of ordnance, both U.S. and foreign made. The Navy Diver (ND) are responsible for a wide variety of tasks like underwater ship maintenance, construction and underwater rescue.	<b>30-32</b>
<b>Center for Surface Combat Systems</b>	Explain that the Center for Surface Combat Systems is located in Dam Neck, VA	<b>33</b>
<b>Center for Surface Combat Systems</b>	Explain that the Boatswain's Mate (BM) trains and supervises personnel in all activities relating to marlinespike, deck and boat seamanship. The Electronics Technician (ETs) are responsible for the electronic equipment used to send and receive messages, detect enemy planes and ships and determine target distances.	<b>34-35</b>
<b>Center for Surface Combat Systems</b>	Explain that the Fire Controlman (FC) maintains the control mechanism used in weapons systems on combat ships. They are responsible for the routine care and repair of complex electronic, electrical and hydraulic equipment to support the control systems. The Gunner's Mate (GMs) operate and maintain all gunnery equipment, guided-missile launching systems, rocket launchers, guns, turrets, and associated equipment.	<b>36-37</b>
<b>Center for Surface Combat Systems</b>	Explain that the Mineman (MN) tests, maintains and repairs mines and their components. They are responsible for assembling, testing and delivering mines to the planting agent. The Operations Specialists (OS) operate radar, navigation and communications equipment in the shipboard Combat Information Center (CIC) or bridge.	<b>38-39</b>
<b>Center for Surface Combat Systems</b>	Explain that the Quartermasters (QM) assist the navigator and officer of the deck (OOD), steer the ship, take radar bearings and ranges, make depth soundings and celestial observations, plot courses and command small craft. The Sonar Technicians (STG) are responsible for underwater surveillance. They assist in safe navigation and aid in search, rescue and attack operations.	<b>40-41</b>

## Chapter 2 / Section 4: NS1-U1C2S4 – Navy Jobs

<b>Center for Surface Combat Systems</b>	Explain that the Interior Communications Electrician (IC) operate and repair electronic devices in the ship's interior communications and SITE TV systems, 1MC (public address systems), electronic megaphones, and other announcing equipment.	<b>42</b>
<b>Check on Learning Questions C (Lesson questions 7-8)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 7 and 8, with follow-up discussion as appropriate.	<b>43</b>
<b>Center for Naval Engineering</b>	Explain that the Center for Naval Engineering is located in Naval Station Norfolk, VA	<b>44</b>
<b>Center for Naval Engineering</b>	Explain that the Damage Controlman (DC) performs the work necessary for damage control, ship stability, and fire-fighting. They also prepare defenses against chemical, biological and radiological (CBR) warfare attacks. The Electrician's Mate (EMs) is responsible for the operation and repair of a ship's or station's electrical power plant and electrical equipment.	<b>45-46</b>
<b>Center for Naval Engineering</b>	Explain that the Engineman (ENs) are responsible for internal diesel and gasoline engines. They also maintain refrigeration, air-conditioning, distilling-plant engines and compressors.	<b>47</b>
<b>Center for Naval Engineering</b>	Explain that the Gas Turbine System Technician (GSE/GSM) operates, repairs and performs maintenance on electrical components of turbine engines. They also work on main propulsion machinery and control systems, auxiliary equipment, assigned electronic circuitry and alarm and warning circuitry. They also work on main propulsion machinery (gears, shafts, and controllable pitch propellers), assigned auxiliary equipment, and propulsion control systems.	<b>48-50</b>
<b>Center for Naval Engineering</b>	Explain that the Hull Maintenance Technician (HTs) are responsible for maintaining ships' hulls, fittings, piping systems and machinery. They install and maintain all shipboard and shore-based plumbing and piping systems.	<b>51</b>
<b>Center for Naval Engineering</b>	Explain that the Machinist's Mate (MMs) are responsible for the continuous operation of engines, compressors, gears, refrigeration and air-conditioning equipment, along with other types of machinery onboard ships and shore installations. The Machinery Repairman (MRs) are skilled machine tool operators. They make replacement parts and repair or overhaul a ship's auxiliary equipment such as pumps and evaporators.	<b>52-53</b>
<b>Center for Navy Medicine</b>	Explain that the Center for Navy Medicine is located in Bethesda, MD. One of the jobs at the Center is the Hospital Corpsman (HM). Hospital Corpsmen are medical professionals who provide health care to service people and their families. They also serve as pharmacy technicians, medical technicians, nurse's aides, physician or dentist assistants, battlefield medics, and more.	<b>54-55</b>
<b>Center for Information Dominance</b>	Explain that the Center for Information Dominance is located in Corry Station in Pensacola, FL.	<b>56</b>

## Chapter 2 / Section 4: NS1-U1C2S4 – Navy Jobs

<b>Center for Information Dominance</b>	<p>Explain that the Cryptologic Technician (CT) is a U.S. Navy enlisted rating or job specialty. CTs are responsible for a wide range of cryptology and signal intelligence related functions, from hacking and computer repair to administration within a cryptology setting. There are <u>5</u> branches of Cryptologic Technicians:</p> <ul style="list-style-type: none"> <li>• CTIs</li> <li>• CTMs</li> <li>• CTNs</li> <li>• CTRs</li> <li>• CTTs</li> </ul>	<b>57</b>
<b>Center for Information Dominance</b>	<p>Explain that the Cryptologic Technician Interpretive (CTIs) translate radiotelephone communications and foreign languages. The Cryptologic Technician Maintenance (CTMs) installs, services and repairs electronic and electromechanical equipment.</p>	<b>58</b>
<b>Center for Information Dominance</b>	<p>Explain that the Cryptologic Technician Networks (CTNs) executes computer network operations (CNO) actions/counteractions in support of defending and exploiting computer network systems.</p>	<b>59</b>
<b>Center for Information Dominance</b>	<p>Explain that the Cryptologic Technician Collection (CTCs) intercepts voice communications and operate radio direction finding equipment. The Cryptologic Technician Technical (CTTs) main duties and assignments are:</p> <ul style="list-style-type: none"> <li>• Non-communications intelligence (ELINT)</li> <li>• Electronic Warfare, Support (ES)</li> <li>• Electronic Attack (EA)</li> <li>• Anti-ship Missile defense (ASMD)</li> </ul>	<b>60-61</b>
<b>Center for Information Dominance</b>	<p>Explain that the Information Systems Technician (ITs) designs, installs, operates and maintains state-of-the-art information systems. This technology includes local and wide area networks, mainframe, mini and microcomputer systems, and associated peripheral devices.</p>	<b>62</b>
<b>Center for Naval Intelligence</b>	<p>Explain that the Center for Naval Intelligence is located in Dam Neck, Va. At the Center the Intelligence Specialists (IS) Intelligence Specialists are involved in collecting and interpreting intelligence, especially secret information about enemies or potential enemies. They analyze photographs and prepare charts, maps and reports that describe the strategic situation all over the world.</p>	<b>63-64</b>
<b>Check on Learning Questions D (Lesson questions 9-10)</b>	<p>Check in on students' understanding of information covered so far by engaging lesson questions 9 and 10, with follow-up discussion as appropriate.</p>	<b>65</b>
<b>Center for Personal and Professional Development</b>	<p>Explain that the Center for Personal and Professional Development is located in Virginia Beach, VA. There the Navy Counselors (NC) offers vocational guidance to Navy personnel – individually and in groups – aboard ships and at shore facilities. They also assess the interests, aptitudes, abilities and personalities of individuals. They are responsible for recruiting and retention.</p>	<b>66-67</b>
<b>Center for Service Support</b>	<p>Explain that the Center for Service Support is located in Newport, RI.</p>	<b>68</b>

## **Chapter 2 / Section 4: NS1-U1C2S4 – Navy Jobs**

<b>Center for Service Support</b>	Explain that the Culinary Specialists (CS) CSs prepare menus and order the quantities and types of food items aboard ship and ashore. They operate kitchen and dining facilities, keep records for food supplies and financial budgets, and can even serve as flight attendants. They can also serve as personal food service specialist, household/estate manager or chef for an admiral or the President of the United States at Camp David or the White House.	<b>69-70</b>
<b>Center for Service Support</b>	Explain that Legalmen (LN's) are trained legal aides who assist professionals in the field of law. They work in Navy legal offices, performing administrative and clerical tasks necessary to process claims, conduct court and hold administrative hearings.	<b>71</b>
<b>Center for Service Support</b>	Explain that the Mass Communications Specialists (MC's) are public affairs and visual information experts. They present the U.S. Navy story to audiences in the Navy and the rest of the world through a variety of media. Musicians (MU's) Musicians play in official Navy bands and special groups such as jazz bands, dance bands and small ensembles. They give concerts and provide music for military ceremonies, religious services, parades, receptions and dances. Sailors are selected for this rating through auditions and they are trained at Little Creek, VA.	<b>72-73</b>
<b>Center for Service Support</b>	Explain that the Postal Clerks (PC) operate the U.S. Navy's large postal system, and have similar duties to their civilian counterparts in the U.S. Postal Service. Storekeepers (SK) are the Navy's supply clerks. They see that needed supplies are available including everything from clothing and machine parts to forms and food.	<b>74-75</b>
<b>Center for Service Support</b>	Explain that the Personnel Specialists (PS) are the Navy's supply clerks. They see that needed supplies are available including everything from clothing and machine parts to forms and food. They also keep records up to date, prepare reports, type letters and maintain files.	<b>76</b>
<b>Center for Service Support</b>	Explain that the Religious Programs Specialists (RPS) assist Navy chaplains with administrative and budgetary tasks and fleet maritime duties. They also serve as custodians of chapel funds, keep religious documents and stay in contact with religious and community agencies.	<b>77</b>
<b>Center for Service Support</b>	Explain that the Ship's Servicemen (SH) Ship's Servicemen manage barber shops, tailor shops, ship's uniform stores, laundries, dry cleaning plants and cobbler shops. They serve as clerks in exchanges, gas stations, warehouses and commissaries. Yeomen (YN) perform secretarial and clerical work. They deal with visitors, telephone calls and incoming mail. They also organize files, order and distribute supplies, write business and social letters, notices, directives, forms and reports.	<b>78-79</b>
<b>Center for Sea, Air, and Land (SEAL) and Special Warfare Combatant- Craft Crewman</b>	Explain that the Center for Sea, Air, and Land (SEAL) and Special Warfare Combatant-Craft Crewman is located in Coronado, CA. At the Center Special Warfare Boat Operators (SB) drive fast speedboats down narrow, winding rivers, or the open ocean while performing high speed, medium range, or all weather insertion/extraction of Special Operations Forces.	<b>80-81</b>

## Chapter 2 / Section 4: NS1-U1C2S4 – Navy Jobs

<b>Center for Sea, Air, and Land (SEAL) and Special Warfare Combatant- Craft Crewman</b>	Explain that the Special Warfare Operators (SO) are Navy SEALs. They are trained to jump from airplanes at high altitude and open their parachutes at low proximity to the Earth. SOs also carry out direct action raids against military targets, conduct reconnaissance, and secure beachheads for invading amphibious forces. They are also trained to jump from helicopters traveling at 30 knots at 30 feet over water with no parachute.	<b>82-83</b>
<b>Check on Learning Questions E (Lesson questions 11-12)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 11 and 12, with follow-up discussion as appropriate.	<b>84</b>
<b>Center for Security Forces</b>	Explain that the Center for Security Forces is located in Dam Neck, VA. At the Center Master-at-Arms (MAs) uphold law and order aboard ships and shore stations, and deploy overseas with expeditionary forces and squadrons performing duties as Antiterrorism/Force Protection (AT/FP).	<b>85-86</b>
<b>Center for Submarine Learning</b>	Explain that the Center for Submarine Learning is located in New London, CT. At the Center Electronics Technician (ETs) Navigations maintain, operate and administer the submarine's navigation and radar equipment, systems and programs. Radio ETs maintain, operate and administer the submarine's radio communication equipment, systems and programs including submarine LAN systems.	<b>87-89</b>
<b>Center for Submarine Learning</b>	Explain that Fire Control Technicians (FTs) maintain the electronic equipment used in submarine weapons systems. They operate and perform maintenance on complex electronic and mechanical equipment required to ensure the accuracy of the Navy's guided-missile systems and underwater weapons.	<b>90</b>
<b>Center for Submarine Learning</b>	Explain that Machinist's Mate (MMs) Weapons maintain underwater explosive ordnance (torpedoes and missiles) that are launched from submarines. They maintain launching systems for underwater explosives and are responsible for shipping and storage of torpedoes and missiles. MMs Engineering work on mechanical equipment outside of the engine rooms, to include the galley, laundry, A/C units, O2/N2 (liquid oxygen/nitrogen), and other equipment.	<b>91-92</b>
<b>Center for Submarine Learning</b>	Explain that Missile Technicians (MTs) prepare and maintain missiles carried by submarines. They maintain the specialized equipment used for these weapons. They also work with the mechanical, hydraulic and pneumatic components of the missile launching and fire-control systems. Sonar Technicians (STS) are responsible for underwater surveillance. They assist in safe navigation, aid in search and attack operations, operate and repair sonar equipment, and jam enemy radar.	<b>93-94</b>
<b>Center for Submarine Learning</b>	Explain that the Navy skills reviewed here all offer Formal and On-the-Job (OJT) training.	<b>95</b>
<b>Check on Learning Questions F (Lesson questions 13-14)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 13 and 14, with follow-up discussion as appropriate.	<b>96</b>

## **Chapter 2 / Section 4: NS1-U1C2S4 – Navy Jobs**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies Required: Handout

When: either during or at the end of the lesson

- Use handout “Navy Jobs” and have the Cadets list 5 Navy Careers they are interested in and give an explanation why.

B. Homework Activity: Use the saved handouts from Chapter 1 Section 2 and have the Cadets map the professions they were interested in to a military equivalent and explain why it is equivalent.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 2 / Section 4: NS1-U1C2S4 – Navy Jobs**

### Activity 1: In-Class Activity- Navy Jobs

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

List the 5 Navy careers that interest you and explain why you are interested in them:

1. \_\_\_\_\_

Explanation:

2. \_\_\_\_\_

Explanation:

3. \_\_\_\_\_

Explanation:

4. \_\_\_\_\_

Explanation:

5. \_\_\_\_\_

Explanation:



## **Chapter 2 / Section 4: NS1-U1C2S4 – Navy Jobs**

### Activity 1: Take Home Activity – Career Equivalents

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: In Unit 1 Chapter 2 Section 2 – Career Options, you identified 5 professions that you were interested in pursuing. Use your answers, find the military equivalent for each of these professions and the reason why it is equivalent.

#### Professions from Section 2:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

#### Military Equivalents:

1. \_\_\_\_\_ Reasoning: \_\_\_\_\_
2. \_\_\_\_\_ Reasoning: \_\_\_\_\_
3. \_\_\_\_\_ Reasoning: \_\_\_\_\_
4. \_\_\_\_\_ Reasoning: \_\_\_\_\_
5. \_\_\_\_\_ Reasoning: \_\_\_\_\_

## Chapter 2 / Section 5: NS1-U1C2S5 – Developing Good Study Habits

(Section 5 of 5)

### What Students Will Learn to Do:

In this chapter you will learn how to think about your career and your life goals.

### Skills and Knowledge to be Gained:

1. Describe career direction – getting to know yourself
2. Explain career choices
3. Explain the US Navy as a career option
4. Explain how to develop good study habits

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Developing Good Study Habits	Where to Study	When To Study	Check On Learning A
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Study Methods	OK4R	PQRST	Tests and Exams	Ideas for Test Taking	Essay Tests	Check on Learning B	Listening and Note-Taking Skills	Effective Listening Techniques
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Note Taking	Traits of Successful Students	Conclusion	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 1, chapter 2. Place a checkmark beside the NS1-U1C2S5 PowerPoint presentation, and these two CPS question deck files: NS1-U1C2S5 - Key Terms and NS1-U1C2S5 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 2 / Section 5: NS1-U1C2S5 – Developing Good Study Habits

### II. Instructional Flow:

<u>Flow Item</u>	<u>Textbook Content / Student Engagement and Assessment</u>	<u>Slides</u>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>This lesson will help you plan now for your career after high school. You will learn how to set a career path and the difference between a career and a job. You will also learn techniques for getting to know yourself and available career choices to help find the right career for you. If you are considering the Navy as a career, this chapter will inform you about the variety of options, both enlisted and officer, available in the Navy. Finally, in order to help you achieve the grades that will make any career path more available, you will learn to develop good study habits.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 things that you do to study for a big test.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on developing good study habits.	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>Developing Good Study Habits</b>	<p>Explain that by now the message should be clear: Graduating from high school is essential to getting a good job and enjoying a successful career. Four things will help you succeed in high school:</p> <ol style="list-style-type: none"> <li>1. Good study habits</li> <li>2. Good time management</li> <li>3. Good test-taking skills</li> <li>4. Good skills in listening and note taking.</li> </ol>	<b>8-9</b>
<b>Developing Good Study Habits</b>	Explain that studying is the way you reinforce the material presented in your classes. You review the chapter of the textbook or your class notes, or maybe work on some exercises or solve some problems. This helps you make the material your own. It’s the best way to get better grades.	<b>10</b>

## Chapter 2 / Section 5: NS1-U1C2S5 – Developing Good Study Habits

<b>Developing Good Study Habits</b>	Explain that studying doesn't have to be boring or hard. If you do it right, studying can be interesting and even fun. The important thing is to start studying at the very beginning of the course. Many of your classes in school will start off with the easy stuff and get harder from there. If you don't understand or don't really master the first lessons, you'll soon be completely lost. It's like coming in late to a movie. If you don't follow the opening sequences, you won't be able to get the rest of the story and that can make your job nearly impossible.	<b>11</b>
<b>Where to Study</b>	Explain that you may like to study at school, at a library, at home, or at a friend's house.	<b>12</b>
<b>Where to Study</b>	Explain that any good place to study should have good light, good seating, and writing space. You should be sure to have all the necessary materials at hand—books, notebooks, lab manuals, other papers, highlighters. This is especially important if you're going to pack up your things to go study at a friend's house. You don't want to get there and realize you've left some important papers at home.	<b>13</b>
<b>Where to Study</b>	Explain you may have one place you go to just to study—a quiet place in your school library, for instance. This can help get you in the right frame of mind to study, because you will associate that place only with your schoolwork. You won't think of it as a place to watch videos or hang with your friends.	<b>14</b>
<b>When to Study</b>	Explain that you should set regular times to study. Here again, it pays to experiment and see what works for you. Does going over material right after class, or as soon as you get home from school, help you get a grip on it, or do you find it helps to have a break in the afternoon? Maybe you work best getting back to the books after you've had a little recreation, dinner, and a chance to check in with family and friends.	<b>15</b>
<b>When to Study</b>	Explain that you should pay special attention to big assignments, such as term papers and other projects that will take weeks or even months to complete. These can be so scary that you're tempted to put off even thinking about them. Then, suddenly the deadline is just a week off and you go into a panic. Remember that even the scariest assignment can be "tamed" with a little planning. Break the work down into steps—choosing the subject of a paper, for instance, finding the source, then gathering the data, and so on. Plot the steps on your calendar. If you master this technique, you'll not only enjoy greater success in high school, but you'll have developed a skill that will help you the rest of your life.	<b>16</b>
<b>When to Study</b>	Explain that here are some other guidelines for good study habits:  <ol style="list-style-type: none"> <li>1. Take regular, five-minute breaks during long study sessions. But don't forget to go back to work!</li> <li>2. Don't spend all your time on one subject.</li> <li>3. Start with the hardest material and work toward the easier stuff from there.</li> <li>4. Make a schedule for a week and follow it. Be sure to include time for recreation, sleep, exercise, food, and friends. At the end of the week, see how well it worked. Change the parts that didn't work. Maybe you didn't allow yourself enough time to sleep, for instance, or weren't realistic about how much time your homework takes. A good weekly schedule that becomes second nature to you will be useful to you throughout your life.</li> </ol>	<b>17</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>18</b>

## Chapter 2 / Section 5: NS1-U1C2S5 – Developing Good Study Habits

<b>Study Methods</b>	Explain that experts have come up with a number of methods to study that will help you read and really “get” the material in a chapter of your history book, for instance. Here are a couple of these. They go by the initials OK4R and PQRSST.	<b>19</b>
<b>OK4R</b>	<p>Explain:</p> <p><b>O.</b> Overview. Read the title, introduction, summarizing paragraphs (often at the beginning or end of a chapter, often in bold type), and the headings. (“Study Methods” is the heading for this section of this chapter.) Show slide(s) 278-291</p> <p><b>K.</b> Key ideas. Skim the text for the key ideas. Note italics or bold type. Look carefully at pictures, graphs, and tables.</p> <p><b>R1.</b> Read. Read the entire assignment.</p> <p><b>R2.</b> Recall. Close the book and think through, or write out, the main points. (This is where a study buddy can help.)</p> <p><b>R3.</b> Reflect. Think about the material. How does this fit in with other things you know about the subject? How does this chapter in the history book relate to the chapter you studied last week, for instance?</p> <p><b>R4.</b> Review. This step comes before your next test or quiz on the material.</p>	<b>20-24</b>
<b>PQRSST</b>	<p>Explain:</p> <p><b>P.</b> Preview. Glance through the material looking for topic sentences (statements of main points), pictures, graphs, tables, and summaries. Get the main points; don’t worry about details at this point. Show slide(s) 292-304</p> <p><b>Q.</b> Question. What questions form in your mind as you do this review? Hint: The review questions at the end of a chapter, as in this book, are good clues as to the main points of the material.</p> <p><b>R.</b> Read. Read the material. Pay attention to it all, but concentrate your thoughts.</p> <p><b>S.</b> State. Say aloud what you have read. Put into your own words the facts, thoughts, and ideas in the material. You may want to write these out, especially if you’re studying in a library or other place where speaking aloud would make you feel self-conscious. But again, pay attention to what works for you. If you learn best by listening, the say-aloud step may be worth trying, even if you occasionally have to find another place to study.</p> <p><b>T.</b> Test. Sometime after your first reading and stating, test how much you remember of the material. Go back to any written notes you’ve made.</p>	<b>25-28</b>
<b>Tests and Exams</b>	Explain that you should care about doing well on a test but not be so worried that you get “test anxiety.” That can be disastrous. The best way to handle stress is with good preparation—and the best preparation for tests is the kind of good study behavior described above. Keep up as you go along, and you won’t have to cram right before a test.	<b>29</b>
<b>Tests and Exams</b>	Explain that you will want to review, though, and as you review, think what questions the teacher might ask. Check the points the teacher emphasized in class. Review each section of the material and try to figure out which questions your teacher could ask you about it.	<b>30</b>
<b>Ideas for Test Taking</b>	Explain how the new material relates to what you already know. If you’re faced with an objective test (short answers), pay attention to details. If you’re taking an essay exam, you’re likely to be asked to discuss (to write about) the big ideas of the material and the relationships among them.	<b>31</b>
<b>Ideas for Test Taking</b>	Explain that when you’re actually in the classroom to take the test, read the directions carefully. Don’t be afraid to ask the teacher to explain anything you don’t understand.	<b>32</b>

## Chapter 2 / Section 5: NS1-U1C2S5 – Developing Good Study Habits

<b>Ideas for Test Taking</b>	Explain that for a better grade on a short-answer test, look the test over for 30 seconds to see how many questions there are and how much each counts. If you're graded by how many right answers you get, guess at answers you don't know. If wrong answers are subtracted from right answers, though, don't guess. Move along at a steady pace—skip hard questions and go back to them later. Don't leave blanks. An answer you're not sure of is better than none at all.	<b>33</b>
<b>Essay Tests</b>	<p>Explain that in matching tests, answer the easy questions first. Follow directions; sometimes answers may be used more than once.</p> <p>Explain that essay tests are those requiring long written answers, often to complex questions. Unlike matching, true-false, and other short-answer tests, essay tests let you show not only mastery of the material but your writing and organizational skills, too.</p>	<b>34</b>
<b>Essay Tests</b>	<p>Explain that with an essay test, you should remember to read the questions carefully first before you plunge in. In the margins of your test paper, jot key words and phrases that come to you; they will help you start writing.</p> <p>Explain that you should write legibly, and review your answers before turning in your paper. Make sure you have actually answered the questions asked. With an essay test, you face a lot of blank space on the page. Sometimes in the rush to fill that space, you may write things that are interesting and true, but not an answer to the question.</p>	<b>35</b>
<b>Essay Tests</b>	Explain that you should organize your answers. You may well want to use the outline structure you have learned for your term papers (I, II, III; A, B, C, and so on) on your essay tests as well. This can help reveal weaknesses in your thinking about a question. If you've been asked to provide three reasons for something, and your outline shows that most of your ideas really have to do with only one reason, you know you've got more thinking to do.	<b>36</b>
<b>Essay Tests</b>	Explain that the questions on essay tests are often not really questions, but commands: "Explain the causes of the American Revolution." These commands are often given in language you don't use every day: Analyze, compare, contrast, define, elaborate, evaluate, illustrate. Look these words up in your dictionary, and review them as you prepare for an essay test. This will prevent any unpleasant surprises on test day.	<b>37-38</b>
<b>Check on Learning Questions A (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>39</b>
<b>Listening and Note-Taking Skills</b>	<p>Explain that good listening skills are important to success in school. Listening is a lot more than just hearing. Hearing is continuous, unfocused, and unconscious. Listening is a focused, conscious activity.</p> <p>Explain that listening is the neglected communication skill. Most people have had instruction in reading, writing, and speaking, but few have had any formal instruction in listening. You can become a better listener by understanding the four types of listening:</p> <ul style="list-style-type: none"> <li>• passive listening</li> <li>• competitive listening</li> <li>• active listening</li> <li>• reflective listening.</li> </ul>	<b>40</b>

## Chapter 2 / Section 5: NS1-U1C2S5 – Developing Good Study Habits

<b>Listening and Note-Taking Skills</b>	<p>Explain that passive listening is one-way communication. You may or may not understand what you've heard. Listening to the TV, your MP3 player, or a teacher who doesn't take questions is passive listening.</p> <p>Explain that competitive listening takes place when you are not listening closely. You listen only long enough to get the necessary information. You're already thinking about how you're going to reply. Competitive listening occurs when people "talk past" each other in an argument.</p>	<b>41</b>
<b>Listening and Note-Taking Skills</b>	<p>Explain that active listening is two-way communication. You pay full attention and think about the information. You ask questions if you don't understand the speaker.</p> <p>Explain that reflective listening involves not only actively listening to the speaker, but also interpreting the speaker's feelings. It involves the sense of sight as well as of hearing, because speakers often express feelings through gestures and body language. Good friends often engage in reflective listening.</p>	<b>42</b>
<b>Effective Listening Techniques</b>	<p>Explain that to be a good active listener, you need to focus on what the speaker is saying. The following techniques can help you do this.</p>	<b>43</b>
<b>Effective Listening Techniques</b>	<ul style="list-style-type: none"> <li>• Clarify. Ask specific questions to ensure you've understood the speaker. Example: <i>"When you say the research paper is due on the 15th, do you mean in class, or by the end of the day?"</i></li> <li>• Restate. Use the speaker's words as your own and repeat what you think the speaker has said. Example: <i>"Did I understand you correctly? Did you say that classes will be canceled if the temperature falls below zero degrees Fahrenheit?"</i></li> </ul>	<b>44</b>
<b>Effective Listening Techniques</b>	<ul style="list-style-type: none"> <li>• Acknowledge. Let the speaker know you have understood the message and that you appreciate the speaker's point of view. Example: <i>"I appreciate the fact that you can't attend every meeting. I realize that you live much farther from school than most students do."</i></li> <li>• Summarize. Touch on the main ideas or conclusions, not each individual point. You restate the main ideas and set the tone for the next subject or conversation. This can be useful when you are discussing several issues. Example: <i>"OK. We've agree that I'll work your shift on Thursday evening and you'll work mine on Friday morning, right?"</i></li> <li>• Frame. You present information in a neutral way. You can then find areas of agreement on which to focus. This helps shape the conversation. Example: <i>"I can see your point that we need new team equipment, but we won't get it soon. Do you think we can make better use of what we have?"</i></li> </ul>	<b>45-46</b>
<b>Note Taking</b>	<p>Explain that in note taking, don't try to write down every word a speaker says. If you take too many notes, you can't listen. Just jot down words, phrases, diagrams, or the occasional sentence that will remind you of the speaker's main points. Draw arrows and use bullet points. If a teacher says, "Some differences between the Greeks and the Romans were that the Greeks were a philosophic and poetic culture, whereas the Romans were a practical and engineering culture," you could write down "Gs—philosophic, poetic. Rs—practical, engineering." You can use your notes to help you apply the listening techniques above. Read over your notes soon after you take them.</p>	<b>47-49</b>

## Chapter 2 / Section 5: NS1-U1C2S5 – Developing Good Study Habits

<b>Traits of Successful Students</b>	<p>Explain that successful students, wherever they are in school, follow these principles:</p> <ul style="list-style-type: none"> <li>• They set goals, so they have a clear idea why they are in school. They know where their current studies fit into the big picture of their lives.</li> <li>• They practice good study habits.</li> <li>• They manage their time. Things don't just happen randomly in their lives.</li> <li>• They develop good skills for taking tests and exams.</li> </ul>	<b>50</b>
<b>Conclusion</b>	<p>Explain that it's never too early to start thinking about your goals in life, especially your career goals. Whether you go to college or not, you'll want a satisfying career, not just a string of jobs. You don't have to make final decisions now, but if you begin to think about goals, you'll have a focus that will help you throughout your school career.</p> <p>Explain that as you consider options, you should know that your participation in NJROTC can be a big help to you in your further schooling and career—whether you enlist in the Navy directly after high school graduation, or seek appointment to the Naval Academy.</p>	<b>51</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>52</b>
<b>Review Question</b>	The Review Question is "List 2-3 that successful students do to study effectively." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>53</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>54</b>

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Handouts

When: at the end of class

- Have Cadets Identify areas in your school, home and community that will provide you with a positive study atmosphere. Be Specific – What makes them a good study place?

#### B. Homework Activity: Have the cadets use the supplied handout for the following:

1. Identify what you need to create a good study workspace in your home create a diagram of your study workspace.
2. Which study method do you think you can implement in your school environment.

### IV. Evaluation - see CPS database for chapter test questions.



## **Chapter 2 / Section 5: NS1-U1C2S5 – Developing Good Study Habits**

### Activity 1: In-Class Activity- Developing Good Study Habits

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Identify areas in your school, home and community that will provide you with a positive study atmosphere. Be Specific – What makes them a good study place? (Good temperature control, free from distraction, availability of resources)

1. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6. \_\_\_\_\_

\_\_\_\_\_

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## **Chapter 2 / Section 5: NS1-U1C2S5 – Developing Good Study Habits**

Activity 1: Take Home Activity – Developing Good Study Habits

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: 1. Identify what you need to create a good study workspace in your home. (Lighting, furniture, technology, etc.). Create a diagram of your workspace in the space below.

2. Which study method do you think you can implement in your school environment and why?

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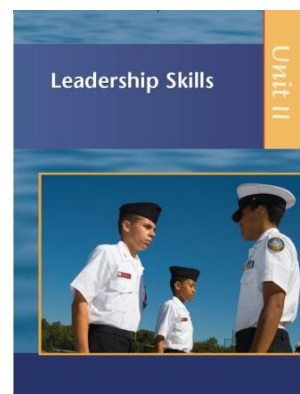
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## UNIT 2: LEADERSHIP SKILLS

### Unit Overview

#### Unit Objective:

Developing leadership in cadets is one of the primary goals of NJROTC. This unit will arm you with knowledge you need to become an effective leader. You will learn how good leaders come from the ranks of good followers, the styles and traits of good leaders, how to motivate others, and the attitudes and emotions that make for the best leadership.



#### Unit Organization:

Chapter Number	Chapter Name	Instructional Section / PowerPoint
1	Followership	NS1-U2C1S1 – Importance of Good Followership
2	Leadership	NS1-U2C2S1 – Leadership Behavior and Styles
		NS1-U2C2S2 – Effective Leadership
		NS1-U2C2S3 – Qualifications for Leadership
3	Motivation	NS1-U2C3S1 – Motivation and Human Needs
		NS1-U2C3S2 – Coaching and Mentoring
4	Relationships	NS1-U2C4S1 – Relationships and Respect
		NS1-U2C4S2 – Relationships and Groups
5	Attitudes and Emotions	NS1-U2C5S1 – Perspective and Attitudes
		NS1-U2C5S2 – Actions, attitudes and Emotions

## Unit 1 Chapter 1: NS1-U2C1 - Followership

### What Students Will Learn to Do:

This chapter will help you become a better leader by learning how to be a good follower.

### Skills and Knowledge to be Gained:

1. Explain the importance of good followership
2. Describe the readiness factors of followers
3. Explain how to build productive relationships with leaders
4. Describe how to be an effective follower

### Standards Linked in This Chapter:

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Writing

- W.9-10.3. Write narratives to develop real or imagined experiences or events...

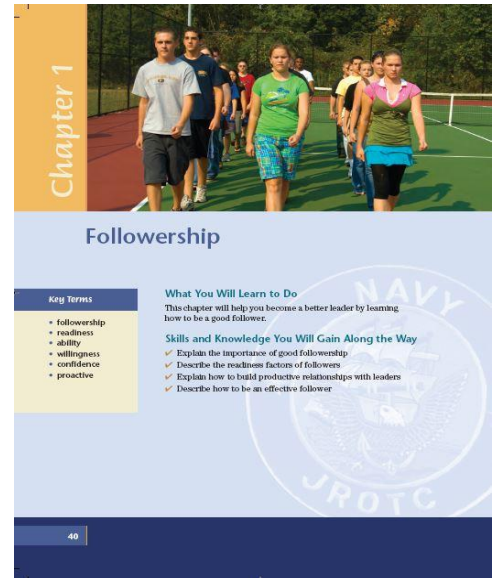
##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...
- L.9-10.6. Acquire and use accurately general academic and domain-specific words and phrases...

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.



## **Chapter 1 / Section 1: NS1-U2C1S1 – Importance of Good Followership**

(Section 1 of 1)

### **What Students Will Learn to Do:**

This chapter will help you become a better leader by learning how to be a good follower.

### **Skills and Knowledge to be Gained:**

1. Explain the importance of good followership
2. Describe the readiness factors of followers
3. Explain how to build productive relationships with leaders
4. Describe how to be an effective follower

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Importance of Good Followership	The Follower Relationship	Types Of Followers	Check On Learning A
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Followers Have Powers	The Readiness Factors of Followers	Readiness Levels	Check on Learning B	Building Effective Relationships with Leaders	Educate Your Leader	Be an Effective Follower	Conclusion	Closing Questions
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Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database and expand folders until you see Unit 2, chapter 1. Place a checkmark beside the NS1-U2C1S1 PowerPoint presentation, and these two CPS question deck files: NS1-U2C1S1 - Key Terms and NS1-U2C1S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 1: NS1-U2C1S1 – Importance of Good Followership

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>This lesson will teach that good leaders come from the ranks of good followers. This chapter will teach you the importance of good followership, what readiness in followers is and how to achieve it, and how followers can build effective relationships with leaders. The chapter will culminate in a lesson on how to be an effective follower.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is, “List 2-3 qualities of a good follower.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the importance of good followership.	<b>7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>The Importance of Good Followership</b>	Explain that you may have heard this before: “Before you can lead, you have to learn to follow.” Good leaders emerge from the ranks of able followers. As a member of various teams and groups throughout your life, you’ll have many chances to practice good followership.	<b>9</b>
<b>The Follower Relationship</b>	Explain that throughout your life and career, you will be a follower in one role or another. On a sports team, you follow the lead of your captain or coach. On a school project, you help the team leader. In your cadet unit, you follow higher-ranking cadets and your instructor. As a Navy captain, you would follow admirals. And even if you became a Navy admiral yourself, you would still have to follow the directions of our country’s civilian leaders.	<b>10-11</b>
<b>The Follower Relationship</b>	Explain that the relationship between follower and leader sometimes gets blurry. During a single day, a team member’s role might flip back and forth from leader to follower many times. For example, suppose that your school principal asks the Adopt-a-Road team that you lead to clean up the school parking lot. Wearing your follower hat, you say, “No problem, ma’am. Our team can handle it!” Then later, wearing your “leader hat,” you would assign certain parts of the job to various members of your team to complete the job.	<b>12</b>

## Chapter 1 / Section 1: NS1-U2C1S1 – Importance of Good Followership

<b>Types of Followers</b>	<p>Explain that in your unit, you will find a number of types of followers. Some followers are <i>independent</i>. One kind of independent follower plays an active role in the unit by seeking out responsibility, carrying out assigned tasks in a responsible manner, and respectfully offering appropriate suggestions for improvement. Such cadets support the unit's goals and objectives. These cadets are known as <i>effective</i> followers.</p> <p>Explain that another kind of independent follower will take a negative approach to his or her job as a follower. Such cadets always complain, criticizing every idea or questioning every unit policy. They are known as <i>alienated</i> followers.</p> <p>Explain that the opposite of independent followers are <i>dependent</i> followers. They simply go along with anything you ask them to do without thought. They are the "yes" people, or the sheep. They wait for you to tell them what to do, then do it.</p>	<b>13</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>14</b>
<b>Followers Have Powers</b>	Explain that individual followers can play different, yet crucial roles in helping their team achieve its goals or mission. As a member of a group or team, you probably possess certain skills or knowledge that no one else does. To the degree that the team needs your knowledge and skills, you as a follower can affect team performance and exert considerable power. Your skill may even be the power of your personality. A popular follower, as an individual, can change the behavior of a group. It's up to the team leader to decide how to use each follower's individual strengths for the team's overall good.	<b>15</b>
<b>The Readiness Factors of Followers</b>	<p>Explain that in Act 5, Scene 2, of Shakespeare's "Hamlet," the prince remarks, "the readiness is all." Hamlet was right. Understanding the readiness of followers is a key element of leadership.</p> <p>Explain that team members are naturally at different levels of readiness as they face each task or mission. The effective leader's job is to help followers or team members gain the knowledge and skills they need to perform at the highest level they can.</p>	<b>16</b>
<b>The Readiness Factors of Followers</b>	<p>Explain that three factors determine readiness: ability, willingness, and confidence. Ability and Willingness affect each other. A change in either factor will affect the way the two factors operate together. And as a team member's competence and abilities change, so will their attitudes, levels of enthusiasm and commitment.</p> <p>Explain that a boost in confidence usually results when an individual becomes more competent at a skill or skill set. Good leaders notice these changes in their followers. If the follower experiences failure when trying new things, it's important to avoid labeling them, and give them other opportunities to grow and succeed.</p>	<b>17-18</b>
<b>Readiness Levels</b>	<p>Explain that readiness levels are the combinations of ability and willingness that a person brings to team tasks. Follower readiness breaks down into four levels. Each level represents a different combination of follower ability and willingness, and confidence.</p> <p>Readiness Level 1: Unable and unwilling—The team member lacks ability, commitment, and motivation. This level may also apply to a team member who is both unable and insecure, lacking the confidence to perform a task to standard.</p>	<b>19-20</b>

## Chapter 1 / Section 1: NS1-U2C1S1 – Importance of Good Followership

	<p>Readiness Level 2: Unable but willing—The team member lacks ability, but is motivated and makes an effort to complete the task. The person may also be unable but confident, as long as you are there to provide guidance.</p> <p>Readiness Level 3: Able but unwilling—The team member is able to perform the task, but is unwilling to use that ability. Or the team member is able but insecure—showing ability but acting insecure about doing the job.</p> <p>Readiness Level 4: Able and willing—The team member has the ability and commitment to perform the job. The team member is confident about completing the task.</p>	
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students’ understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>21</b>
<b>Building Effective Relationships with Leaders</b>	Explain that people often think that a good leader-follower relationship is a matter of luck. Many followers say they have a “good” leader or a “bad” leader, and assume they can’t do anything to change the situation. This is a mistake. The leader alone does not determine the quality of the relationship between leader and follower.	<b>22</b>
<b>Building Effective Relationships with Leaders</b>	<p>Explain that effective followers know how to strengthen their relationship with their leaders. They also know how to enhance the support they provide to their leaders and to the team. As a follower, how can you strengthen the leader-follower relationship? Here are some suggestions.</p> <ul style="list-style-type: none"> <li>▪ Always Help the Leader Succeed - Explain that part of the leader’s job is to help his or her followers succeed. But it works both ways: Followers also need to help their leaders succeed. That doesn’t mean you should be an “apple polisher” or play politics. You just need to remember that your leader and you are part of the same team with the same goals. If the team succeeds, everyone benefits. If the team fails, the blame should fall on the followers as well as the leader.</li> <li>• Understand the Leader’s World- Explain that effective team members must know the objectives of both the leader and the organization so they can share that vision. Loyalty and support are a two-way street. Just as a leader can help followers attain their personal goals, a follower can help a leader achieve the team’s goals. Knowing his or her leaders’ values, preferences, and personality can help a follower understand the leader’s actions and decisions. Such understanding gives followers insight into how to strengthen relationships with their leaders.</li> <li>• Educate Your Leader- Explain that followers must remember that leaders don’t always have all the answers. Followers can make a great contribution to a team’s success by recognizing—and trying to help overcome—a leader’s human shortcomings. Explain that a new leader, in particular, almost always needs team members’ help. Such a leader may have a great deal of knowledge and experience, but may not be familiar with the operations or needs of the team to which he or she has been assigned. It’s up to followers to orient and educate a new leader about team members’ expertise and experience. This process is especially important if the leader comes from a different field or area of specialty.</li> <li>• Keep Your Leader Informed- Explain that no one likes unpleasant surprises. As a follower, never put your leader in the embarrassing situation of having someone else know more about the team’s business than he or she does. Brief your leader often on all business related to the team’s goals and mission.</li> </ul>	<b>23</b>



## Chapter 1 / Section 1: NS1-U2C1S1 – Importance of Good Followership

	<ul style="list-style-type: none"> <li>Adapt to Your Leader's Style- Explain that it's the follower's responsibility to adapt to the leader's style, not vice versa. Followers need to be flexible. They need to adapt to the leader's decision-making style, problem-solving strategies, methods of communication, and styles of interaction. If your leader does not set clear expectations, ask for clarification. If you are the leader, clarify your expectations about followers' roles and responsibilities.</li> </ul>	
<b>Educate Your Leader</b>	<p>Explain that a new leader, in particular, almost always needs team members' help. Such a leader may have a great deal of knowledge and experience, but may not be familiar with the operations or needs of the team to which he or she has been assigned. It's up to followers to orient and educate a new leader about team members' expertise and experience. This process is especially important if the leader comes from a different field or area of specialty.</p>	<b>24</b>
<b>Be an Effective Follower</b>	<p>Explain that beside working to build a supportive relationship with your leader, you can take these additional actions to be an effective follower:</p> <ul style="list-style-type: none"> <li>Be honest. Followers need to be honest and dependable. If a follower does not have integrity, it doesn't matter how many other great qualities or talents he or she might have. No one wants to work with someone who isn't trustworthy. After integrity, leaders value dependability. They value team members who have reliable work habits, accomplish assigned tasks at the right time in the right order, and do what they promise.</li> <li>Don't gripe. Part of a follower's job is to make the team work well. Ideally, the leader helps a team work well, but sometimes the team must perform despite its leader. Poor leadership is an enormous burden. But complaining about policies and poor leadership is never productive. A follower who gripes only further undermines the leader's authority and the team's ability to function.</li> <li>Be proactive. Being proactive includes building a good relationship with your leader. A proactive follower considers policies and suggests to the leader ways to improve team success. A follower must buy into the task of making the team better.</li> <li>Make sound decisions. Once you have taken a proactive approach to followership and are confident in your role, you will need to make sound decisions. Your decisions will affect those around you. Sound decisions will improve your leader's confidence in you. Step up and use your expertise.</li> <li>Be enthusiastic. Enthusiasm is contagious energy. An enthusiastic follower can have a great influence over the team, its leader, and its overall performance.</li> <li>Suppose your leader gives you a task. You may like the task or you may think it's boring or even useless. As far as the team's welfare goes, that's not important. No matter how you feel about a task, approach it with a positive attitude. Your enthusiasm will have a ripple effect on the group's or the leader's feelings concerning the task. Be upbeat and energetic when performing tasks. Success rests with the followers' enthusiasm as well as the leader's.</li> <li>Be versatile and flexible. Hitting your head repeatedly against a brick wall isn't the most efficient way to get to the other side. When a problem comes up, take a few minutes to assess the issue and to reevaluate your approach. Use your brain rather than your skull. A second look will almost always reveal a better way around the wall.</li> </ul>	<b>25</b>

## Chapter 1 / Section 1: NS1-U2C1S1 – Importance of Good Followership

<b>Conclusion</b>	Explain that whenever you're in the role of a follower, learn as much as you can about effective leadership by watching good leaders in action. Use your experience and success as a follower to help you become an effective leader. Remember that the differences between a good leader and a good follower are quite small. This is because good leaders and good followers share a goal—to be part of an excellent team.	<b>26</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>27</b>
<b>Review Question</b>	The Review Question is "Explain why it would be important for followers to adapt to the leader's style." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>28</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>29</b>

### III. Supplemental Activities -

#### A. In class Activity: Follow the leader – Learn the importance of following

Supplies required: Hand out for Take Home Activity

When: This is a good activity to do before the lesson.

- Before the exercise: If possible rearrange the room to make a few new walkways between the desks.
- With the class: Divide the class into groups of 4 or 5. Have each group form a line and place their left hand on the person's shoulder in front of them. Now, have everyone in the group close their eyes with the exception of the leader. Next, have the first person lead the rest of their group to a different point in the room. After all groups get to their new destination, switch leaders for each group and have them go to a new position in the room.
- Class question: How many of you opened your eyes while you were being led? Why? Why was it difficult to follow? What could you have done to make the process work better?

If you have covered the key terms, ask how they applied to this exercise. Otherwise, you can refer back to this exercise during the lesson.

#### B. Take Home Activity: Where am I a follower?

Write a short paragraph about some group that you are in where you are a follower. Which key terms from this lesson apply to your situation? How do you see yourself in the group and what readiness level do you think you are? What could the leader do to change the way you feel in the group?

### IV. Evaluation - see CPS database for chapter test questions.

## Chapter 1 / Section 1: NS1-U2C1S1 – Importance of Good Followership

### Activity 1: Take Home Activity – Where am I a follower?

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Write a short paragraph about some group that you are in where you are a follower. Which key terms from this lesson apply to your situation? How do you see yourself in the group and what readiness level do you think you are? What could the leader do to change the way you feel in the group?

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

## Unit 2 Chapter 2: NS1U2C2 - Leadership

### What Students Will Learn to Do:

Understand the principles of leadership and how you can become a successful leader.

### Skills and Knowledge to be Gained:

1. Discuss the two orientations to leadership behavior
2. Define the four leadership styles
3. Identify the primary factors of the leadership situation
4. List the six traits of an effective leader
5. Describe the personal qualities of an effective leader
6. Explain the leadership opportunities in NJROTC

### Standards Linked in this Chapter:

#### **Common Core – English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.3. Analyze how the author unfolds an analysis or series of ideas or events...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...
- RI.9-10.7. Analyze various accounts of a subject told in different mediums...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...
- W.9-10.2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately ...
- W.9-10.8. Gather relevant information from multiple authoritative print and digital sources...

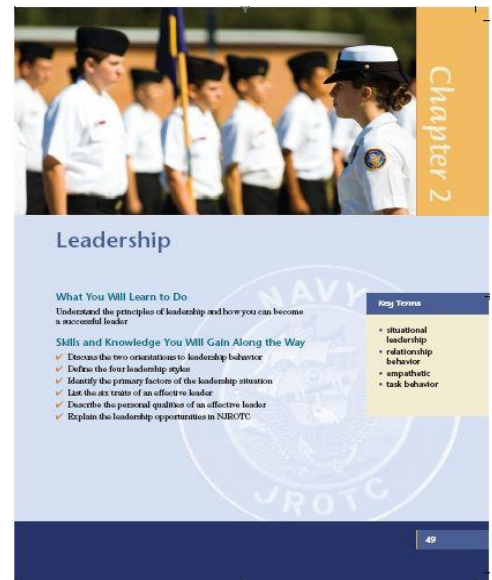
##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.



## **Chapter 2 / Section 1: NS1-U2C2S1 – Leadership Behavior and Styles**

(Section 1 of 3)

### **What Students Will Learn to Do:**

Understand the principles of leadership and how you can become a successful leader.

### **Skills and Knowledge to be Gained:**

1. Discuss the two orientations to leadership behavior
2. Define the four leadership styles
3. Identify the primary factors of the leadership situation

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	The Two Orientations to Leadership Behavior	Orientation Toward People/ Task	Four Leadership Styles	Check On Learning A
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Leadership Etiquette	Primary Factors Of Leadership Situation	The Mission	Check on Learning B	The People	The Leadership Style	Environment	Closing Questions	Review Questions
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Call for Other Questions

Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 2, chapter 2. Place a checkmark beside the NS1-U2C2S1 PowerPoint presentation, and these two CPS question deck files: NS1-U2C2S1 - Key Terms and NS1-U2C2S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 2 / Section 1: NS1-U2C2S1 – Leadership Behavior and Styles

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>Having learned how to be an effective follower, in this chapter you will learn how to be an effective leader. You will learn about the two orientations of leadership behavior, the four leadership styles, and the primary factors of leadership situations. In addition, you will learn to develop your own leadership by becoming familiar with the traits and personal qualities of effective leaders. You will learn about the opportunities to practice these techniques and develop these qualities in the NJROTC program.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “Describe the personality traits of a good leader.” Since this is a discussion question, it can be engaged using RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on leadership behaviors and styles.	<b>7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>The Two Orientations to Leadership Behavior</b>	Explain that becoming a successful leader requires training and practice, but you can begin to acquire and practice leadership skills right now—at school and in your community. An important concept to understand is the difference between leadership and management. Leadership is the art of influencing and directing people to accomplish the mission. Management is supervising the use of resources to achieve team objectives. In essence, you lead people, and you manage things. While both skills are important, this lesson will concentrate on leadership.	<b>9</b>
<b>The Two Orientations to Leadership Behavior</b>	Explain how a leader gets people to come together to accomplish a mission. You’ll find no single answer to this question. A leader must tailor his or her approach to the task and the people available to do it. The leader must base the approach on the environment and on the readiness of the team and its individual members. Readiness is the degree to which a follower demonstrates the ability and willingness to accomplish a task. In other words, the leader must base his or her approach on the situation in which the leader and team find themselves. This is called situational leadership.	<b>10</b>

## Chapter 2 / Section 1: NS1-U2C2S1 – Leadership Behavior and Styles

<b>The Two Orientations to Leadership Behavior</b>	<p>Explain that situational leadership is flexible. It is based on the abilities, knowledge, skills, and motivational level of the team or group the leader is influencing. To be effective, a leader using this leadership style must know his or her people and how they respond to working in groups.</p> <p>Explain that another part of understanding situational leadership is knowing your orientation: Are you oriented toward people or oriented toward a task? This is important because the two orientations are connected. A leader who is people oriented focuses on interaction with his or her people. A leader oriented toward task focuses on the job to be done.</p>	<b>11</b>
<b>Orientation Toward People/Task</b>	<p>Explain that another name for orientation toward people is relationship behavior. Relationship behavior includes, for example, listening, praising, collaborating, and counseling. A leader who practices such behaviors can greatly improve followers' performance. If you reach a barrier in the way of team progress, relationship behaviors can help overcome the obstacle.</p> <p>Explain that task behavior focuses on the practical aspects of the team's job or mission. Task behaviors include directing team members on what to do, how to do it, and when to do it.</p>	<b>12</b>
<b>Four Leadership Styles</b>	Explain that task behavior and relationship behavior are distinct, but complementary, leadership behaviors. Considered together, they help define four main leadership styles. These four styles make up what's known as the leadership grid.	<b>13-14</b>
<b>Four Leadership Styles</b>	<p>Explain that in the telling leadership style (Style 1), the leader provides specific instructions and closely supervises team members as they perform their tasks. The telling leader has a high task orientation and a low relationship orientation.</p> <p>Explain that typical telling behaviors include:</p> <ul style="list-style-type: none"> <li>• directing others what to do</li> <li>• supervising them closely</li> <li>• following up to ensure they complete their tasks.</li> </ul>	<b>15</b>
<b>Four Leadership Styles</b>	<p>Explain that the second Style, leading by selling, means the leader closely supervises task completion and following up, while also providing explanations and opportunities for clarification from team members. The selling leader has a high task orientation and a high relationship orientation.</p> <p>Explain that typical selling behaviors include:</p> <ul style="list-style-type: none"> <li>• supervising closely</li> <li>• following up</li> <li>• explaining relationships between tasks and team goals</li> <li>• encouraging questions</li> <li>• supporting progress.</li> </ul>	<b>16</b>
<b>Four Leadership Styles</b>	<p>Explain that in the participating style (Style 3), the leader helps and supports team members' efforts toward completing the task by sharing ideas and responsibility for decision making with his or her team members. Participating leaders have a high relationship orientation but a low task orientation.</p> <p>Explain that participating behaviors include:</p> <ul style="list-style-type: none"> <li>• asking team members for ideas</li> <li>• listening</li> </ul>	<b>17</b>

## Chapter 2 / Section 1: NS1-U2C2S1 – Leadership Behavior and Styles

	<ul style="list-style-type: none"> <li>• encouraging others to try out their ideas</li> <li>• allowing others to structure their tasks</li> <li>• sharing control and accountability.</li> </ul>	
<b>Four Leadership Styles</b>	<p>Explain that in the delegating style (Style 4), the leader turns over to team members responsibility for decision-making, problem solving, and implementation. Delegating leaders have both a low relationship orientation and a low task orientation.</p> <p>Explain that delegating behaviors include:</p> <ul style="list-style-type: none"> <li>• setting task boundaries</li> <li>• letting others make their own decisions</li> <li>• allowing members to chart their own courses of action</li> <li>• giving group members the freedom they need to do the job well</li> <li>• providing help when asked</li> <li>• monitoring progress.</li> </ul>	<b>18</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>19</b>
<b>Leadership Etiquette</b>	<p>Explain that successful leaders:</p> <ul style="list-style-type: none"> <li>• Make decisions that will enhance the entire organization rather than just themselves.</li> <li>• Realize that they also have superiors—everyone, even a person of the highest rank, is accountable to someone.</li> <li>• Serve as examples of fair play, integrity, and dependability.</li> <li>• Listen to the needs, feedback, and suggestions of all organization members, not just a select few.</li> <li>• Understand that leadership is not a position of glory and popularity, but of responsibility.</li> <li>• Roll up their sleeves and help other members of the organization when the going gets tough.</li> <li>• Know that they cannot succeed without the work, support, and dedication of all members of the organization.</li> <li>• Do not seek personal recognition but rather share it equally with their followers or team members.</li> <li>• Work for the success of the organization, not for individual gain.</li> <li>• Know that the members of the organization gave them whatever power the leaders may possess—if the leader uses this power improperly, it can be taken away and given to someone else.</li> </ul>	<b>20-21</b>
<b>Primary Factors of the Leadership Situation</b>	<p>Explain that you lead people and you manage things. But how do you know how much time to spend on each? According to situational leadership theory, the situation the team finds itself in will dictate how much time the leader must devote to each activity.</p> <p>Explain that leaders should approach each leadership situation by considering four factors: the mission, the people, the leadership style, and the environment.</p>	<b>22</b>
<b>The Mission</b>	<p>Explain that most missions involve many tasks. The team must complete each to fulfill its responsibilities. The leader must define the mission and set goals for completing the different parts of the team's tasks.</p> <p>Explain that in many instances, someone outside the team, such as a teacher, coach, supervisor, or unit leader, provides the mission. The leader's job is to translate this</p>	<b>23</b>



## Chapter 2 / Section 1: NS1-U2C2S1 – Leadership Behavior and Styles

	<p>mission into goals that the team members will accept and understand. The team members must be able to relate to these goals and adopt them as their own.</p> <p>Explain that when possible, involve team members in setting these goals. This will ensure their support. A team cannot succeed without the dedicated effort of each member. The goals the leader and team set must be challenging but attainable. Unrealistic goals frustrate even the most dedicated people, while frivolous goals reduce belief in the mission's worth.</p>	
<b>The Mission</b>	<p>Explain that another part of the leader's role is to set standards of job performance and to communicate them to the team. These standards must be reasonable, consistent with the mission, and clearly defined for every individual. As the work proceeds, the leader should then recognize those who meet or exceed standards. He or she must also provide training for those who fall beneath standards and take corrective action for those who ignore standards. This last step is almost never easy because the problem is often rooted in the member's attitude. If a team member ignores the standards, the leader must determine the reason and move quickly to correct the situation through training or, if needed, administrative or disciplinary action. If one person ignores standards and appears to get away with it, other members will be tempted to do the same.</p>	<b>24</b>
<b>Check on Learning Questions A (Lesson questions 5-6)</b>	<p>Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.</p>	<b>25</b>
<b>The People</b>	<p>Explain that as a leader, you must be sensitive to people—after all, people perform the mission. Understanding people helps determine the leadership action to take in a given situation by determining your followers' readiness. You cannot get the most out of people on your team unless you first know their abilities.</p> <p>Explain that ability has two main elements: training and experience.</p> <p>A. Training - Explain that you should assess each team member's level of training. If your people don't have adequate training, you must make sure they get it. No matter how committed followers are to the mission, they cannot contribute to it if they lack proper training.</p> <p>B. Experience - Explain that as a leader, you should also be aware of the background, experience, and ability of each of your team members regarding every task you assign them. Don't base such an assessment solely on an individual's seniority or rank. While seniority or rank may be good overall indicators, the person may have never done a certain job or been in a particular environment before. Moreover, some people learn faster than others do.</p>	<b>26</b>
<b>The Leadership Style</b>	<p>Explain that successful leaders adapt their leadership style to meet the mission demands and to reflect the abilities and experience of their people. But in choosing a leadership style, good leaders also take into account their own individual strengths and weaknesses. For example, if you can communicate well with people on an individual basis but are uncomfortable speaking to large groups, use personal conferences as much as possible. If you write well, take advantage of this skill by writing letters of appreciation or using other forms of correspondence. If you're adept at leading discussions, bring your people together and let them solve problems.</p>	<b>27-28</b>

## Chapter 2 / Section 1: NS1-U2C2S1 – Leadership Behavior and Styles

<b>The Leadership Style</b>	<p>Explain that in addition to playing to your strengths and avoiding your weakness, your leadership style must correspond to your team members' knowledge, abilities, and skills.</p> <ul style="list-style-type: none"> <li>• When one or more of your team members doesn't know how to do the job, you must spend much time giving that member guidance and support.</li> <li>• If your team members are able but lack motivation, let them participate in planning the task. Motivate them by maintaining a professional working relationship. With this encouragement from you, they'll soon show greater motivation.</li> <li>• If your team members have extensive experience and are enthusiastic about the task, provide them greater freedom. If they are on the track toward meeting your goals and objectives, let them complete their task in the way they choose. As the leader, you are still responsible for the mission, so be sure to monitor the group's progress.</li> </ul>	<b>29</b>
<b>The Environment</b>	<p>Explain that there's no way to plan for every possible outcome. You'll always have surprises, and some of them won't be pleasant. One way to prepare for the unexpected is to begin by carefully considering the environment. Good leaders do this constantly. They know the leadership methods that worked in one situation with one group may not work with the same group in a different environment.</p> <p>Explain that as a leader, you must alter your leadership behavior as necessary to accommodate changes in the mission's environment. Be sensitive to your surroundings. The key is to stay flexible and adapt to the situation you face.</p>	<b>30</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>31</b>
<b>Review Question</b>	The Review Question is "List 2-3 things that are similar OR different between the four leadership styles." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>32</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>33</b>

## **Chapter 2 / Section 1: NS1-U2C2S1 – Leadership Behavior and Styles**

### III. Supplemental Activities -

#### A. In class Activity: Untie the knot

Supplies required:

When: This activity can be done as an introduction or conclusion to the lesson.

Observe different leadership styles.

- With the class: Divide the class into groups of 6 to 8 students. Each group form a circle and grab the hand of someone on the other side of the circle. Now with the other hand grab a different person's hand. This will create a human knot. Assign a leader and have them guide the team to untie themselves without letting go of anyone's hand. The leader can set up a system for members to report what they think is the next best course of action. After getting back to a circle, start over and pick a new leader.
- Class question: What were the different leadership styles that you observed? Which styles worked best? Did different people use different leadership styles, yet still achieve their final goal? Did you feel comfortable giving advice to the leader, and did they take it?

#### B. Take Home Activity: Copy and distribute handout – Leadership style

What leadership style does your teacher use?

Write a two paragraph essay about your favorite teacher using the terms and leadership styles discussed in class today. The first paragraph should describe the type of leader that they are. The second paragraph should discuss how their leadership style affects how much you learn in their class?

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 2 / Section 1: NS1-U2C2S1 – Leadership Behavior and Styles**

## Activity1: Take Home Activity – Leadership Style

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: What leadership style does your teacher use?

Write a two paragraph essay about your favorite teacher using the terms and leadership styles discussed in class today. The first paragraph should describe the type of leader that they are. The second paragraph should discuss how their leadership style affects how much you learn in their class?

[illegible]

## Chapter 2 / Section 2: NS1-U2C2S2 – Effective Leadership

(Section 2 of 3)

### What Students Will Learn to Do:

Understand the principles of leadership and how you can become a successful leader.

### Skills and Knowledge to be Gained:

1. List the six traits of an effective leader
2. Describe the personal qualities of an effective leader
3. Explain the leadership opportunities in NJROTC

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Opening Question	Warm Up Questions	The Six Traits of an Effective Leader	Check On Learning A	Personal Qualities of an Effective Leader (A)	Video About Responsibility	Personal Qualities of an Effective Leader (B)	Check on Learning B
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Personal Qualities of an Effective Leader (C)	When Making Choices	Leadership Opportunities In NJROTC	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 2, Chapter 2. Place a checkmark beside the NS1-U2C2S2 PowerPoint presentation, and these two CPS question deck files: NS1-U2C2S2 - Key Terms and NS1-U2C2S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## **Chapter 2 / Section 2: NS1-U2C2S2 – Effective Leadership**

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>Now that you've learned how to be an effective follower, in this chapter you will learn how to be an effective leader. You will learn about the two orientations of leadership behavior, the four leadership styles, and the primary factors of leadership situations. In addition, you will learn to develop your own leadership by becoming familiar with the traits and personal qualities of effective leaders. You will learn about the opportunities to practice these techniques and develop these qualities in the NJROTC program.</p>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – "RPS")</b>	<p>This Opening Question is "Finish this sentence: Effective leaders_____." Since this is a discussion question, it can be engaged using the RPS, where CPS will display one student's name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on effective leadership.</p>	<b>4</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question with follow-up discussion based on responses as appropriate.</p>	<b>5</b>
<b>The Six Traits of an Effective Leader</b>	<p>Explain that effective leaders have certain distinguishing characteristics or traits that make up the foundation of their approach to their work. These traits form their character, which defines them as leaders. Your character is the basis for the decisions you make and the way you treat others.</p> <p>Show slide(s) 80</p> <p>Explain that character is not something you put on in the morning and take off at night. It is who you are 24 hours a day, seven days a week, regardless of where you are, whom you are with, or who might be watching.</p>	<b>6</b>
<b>The Six Traits of an Effective Leader</b>	<p>Explain that many traits go into building a strong character. For you, as a future leader, six traits are essential. They are integrity, loyalty, commitment, energy, decisiveness, and selflessness.</p>	<b>7</b>
<b>The Six Traits of an Effective Leader</b>	<p>Integrity - Explain that having integrity means establishing a set of values and adhering to them. Integrity means being a whole person—in mind, body, and spirit. Integrity is a total commitment to the highest personal and professional standards. A person or leader with integrity is honest and fair.</p>	<b>8</b>

## Chapter 2 / Section 2: NS1-U2C2S2 – Effective Leadership

<b>The Six Traits of an Effective Leader</b>	Loyalty - Explain that loyalty is faithfulness or allegiance—to superiors, peers, and subordinates. Leaders must display unquestionable loyalty to their team members before they can expect members of their team to be loyal to them. When a leader is loyal to his or her team members, they will respond in kind. Team members’ behaviors reflect the actions and attitudes of their leaders.	<b>9</b>
<b>The Six Traits of an Effective Leader</b>	<p>Commitment - Explain that dedicated service is the hallmark of the leader. A leader must demonstrate total dedication to the United States, the Navy, and the team. This commitment sets an example for team members. Commitment, a Navy Core Value, is contagious</p> <p>Explain that an example of commitment is the leader who calls on the team to rally around a team member who’s having personal problems. The leader encourages other members to support their comrade. Under their leader’s guidance, team members stand united to act if a fellow team member asks for help.</p> <p>Explain that no team member takes on this role of support alone. The leader asks team members to express their own commitment, not only to the team member in trouble, but to the team as a unit. This level of commitment leads to increased team unity and greater loyalty among members.</p>	<b>10-11</b>
<b>The Six Traits of an Effective Leader</b>	<p>Energy - Explain that energy is an enthusiasm and drive to take the initiative. Throughout history, successful leaders have demonstrated the importance of mental and physical energy. They approached assigned tasks aggressively. Their preparation included the physical and mental conditioning that enabled them to look and act like leaders. They had the perseverance and stamina to stay the course. They got the job done.</p> <p>Explain that you can fail, despite your talents, if you don’t use all your energy to finish the job. That’s what a well-known maker of running shoes means in an ad that urges people to “Just do it.” Applying your energy to the team and its mission is the key to success.</p>	<b>12</b>
<b>The Six Traits of an Effective Leader</b>	<p>Decisiveness - Explain that decisiveness is a willingness to act. A leader must have the self-confidence to make timely decisions and then effectively communicate those decisions to the team.</p> <p>Explain that decisiveness includes the willingness to accept responsibility for the outcome of one’s acts. Leaders are always accountable—when things go wrong as well as when they go right.</p> <p>Explain that suppose, for example, that a team leader has five team members but only three slots in a training program. The leader assesses the team members individually and decides which three will benefit most from the training. In private, the leader tells each member of the decision and gives reasons for it. Because this leader has made the decision fairly, the two team members not selected should respect the decision just as much as the members who are chosen do. All members know that the leader made the decision based on careful thought, not on personal preference.</p>	<b>13</b>
<b>The Six Traits of an Effective Leader</b>	Explain that selflessness is the ability to sacrifice personal needs and wants for a greater cause. Leaders put accomplishing their mission and caring for their people before their own welfare or desires. Willingness to sacrifice is essential to military service. Explain that selflessness includes the courage to face and overcome difficulties and physical dangers. This includes the need to make difficult decisions.	<b>14</b>

## Chapter 2 / Section 2: NS1-U2C2S2 – Effective Leadership

<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>15</b>
<b>Personal Qualities of an Effective Leader</b>	Explain that an effective leader also expresses specific personal qualities: courage, responsibility, the ability to set an example, self-discipline, confidence, a sense of humor, tact, and common sense.	<b>16</b>
<b>Personal Qualities of an Effective Leader</b>	Explain that while most people think of courage in terms of willingness to face physical danger, the more common form is moral courage to make difficult decisions. It requires courage and strength of character to confront a tough situation head-on rather than avoiding it by passing the buck to someone else and refusing to decide. These qualities are essential to effective leadership. That's one reason courage is a Navy Core Value.	<b>17</b>
<b>Personal Qualities of an Effective Leader</b>	Explain that taking responsibility and a willingness to be accountable for your actions is one of the main requirements for a successful leader. You must be willing to answer to your superiors as well as to your followers.	<b>18</b>
<b>Video about Responsibility</b>	Show video about responsibility	<b>19</b>
<b>Personal Qualities of an Effective Leader</b>	Explain that you will set the standard of performance, conduct, and appearance for your unit by personal example. The people you lead will imitate your standards of personal conduct and appearance. If your behavior shows that you cannot control yourself, people will ask how you can control others. Lack of self-control in a leader destroys a unit's cohesion and impairs its ability to perform.	<b>20</b>
<b>Personal Qualities of an Effective Leader</b>	Explain that self-discipline is an important quality for young people to develop as early as possible. There will always be rules, regulations, and standards to be met in your home, school, community, and in your unit. You will be expected to be disciplined enough to follow these rules. If you do not provide your own discipline (self-discipline), someone else will usually have to provide it for you. The self-disciplined person will always be dependable and will fulfill responsibilities without the need of direct supervision.	<b>21</b>
<b>Personal Qualities of an Effective Leader</b>	Explain that much like discipline, self-confidence is a quality needed by leaders. Know yourself, know your abilities, and be decisive. Confidence comes with experience. You must practice your leadership skills to develop them. The NJROTC program offers you numerous opportunities to practice leadership skills and develop self-confidence.	<b>22</b>
<b>Check on Learning Questions A (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>23</b>
<b>Personal Qualities of an Effective Leader</b>	Explain that every leader needs the ability to see the humor in a situation. A humorous remark at the right time or in the right situation can ease tension and restore a group's morale. As the old saying goes, 'laughter is the best medicine'.	<b>24</b>
<b>Personal Qualities of an Effective Leader</b>	Explain that tact is the ability to deal with others in a respectful manner. The leader who displays tact in dealing with others encourages courteous treatment in return. The use of tact is very important in times of stress. For example, when you are criticizing a subordinate, usually a calm, courteous, and firm approach will bring a cooperative response without creating ill feelings. The sarcastic or "smart aleck" approach usually does not create a positive response to directions or orders.	<b>25</b>



## **Chapter 2 / Section 2: NS1-U2C2S2 – Effective Leadership**

<b>Personal Qualities of an Effective Leader</b>	Explain that a leader can be responsible, self-disciplined, self-confident, have a sense of humor, be tactful, and still lack common sense. Just remember to treat others the way you would like to be treated. Try to make the right choices, and ask yourself the following questions:	<b>26</b>
<b>When Making Choices</b>	<p>When Making Choices, Ask Yourself:</p> <ol style="list-style-type: none"> <li>1. If I do what I'm thinking of doing, would I be willing to have my action enacted into law and required of everyone?</li> <li>2. If I were considering using someone else for my own personal gain, would I allow someone to use me in that way?</li> <li>3. Would I be willing to explain to a jury why I chose this action?</li> <li>4. Would I do this if I knew it would be on tonight's television news?</li> <li>5. What would I think of this action if it my worst enemy did it?</li> <li>6. If my reason for acting this way is that everyone else does it, would I do it if no one else did it?</li> <li>7. Would I do this if I knew I would have to explain my reasons to my family?</li> <li>8. Would I be content with this action if my boss or a member of my family did the same thing?</li> <li>9. Would I be content to have each of my followers behave exactly as I intend to in this?</li> <li>10. My team could win the game by violating a rule. Before I call this play, would I be upset if the losing team took the same action?</li> <li>11. If what I do hurts no one very much, would I be willing to let everyone do the same thing?</li> <li>12. If there is very little harm in what I want to do, what kind of person will I become if it gets to be a habit?</li> </ol>	<b>27-29</b>
<b>Leadership Opportunities in NJROTC</b>	Explain that through your NJROTC unit, you have many chances to grow your leadership skills. You might lead on a variety of levels. Larger units which consist of 150-300 members are organized differently than those with 150 or less members while the largest units of more than 300 members have an additional level.	<b>30-32</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>33</b>
<b>Review Question</b>	The Review Question is "List 2-3 traits of an effective leader." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>34</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>35</b>

## **Chapter 2 / Section 2: NS1-U2C2S2 – Effective Leadership**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: None

When: This is a good activity to do before starting the lesson.

- With the class: This activity helps the leaders of a group interact equally with every member of the team while assessing their own strengths and weaknesses as leaders. Divide the group into sets of five to ten people each. Choose a leader of each group and whisper a shape in his ear. The leader must get his group to form that shape without speaking or pulling people into position. The leader may only gesture or touch. If there is time, rotate until everyone has had a chance to be a leader.
- Class question: How hard is it to lead a group without using verbal commands?

B. Homework Activity: Bring in some newspaper articles about people who you think have integrity and people who you think who do not. What distinguishes one from the other? Who gets more play in the media?

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 2 / Section 3: NS1-U2C2S3 – Qualifications for Leadership**

(Section 3 of 3)

### **What Students Will Learn to Do:**

Understand the principles of leadership and how you can become a successful leader.

### **Skills and Knowledge to be Gained:**

1. Describe the qualifications for leadership
2. Explain the leadership opportunities and positions in NJROTC

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Opening Question	Warm Up Questions	Leadership Opportunities In NJROTC	Video of Drill Team (A)	Video Of Color Guard Team	Video of Drill Team (B)	Video of Drum and Bugle Corps	Check On Learning A
Qualifications For Leadership	Review of Unit Organization	Check on Learning B	Sample Leadership Position Descriptions	NJROTC Enlisted Ranks	Conclusion	Closing Questions	Review Questions	Call for Other Questions

Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 2, Chapter 2. Place a checkmark beside the NS1-U2C2S3 PowerPoint presentation, and these two CPS question deck files: NS1-U2C2S3 - Key Terms and NS1- NS1-U2C2S3 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## **Chapter 2 / Section 3: NS1-U2C2S3 – Qualifications for Leadership**

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>Having learned how to be an effective follower, in this chapter you will learn how to be an effective leader. You will learn about the two orientations of leadership behavior, the four leadership styles, and the primary factors of leadership situations. In addition, you will learn to develop your own leadership by becoming familiar with the traits and personal qualities of effective leaders. You will learn about the opportunities to practice these techniques and develop these qualities in the NJROTC program.</p>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “Complete this sentence: Effective leaders_____” Since this is a discussion question, it can be engaged using RPS, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on qualifications for leadership.</p>	<b>4</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>5</b>
<b>Leadership Opportunities in NJROTC</b>	<p>Explain that Most units have three or more teams consisting of a color guard team, a drill team, and a rifle team.</p> <p>Explain that other units also have an academic team, pistol team, orienteering team, drum and bugle corps, or athletic team. Each team normally has a cadet as team captain or commander.</p>	<b>6-7</b>
<b>Video of Drill Team (1)</b>	Show first video of Drill Team	<b>8</b>
<b>Video of Color Guard Team</b>	Show video of Color Guard Team	<b>9</b>
<b>Video of Drill Team (2)</b>	Show second video of Drill Team	<b>10</b>
<b>Video of Drum and Bugle Corps</b>	Show video of Drum and Bugle Corps	<b>11</b>

## Chapter 2 / Section 3: NS1-U2C2S3 – Qualifications for Leadership

<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>12</b>
<b>Qualifications for Leadership</b>	<p>Explain that former CNO Admiral George Anderson lists the qualifications in judging officer's abilities as leaders as follows:</p> <ul style="list-style-type: none"> <li>• Achievements – They produce results. Effectiveness of the work serves as a measure of achievement.</li> <li>• Ability to Make Decisions – They evaluate information, evaluate the problem and then make a sound and decisive decision.</li> </ul>	<b>13</b>
<b>Qualifications for Leadership</b>	<ul style="list-style-type: none"> <li>• Personal Appearance - They take pride in every detail of their personal appearance.</li> <li>• Military Bearing - They conduct themselves in a professional military manner, 24/7.</li> <li>• Mental Alertness - They give continual attention to detail but have awareness of the big picture.</li> </ul>	<b>14</b>
<b>Qualifications for Leadership</b>	<ul style="list-style-type: none"> <li>• Ability to Express Self - They use clear communication, orally and in writing, to share their ideas and decisions.</li> <li>• Being a Good Shipmate - They understand that they cannot function alone and have good relationships with others.</li> <li>• Imagination - They use their imagination and initiative to improve their own task performance and others.</li> </ul>	<b>15</b>
<b>Qualifications for Leadership</b>	<ul style="list-style-type: none"> <li>• Knowledge of the Job - They have a complete mastery of their job and its responsibilities, including the same of subordinates.</li> <li>• Manner of Performance - They know themselves, the job, the enlisted personnel and the immediate situation. They know four ways to get the job done...</li> </ul> <ol style="list-style-type: none"> <li>1. Personally do it</li> <li>2. Drive others to do it</li> <li>3. Inspire others to do it</li> <li>4. Combine all 3 above</li> </ol>	<b>16</b>
<b>Qualifications for Leadership</b>	<ul style="list-style-type: none"> <li>• Social Grace - They know the rules of social etiquette, but more importantly, know how to show sincere interest in others.</li> <li>• Sense of Humor - They keep everything in perspective, and distinguish between the important and the trivial.</li> <li>• Personal Behavior -They reflect integrity and honor in all their behavior.</li> </ul>	<b>17</b>
<b>Review of Unit Organization</b>	Explain that an NJROTC unit with 100–150 members is organized into one company with one or more platoons. Each platoon has one or more squads. The number and title of staff officers vary for each unit and depend on the local circumstances and the decision of the naval science instructor. Units with more than 150 cadets are organized into a battalion that has two or more companies. A unit with more than 300 cadets is organized into a regiment that includes two or more battalions. The number of team commanders varies by unit. Most units have three or more teams, including a color guard team, a drill team, and a rifle team.	<b>18-21</b>
<b>Check on Learning Questions A (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>22</b>

## Chapter 2 / Section 3: NS1-U2C2S3 – Qualifications for Leadership

<b>Sample Leadership Position Descriptions</b>	<p>Explain that the following are a list of sample positions and their job descriptions:</p> <p>Company Commander –</p> <ul style="list-style-type: none"> <li>• Carries out orders of the Naval Science Instructor</li> <li>• Accountable for appearance, discipline, efficiency, training, performance and conduct of the unit</li> <li>• Ensures that cadets receive appropriate leadership opportunities</li> </ul>	<b>23</b>
<b>Sample Leadership Position Descriptions</b>	<p>Executive Officer –</p> <ul style="list-style-type: none"> <li>• Is prepared to act in place of Company Commander if needed</li> <li>• Supervises unit staff</li> <li>• Carries out all tasks assigned by Company Commander</li> </ul> <p>Operations Officer-</p> <ul style="list-style-type: none"> <li>• Schedules and coordinates activities</li> <li>• Maintains activities calendar for unit</li> </ul>	<b>24</b>
<b>Sample Leadership Position Descriptions</b>	<p>Administrative Officer –</p> <ul style="list-style-type: none"> <li>• Keeps unit administrative records</li> <li>• Ensures that all unit reports are prepared and submitted</li> <li>• Prepares unit correspondence</li> </ul> <p>Supply Officer –</p> <ul style="list-style-type: none"> <li>• Inventories, orders and issues all unit supplies, equipment and uniforms</li> <li>• Maintains security and control of the unit storeroom</li> </ul>	<b>25</b>
<b>Sample Leadership Position Descriptions</b>	<p>Platoon Commander –</p> <ul style="list-style-type: none"> <li>• Accountable for appearance, discipline, training, performance and conduct of platoon members</li> <li>• Ensures that platoon members have appropriate leadership opportunities</li> <li>• Carries out the orders of the Company Commander</li> </ul>	<b>26</b>
<b>Sample Leadership Position Descriptions</b>	<p>Team Captain –</p> <ul style="list-style-type: none"> <li>• Accounts for the selection, training, motivation and performance of members of his/her team</li> <li>• Coordinates all team activities with Operations Officer</li> <li>• Carries out orders and duties as assigned by Company Commander</li> </ul>	<b>27</b>
<b>NJROTC Enlisted Ranks</b>	<p>Explain that the Cadet Captain is the highest NROTC cadet rank. Other ranks include Seaman, Petty Officer, and Chief.</p>	<b>28-29</b>
<b>Conclusion</b>	<p>Explain that there is an annual right of ritual midshipmen at the Naval Academy in Annapolis that underscores the importance of both teamwork and successful leadership. Every year, plebes (first-year midshipmen) assemble to scale a tall gray obelisk called the Herndon monument to try to replace a plebe's "Dixie cup" hat sitting at the top of the obelisk with a midshipman's cap. The job is dirty, tiring, and strenuous. No midshipman ever reaches the top by him or herself. This ritual is a symbol—not of how one person can scramble to the top solo—but of how Navy teamwork and successful leadership get things done.</p> <p>Explain that working to nurture the qualities of successful leadership in your own character is essential to becoming an effective leader. This process takes work, but the effort will be well worth it. Developing these characteristics will improve your ability to build unity, loyalty, trust, and commitment among your team members. They will imitate your example, and you will stand out because of their success.</p>	<b>30-32</b>

## Chapter 2 / Section 3: NS1-U2C2S3 – Qualifications for Leadership

<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>33</b>
<b>Review Question</b>	The Review Question is “Discuss which of CNO Anderson’s leader qualifications you already exhibit”. Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>34</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>35</b>

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Poster board or paper

When: This is a good activity to do before the lesson.

- With the class: Post a variety of leadership quotes around a room. Have each student stand by one that speaks to them or shows their leadership values.  
Some quote suggestions:
  - "If you think you can do a thing or think you can't do a thing, you're right." Henry Ford
  - "It is better to lead from behind and to put others in front, especially when you celebrate victory when nice things occur. You take the front line when there is danger. Then people will appreciate your leadership." Nelson Mandela
  - "A leader is best when people barely know he exists, when his work is done, his aim fulfilled, they will say: we did it ourselves." Lao Tzu
  - "Leadership is solving problems. The day soldiers stop bringing you their problems is the day you have stopped leading them. They have either lost confidence that you can help or concluded you do not care. Either case is a failure of leadership." Colin Powell
  - "If your actions inspire others to dream more, learn more, do more and become more, you are a leader." John Quincy Adams
  - "When you can't make them see the light, make them feel the heat." Ronald Reagan
  - "Innovation distinguishes between a leader and a follower." Steve Jobs
  - "Speak softly and carry a big stick; you will go far." Theodore Roosevelt
  - "The cautious seldom err." Confucius
- Class question: Have them explain why it is relevant to their lives.

## **Chapter 2 / Section 3: NS1-U2C2S3 – Qualifications for Leadership**

B. Take Home Activity: Have the Cadets Bring in their favorite leadership quote. Have a few of them share and tell what it means to them.

IV. Evaluation - see CPS database for chapter test questions.



## **Unit 2 Chapter 3: NS1U2C3 - Motivation**

### **What Students Will Learn to Do:**

Understand what motivates people and how you can use that understanding to lead them effectively.

### **Skills and Knowledge to be Gained:**

1. Explain the hierarchy of human needs
2. Describe goals and motivation
3. Discuss the key elements of coaching and mentoring
4. Explain how to practice leadership

### **Standards Linked in this Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...
- RI.9-10.8. Delineate and evaluate the argument and specific claims in a text...

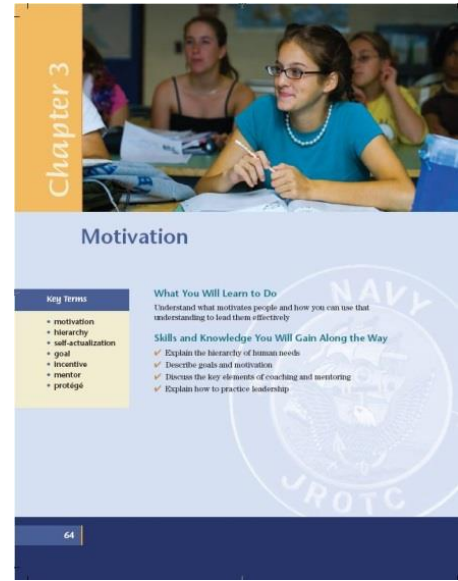
##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions
- SL.9-10.6. Adapt speech to a variety of contexts and tasks...

##### Language

- L.9-10.3. Apply knowledge of language to understand how language functions in different contexts...
- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.



## Chapter 3 / Section 1: NS1-U2C3S1 – Motivation and Human Needs

(Section 1 of 2)

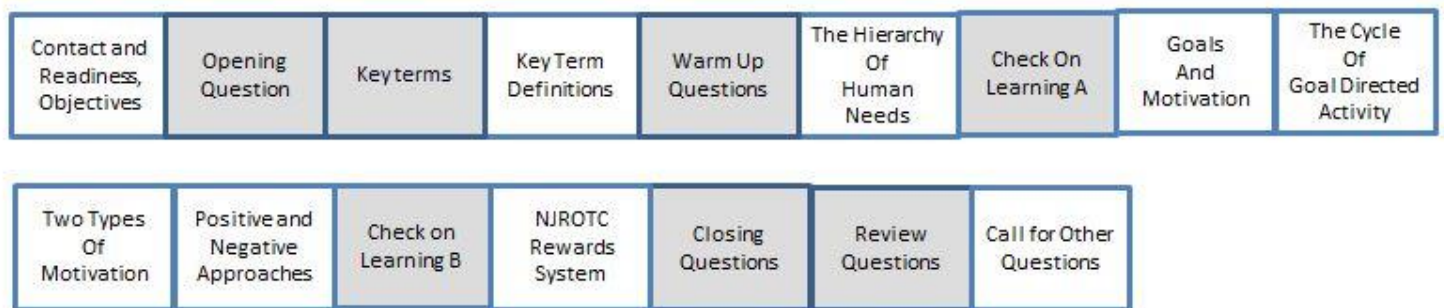
### What Students Will Learn to Do:

Understand what motivates people and how you can use that understanding to lead them effectively.

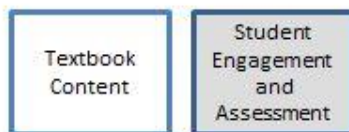
### Skills and Knowledge to be Gained:

1. Explain the hierarchy of human needs
2. Describe goals and motivation

### LESSON FLOW OUTLINE



Key:



### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 2, chapter 3. Place a checkmark beside the NS1-U2C3S1 PowerPoint presentation, and these two CPS question deck files: NS1-U2C3S1 - Key Terms and NS1-U2C3S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 3 / Section 1: NS1-U2C3S1 – Motivation and Human Needs

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>Good leaders must be able to motivate their followers. In this chapter, you will learn the hierarchy of human needs, how to set goals and motivate followers to achieve them, the key elements of coaching and mentoring, and how to practice leadership.</p>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “List 2-3 goals that you want to accomplish in the next six months.” Since this is a discussion question, it can be engaged using the RPS, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on motivation and human needs.</p>	<b>4</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>5</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>6-7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>The Hierarchy of Human Needs</b>	<p>Explain that to be an effective leader, you need a basic understanding of human behavior. Why do people do the things they do? What motivates people to act or to do anything? A simple answer is that human behaviors result from people trying to satisfy their needs.</p> <p>Explain that experts in persuasion tell us that almost everyone ponders—even subconsciously—the question “What’s in it for me?” as they go about their daily business. If you can answer that question for them, you have an important key to influencing and leading others.</p>	<b>9</b>
<b>The Hierarchy of Human Needs</b>	Explain that the very basic needs of people are food, water, and safety. More-complex needs, such as a need for respect and acceptance, are sometimes much more difficult to satisfy.	<b>10</b>
<b>The Hierarchy of Human Needs</b>	Explain that psychologists have long been interested in the ways personality, attitudes, and behaviors affect each other. Researchers who study human behavior have developed a number of theories to explain why people behave the way they do. These theories have two things in common. First, they all deal with both the inside and the outside of the person. Second, they all describe a series of steps, or levels, of human motivation.	<b>11</b>

## Chapter 3 / Section 1: NS1-U2C3S1 – Motivation and Human Needs

<b>The Hierarchy of Human Needs</b>	<p>Explain that in the 1950s, psychologist Abraham Maslow proposed a “hierarchy of human needs” to describe people’s motivations. Maslow’s hierarchy of human needs includes the following levels:</p> <ul style="list-style-type: none"> <li>• physical needs—food, water, shelter</li> <li>• safety and security needs—personal and community security</li> <li>• belonging needs—family, community, group acceptance</li> <li>• esteem needs—friendship and love</li> <li>• self-actualization needs—attainment of potential.</li> </ul>	<b>12-13</b>
<b>The Hierarchy of Human Needs</b>	<p>Explain that this hierarchy moves from the most basic needs, such as food and water, to more-complex needs. Physical needs come first. Emotional and psychological needs, such as the need for love, come later. Maslow believed that people must satisfy their needs at each succeeding level before they can move on to the next.</p> <p>Explain that survival needs are the most basic of all human needs. They include those things that sustain life, such as food, water, sleep, air, and relief from pain. When these needs are met, a person will then turn to security needs. Explain that security needs include protection from threats, violence, disease, or poverty.</p>	<b>14</b>
<b>The Hierarchy of Human Needs</b>	Explain that belonging needs are the need to be liked and accepted by your family, friends, and the members of your community. People need to feel a part of some group or organization.	<b>15</b>
<b>The Hierarchy of Human Needs</b>	Explain that esteem needs are those needs that relate to a person’s desire to feel important. There are two types of esteem needs. One is self-esteem, the feeling within you that you are important; the other is the feeling that other people think you are important.	<b>16-17</b>
<b>The Hierarchy of Human Needs</b>	Explain that self-actualization, or personal fulfillment, is the highest need on Maslow’s hierarchy. Self-actualization is the need to feel that you have reached your full potential in life. Maslow believed that few people reach the point where the need for accomplishment truly becomes their primary motivation. This is because most people spend a majority of their time attempting to satisfy their lower-level needs. For instance, to become a major league baseball pitcher, you first need to have a place to live and regular meals. You must also belong to a team. As difficult as self-actualization may be to achieve, Maslow still believed that the drive to achieve one’s potential was inherent in every human being.	<b>18</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>19</b>
<b>Goals and Motivation</b>	Explain that since people are so different, it’s not surprising that different things often drive them. These things are their purposes—or goals.	<b>20</b>
<b>The Cycle of Goal Directed Activity</b>	How do your goals relate to your motivation and behavior? Your motive helps you form a goal. You then choose a behavior that is directed toward that goal. If it all works, you meet your goal.	<b>21</b>
<b>Two Types of Motivation</b>	<p>Explain that researchers divide motivation into two main types: internal (intrinsic) and external (extrinsic).</p> <p>Explain that the desire to get good grades is an example of intrinsic motivation. Intrinsic motivation is a drive people feel that is based on internal factors such as the need for friendship, affiliation, achievement, power, wisdom, and security. Intrinsic motivation originates from within. The things that motivate you from within are your</p>	<b>22</b>

## Chapter 3 / Section 1: NS1-U2C3S1 – Motivation and Human Needs

	<p>goals, needs, desires, beliefs, and attitudes—in other words, your personality.</p> <p>Explain that your teacher’s offer of an extra-credit project might be an example of an extrinsic motivation. Extrinsic motivation is a force that drives people to act that is based on factors outside the individual. Extrinsic motivations are beyond your control, but they still have an influence on you. In other words, it’s the teacher’s choice to suggest an extra credit project, but it’s up to you to decide whether to do it or not.</p>	
<b>Two Types of Motivation</b>	<p>Explain that sometimes you can have both internal and external motivation for something.</p> <p>Explain that the difference between these types of motivation can get fuzzy. In fact, one motivation theory proposes that all motivation is intrinsic. Other theories hold that you can use external factors, or incentives, to motivate by linking them to people’s intrinsic motivations.</p>	<b>23</b>
<b>Positive and Negative Approaches</b>	<p>Explain that as you can see, many factors can motivate an individual to perform better on the job. These same factors can motivate people to act as their leader wishes them to act. The job of every leader is to motivate people to accomplish their tasks—jobs, details, projects, missions. Just remember that not everyone is motivated by the same thing. Good pay may be important to some people, while others may place higher priority on doing work that is important or interesting. Still others find self-improvement to be their motivating factor. The idea is that people are most often motivated individually rather than as a group. If someone is not performing well, the effective leader will try to determine which of the person’s needs is not satisfied and then determine what will motivate that person to do a better job. This is the positive approach to good leadership.</p>	<b>24</b>
<b>Positive and Negative Approaches</b>	<p>Explain that a negative approach to motivation is punishment or disciplinary action. Military discipline is neither personal nor vindictive; it is not revenge for misconduct. The value of disciplinary action is that it teaches the offender—and others—that the behavior in question is unacceptable. This is often called the deterrent theory of discipline. The response must be consistent, just, and recognized as such by all parties. Most important, everyone must understand that disciplinary action is the result of the offender’s behavior and is the responsibility of the offender—not of the leader who must take the appropriate action.</p>	<b>25-26</b>
<b>Check on Learning Questions A (Lesson questions 5-6)</b>	<p>Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.</p>	<b>27</b>
<b>The NJROTC Rewards System</b>	<p>Explain that another approach to motivation is a consistent, fair system of rewards for actions or desirable behaviors. Your own NJROTC unit has a well-designed system of rewards, such as ribbons and medals for individual or group achievement. Each unit establishes criteria for these awards, in addition to the criteria prescribed by the NJROTC field manual.</p>	<b>28</b>
<b>The NJROTC Rewards System</b>	<p>Explain that another reward system is promotion. Cadets who demonstrate outstanding aptitude and leadership ability and who express a desire for increased responsibility are promoted to higher rank and assigned more-responsible positions in the unit. Some units give special awards for achievement, such as Cadet of the Month, special privileges for service to the unit, attendance awards, or honors for academic achievement. All of these are designed to motivate you and your NJROTC peers to achieve.</p>	<b>29-30</b>

## Chapter 3 / Section 1: NS1-U2C3S1 – Motivation and Human Needs

<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>31</b>
<b>Review Question</b>	The Review Question is “Describe the deterrent theory of discipline.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>32</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>33</b>

### III. Supplemental Activities -

#### A. In class Activity: Motivation and Human Needs

Supplies required: White board.

When: This is a good activity to do before the lesson. If you have time, at the end of class return to the generated list and ask if there are any changes and why?

- With the class: Ask each person to give you something that motivates them to complete a task. Make a list for the class to review.

\* If you have a MOBI and are familiar with it, this is a great opportunity to use MOBI and workspace.

- Class question: Which motivations are internal and which one are placed on you? Are some motivators more powerful than others, why?

#### B. Homework Activity: Copy and distribute the handout – Hierarchy of Human Needs.

Today we discussed Maslow's Hierarchy of Human Needs. Tonight evaluate which level of the pyramid of needs are being met on a daily basis. Write down where do you spend most of your time on the pyramid? Where do you think your parents or guardian spend most of their time on the pyramid? Give detail to support your answers.

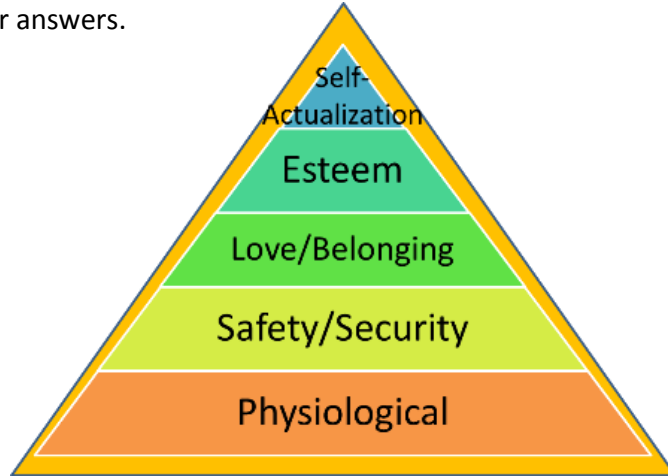
### IV. Evaluation - see CPS database for chapter test questions.

## Chapter 3 / Section 1: NS1-U2C3S1 – Motivation and Human Needs

### Activity1: Take Home Activity – Hierarchy of Human Needs

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Today we discussed Maslow's Hierarchy of Human Needs. Tonight evaluate which level of the pyramid of needs are being met on a daily basis. Write down where do you spend most of your time on the pyramid? Where do you think your parents or guardian spend most of their time on the pyramid? Give detail to support your answers.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## **Chapter 3 / Section 2: NS1-U2C3S2 – Coaching and Mentoring**

(Section 2 of 2)

### **What Students Will Learn to Do:**

Understand what motivates people and how you can use that understanding to lead them effectively.

### **Skills and Knowledge to be Gained:**

1. Discuss the key elements of coaching and mentoring
2. Explain how to practice leadership

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Opening Question	Keyterms	Key Term Definitions	Warm Up Questions	Key Elements of Coaching and Mentoring	Understanding the Mentor's Role	The Role of a Mentor	Check On Learning A
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Barriers to Mentor/Protégé Relationships	What makes a Successful Relationship	Check on Learning B	How to Practice Leadership	Lead By Example	Lead By Imitation	Lead By Consensus	Evaluate Your Leadership	Conclusion
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Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 2, chapter 3. Place a checkmark beside the NS1-U2C3S2 PowerPoint presentation, and these two CPS question deck files: NS1-U2C3S2 - Key Terms and NS1-U2C3S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.



## Chapter 3 / Section 2: NS1-U2C3S2 – Coaching and Mentoring

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>Good leaders must be able to motivate their followers. In this chapter, you will learn the hierarchy of human needs, how to set goals and motivate followers to achieve them, the key elements of coaching and mentoring, and how to practice leadership.</p>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “List 2-3 people in your life that have been good coaches or mentors to you. What did they teach you?” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on coaching and mentoring.</p>	<b>4</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>5</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>Key Elements of Coaching and Mentoring</b>	Explain that at some point in NJROTC or later in life, you may find yourself serving as a coach or mentor—helping others develop their individual talents and skills. A coach helps people grow and improve their competence by providing suggestions and encouragement. A mentor focuses on external and internal factors that will help people develop into healthy, caring, and responsible leaders.	<b>8</b>
<b>Key Elements of Coaching and Mentoring</b>	Explain that a primary role of a mentor is to be a listening ear, a trusted confidant, and an adviser. A person who’s lucky enough to have a mentor is called a protégé. Mentors realize that it takes time to build trust with their protégés, so they take great care to be patient. They take a gradual approach to developing the relationship.	<b>9</b>
<b>Understanding the Mentor’s Role</b>	Explain that as a mentor, you try to put yourself in your protégé’s shoes—to understand the world from his or her perspective. That requires putting aside preconceived ideas and being nonjudgmental. A mentor does not impose his or her own values on a protégé, but rather encourages the protégé to discover his or her own values. Sometimes the mentor will realize that he/she is not the best person to help, and suggest another person as a resource.	<b>10</b>

## Chapter 3 / Section 2: NS1-U2C3S2 – Coaching and Mentoring

<b>The Role of a Mentor</b>	<p>Explain that there are “Do’s” and “Don’ts” for a mentor.</p> <p>Do-</p> <ul style="list-style-type: none"> <li>• Act as a trusted adviser</li> <li>• clearing house for questions, problems, and leadership-related issues</li> <li>• sounding board for decision making and problem solving</li> <li>• leadership role model</li> <li>• resource provider</li> <li>• patient, caring, listening guide</li> </ul> <p>Don’t</p> <ul style="list-style-type: none"> <li>• “police” the protégé’s day</li> <li>• criticize or lecture the protégé</li> <li>• make decisions for the protégé</li> <li>• try to transform the protégé</li> <li>• be judgmental</li> <li>• try to “fix” the protégé, the protégé’s problems, and the protégé’s environment</li> </ul>	<b>11</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	<p>Check in on student’s understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.</p>	<b>12</b>
<b>Barriers to Mentor-Protégé Relationships</b>	<p>Explain that good mentors remain aware of the purpose of the mentor–protégé relationship. They know that their role is to advise, rather than to change or reform, the protégé. They know the potential, as well as the limits, of their role.</p> <p>Explain that in some cases, a well-meaning mentor may push too hard and too quickly on a protégé’s problems and issues. That makes the protégé feel ill at ease. The protégé should feel totally comfortable with the mentor. A good mentor will not press the protégé to talk about issues before he or she is ready.</p> <p>Explain that some mentors fail because they focus on their own agendas and not on the protégé’s needs. As a good mentor, you set the agenda for the relationship with the protégé, not for the protégé.</p>	<b>13</b>
<b>What Makes a Mentor-Protégé Relationship Successful</b>	<p>Explain that the key to an effective mentor–protégé relationship is creating trust between the two people. People volunteer to be mentors because they want to help their protégés develop their leadership skills. Without mutual trust, a mentor can never truly help a protégé. Building trust requires time and is not always easy. It requires ongoing and open communication.</p> <p>Explain that an important way for the mentor to build trust is through active listening. Active listening is two-way communication. You pay full attention and think about what people say, asking questions if you don’t understand. Active listening actually requires active seeing, too. That’s because sometimes people talk even when they’re not saying anything. You must be patient and “read” people—their motions, their faces, their eyes, and their body language.</p>	<b>14</b>
<b>What Makes a Mentor-Protégé Relationship Successful</b>	<p>Explain that active listening skills include avoiding distraction, making good eye contact, and letting the other person speak. Active listeners listen for both fact and feelings. They interpret body language effectively and acknowledge what’s said. They ask good questions and smile appropriately.</p>	<b>15</b>

## Chapter 3 / Section 2: NS1-U2C3S2 – Coaching and Mentoring

<b>Check on Learning Questions A (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>16</b>
<b>How to Practice Leadership</b>	Explain that you can practice leadership every day and in many situations, whether you are the commanding officer, a platoon commander, or a cadet in ranks. You can volunteer to serve on a committee at school, in your place of worship, or in a civic organization. You can find ways to help school officials, teachers, coaches, and fellow students. Besides those found in NJROTC, leadership opportunities abound in school clubs, Boy Scout and Girl Scout troops, Boys and Girls Clubs—and even at home, where you can take the lead in helping with household chores and responsibilities.	<b>17</b>
<b>Lead by Example</b>	<p>Explain that the best way to lead is to set a good example for others. Live the Navy Core Values. Practice the leadership traits and characteristics you have learned. Be a good follower, and support the people who are leading you. Be faithful to your religious values or philosophy of life. Always do what is right.</p> <p>Explain that the more you lead, the better leader you will become. If you continually seek out and take on opportunities to lead, your confidence in yourself and your abilities will grow. Moreover, other people—teachers, supervisors, and other adults, as well as your followers—will gain confidence in you.</p> <p>Explain that this effect will 'snowball'. People will regard you as a leader and will seek your advice.</p>	<b>18</b>
<b>Lead by Imitation</b>	<p>Explain that as an NJROTC leader in training, you wear two hats. In some situations, you can serve as an example for others. But you can also continue to imitate leadership behaviors you admire in others. Watch and study other leaders carefully. Then copy their successful actions and behaviors. Put into practice what you learn.</p> <p>Explain that you should try to be like successful leaders and to lead as they do, but don't forget your own leadership style. Don't try to copy something that doesn't feel comfortable to you. Although all successful leaders share certain traits, each leader expresses them in his or her own way.</p>	<b>19</b>
<b>Lead by Consensus</b>	<p>Explain that as you gain experience in leadership, you'll become more comfortable in leading by consensus. You'll relax and be willing to let your followers help you lead. Your followers will be flattered that you've asked for their input, and their productivity and interest will increase.</p> <p>Explain that the best leaders don't work too hard at trying to keep control. They establish their authority, define the mission, and then let their followers do their assigned jobs. They intervene only when asked or if they see the project or mission going off course.</p> <p>Explain that leading by consensus means sharing the leadership load. It gets team members to cooperate and pull their weight. The entire team benefits—including the leader.</p>	<b>20</b>

## Chapter 3 / Section 2: NS1-U2C3S2 – Coaching and Mentoring

<b>Evaluate Your Leadership Behavior</b>	<p>How do you know if you're an effective leader? You have to evaluate your leadership skills. These techniques can help evaluate whether you are leading effectively or not.</p> <p>Explain that first, you should seek input and feedback from your own leader, other leaders, or the adults around you. Ask your parents or guardian, teachers, coaches, boss, counselor, unit leader, and other adults how you can improve your approach to leadership.</p> <p>Explain that second, you should talk with your team members and ask them for feedback, too. Try to get honest and critical information on how you can improve your style to better fit the needs of the group.</p> <p>Explain that you should continue to learn from your efforts. Use your successes as a basis for refining your leadership techniques. Use your mistakes and failures as a means for addressing larger areas for improvement.</p> <p>Explain that you should finally, have a conversation with yourself. Think about your leadership experiences—what seems to work and what doesn't. Evaluate your leadership in light of your team's goals: How far along is the team to achieving its goals? What obstacles stand in the way? What can you do to help the team overcome these obstacles? Is your leadership style one of the obstacles?</p>	<b>21</b>
<b>Conclusion</b>	<p>Explain that you can motivate individuals to act according to your insights, plans, and objectives if you are aware of your followers' needs. Knowledge of motivational techniques is a key for the successful leader. Good leadership does not rely on a simple system of rewards and punishment—it takes into careful account how your team members are performing, how their needs are being met, and how you can motivate them to do even better.</p>	<b>22</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	<p>Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.</p>	<b>23</b>
<b>Review Question</b>	<p>The Review Question is "List 2-3 SPECIFIC things you could do TODAY to practice active listening." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.</p>	<b>24</b>
<b>Call for Other Questions</b>	<p>Provide the opportunity for students to ask final questions regarding the content covered.</p>	<b>25</b>

## **Chapter 3 / Section 2: NS1-U2C3S2 – Coaching and Mentoring**

### **III. Supplemental Activities -**

#### **A. In class Activity: push-up contest.**

Supplies required: 3x5 cards or paper

When: This is a good activity to do at the beginning of class.

Tell the class you are going to have a push-up contest and have the class divide into pairs. Have each pair ask each other how many push-ups they can do. Now tell the group there are some additional instructions but only one from each group will receive the instructions. Hand one person from each group a card with the additional instructions. When everyone is ready have them begin. Each card should have instructions that are either coaching or mentoring technique or trait (positive or negative) such as:

- Only complement the other person on items such as good form or their progress
- Only give negative response, only tell them what they are doing wrong i.e. not far enough, not staying straight...
- Push the other person to keep going, beat the rest of the class, get your best score...
- Recommend techniques that can be used to do more push ups

When all the pairs have stopped, ask the pairs if they had a coach or a mentor and why. Did the other person help them to meet their stated goal of pushups?

#### **B. Homework Activity: Have the student fill out the Handout: Mentoring or Coaching.**

### **IV. Evaluation - see CPS database for chapter test questions.**

## **Chapter 3 / Section 2: NS1-U2C3S2 – Coaching and Mentoring**

### Activity 1: Take Home Activity – Mentoring or Coaching

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

The following is a list of different characteristics, which of these characteristics or traits belong with being a mentor or being a coach? Some of the traits belong to both. Cross out the traits that belong to neither and circle M if the trait is associated with mentoring and C if it is associated with coaching. At the bottom, give three examples of your own characteristics following the same instructions.

M	Provide suggestions and encouragement to help one grow	C
M	Focus on external and internal factors that will help one develop as a leader	C
M	Judgmental	C
M	Act as a trusted advisor	C
M	Be a patient, caring, listening guide	C
M	Provide information when asked	C
M	Fix the problem for them	C
M	Creating trust	C
M	Lead by example	C
M	Give recommendations on methods for solving a problem	C
M	Act as a leadership model	C
M	Suggest a different way to look at a problem	C
M	Complement them	C
M	Active listening	C
M		C
M		C
M		C

## Unit 2 Chapter 4: NS1-U2C4 - Relationships

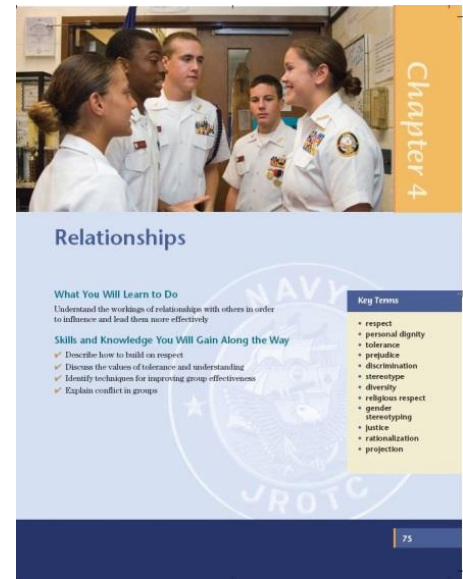
### What Students Will Learn to Do:

Understand the workings of relationships with others in order to influence and lead them more effectively

### Skills and Knowledge to be Gained:

1. Describe how to build on respect
2. Discuss the values of tolerance and understanding
3. Identify techniques for improving group effectiveness
4. Explain conflict in groups

### Standards Linked in This Chapter:



### **Common Core – English Language Arts 9-10\***

#### Reading: Informational Text

- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...
- RI.9-10.7. Analyze various accounts of a subject told in different mediums...
- RI.9-10.9. Analyze seminal U.S. documents of historical and literary significance...

#### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...

#### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

#### Language

- L.9-10.3. Apply knowledge of language to understand how language functions in different contexts...
- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...
- L.9-10.6. Acquire and use accurately general academic and domain-specific words and phrases...

### **National Health Education Standards (NHES) 9-12\*\***

- NHES Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

## **Unit 2 Chapter 4: NS1-U2C4 - Relationships**

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor's Guide.



## **Chapter 4 / Section 1: NS1-U2C4S1 – Relationships and Respect**

(Section 1 of 2)

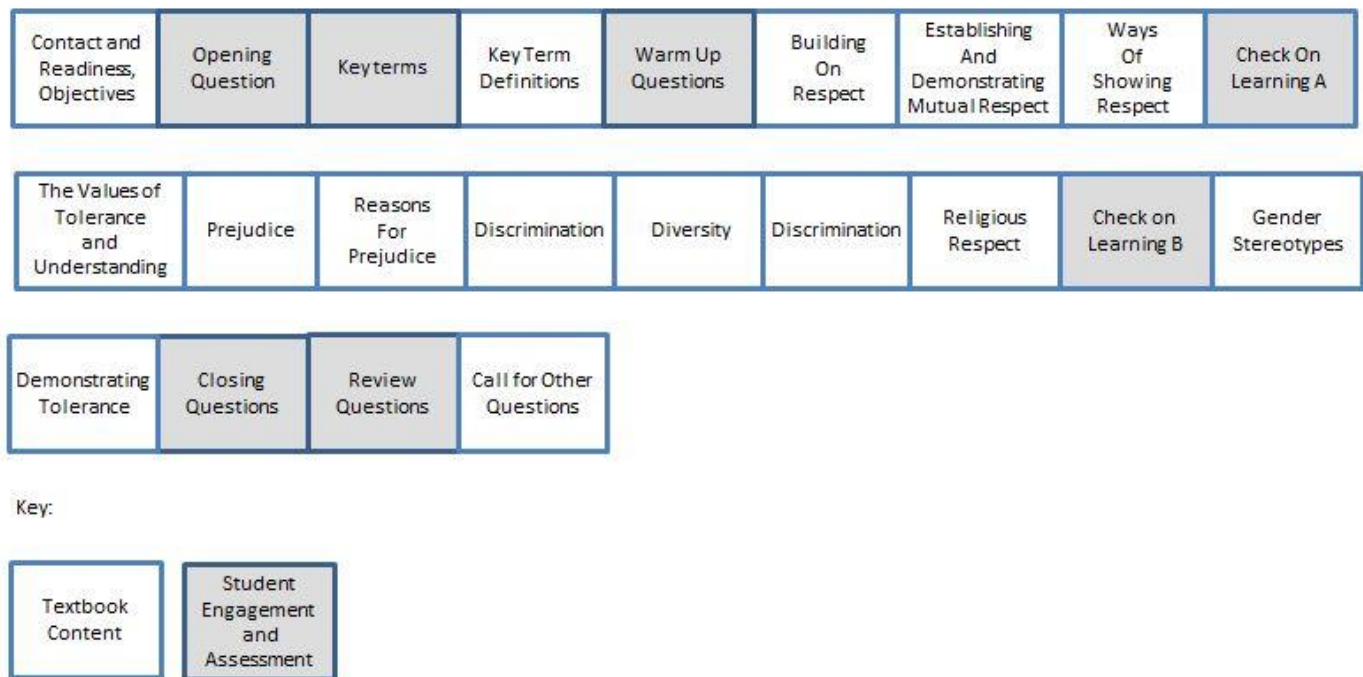
### **What Students Will Learn to Do:**

Understand the workings of relationships with others in order to influence and lead them more effectively

### **Skills and Knowledge to be Gained:**

1. Describe how to build on respect
2. Discuss the values of tolerance and understanding

### **LESSON FLOW OUTLINE**



### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 2, chapter 4. Place a checkmark beside the NS1-U2C4S1 PowerPoint presentation, and these two CPS question deck files: NS1-U2C4S1 - Key Terms and NS1-U2C4S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## **Chapter 4 / Section 1: NS1-U2C4S1 – Relationships and Respect**

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>This chapter will teach you how to build the relationships vital for effective leadership. You will learn that those relationships are built on respect and the values of tolerance and understanding. You will also learn techniques for improving group effectiveness and how to manage conflict within a group.</p>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 examples of societies or groups in which a lack of mutual respect led to disaster.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on relationships and respect.	<b>4</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>5</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>6-8</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>9</b>
<b>Building on Respect</b>	<p>Explain that respect for others is the foundation of our civilized culture. If you own a dog, you keep it off your neighbor’s lawn out of respect for their privacy and property. If you are in a library, you don’t talk loudly out of respect for others’ right to work quietly.</p> <p>Explain that respect means accepting differences—tolerating and valuing other people and their customs, culture, attitudes, and beliefs.</p>	<b>10</b>
<b>Establishing and Demonstrating Mutual Respect</b>	You may have heard some people say that “respect is earned.” This is true in many ways. You do earn other people’s respect on the basis of your words and deeds. To be effective, a leader must earn respect from the members of his or her group.	<b>11</b>
<b>Establishing and Demonstrating Mutual Respect</b>	Explain that on the other hand, Americans believe that every human being has basic, inherent value and rights. The Founding Fathers stated this concept in the Declaration of Independence when they wrote, “We hold these truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the Pursuit of Happiness.” This means that people don’t need to “earn” these things. They are born with them	<b>12</b>

## Chapter 4 / Section 1: NS1-U2C4S1 – Relationships and Respect

	and cannot justly be deprived of them. As a citizen, you must respect the rights of others and acknowledge their value as human beings and as citizens. They must do likewise for you.	
<b>Establishing and Demonstrating Mutual Respect</b>	<p>Explain that, in other words, respect must be returned; it must be mutual. Mutual respect is the two-way relationship that develops between people or members of groups after the lines of communication are open and trust develops.</p> <p>Explain that mutual respect is what makes all relationships run smoothly—between friends, student and teacher, parent and child, husband and wife, employee and supervisor, or police officer and citizen.</p>	<b>13</b>
<b>Establishing and Demonstrating Mutual Respect</b>	<p>Explain that people develop respect for others when they feel that others respect their personal dignity.</p> <p>Explain that personal dignity is closely linked to a person’s self-worth. A lack of respect breaks down personal dignity. Such a breakdown can lead to a number of negative social behaviors including crime, substance abuse, child neglect, family disruption, political discontent—even suicide.</p>	<b>14</b>
<b>Establishing and Demonstrating Mutual Respect</b>	So you can see that respect is a powerful force. A society cannot function if its members do not establish and practice mutual respect. Can you think of any examples of societies or groups in which a lack of mutual respect led to upheaval or disaster?	<b>15</b>
<b>Ways of Showing Respect</b>	<p>Explain that showing respect is universal: it is something you can do on both a personal and professional level. On the personal level, one of the easiest ways to show respect is simply to be courteous. In other words, use your manners. Say:</p> <ul style="list-style-type: none"> <li>• “Please” when you ask for something</li> <li>• “Thank you” when you receive something</li> <li>• “Excuse me” if you accidentally bump into someone</li> <li>• “Yes (or no) sir” or “Yes (or no) ma’am” to adults</li> <li>• “Good morning” or “Good afternoon,” especially to people older than you are.</li> </ul>	<b>16-17</b>
<b>Ways of Showing Respect</b>	<p>Explain that other examples of personal respect include:</p> <ul style="list-style-type: none"> <li>• Holding the door for an elderly person or a child</li> <li>• Standing when an older person enters the room</li> <li>• Not interrupting people</li> <li>• Not using a cell phone while you’re conversing with someone face-to-face</li> <li>• Not chewing gum or eating loudly while conversing with someone</li> <li>• Taking off your hat or cap when you’re indoors</li> <li>• Taking off a glove before you shake someone’s hand</li> <li>• Removing your sunglasses before speaking to someone.</li> </ul>	<b>18</b>
<b>Ways of Showing Respect</b>	<p>Explain that you show respect on a professional as well as personal basis by:</p> <ul style="list-style-type: none"> <li>• Dealing with people in a cooperative way</li> <li>• Communicating clearly</li> <li>• Listening actively</li> <li>• Giving constructive feedback</li> <li>• Being flexible</li> <li>• Creating opportunities to teach and learn</li> <li>• Sharing behaviors and feelings</li> <li>• Viewing situations as win-win scenarios</li> </ul>	<b>19</b>

## Chapter 4 / Section 1: NS1-U2C4S1 – Relationships and Respect

	<ul style="list-style-type: none"> <li>Using inclusive language (for example, saying “we” rather than “you” or “they”.)</li> </ul>	
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>20</b>
<b>The Values of Tolerance and Understanding</b>	<p>Explain that tolerance means understanding and standing up for people’s differences and helping ensure that everyone receives equal treatment.</p> <p>Explain that you might say tolerance and mutual respect are like a two-way street. The traffic moves both ways: You show tolerance for others and they show tolerance for you.</p> <p>Explain that you might encounter barriers on this street just like you come up against barriers when you’re driving somewhere to meet a friend. Among these barriers are prejudice, discrimination, and a failure to value diversity.</p>	<b>21-22</b>
<b>Prejudice</b>	Explain that prejudice can lead you to make blanket or general assumptions about an entire group of people rather than looking at them as individuals. For example, suppose someone said to you, “Athletes are stupid.” How would you respond? You could roll your eyes and nod, as if in agreement. However, if overcoming prejudice were your goal, you’d respond very differently. You’d need to think logically. You’d have to ask yourself a series of questions	<b>23</b>
<b>Reasons for Prejudice</b>	<p>Explain that people aren’t born with prejudice any more than they are born with the ability to read. Prejudice is a learned behavior. You pick it up from the people around you and from the messages society sends.</p> <p>Explain that people develop prejudices for several reasons. One such reason is fear. People may fear people, ideas, and cultures different from their own. Another reason for prejudice is a group’s feelings of superiority toward members of other groups—whether the feelings are racial, ethnic, or religious. There are times when it’s a question of men versus women.</p> <p>Explain that misunderstanding is another source of prejudice. When people of different cultures and languages come together, all kinds of misunderstandings can erupt. An innocent gesture or word in one culture can be an insult in another. For example, in America, putting your feet up on a desk can show that you are feeling relaxed and friendly, whereas in the Middle East, showing someone the bottoms of your shoes is an insult.</p>	<b>24</b>
<b>Reasons for Prejudice</b>	Explain that still another reason is perceptions of history. Perhaps you had a negative experience with a member of another group. You then proceed to blame all members of that group for what one person did in the past. At a broader level, many ethnic and religious groups around the world have a long history of disagreements with each other over land, resources, and political power. They’ve sometimes fought bitter wars with atrocities on both sides. People and groups often remember the wrongs done to them far better than they remember the wrongs they’ve done to others.	<b>25</b>
<b>Discrimination</b>	<p>Explain that one danger of prejudice is that it leads to discrimination. Discrimination is prejudice in action.</p> <p>Explain that discrimination is often based on perceived traits such as skin color, gender, or age. But the possibilities are endless. There are overweight people, for example, claim to be victims of discrimination. Left-handed people say they</p>	<b>26</b>

## Chapter 4 / Section 1: NS1-U2C4S1 – Relationships and Respect

	experience discrimination in a right-handed world. What counts are the feelings of the person being discriminated against—and your efforts to treat that individual no differently than you treat anyone else.	
<b>Discrimination</b>	<p>Explain that if someone compliments you on your new winter coat and says you have “discriminating taste,” that’s a good thing. It means that you tend to seek out the quality things in life. But if someone says you’re “discriminatory” in your attitudes, watch out. You may be picking your friends on the basis of something other than their character, actions, or personalities. You might be judging people on the basis of stereotypes.</p> <p>Explain that a stereotype can be negative or positive. It’s a picture you carry around in your head about a thing or person, without ever questioning its validity.</p>	<b>27</b>
<b>Diversity</b>	<p>Explain that when someone says that American society values diversity, that means Americans encourage variety and live in a society that respects differences among people.</p> <p>Explain that since the movement to give women the vote in the early 20th century and the civil rights movement of the 1950s and 1960s, America has made progress in granting equal rights to all its citizens. This social and legal progress has allowed Americans today to better exercise their right to vote and to have equal access to education and jobs, among other things. They practice this freedom regardless of their gender, age, race, ethnicity, national origin, religion, family status, sexual preference, or physical ability.</p>	<b>28</b>
<b>Diversity</b>	Explain that the struggle for mutual respect, however, is not a battle that has been won. The United States, like all modern countries, is still working to become a more tolerant and open society.	<b>29</b>
<b>Religious Respect</b>	Explain that religious intolerance has ignited conflict throughout human history, from the persecution of Jewish slaves in Egypt to the Crusader wars between Christian and Islamic soldiers during the Middle Ages to the 20th-century conflicts between Protestants and Catholics in Northern Ireland. Religious respect is essential to U.S. society. Overcoming intolerance requires making a conscious effort to respect the beliefs—or non-beliefs—of others. It’s not condoning or condemning, but just respecting others’ rights. Self-discipline and self-control will allow people to avoid religious intolerance.	<b>30</b>
<b>Check on Learning Questions A (Lesson questions 5-6)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>31</b>
<b>Gender Stereotypes</b>	Have you ever heard someone say that boys aren’t supposed to cry? Or that girls are no good in science? If you’re a boy, do people assume you love sports? If you’re a girl, does everyone assume you like to cook? If so, you’re experiencing gender stereotyping.	<b>32</b>
<b>Gender Stereotypes</b>	<p>Explain that gender stereotypes cover more than just the observable physical differences between males and females. They include cultural, social, psychological, and behavioral traits.</p> <p>Explain that gender equality is a complex issue that’s still evolving. The nation’s highest courts continue hearing cases involving gender rights and state legislatures are also debating the issue. As these cases and discussions continue, the United States is working at how to be a just society—a society that practices justice. As a free people,</p>	<b>33</b>

## Chapter 4 / Section 1: NS1-U2C4S1 – Relationships and Respect

	<p>Americans seek “justice for all.”</p> <p>Explain that gender stereotypes have at least two significant problems. The first one is that, like prejudices, gender stereotypes halt the thinking process. They’re a trap. If you fall victim to gender stereotypes, you build your ways of dealing with people on the basis of false assumptions or misleading mental images.</p> <p>Explain that the second problem is that gender stereotypes make clear communication difficult, if not impossible. Without communication, there’s no understanding. With no understanding, there’s no respect.</p>	
<b>Gender Stereotypes</b>	<p>How can you avoid stereotyping people by their gender?</p> <ul style="list-style-type: none"> <li>• Be sensitive to language that might contain gender stereotypes (“you guys,” “you gals,” etc.)</li> <li>• Don’t go with your gut reaction—it may be based on preconceptions</li> <li>• Take time to think</li> <li>• Avoid using hurtful words or expressions</li> <li>• Don’t fall victim to peer pressure</li> <li>• View everyone as an equal.</li> </ul> <p>Explain that just because you avoid stereotypes does not mean that you cannot have your own opinions about gender issues. But in the spirit of mutual respect, you need to be open-minded. Your ideas will naturally develop as you mature. Respect the ideas of adults in your life as well as those of your friends, but don’t feel that you have to go along with everyone on everything 100 percent. Think for yourself.</p>	<b>34</b>
<b>Demonstrating Tolerance</b>	<p>Explain that overcoming prejudice and discrimination begins with each individual. The goal is to see each person not as part of a group or a stereotype, but as an individual. How do you know if you are showing tolerance and understanding towards other people? It’s really very simple. Ask yourself: Am I treating them the way I would want them to treat me?</p> <p>Explain that if you wouldn’t like other people doing that to you, don’t do it to them. That’s the foundation of tolerance and mutual respect.</p>	<b>35</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>36</b>
<b>Review Question</b>	The Review Question is “List two examples of prejudicial situations that you’ve observed in person or in the media.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>37</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>38</b>

## **Chapter 4 / Section 1: NS1-U2C4S1 – Relationships and Respect**

### III. Supplemental Activities -

#### A. In class Activity: Relationships and Respect

Supplies required: Whiteboard or MOBI

When: This is a good activity to do anytime for this lesson

- With the class: What are some stereotypes in school and NJROTC – pick students to answer and record using MOBI or whiteboard

B. Homework Activity: You hear about them in the news, "random acts of kindness." In many cases these "random acts of kindness" are about showing respect for others. Your job tonight is to do three random acts of kindness that show respect for someone.

The next day ask how many students met the task and how did it make them feel? However, don't ask them what they did, the reward should be the act, not telling everyone else what they did. Now that no one in class is going to know what you did, would you do it again?

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 4 / Section 2: NS1-U2C4S2 – Relationships and Groups**

(Section 2 of 2)

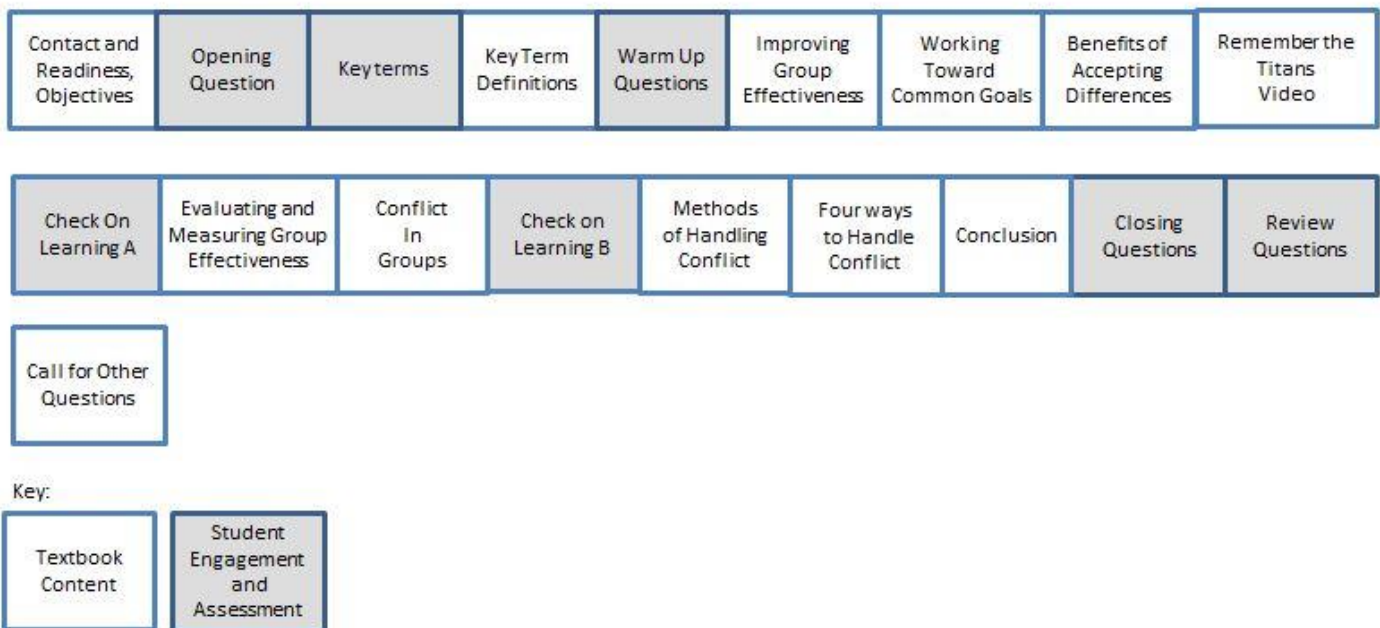
### **What Students Will Learn to Do:**

Understand the workings of relationships with others in order to influence and lead them more effectively

### **Skills and Knowledge to be Gained:**

1. Identify techniques for improving group effectiveness
2. Explain conflict in groups

### **LESSON FLOW OUTLINE**



### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 2, chapter 4. Place a checkmark beside the NS1-U2C4S2 PowerPoint presentation, and these two CPS question deck files: NS1-U2C4S2 - Key Terms and NS1-U2C4S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.



## Chapter 4 / Section 2: NS1-U2C4S2 – Relationships and Groups

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>This chapter will teach you how to build the relationships vital for effective leadership. You will learn that those relationships are built on respect and the values of tolerance and understanding. You will also learn techniques for improving group effectiveness and how to manage conflict within a group.</p>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “Explain what is meant by diversity.” Since this is a discussion question, it can be engaged using the CPS RPS, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on relationships and groups.</p>	<b>4</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>5</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>Improving Group Effectiveness</b>	Explain that establishing mutual respect, being tolerant, and valuing diversity are important for each person on the individual level. But they’re equally important at the group or organizational level.	<b>8</b>
<b>Working Toward Common Goals</b>	<p>Did you ever push two bar magnets around on a tabletop? What happened as you brought them closer together? Either the magnets flipped away from each other the closer you placed them, or they snapped together, forming a bond.</p> <p>Explain that all magnets are polarized—they have a south pole and a north pole. One pole is positive, and the other is negative. If you bring two positive or two negative poles together, the magnets repel each other. If you put a negative and a positive pole close to each other, the magnets attract each other.</p>	<b>9-10</b>
<b>Working Toward Common Goals</b>	Explain that you can compare members of a team or group with magnets. If group members can’t communicate clearly and see a common goal, they tend to lack trust and respect for each other. Nothing productive will happen. They don’t come together and bond. But when group or team members have a clearly defined, common goal and are able to communicate about their plan of action to achieve that goal, they come together. They bond. They’re ready to produce results.	<b>11</b>

## Chapter 4 / Section 2: NS1-U2C4S2 – Relationships and Groups

<b>Benefits of Accepting Differences</b>	<p>Explain that as hard as they try, people often find it difficult to accept other people's differences. Whether they fail to understand the tenets of a religion, the political view of a certain party, or the issues that are relevant to a certain ethnicity or gender, some lack of perspective or other intangible factor seems to put people at odds with each other.</p> <p>Explain that if a group or team is to function effectively, its members must work consciously to accept each other's differences. It may take a concerted effort, but the benefits of accepting other people's differences outweigh the drag that prejudicial thinking puts on team performance.</p>	<b>12</b>
<b>Benefits of Accepting Differences</b>	Explain that the best team is a unified whole. No team can be whole while any of its members holds wrong assumptions, false impressions, and stereotypes about fellow team members.	<b>13</b>
<b>Benefits of Accepting Differences</b>	Explain that communication is key to breaking down the barriers and accepting others' differences. Tapping the talents, ideas, experiences, and ingenuity of a diverse group of people is very productive. A diverse group of people can usually come up with much better solutions than can a group of people who all think the same—but to come up with the best solutions, members must trust and listen to each other. They must not only accept but also value their differences. They must see diversity as a strength.	<b>14</b>
<b>Remember the Titans</b>	Show "Remember the Titans" video	<b>15</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>16</b>
<b>Evaluating and Measuring Group Effectiveness</b>	Explain that how do you tell if your group or team is working effectively? The first step is to establish clear goals. The second is to decide whether the group is meeting those goals. Are team members devoting their efforts to the team's task, or wasting them arguing among themselves over issues that have little or nothing to do with it? Figuring this out can be difficult, especially when the team's task isn't completed yet. Nevertheless, constantly seeking a measure of results—or movement toward results—is a necessary part of team-building.	<b>17-19</b>
<b>Evaluating and Measuring Group Effectiveness</b>	<p>Explain the steps toward greater group effectiveness</p> <ul style="list-style-type: none"> <li>• Forgive mistakes quickly</li> <li>• Hold members accountable</li> <li>• Foster trust and commitment</li> <li>• Don't make excuses</li> <li>• Make the hard decisions</li> <li>• Seek concrete answers and solutions</li> <li>• Respect differences</li> <li>• Constantly strive toward mutual respect</li> </ul>	<b>20</b>
<b>Conflict in Groups</b>	Explain that although groups can have any number of conflicts, they all boil down to three basic types: conflicts in perspective; conflicts in purpose; and conflicts in practice.	<b>21</b>
<b>Conflict in Groups</b>	Explain that conflicts in <u>perspective</u> involve what people do and why they do it. They have to do with team members' differing beliefs and values. The student who wants the highest-possible grade point average (GPA) believes that it will help him or her get into a good college. Such a student believes that a college degree is critical for success. A student who wants only a high school diploma, on the other hand, doesn't think college is important. These two students' values are different, and those values will	<b>22</b>

## Chapter 4 / Section 2: NS1-U2C4S2 – Relationships and Groups

	<p>determine how they act and react in a group.</p> <p>Explain that if people try to solve perspective-level conflicts by ignoring or working around them, the conflicts will continue. That's because the participants have not addressed the underlying issues. Nonetheless, such conflicts are difficult, and sometimes impossible, to resolve. At times, people must agree to disagree and work out the best compromise possible.</p>	
<b>Conflict in Groups</b>	<p>Explain that conflicts in <u>purpose</u> involve what people want to achieve. These conflicts arise when members can't accept the team's goals and objectives. For example, one team member might say, "I don't care what grade we receive on this assignment. I just want to get it done." Another member might say, "I want us to put together an A+ presentation so that I will keep the highest GPA possible."</p> <p>Explain that goals are easier to establish and change than team perspective. For this reason, purpose conflicts are usually easier to solve than perspective conflicts are. To deal with conflicts of purpose, the leader should set clear goals before the project begins—with input from team members.</p>	<b>23</b>
<b>Conflict in Groups</b>	<p>Explain that conflicts in <u>practice</u> have to do with the team's processes and procedures. If members can't agree on when the team will meet, where it will meet, or who will lead the meetings, they have conflicts at the practice level.</p> <p>Explain that a leader's best bet in dealing with conflicts of practice is to set up operating procedures before the team begins its work. At the least, the leader can insist that practices and procedures should support the team's objectives.</p>	<b>24</b>
<b>Check on Learning Questions A (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>25</b>
<b>Methods of Handling Conflict</b>	<p>Explain that people react to conflict in a group or team setting in one of two ways: fight or flight.</p> <p>Explain that some people fight when they perceive a conflict. They become aggressive. At their worst, they lash out, explode, argue, and become competitive. At their best, they express their own perspectives, yet continue to work with team members to arrive at a solution.</p> <p>Explain that when faced with conflict, other people will resort to flight. These people are passive. At their worst, they pout, withdraw, passively resist, and avoid working through conflicts at all costs. At their best, they thoughtfully reflect on the issues at hand and offer their ideas to try to resolve them.</p>	<b>26</b>
<b>Methods of Handling Conflict</b>	Explain that most people have developed strategies for handling everyday conflicts. They may retreat. They may detour around the problem—a method that works sometimes, but may become habit-forming. Other situations are more difficult to deal with, however. You can't retreat. You can't pretend that the problem doesn't exist. You can't get around it. You must adjust.	<b>27</b>
<b>Four ways to Handle Conflict</b>	<u>Retreating</u> - Explain that retreating is blocking or moving away from a problem or conflict. People who retreat don't want to confront conflict head on. Some people who retreat simply refuse to defend their point of view. They may give up without even trying. They may try to place the blame on others. In some cases, they may even withdraw from society to try to escape reality. Explain that sometimes retreat is	<b>28</b>

## Chapter 4 / Section 2: NS1-U2C4S2 – Relationships and Groups

	<p>understandable. Loss of a loved one, for example, might cause someone to retreat in fear of future loss, rejection, or loneliness.</p> <p><u>Standing Still</u> - Explain that standing still is avoiding a problem or conflict by using defense mechanisms. Some people prefer to stay in one place rather than to risk defeat or rejection. They include, for example, the student with great potential who takes the easiest course, so that he or she doesn't have to work very hard. The adult who prefers to stand still says, "It was good enough for my parents, and it's good enough for me. Why change now?" Explain that other forms of standing still include such defense mechanisms as rationalization and projection or just daydreaming, forgetting, and regression.</p> <p><u>Detouring</u> - Explain that detouring is moving around, or avoiding, a problem or conflict. People who constantly avoid important issues may think they've dealt with a problem, but the solution is temporary. The problem is bound to arise again. If your friend Mark says, "Suzanne gets good grades because she's the teacher's pet," he's detouring, rather than facing the fact that he doesn't study enough. Explain that compensation is one way of detouring. It involves substituting traits or attributes that give you a more pleasant picture of yourself than your undesirable traits do. A rejected or insecure person may compensate by showing off, being sarcastic, or misbehaving—just to get attention.</p> <p>Explain that in some cases, compensation has favorable results. For example, a guy who doesn't make the varsity basketball team could compensate by becoming a whiz in computer science.</p> <p><u>Encountering</u> - Explain that encountering is the best way to handle problems. Encountering is facing a conflict head-on and reaching a solution. The person who faces problems stands a much better chance of solving them than the person who avoids or ignores them does. You probably find it easy to advise others about how to face their problems, but when it's your own problem, it's a different story.</p>	
<b>Four ways to Handle Conflict</b>	<p>Explain that like everyone else, you face problems and conflicts every day. You interact with others every day. You must compromise—adjust to those around you. To function in society, you must learn to meet, encounter, and resolve those problems and conflicts.</p> <p>Remember that in any conflict only three outcomes are possible:</p> <ol style="list-style-type: none"> <li>1. Win-lose—one side will win and one will lose</li> <li>2. Lose-lose—both sides lose</li> <li>3. Win-win—through communication, compromise, and common sense, most conflicts can be resolved with both sides winning.</li> </ol>	<b>29</b>
<b>Conclusion</b>	<p>Explain that building positive relationships with others is one of a leader's most challenging tasks. Understanding yourself in terms of your emotions, attitudes, and prejudices is the first step. Good leaders set goals and measure their team's progress in meeting them. They understand the types of conflicts in groups and the ways people handle or avoid those conflicts.</p>	<b>30</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	<p>Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.</p>	<b>31</b>

## Chapter 4 / Section 2: NS1-U2C4S2 – Relationships and Groups

<b>Review Question</b>	The Review Question is “List 2-3 reasons why the story behind T.C. Williams High School is so powerful.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>32</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>33</b>

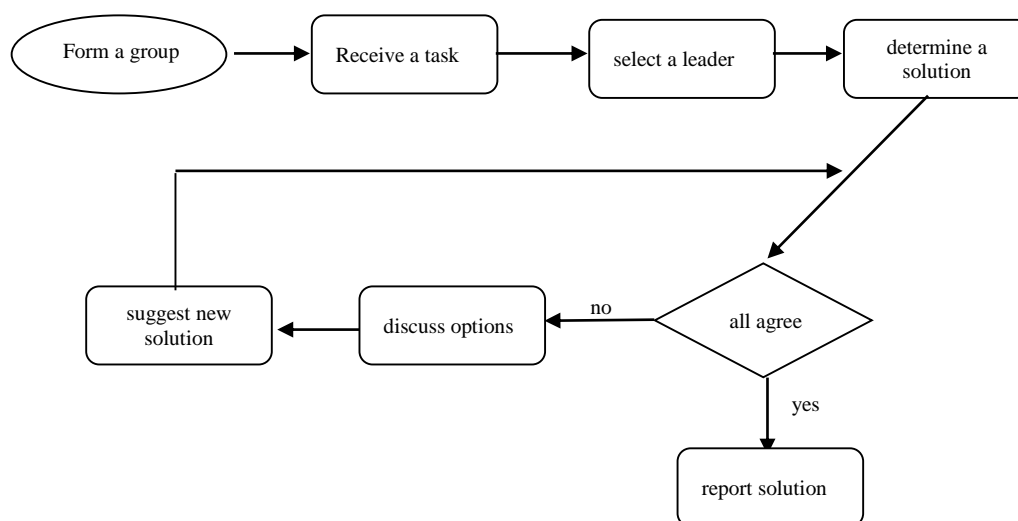
### III. Supplemental Activities -

#### A. In class Activity: Relationships and Groups

Supplies required: Blank sheet of paper

When: This is a good activity to do at the start of class to get the students thinking about many of the terms that will be used in this lesson

- With the class: Have the class draw a flow chart of how they think a group should arrive at a solution to a problem or complete a task.
- A simple example would be:



Additional instructions for the students: You should include at least the following issues to be addressed in your flow chart:

- What do you do if a person misses a meeting?
- What if the group cannot reach an agreement?
- What if your boss does not approve or like the group’s solution?
- If the leader pushed their solution and it was wrong what happens with the group?
- What if members of the group do not like each other?

## **Chapter 4 / Section 2: NS1-U2C4S2 – Relationships and Groups**

B. Homework Activity: Write a short paragraph on a stereotype that you had about NJROTC when you joined. Was the stereotype correct?

IV. Evaluation - see CPS database for chapter test questions.

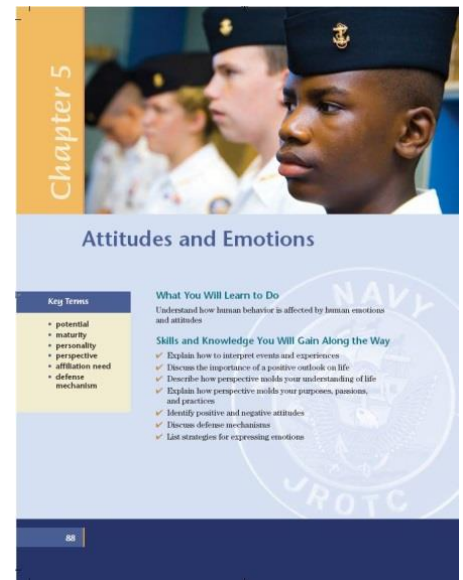
## Unit Chapter 5 : NS1-U2C5 - Attitudes and Emotions

### What Students Will Learn to Do:

Understand how human behavior is affected by human emotions  
And, attitudes

### Skills and Knowledge to be Gained:

1. Explain how to interpret events and experiences
2. Discuss the importance of a positive outlook on life
3. Describe how perspective molds your understanding of life
4. Explain how perspective molds your purposes, passions, and, practices
5. Identify positive and negative attitudes
6. Discuss defense mechanisms
7. List strategies for expressing emotions



### Standards Linked in this Chapter:

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly...
- RI.9-10.2. Determine a central idea of a text and analyze its development over the course of the text...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...
- W.9-10.3. Write narratives to develop real or imagined experiences or events using effective technique...
- W.9-10.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience...

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...
- SL.9-10.4. Present information, findings, and supporting evidence clearly, concisely, and logically...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...
- L.9-10.6. Acquire and use accurately general academic and domain-specific words and phrases...

## **Unit Chapter 5 : NS1-U2C5 - Attitudes and Emotions**

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.



## Chapter 5 / Section 1: NS1-U2C5S1 – Perspective and Attitudes

(Section 1 of 2)

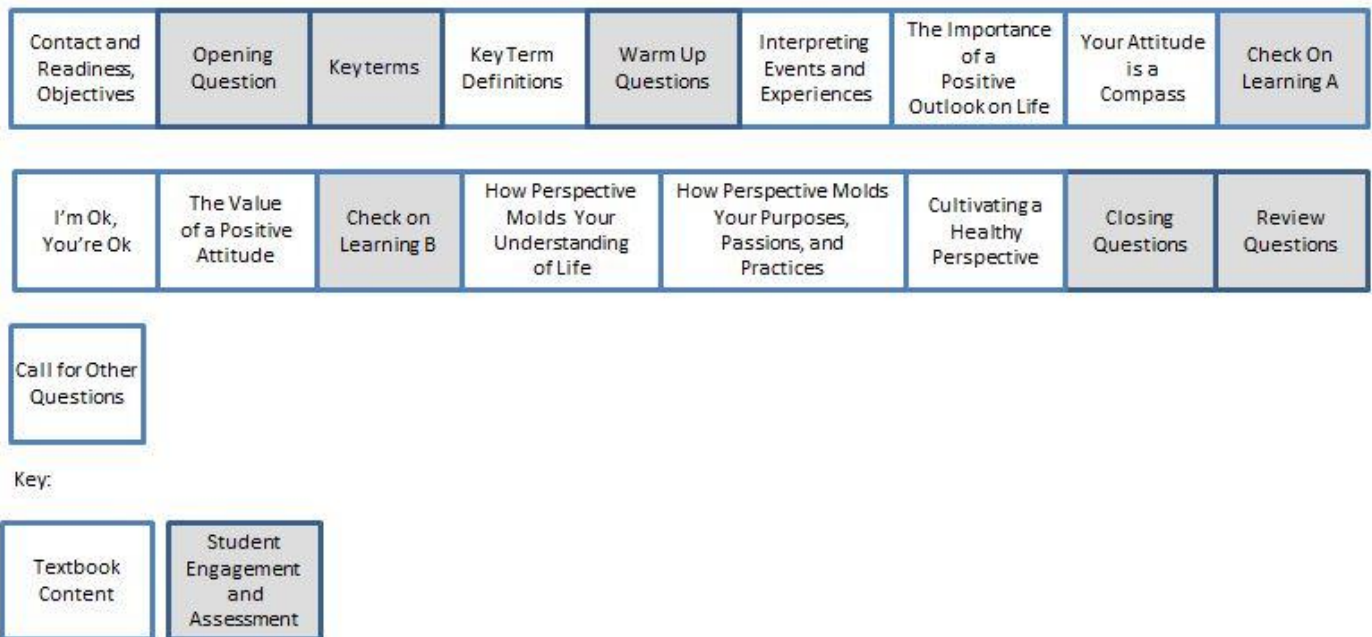
### What Students Will Learn to Do:

Understand how human behavior is affected by human emotions and attitudes

### Skills and Knowledge to be Gained:

1. Explain how to interpret events and experiences
2. Discuss the importance of a positive outlook on life
3. Describe how perspective molds your understanding of life
4. Explain how perspective molds your purposes, passions, and practices

### LESSON FLOW OUTLINE



### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 2, chapter 5. Place a checkmark beside the NS1-U2C5S1 powerpoint presentation, and these two CPS question deck files: NS1-U2C5S1 - Key Terms and NS1-U2C5S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 5 / Section 1: NS1-U2C5S1 – Perspective and Attitudes

### II. Instructional Flow:

Flow Item	Textbook Content / Student Engagement and Assessment	Slides
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this chapter, you will learn how to recognize and express the most effective attitudes and emotions for a leader. You will learn about interpreting events and experiences and how your perspective molds your understanding of life as well as your purposes, passions, and practices. You will learn how your actions reveal your attitudes and how attitudes can be positive or negative. Finally, you will learn about emotional defense mechanisms and strategies for expressing emotions in ways that contribute to your leadership ability.</p>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “Who is the most ‘positive’ person you know. Describe why you chose this person.” Since this is a discussion question, it can be engaged using the RPS, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on perspective and attitudes.</p>	<b>4</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>5</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>6-7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>Interpreting Events and Experiences</b>	Explain that interpreting events and experiences is a big part of maturing to adulthood. Your experience is what happens to you and what happens in the world around you. How you interpret that experience has an enormous influence on your daily life and your future as a leader.	<b>9</b>
<b>Interpreting Events and Experiences</b>	Explain that in history classes and elsewhere, you may have read about how people like President Abraham Lincoln, inventor Thomas Edison, or civil-rights activist Rosa Parks made crucial decisions based on what they believed they were capable of doing. Their early life experiences helped them understand their potential.	<b>10</b>
<b>Interpreting Events and Experiences</b>	Explain that respected people such as retired Army Gen. Colin Powell, U.S. Senator John McCain, and actress Meryl Streep frequently speak today about how experiences early in their lives helped them decide what they wanted to do as an adult.	<b>11</b>

## Chapter 5 / Section 1: NS1-U2C5S1 – Perspective and Attitudes

<b>Interpreting Events and Experiences</b>	Explain that reaching maturity is the process of bringing your personality and experience to bear on your life in a positive, constructive way. Attaining maturity means becoming more aware of your abilities, your goals, and your place in the world. Maturity also means understanding how your attitudes and behaviors influence others.	<b>12</b>
<b>Interpreting Events and Experiences</b>	Explain that an important step in learning how to create an attitude that is best for yourself and others is to understand that attitude and personality are two different things. Experience shapes your personality, which is the foundation of your attitudes and behaviors. An attitude, by contrast, is rooted in your thoughts, feelings, or beliefs. It greatly affects how you view and treat a particular situation. A behavior is an action that others can see you doing based on your personality and your attitude at a given time.	<b>13</b>
<b>Interpreting Events and Experiences</b>	Explain that your experiences act as a rudder as you navigate the course of your life. And just as a skier usually does better the second time he or she skis down a mountain course, you'll learn to make better decisions as you mature. As you mature, you become better able to interpret events and use your experiences to make better decisions about where you want to go, what you want to do, and who you want to be.	<b>14</b>
<b>The Importance of a Positive Outlook</b>	<p><i>"Always look on the bright side of life."</i>  <i>"Let a smile be your umbrella."</i>  <i>"When life gives you lemons, make lemonade!"</i></p> <p>Explain that these everyday phrases emphasize the importance of having a positive outlook on life. But you've also no doubt heard people say, "Carlos has such an attitude," or "Cassandra is copping a real 'tude." Those observations reflect negatively on Carlos and Cassandra. Why? How would their ongoing bad attitudes affect your friendship with Carlos or Cassandra?</p>	<b>15</b>
<b>Your Attitude is a Compass</b>	Remember, your attitude is rooted in your thoughts, feelings, and beliefs. It's your "slant" or "angle" on life. This "slant" determines your outlook and approach to life. It's like a compass—you go in the direction the needle points.	<b>16</b>
<b>Your Attitude is a Compass</b>	Explain that fortunately, your attitude is largely under your control. Attitude is not something you are born with. Some experts say that you can "program" your attitude as you do a computer, by repeatedly thinking and saying positive things about yourself and others. You can change your attitude and mood simply by changing how you think and talk. Psychologists think that's how attitude works. Attitude follows your behavior. If you do positive things, you'll slowly develop a more positive attitude.	<b>17</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>18</b>
<b>I'm OK, You're OK</b>	Explain that in 1969, psychologist Thomas Anthony Harris wrote a book called 'I'm OK, You're OK', which became one of the most successful self-help books ever published. For many readers, Harris' ideas of attitude profiling made sense. The idea that "you are what you think" is very simple, yet it reflects what millions of people have experienced throughout their lives.	<b>19</b>
<b>I'm OK, You're OK</b>	<p>Explain that Harris and his colleagues summarized personality as one of four life positions or attitudes:</p> <ol style="list-style-type: none"> <li>1. I'm not OK, you're OK—disapproving of yourself, approving of others</li> <li>2. I'm not OK, you're not OK—disapproving of both yourself and others</li> <li>3. I'm OK, you're not OK—approving of yourself, disapproving of others</li> </ol>	<b>20</b>

## Chapter 5 / Section 1: NS1-U2C5S1 – Perspective and Attitudes

	4. I'm OK, you're OK—approving of yourself and others.	
<b>I'm OK, You're OK</b>	<p>Explain that according to Harris, most people hold Attitude #1: "I'm not OK, you're OK." These people might lack self-esteem or self-confidence. They feel inferior to other people. Someone with Attitude #2, "I'm not OK, you're not OK," would not tend to "look on the bright side." Such a person would need to do a lot of work to be happy. People with Attitude #3, "I'm OK, you're not OK," might have suffered from abuse or trauma as children, according to Harris, and the effects of that abuse still influence their relationships with other people. Attitude #4, I'm OK, you're OK" is the attitude of a healthy, well-adjusted individual.</p> <p>Explain that Harris believed that no matter how "un-OK" your attitude is to start with, you can change it for the better. Anyone can move to Attitude #4.</p>	<b>21</b>
<b>The Value of a Positive Attitude</b>	<p>Why is a positive attitude important? One good reason is that it increases the chances that others will like you. People enjoy spending time with individuals who express positive attitudes. They tend to avoid individuals with an ongoing negative attitude. Psychologists use the term toxic personalities to refer to people who never have a nice thing to say about anyone or anything. That's not to say you can't occasionally have a bad day or a bad week: Ups and downs are a normal part of life. So if your friend Devon is in a "down" mood from time to time, you try to cheer him up, and he does the same for you.</p>	<b>22-24</b>
<b>The Value of a Positive Attitude</b>	<p>Explain that spending time with someone whose attitude is always negative, however, is not a pleasant experience. This toxic—or poisonous—attitude can rub off on others without their even being aware of it. A toxic attitude can ruin what would otherwise be a fun or rewarding pastime. In other words, hanging out with toxic people can affect your own attitude. So pick your friends wisely. The old saying, "If you lie down with dogs, you'll get up with fleas," points at an important truth: Bad habits, poor behaviors, and negative attitudes can be contagious.</p> <p>Explain that a good attitude is essential for leaders. They know that a positive attitude has a powerful influence. Good leaders know that "throwing out positive vibes" is essential to gaining respect and encouraging others to follow them.</p>	<b>25</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>26</b>
<b>How Perspective Molds Your Understanding of Life</b>	Explain that, like everyone else, you look at things in your particular way. That's what makes you unique—an individual. You see the world in a way that only you can and add a perspective to your community that only you can provide. This diversity of views is one of the things that make human beings so interesting. The ability to share and compare the vast range of experiences has furthered humanity more than any other species on Earth and is the basis for all of modern society.	<b>27</b>
<b>How Perspective Molds Your Understanding of Life</b>	Explain that your perspective is your "take" on the world—your personal worldview. On a deeper level, your perspective includes your insight into people, things, and events. It drives the way you interpret your life experiences. It helps form your attitudes and personality, guiding your behavior and further defining who you are as an individual.	<b>28</b>

## Chapter 5 / Section 1: NS1-U2C5S1 – Perspective and Attitudes

<b>How Perspective Molds Your Understanding of Life</b>	Explain that some of you in this class may be saying, “I’m just in high school, I really don’t have enough experience to have truly unique perspective.” Others of you may be saying, “I know everything I’ll ever need to know and I’ve got the right idea of how things work.” Each of these perspectives is both right and wrong. Your current perspective as a student puts you in a lively and interesting world of discovery that you largely determine for yourself, meaning that in some respects, you really do know how things work for you. On the other hand, you still have many experiences and exciting things to look forward to in the near future such as getting your driver’s license, getting a part-time job, dating, and graduating from high school. On the longer-term perspective, you may look forward to going to college, getting a job, marrying, and raising a family. In the far distant future, you may be looking to retire to a home on the beach or a cabin in the woods. The bottom line is that as you mature, your perspective will broaden and your views on the world will expand. Another way of saying it is that life is like climbing a mountain: the higher you get, the farther you can see.	<b>29</b>
<b>How Perspective Molds Your Understanding of Life</b>	Explain that as you mature and accumulate experience, you’ll probably start thinking more and more about how you formed your unique perspective. Human beings have done this since the beginning of history. In fact, the ancient Greek philosophers thought the yearning for self-understanding was as essential to human life as food and water. They believed that everyone strives toward this knowledge. It’s natural for you to want to understand why you are thinking and doing certain things at your age. In grasping the purpose behind your perspective, you’ll gradually begin to see how a healthy, well-rounded, fair-minded perspective can guide you in your studies, your career, your friendships, your family relationships, and your future.	<b>30</b>
<b>How Perspective Molds Your Purposes, Passions, and Practices</b>	Explain that your perspective drives the purposes you strive toward; your passions, or the things you feel strongly about; and the practices you follow in your life. This means that your perspective will significantly affect your success—in school, at work, in friendships, and in family relationships.	<b>31</b>
<b>How Perspective Molds Your Purposes, Passions, and Practices</b>	Explain that by nature, human beings are social creatures. People want to belong to a group or an organization. They want to have friends—sometimes desperately so. The need to have friends and to belong is particularly strong among teenagers, but old and young people alike seek group acceptance. This natural human characteristic is called an affiliation need.	<b>32</b>
<b>How Perspective Molds Your Purposes, Passions, and Practices</b>	Explain that especially when you’re young, the desire for affiliation can sometimes lead to actions or behaviors that run counter to the influence of your family and teachers. Sometimes peer pressure to do the wrong, unwise, or inappropriate thing is almost irresistible. When you face a choice between going along with the group and sticking with values that your parents or teachers believe are best, you put your perspective to the test. The more you know yourself, and the better you understand what you believe and why, the better you’ll be able to pass that test.	<b>33</b>
<b>Cultivating a Healthy Perspective</b>	Explain that people’s beliefs and desires help shape their perspectives. A belief is a strong and deeply held idea that forms the basis for much of your thinking. It can be religious, social, political, or personal. A desire is something you deeply want for yourself and those close to you. Desires are frequently part of your emotional and psychological motivation.	<b>34</b>

## Chapter 5 / Section 1: NS1-U2C5S1 – Perspective and Attitudes

<b>Cultivating a Healthy Perspective</b>	Explain that developing a healthy perspective requires keeping an open mind and seeing things for what they really are. It also involves recognizing the short-term and long-term effects of mistakes or poor choices.	<b>35</b>
<b>Cultivating a Healthy Perspective</b>	Explain that when you're trying to decide which affiliations are appropriate, focus on the big picture, not the immediate situation. Some affiliations are dead-end streets. They might seem exciting for a moment, but in the long term they might also be counterproductive, or downright dangerous. For example, internet chat rooms, cliques, gangs, or secret clubs aren't a good breeding ground for developing a mature, positive perspective. Similarly, focusing all your attention on violent movies, music, and video games can't be good for your developing worldview.	<b>36</b>
<b>Cultivating a Healthy Perspective</b>	Explain that in the 1985 movie <i>Witness</i> , one character says, "What you take into your hands, you take into your heart." That simple statement points to the direct relationship between your experience—what you see, hear, touch, taste, say, and do—and your ever-widening perspective on life.	<b>37</b>
<b>Cultivating a Healthy Perspective</b>	Explain that people who have made names for themselves in the world—some of whom you probably admire as heroes—expanded their worldview by concentrating on productive purposes, passions, and practices. They set goals, got excited about them, and then worked to achieve them. You can do that, too.	<b>38</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>39</b>
<b>Review Question</b>	The Review Question is "List 2-3 things you learned in this lesson that you did not already know. How could you apply them in your life?" Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>40</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>41</b>

## Chapter 5 / Section 1: NS1-U2C5S1 – Perspective and Attitudes

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Supplied images (man cutting an onion) - Show on screen or overhead

When: This is a good activity to do any time during the lesson. It will give the class a chance to discuss what they see and examine why they see different things

- With the class: Display the first image (NS1-U2C5S1 - Perspective and Attitudes image 1.jpg). Ask the class what they see? Why are they crying? Discuss how each students own perspective and emotions can effect what they perceive. After the class has discussed different possibilities for the man crying present the second image (NS1-U2C5S1 - Perspective and Attitudes image 2.jpg). How many of you thought this was the reason? Did you past life experiences or the discussion with the rest of your class change what you thought it could be?

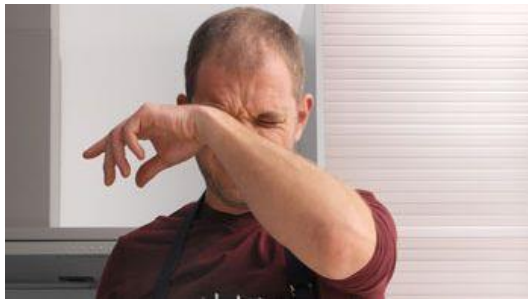


Image 1



Image 2

B. Homework Activity: Who is one of your heroes? Why are they a hero to you? What do they do that makes you want to strive to be more like them? Write a one page essay about your hero. You should include characteristics or behaviors that make them a hero to you. What is it that they do or represent that makes them special and what do you do to be more like them?

### IV. Evaluation - see CPS database for chapter test questions.







## **Chapter 5 / Section 2: NS1-U2C5S2 – Actions, Attitudes, and Emotions**

(Section 2 of 2)

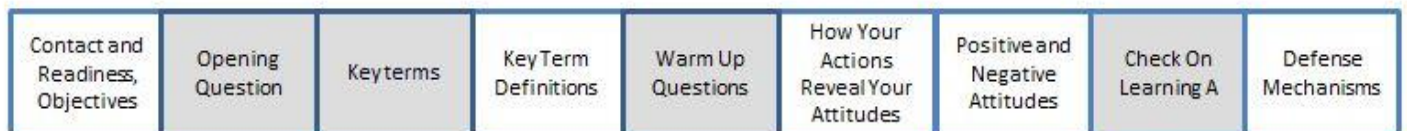
### **What Students Will Learn to Do:**

Understand how human behavior is affected by human emotions and attitudes

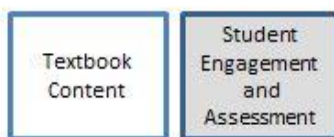
### **Skills and Knowledge to be Gained:**

1. Identify positive and negative attitudes
2. Discuss defense mechanisms
3. List strategies for expressing emotions

### **LESSON FLOW OUTLINE**



Key:



### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 2, chapter 5. Place a checkmark beside the NS1-U2C5S2 PowerPoint presentation, and these two CPS question deck files: NS1-U2C5S2 - Key Terms and NS1-U2C5S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 5 / Section 2: NS1-U2C5S2 – Actions, Attitudes, and Emotions

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this chapter, you will learn how to recognize and express the most effective attitudes and emotions for a leader. You will learn about interpreting events and experiences and how your perspective molds your understanding of life as well as your purposes, passions, and practices. You will learn how your actions reveal your attitudes and how attitudes can be positive or negative. Finally, you will learn about emotional defense mechanisms and strategies for expressing emotions in ways that contribute to your leadership ability.</p>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “Which do you think is more important to have, luck or a good work ethic?” Explain the reason for your answer. Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. The selected student will answer the question orally (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on actions, attitudes and emotions.	<b>4</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>5</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>How Your Actions Reveal Your Attitudes</b>	Explain that you’ve probably heard the expression, “Do as I say, not as I do.” This points out the close—and at times contradictory—relationship between your attitudes (perspectives, purposes, beliefs) and your actions (practices, behaviors).	<b>8</b>
<b>How Your Actions Reveal Your Attitudes</b>	Explain that another familiar saying, “Actions speak louder than words,” also applies here. Ultimately, what you do is what counts, not what you say. Your actions are what set your goals in motion and help you achieve what you want to achieve. Your actions also describe who you are as a person and what values you hold dear. The desire to achieve shows itself in your efforts to make friends, earn good grades, be a part of your family, make the team or band, win awards, and produce results. All these things may be part of how you define success. You direct your actions to achieving these goals.	<b>9</b>

## Chapter 5 / Section 2: NS1-U2C5S2 – Actions, Attitudes, and Emotions

<b>How Your Actions Reveal Your Attitudes</b>	Explain that you can't separate actions from attitudes. Your actions, for better or worse, reveal your attitudes. Showing up late for school, practice, or work, for example, sends a message about your attitude. Dressing in a deliberately provocative, sloppy, or outrageous way might be one way of expressing your individuality, but probably won't score any points with your family, teachers, coaches, or employer.	<b>10</b>
<b>How Your Actions Reveal Your Attitudes</b>	See if you can tell what each of the following actions might say about the person's attitude: <ul style="list-style-type: none"> <li>• Avoiding eye contact with others</li> <li>• Losing something borrowed from a friend</li> <li>• Failing to use "Mr.," "Mrs.," "Ms.," "Sir," or "Ma'am" in speaking with adults</li> <li>• Ignoring personal hygiene with hair, teeth, bathing and clothing</li> </ul>	<b>11</b>
<b>How Your Actions Reveal Your Attitudes</b>	Explain that ice hockey legend Wayne Gretzky once said, "You miss 100 percent of the shots you don't take." Think about your life as a sport for a minute. Are you a team player? Do you follow the rules? Take your shots? What's your attitude?	<b>12</b>
<b>How Your Actions Reveal Your Attitudes</b>	Explain that teachers, coaches, leaders, and managers know that winning breeds winning. In other words, an achievement-focused attitude can become a way of life and a positive, contagious habit. Fostering an achievement-focused attitude leads to better results: The more you achieve, the more you're likely to achieve.	<b>13</b>
<b>How Your Actions Reveal Your Attitudes</b>	Explain that you can't win if you sit out the game. You've got to throw yourself into life with all the passion and drive you can muster. Winning and success motivate those who value winning to push themselves even harder. On the other hand, repeatedly losing (or accepting repeated poor performance) will drain your enthusiasm and effectiveness. You'll develop a "What's the use?" attitude.  So, the question is, which sort of player are you? Are you willing to throw your fate to the wind and hope things work out, or are you going to take charge of your life and make it what you want it to become?	<b>14-15</b>
<b>Positive and Negative Attitudes</b>	Explain that the attitudes and behaviors of a healthy, reasonable person are usually in harmony. Positive thinkers make things happen—or, as baseball executive Branch Ricky once noted, "Luck is the residue of design." He meant that if you plan things right and have the right attitude, you'll attract that mysterious power people call "luck." Thomas Jefferson, drafter of the Declaration of Independence and the third president of the United States, once said, "I'm a great believer in luck, and I find the harder I work, the more I have of it." The ultimate message is that a positive attitude and a dedication to seeing your goals realized generally result in a positive outcome.  Think about it. Do you want to hang around with people who are always saying things like, "I'm no good at anything," or "I never get a break," or "I don't feel like doing anything?" That kind of thinking is not only depressing: It's contagious. If you want to be a winner—and who doesn't?—you need to think like a winner. And thinking like a winner starts with taking some concrete steps toward your goal.	<b>16-17</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>18</b>
<b>Defense Mechanisms</b>	Explain that everyone has faults and weaknesses. People wouldn't be human without them, right? So the first trick to developing a positive attitude is to accept that you won't always succeed at everything you do. The second trick is to realize that trial and error provide a wonderful opportunity to keep improving.	<b>19-20</b>

## Chapter 5 / Section 2: NS1-U2C5S2 – Actions, Attitudes, and Emotions

<b>Defense Mechanisms</b>	Explain that in the business world, professionals set goals for themselves. Salespeople, for example, have targets. Their employers often reward them when they reach these sales targets. But failing to meet a goal—in business or anywhere else—doesn't mean that you are a failure. If a baseball player doesn't make every hit, or a lawyer loses a case, or a doctor can't cure every illness, we don't label them failures. People talk about the "practice" of law and medicine because those professionals are constantly improving their art.	<b>21</b>
<b>Defense Mechanisms</b>	Explain that of course, some professions have a zero tolerance for failure—and it's a good thing they do. Take an architect designing a bridge, for example, or a pilot flying an airliner. You don't want them to make any big mistakes. But even the pilot isn't always on schedule, and even the best architect doesn't win every contract. Everyone is entitled to follow a learning curve—the time necessary to get better at a task or to reach a goal. But the time must be within reason for the given task.	<b>22</b>
<b>Defense Mechanisms</b>	Explain why some people handle their mistakes well, and even learn from them, while others don't. The difference often lies in a person's defense mechanisms. You encountered some defense mechanisms in the previous chapter. Defense mechanisms are normal. Everyone has anxieties, and defense mechanisms provide a way to deal with them. But if you're not careful, defense mechanisms can turn into excuses.	<b>23</b>
<b>Defense Mechanisms</b>	Explain that people use defense mechanisms often without even realizing it. They try to convince others and themselves that someone else is to blame for a mistake, or that a controllable situation was entirely outside of their ability to handle. In the end, defense mechanisms are people's ways of protecting their self-confidence and pride when they are feeling inadequate or ashamed.	<b>24</b>
<b>Defense Mechanisms</b>	Explain that you probably don't respect the athlete, for example, who constantly makes excuses for his or her shortfalls—blaming the media, the coaches, the opposing team's noisy fans, and so on. Or how about the singer who throws a tantrum on stage and blames her band when the sound isn't just right? The use of defense mechanisms is not a bad thing as long as you realize why you're using them and take steps to correct whatever the problem is. The danger of defense mechanisms, however, is using them constantly and failing to take responsibility for your actions or inactions. This is the hallmark of someone who still has some growing up to do, no matter what his or her age.	<b>25-26</b>
<b>Defense Mechanisms</b>	Explain that mature people don't fall back on defense mechanisms—mainly because they don't need them. They confront their problems directly and try to solve them. That doesn't mean they're always successful. Many times, you simply have to "grin and bear it." But growing up and developing a positive, productive attitude requires a willingness to keep working to solve an issue rather than dodge it.	<b>27</b>
<b>Defense Mechanisms</b>	Explain that no one comes into this world with a guaranteed perfect life. But the attitude you develop once you get here is under your control. A positive attitude can make it easier to handle life's troubles. As Norman Vincent Peale, who wrote several books about positive thinking, once wrote: "How you think about a problem is more important than the problem itself—so always think positively."	<b>28-29</b>
<b>Defense Mechanisms</b>	<p>Explain that psychologists have identified and studied a number of defense mechanisms people use when they feel anxiety, stress, or pressure. Consider the situation between Jack and Christina.</p> <p>Explain that Jack and Christina have been dating steadily for about a year, but they have a problem: Jack gets jealous any time Christina even talks to another boy. He suspects she's not really happy in their relationship and watches her every move. Christina keeps telling Jack that he's imagining things. If he's not careful, Jack might</p>	<b>30</b>

## Chapter 5 / Section 2: NS1-U2C5S2 – Actions, Attitudes, and Emotions

	find himself using one or more of the following defense mechanisms instead of addressing his real problem.	
<b>Defense Mechanisms</b>	<ul style="list-style-type: none"> <li>• Displacement—transferring a feeling about a person or an object to another, less threatening object.  <i>Example: Jack feels jealous anger toward Christina, so he is rude to her little sister.</i></li> <li>• Repression—pushing disturbing thoughts, wishes, or experiences from one’s conscious awareness while the feeling continues to operate on an unconscious level.  <i>Example: Jack tells Christina that everything is Ok.</i></li> </ul>	<b>31</b>
<b>Defense Mechanisms</b>	<ul style="list-style-type: none"> <li>• Rationalization—concealing the true motivations for one’s thoughts, actions, or feelings by offering reassuring, but incorrect, explanations.  <i>Example: Jack assures Christina that the problem isn’t with her; he’s just going through a tough time at his after-school job and feels frustrated about it.</i></li> <li>• Projection—falsely attributing to others your own unacceptable feelings, impulses, or thoughts.  <i>Example: Jack tells everyone that Christina is upset with him because he spends time shooting pool with friends.</i></li> </ul>	<b>32</b>
<b>Defense Mechanisms</b>	<ul style="list-style-type: none"> <li>• Acting out—using actions, rather than words, to express the emotional conflict.  <i>Example: Jack uses a bar of soap to draw graffiti all over Christina’s car.</i></li> <li>• Denial—refusing to acknowledge some painful aspect of external reality or one’s own experience that would be apparent to others.  <i>Example: Jack doesn’t realize that he has a problem trusting other people. For example, he forgets that he broke up with his previous girlfriend, Wanda, because he was jealous of her behavior, even though his friends told him repeatedly that Wanda really liked him and that she was not a flirt.</i></li> </ul>	<b>33</b>
<b>Defense Mechanisms</b>	How many of these defense mechanisms do you recognize? Have you ever used any of them yourself? Because defense mechanisms can be used unconsciously, people sometimes use them without even knowing it. Before things can get better for Jack and Christine, Jack must realize that his attitude needs to improve.	<b>34</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>35</b>
<b>Strategies for Expressing Emotions</b>	<p>Explain that another factor that plays a strong role in the way people behave is their emotions. You can think of emotions as spontaneous feelings that you experience.</p> <p>Explain that you may experience specific feelings such as love, joy, grief, fear, anger, or disgust. People refer to a more general kind of feeling as a “mood”. We all experience people who are in a good “mood” or bad “mood.” Moods are a temporary state of mind or a general feeling of some emotion.</p>	<b>36</b>

## **Chapter 5 / Section 2: NS1-U2C5S2 – Actions, Attitudes, and Emotions**

<b>Strategies for Expressing Emotions</b>	Explain that infants come into the world with the two most basic emotions, delight, and distress. At first they express their emotions by crying. Later they begin to include the ability to smile, gurgle, and make “baby sounds” when they are delighted.	<b>37</b>
<b>Strategies for Expressing Emotions</b>	Explain that as people grow older, they learn how to express their emotions in different ways. Children learn what type of behavior will get certain results. For example, some children try the temper tantrum to get their way. They will probably continue this technique until it no longer achieves results. Learning how to express your emotions is an ongoing part of growing up. Learning to control your emotions is a challenge for everyone in a leadership position.	<b>38</b>
<b>Strategies for Expressing Emotions</b>	Explain that the expression of emotion is very important, especially very strong emotions. Sometimes, however, circumstances require that you not express these emotions directly. You may feel like “telling off” someone or even physically striking the person, but your social conditioning tells you that this is not acceptable behavior. That is why it is essential that you learn constructive methods of expressing strong emotions.	<b>39-40</b>
<b>Strategies for Expressing Emotions</b>	<p>Explain that the following strategies can help you deal with your emotions in a constructive way.</p> <p>Explain that emotions are a very real part of you. All of us have experienced the feeling of an intense emotional buildup. Sometimes the best way to work out such feelings is through physical activity. Some people find sports activities good emotional outlets, whereas others release their built-up emotions on creative projects. Still others find that they best release their emotional energy through some other activity, such as cleaning the house or washing the car. This way, you can work out your frustrations and have the “bonus” of a neat closet, clean house, mowed lawn, or a washed car because of your constructive release of tensions through physical activity. Hobbies such as hunting, fishing, painting, woodworking, music, and sewing are also good constructive releases.</p>	<b>41</b>
<b>Strategies for Expressing Emotions</b>	Explain that sometimes the best therapy for releasing emotional tension is talking things out with a trusted friend, teacher, parent, or counselor. The experience of getting an issue off your chest rids you of some of the pressure. Often the other person can help you see alternatives you weren’t aware of and can assist you in learning to understand your feelings more clearly.	<b>42</b>
<b>Strategies for Expressing Emotions</b>	Explain that keeping your sense of humor is a big asset in constructively expressing emotions. Being able to laugh at yourself and to laugh with others is a rare combination. What some people try to pass off as humor is sometimes really just a way of poking fun at others. The jokester tries to build up his or her self-image in an attempt to feel superior at someone else’s expense. The constructive sense of humor shows an appreciation for self and others and is never cutting, sarcastic, or hostile.	<b>43</b>

## **Chapter 5 / Section 2: NS1-U2C5S2 – Actions, Attitudes, and Emotions**

<b>Strategies for Expressing Emotions</b>	Explain that constructive emotional expression also emphasizes the positive. You read earlier about the difference between talking the talk and walking the walk. This is no difference. You can resolve to “think positively,” but if you have not established a healthy personal attitude as a foundation, “positive thinking” becomes an empty phrase. Improving positive attitudes begins with a healthy self-image, acknowledging rather than denying problems, and with a conscious effort to build habits for positive personal growth.	<b>44</b>
<b>Conclusion</b>	Explain that your success as a leader often depends on attitudes—and you can control your attitude. Will your attitude be positive or negative? The choice is yours. A positive attitude will make you a happier and more successful family member, student, employee, and citizen. People are attracted to and will follow positive thinkers—thinkers who can solve problems for themselves and others. A positive attitude can be the leader’s key to success.	<b>45</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>46</b>
<b>Review Question</b>	The Review Question is “List 2-3 that you learned about YOURSELF during this lesson.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>47</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>48</b>



## **Chapter 5 / Section 2: NS1-U2C5S2 – Actions, Attitudes, and Emotions**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: 3 x 5 cards. There should be enough cards so that each student in class will receive a card. Each card should have a key term from any or the previous lessons on the front. On the back of the card print the following phrase. "I have already determined your grade for this assignment you will receive a \_\_\_\_\_. DO NOT discuss your grade with anyone else in the class."

When: This is a good activity to do at the beginning of the class.

- With the class: Hand out a card to each student and explain that they will each have to give a verbal definition of the word on the front of the card to the class. Let them know there are unique instructions on the back of each card, do not let anyone else know what your instructions are.
- Have each student present their term.
- Class question: Let the class know that you had arbitrarily assigned every student a grade on their presentation prior to them giving it. Let them know that they really did not receive that grade but it was to demonstrate how emotions can dramatically affect a person.

How did it affect their presentation to the class? Those that knew they were going to get a good grade did they try as hard, how about those that thought they already received a poor grade?

\* Caution, be careful not to allow the class to use this exercise to label students.

B. Homework Activity: This is a review of the entire chapter and two different final activities are provided.

1. Have the students write a comprehensive essay on leadership and how it pertains to them. The essay should contain at a minimum of X of the following concepts and by at least Y paragraphs long:

- What leadership qualities are they strong or weak in, and how does that affect their leadership?
- Are they a better follower or leader?
- What type of leadership style do you normally use?
- How will they deal with conflict among the group?
- How will they motivate their group as either a leader or a follower?

## **Chapter 5 / Section 2: NS1-U2C5S2 – Actions, Attitudes, and Emotions**

- How will they show tolerance and respect for others in their group?
- How will their experiences affect their participation in the group?
- How will they control an emotional argument between members of their team and or supervisor?

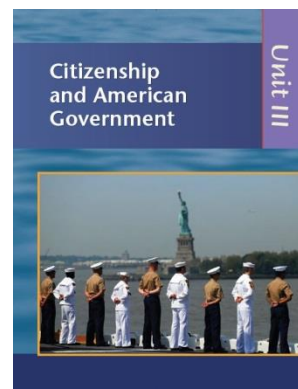
2. Have each student (or divide the class into groups of two or three) and have each student (or group) create a poster representing leadership. The poster should convey the concepts discussed in chapter 2 (Leadership Skills). The poster should tell a story or portray the key traits and principles discussed. One or two of the students (or groups) should present their posters and explain them to the class. Let the class know that you will be reviewing them and that one or two of them will be selected to be displayed in class and used for next year's class.

IV. Evaluation - see CPS database for chapter test questions.

## UNIT 3: CITIZENSHIP AND AMERICAN GOVERNMENT

Unit Overview**Unit Objective:**

Promoting good citizenship is another goal of the NJROTC program. To help you become a better citizen, this unit will teach you the rights and responsibilities of an American citizen as well as the foundations of your government. You will also learn how the defense of our nation relates to citizenship and how the military functions in our democracy.

**Unit Organization:**

Chapter Number	Chapter Name	Instructional Section / PowerPoint
1	Citizenship	NS1-U3C1S1 – Laws and Your Role as a Citizen
		NS1-U3C1S2 – The Role of Government
2	Foundations of the US Government	NS1-U3C2S1 – Declaration of Independence and Constitution
		NS1-U3C2S2 – The Constitution and Bill of Rights
		NS1-U3C2S3 – The Bill of Rights and Other Amendments
3	National Defense	NS1-U3C3S1 – US Defense Structure and Navy Organization
		NS1-U3C3S2 – The Navy, Army, and Air Force

## **Unit 3 Chapter 1 : NS1-U3C1 – Laws and Your Role as a Citizen**

### **What Students Will Learn to Do:**

Understand what it means to be a citizen of the United States, a representative democracy

### **Skills and Knowledge to be Gained:**

1. Explain authority and laws
2. Define your role as a citizen—your rights and responsibilities
3. Discuss the role of government

### **Standards Linked in this Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...
- RI.9-10.9. Analyze seminal U.S. documents of historical and literary significance...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

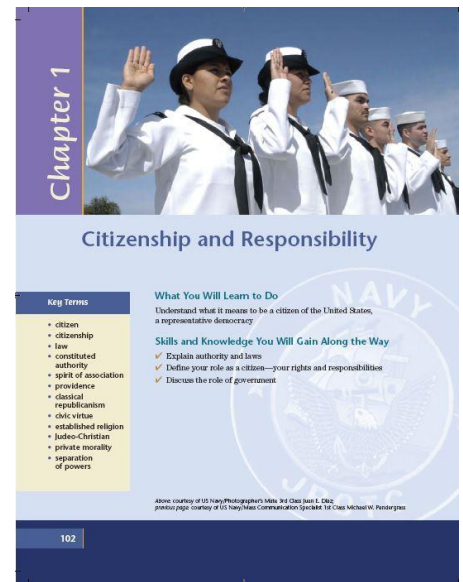
##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

### **The College, Career, and Civic Life (C3) Framework for Social Studies State Standards \*\***

#### D2. Civic and Political Institutions

- D2.Civ.1.9-12. Distinguish the powers and responsibilities of local, state, tribal, national, and international civic and political institutions.
- D2.Civ.2.9-12. Analyze the role of citizens in the U.S. political system, with attention to various theories of democracy, changes in Americans' participation over time, and alternative models from other countries, past and present.
- D2.Civ.7.9-12. Apply civic virtues and democratic principles when working with others.
- D2.Civ.10.9-12. Analyze the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights.
- D2.Civ.14.9-12. Analyze historical, contemporary, and emerging means of changing societies, promoting the common good, and protecting rights.



## **Unit 3 Chapter 1 : NS1-U3C1 – Laws and Your Role as a Citizen**

### **D2. History**

- D2.His.1.9-12. Evaluate how historical events and developments were shaped by unique circumstances of time and place as well as broader historical contexts.
- D2.His.2.9-12. Analyze change and continuity in historical eras.
- D2.His.3.9-12. Use questions generated about individuals and groups to assess how the significance of their actions changes over time and is shaped by the historical context.

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

\*\*A complete listing of all linked C3 Framework for Social Studies State Standards are displayed on the Standards Chapter Matrix – C3 at the end of the Naval Science 1 Instructor's Guide.

## **Chapter 1 / Section 1: NS1-U3C1S1 – Laws and Your Role as a Citizen**

(Section 1 of 2)

### **What Students Will Learn to Do:**

Understand what it means to be a citizen of the United States, a representative democracy

### **Skills and Knowledge to be Gained:**

1. Explain authority and laws
2. Define your role as a citizen—your rights and responsibilities

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Warm Up Questions	Opening Question	Authority and Laws	The Citizen's Role – Rights and Responsibilities (A)	Check On Learning A
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The Citizen's Role – Rights and Responsibilities (B)	Characteristics of a Good Citizen	Check on Learning B	The Value of a Positive Attitude	The Bill of Responsibilities	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 3, chapter 1. Place a checkmark beside the NS1-U3C1S1 PowerPoint presentation, and these two CPS question deck files: NS1-U3C1S1 - Key Terms and NS1-U3C1S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 1: NS1-U3C1S1 – Laws and Your Role as a Citizen

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>Explain that developing informed and responsible citizens is an important goal of the NJROTC program. To help you become such a citizen, this chapter will teach you about your rights and responsibilities as an American. You will learn the role of laws and authority in citizenship, your obligations as a citizen, and the government's obligations to you.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>Opening Question (Random Pick a Student – "RPS")</b>	This Opening Question is "List 2-3 qualities of a good citizen." Since this is a discussion question, it can be engaged using the RPS, where CPS will display one student's name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on laws and your role as a citizen.	<b>8</b>
<b>Authority and Laws</b>	Explain that sometimes people speak of "only an average citizen" or "just a private citizen"—meaning someone with no special power or official role. But throughout American history, individual citizens have played important roles. Later in this chapter, for instance, you will read how, on 11 September 2001, individual citizens who were passengers on United Airlines Flight 93 sacrificed themselves to keep terrorists from using their plane to attack the nation's capital. Although their actions cost them their lives, they saved the lives of countless others.	<b>9</b>
<b>Authority and Laws</b>	Explain that authority is the answer to the question, "Who says so?" In some primitive societies, tribal chieftains are in authority. They have the power to make and enforce laws and other important decisions. In other countries, a monarchy is the governing authority: A king or queen makes laws for the entire society; sometimes with the help or consent of a parliament. Some societies are under the rule of a dictatorship. In such countries, one person makes decisions for everyone. However, in modern representative democracies such as the United States, the power of the government is derived not from one person but from the people. The people elect legislators to create and uphold the laws of the land on the people's behalf.	<b>10-11</b>

## Chapter 1 / Section 1: NS1-U3C1S1 – Laws and Your Role as a Citizen

<b>Authority and Laws</b>	Explain that the need for laws emerges when a group of people of almost any size decides to live together. Within your family, you might have rules about things like your evening curfew or cleaning up after dinner. In the world at large, laws regulate all sorts of behavior. For instance, there are building codes, motor vehicle standards, and restrictions on drug use, which are meant to create a standard of safety and a quality of life for all members of society. In addition, there are laws forbidding major crimes such as theft and murder, which pose an obvious threat to the safety and stability of any society.	<b>12</b>
<b>Authority and Laws</b>	Explain that as you might imagine, governments and those who live under them have progressed greatly over the millennia with the appearance of new religions, technologies, and philosophies. These have made the societies themselves more complex and diverse. This is why societies like the United States need laws and regulations of all kinds. In the U.S. federal system, Congress makes the laws that apply to the whole nation while state legislatures and other local government bodies make laws that apply within their boundaries. These laws allow local governments to adjust to the diversity and differences of their respective jurisdictions.	<b>13-14</b>
<b>Authority and Laws</b>	Explain that to ensure that the people are always represented in the legislative process, all major members of both local and national government are elected by citizens. Ordinary citizens vote for members of the U.S. Congress, the state legislature, the county commission, the city council, and many other positions in government. As a result, the laws these bodies pass have the force and consent of the people behind them, even though individual citizens may not know the details of most laws.	<b>15-16</b>
<b>Authority and Laws</b>	Explain that Congress is an example of what is called a constituted authority. Constituted means “appointed to an office or lawfully elected.” Accepting the authority of the nation’s constituted authoritative body is not just your role as a U.S. citizen but also your responsibility. As a citizen of the United States, you have a say in how this authoritative body is structured. You exercise this input by voting for those whom you want to represent you.	<b>17-18</b>
<b>Authority and Laws</b>	Explain that coupled with your responsibilities as a citizen are individual rights. These rights are assurances the authoritative body makes to those it governs. In the U.S. system, this gives the government the consent of the people so it can continue governing. Civil rights protect people in their private lives from the arbitrary and unfair actions of the government; political rights allow people to participate in their own governance.	<b>19</b>
<b>The Citizen’s Role – Rights and Responsibilities</b>	<p>Explain that there are three ways to become an American citizen: by birth, by naturalization, or by act of Congress. Anyone born on U.S. soil is automatically an American citizen. The legal term for this is <i>jus soli</i>, the law of the soil. Anyone born in a foreign country to U.S. citizens is also a U.S. citizen. This is known legally as <i>jus sanguinis</i>, or law of the blood.</p> <p>Explain that legal residents of the United States who are not citizens by birth can become citizens by a process known as naturalization. This consists of waiting a period of time, taking citizenship classes, passing a citizenship test, and then appearing before a judge and swearing an oath of allegiance to the United States.</p> <p>Explain that sometimes Congress passes a law declaring all people in a certain territory to be United States citizens. That happened most recently when Alaska and Hawaii became the 49th and 50th states of the Union. Congress granted citizenship to all people born there when they were territories of the United States.</p>	<b>20</b>



## Chapter 1 / Section 1: NS1-U3C1S1 – Laws and Your Role as a Citizen

<b>The Citizen’s Role – Rights and Responsibilities</b>	<p>Explain that whether native-born or naturalized, all citizens have the same basic responsibilities. All citizens need to respect and obey the laws of the United States. While laws sometimes need to be changed, citizens must obey them until they are changed. This duty to respect the laws of the land is not just a matter of responsibility but of loyalty to the country itself. This doesn’t mean you have to approve of all actions taken by government officials.</p> <p>Explain that another responsibility, and perhaps the greatest privilege of any citizen, is the right to vote.</p> <p>Explain that another important responsibility of a U.S. citizen is to defend the country against foreign aggression. Even during wartime, of course, not all citizens need to serve in the armed forces, but all citizens do need to support the armed forces in their efforts to defend our country.</p>	<b>21</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	<p>Check in on student’s understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.</p>	<b>22</b>
<b>The Citizen’s Role – Rights and Responsibilities</b>	<p>Explain that your 18th birthday may seem far off today, but your 18th birthday and the right to vote will be here before you know it. You may be eligible to vote with your parents and other adults in federal and state elections before you have graduated from high school. Even if not, you will probably have other opportunities to vote. You may vote in student government elections at your school and in other organizations you belong to. Exercising this right regularly is your chance to make a real difference in your society. Even if your measure or your candidate doesn’t “win,” you are getting into the habit of thinking through issues carefully and learning to evaluate candidates for office, something that many people around the world don’t have the privilege to do</p>	<b>23</b>
<b>The Citizen’s Role – Rights and Responsibilities</b>	<p>Explain that the Founding Fathers greatly disapproved of the actions of their government. However, they still showed loyalty to the British Empire until the number of injustices weighed against the colonies were so great that the people could no longer tolerate them. When the time came to separate from the British Empire, the leaders of the colonies did not simply fight the British and leave it at that. The leaders still showed a measure of loyalty to the British Empire by drafting the Declaration of Independence, a lengthy document that explained both to the colonists and to the British the reasons they were leaving.</p>	<b>24</b>
<b>The Citizen’s Role – Rights and Responsibilities</b>	<p>Explain that the founders of our country were willing to sacrifice everything in order to establish this country as exhibited by the signers of the Declaration of Independence. Many were past military age themselves, but when they signed the Declaration, they wrote their names below the words, “...we mutually pledge to each other our lives, our fortunes, and our sacred honor.” The Founding Fathers were willing to sacrifice everything to establish the nation and many of them paid a heavy price.</p>	<b>25</b>
<b>The Citizen’s Role – Rights and Responsibilities</b>	<p>Explain that one of the best-known foreign observers of the United States in its early days was Alexis de Tocqueville. As a citizen of France, a society that valued liberty highly, he was impressed by the equality of opportunity he found in America. But he wondered how a society so devoted to materialism and self-interest could produce the civic spirit needed for self-government.</p> <p>Explain that De Tocqueville believed the answer lay in the traditions of local self-government and the habits of free association. His emphasis on the spirit of association is one of the best-known themes in his writings about America.</p>	<b>26</b>

## Chapter 1 / Section 1: NS1-U3C1S1 – Laws and Your Role as a Citizen

<b>The Citizen's Role – Rights and Responsibilities</b>	Explain that the “American experiment” drew on many different ideas about the best organization of government, as well as on the thinking of many different philosophers.	<b>27</b>
<b>Characteristics of a Good Citizen</b>	<p>Countries expect certain things from their citizens besides allegiance.</p> <p>Here are some of the things good American citizens do:</p> <ol style="list-style-type: none"> <li>1. They value, respect, and defend the rights and privileges guaranteed by the United States Constitution.</li> <li>2. They accept the basic idea of majority rule under the Constitution.</li> <li>3. They believe in equal opportunity for everyone.</li> <li>4. They respect and uphold the law and its agencies.</li> <li>5. Good American citizens vote</li> <li>6. They accept taxes as the price of necessary public services and pay them promptly.</li> <li>7. They accept civic responsibilities, such as jury duty, and carry them out to the best of their abilities.</li> <li>8. Good American citizens support efforts to prevent war and stand ready to defend the country if necessary.</li> <li>9. They know how to work with others on social action—to win support for desirable legislation, for instance.</li> <li>10. They know that a democracy needs well informed citizens, so they pay attention to the news, especially by reading newspapers in print or online.</li> <li>11. They understand that democracy requires citizens to be educated.</li> <li>12. They respect property rights and regulations and meet their obligations under contracts.</li> <li>13. They support fair business practices and fair relations between employers and employees.</li> <li>14. They take responsibility for making our free-market economy work, with government help and regulation when necessary.</li> <li>15. They have some understanding of other economic systems, including their political and social aspects.</li> <li>16. They accept family responsibilities and uphold standards in their neighborhood and larger community.</li> <li>17. They understand other cultures and ways of life.</li> <li>18. They put the general welfare above their own when they must choose.</li> <li>19. They understand how people depend on one another around the world to work together to make a good life.</li> <li>20. They understand that in the long run, people will govern themselves better than any other group or individual would.</li> <li>21. They take responsibility for the wise use of natural resources.</li> <li>22. They rely on democratic principles as guides in evaluating their own and other people's behavior.</li> <li>23. They feel they have inherited an unfinished experiment in self-government, which is their duty and privilege to carry on.</li> <li>24. They cultivate qualities of personal character such as courage, wisdom, and generosity toward others.</li> </ol>	<b>28-33</b>
<b>Characteristics of a Good Citizen</b>	Explain that President John F. Kennedy said, “Ask not what your country can do for you, ask what you can do for your country.”	<b>34</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>35</b>

## Chapter 1 / Section 1: NS1-U3C1S1 – Laws and Your Role as a Citizen

<b>The Bill of Responsibilities</b>	<p>Explain that the Statement of Responsibilities of citizenship was developed by the Freedoms Foundation, a citizenship education organization at Valley Forge, Pa.</p> <p>Explain that to secure and expand our liberties, therefore, we accept these responsibilities as individual members of a free society:</p> <ol style="list-style-type: none"> <li>1. To be fully responsible for our own actions and for the consequences of those actions. Freedom to choose carries with it the responsibility for our choices.</li> <li>2. To respect the rights and beliefs of others. In a free society, diversity flourishes. Courtesy and consideration toward others are measures of a civilized society.</li> <li>3. To give sympathy, understanding, and help to others. As we hope others will help us when we are in need, we should help others when they are in need.</li> <li>4. To do our best to meet our own and our families' needs. There is no personal freedom without economic freedom. By helping ourselves and those closest to us to become productive members of society, we contribute to the strength of the nation.</li> <li>5. To respect and obey the laws. Laws are mutually accepted rules by which, together, we maintain a free society. Liberty itself is built on a foundation of law. That foundation provides an orderly process for changing laws. It also depends on our obeying laws once they have been freely adopted.</li> <li>6. To respect the property of others, both private and public. No one has a right to what is not his or hers. The right to enjoy what is ours depends on our respecting the right of others to enjoy what is theirs.</li> <li>7. To share with others our appreciation of the benefits and obligations of freedom. Freedom shared is freedom strengthened.</li> <li>8. To participate constructively in the nation's political life. Democracy depends on an active citizenry. It depends equally on an informed citizenry.</li> <li>9. To help freedom survive by assuming personal responsibility for its defense. Our nation cannot survive unless we defend it. Its security rests on the individual determination of each of us to help preserve it.</li> <li>10. To respect the rights and to meet the responsibilities on which our liberty rests and our democracy depends. This is the essence of freedom. Maintaining it requires our common effort, all together and each individually.</li> </ol>	<b>36-40</b>
<b>Closing Questions (Lesson Questions 7 - 8)</b>	<p>Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.</p>	<b>41</b>
<b>Review Question</b>	<p>The Review Question is "List 2-3 characteristics of a good citizen you think are the most challenging to achieve." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.</p>	<b>42</b>
<b>Call for Other Questions</b>	<p>Provide the opportunity for students to ask final questions regarding the content covered.</p>	<b>43</b>

## **Chapter 1 / Section 1: NS1-U3C1S1 – Laws and Your Role as a Citizen**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Handout Bubble Map

When: Can be used during class or at the close

- Have students complete the Bubble Map Handout in response to J.F.K.'s famous quote.
- Divide cadets into partners or small groups to share their ideas

B. Homework Activity: Using the handout “Laws and your Role as a Citizen”, have each cadet complete a diary entry as described in the instructions. They may use their Bubble Map and conversation with their partner/group for ideas.



Tech Tip

Have students listen to JFK's Inaugural speech [online](http://www.history.com/speeches/john-f-kennedys-inaugural-address#john-f-kennedys-inaugural-address) and listen for key phrases about his views on citizenship –

<http://www.history.com/speeches/john-f-kennedys-inaugural-address#john-f-kennedys-inaugural-address>

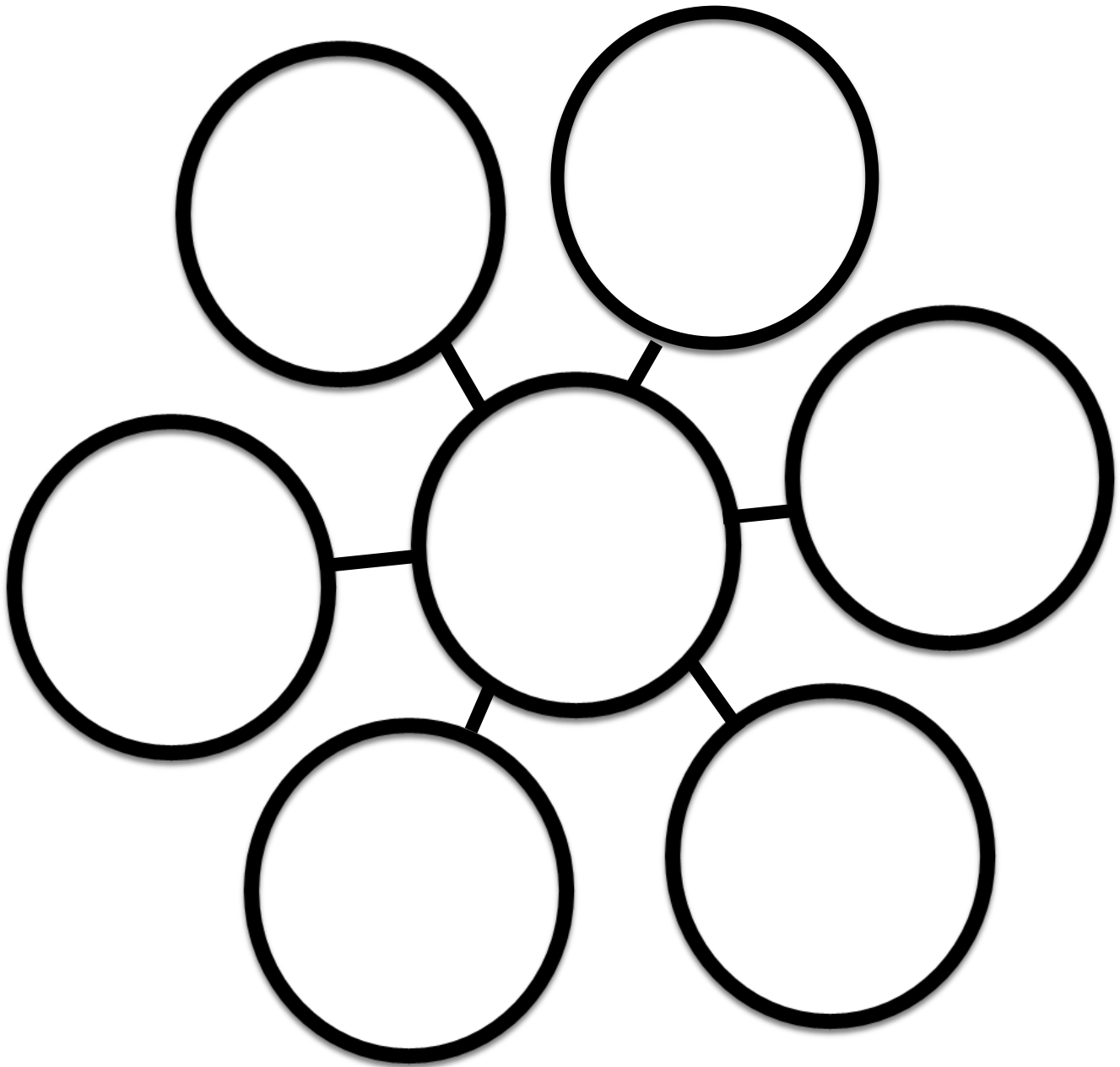
### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 1 / Section 1: NS1-U3C1S1 – Laws and Your Role as a Citizen**

Activity 1: In-Class Activity- Identifying Actions for Good Citizenship

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

John F. Kennedy said, “Ask Not What Your Country Can Do for You, Ask What You Can Do For Your Country.” In the space below, create a Bubble Map of actions you could take in response to this call to service. What can you do to help your family, school, community or country? Discuss your ideas with a classmate.



## **Chapter 1 / Section 1: NS1-U3C1S1 – Laws and Your Role as a Citizen**

## Activity 1: Take Home Activity – Laws and Your Role as a Citizen

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Imagine you are listening to President John F. Kennedy give his inauguration speech on January 20, 1961 on TV or in the person. Write a journal entry about this event. In your entry include your age, where you live, where you were when you watched the event and your action plan to his famous quote. -

[illegible]

## **Chapter 1 / Section 2: NS1-U3C1S2 – The Role of Government**

(Section 2 of 2)

### **What Students Will Learn to Do:**

Understand what it means to be a citizen of the United States, a representative democracy

### **Skills and Knowledge to be Gained:**

1. Discuss the role of government

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Key terms	Key Term Definitions	Warm Up Questions	Opening Question	The Role of Government	Classical Republicanism	Check On Learning A	The Judeo-Christian Heritage
Contemporary Influences	James Madison and Constitutional Republicanism	"Ordinary" Citizens Defend the Capitol on 9/11 (A)	Check on Learning B	"Ordinary" Citizens Defend the Capitol on 9/11 (B)	Conclusion	Closing Questions	Review Questions	Call for Other Questions

Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 3, chapter 1. Place a checkmark beside the NS1-U3C1S2 PowerPoint presentation, and these two CPS question deck files: NS1-U3C1S2 - Key Terms and NS1-U3C1S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## **Chapter 1 / Section 2: NS1-U3C1S2 – The Role of Government**

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>Explain that developing informed and responsible citizens is an important goal of the NJROTC program. To help you become such a citizen, this chapter will teach you about your rights and responsibilities as an American. You will learn the role of laws and authority in citizenship, your obligations as a citizen, and the government's obligations to you.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>Opening Question(Random Pick a Student – "RPS")</b>	This Opening Question is "How would our country be different if it was ruled by a king or dictator?" Since this is a discussion question, it can be engaged using the CPS RPS function, where CPS will display one student's name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on the role of government.	<b>9</b>
<b>The Role of Government</b>	<p>Explain that the Founders of our republic knew history, especially the history of ancient Greece and Rome. They understood how the Greeks had described three kinds of governments:</p> <ul style="list-style-type: none"> <li>• monarchy, or rule by one</li> <li>• aristocracy, rule by a few, and</li> <li>• democracy, rule by many.</li> </ul>	<b>10-11</b>
<b>The Role of Government</b>	Explain that the Founders were also familiar with the ideas of the political thinkers and philosophers of their own day in Britain, France, and Germany. In the second half of the 18th century, Europe was going through a period known as the Age of Enlightenment, which celebrated reason and science.	<b>12</b>
<b>The Role of Government</b>	Explain that the Judeo-Christian religious tradition was also a powerful influence on the Founders. They represented many different strands of religious thought. But they generally took the teachings of the Bible seriously and frequently spoke of providence—by which they meant God's care for His children. The constitutional system they devised ultimately reflected all of these influences.	<b>13</b>



## Chapter 1 / Section 2: NS1-U3C1S2 – The Role of Government

<b>Classical Republicanism</b>	Explain that one of the models the Founders turned to when they were setting up the American government was the Roman Republic. This republic lasted almost 500 years, from 509 BC to 27 BC, and set the model for classical republicanism. In a classical republic, citizens and their government are supposed to work together to achieve the common good rather than further their own personal or selfish interests.	<b>14</b>
<b>Classical Republicanism</b>	Explain that one of the ideals of classical republicanism was civic virtue—or public-spiritedness, as people might call it today. This meant a willingness to put public service ahead of making money or even tending to one’s family.	<b>15</b>
<b>Classical Republicanism</b>	Explain that Cincinnatus embodied this ideal. He was a prosperous farmer called to serve as a consul, or chief magistrate, in the first century of the Roman Republic. He accepted the call, and when his service was over, he returned to his farm. One of the reasons George Washington was so admired was that people saw him as an American Cincinnatus. He was a prosperous landowner who could have made much more money had he stayed home, but he put his country first. And like Cincinnatus, he eventually retired to his farm when his country no longer needed him.	<b>16</b>
<b>Classical Republicanism</b>	<p>Explain that Americans saw civic virtue as one of three elements essential to making classical republicanism work. The other two were moral education and small, uniform communities.</p> <p>Explain that the ancients believed that children had to be taught civic virtue: qualities such as courage, fairness, generosity, and self-control. Nowadays you might hear, “It takes a village to raise a child.” The ancient Romans believed something very similar. The whole community took part in bringing up the next generation of Roman citizens. In the Roman Republic, children were also taught to practice civic religion. This meant the ritual worship of gods and goddesses, involving special ceremonies and other acts of devotion. The Romans believed that these deities kept watch over them.</p>	<b>17</b>
<b>Classical Republicanism</b>	<p>Explain that classical republicanism also favored small, uniform communities—cities or city-states where everyone knew everyone else, where no one was very much richer or poorer than anyone else, and where everyone shared a common religion.</p> <p>Explain that you are probably already beginning to see some of the limits of this model. For one thing, Americans didn’t worship ancient Roman gods and goddesses and they didn’t like the idea of state religion, or established religion. In some places, the ruler decides the religion for the whole population. In other places, the government doesn’t care what people believe but expects everyone to pay taxes to support the official religion. But many people had come to the American colonies expressly for the freedom to worship God—or not—as they saw fit. The Founders wanted no part of a state religion, writing in the first Amendment of the U.S. Constitution, “Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof...”</p>	<b>18-19</b>
<b>Classical Republicanism</b>	Explain that even in its early days, the United States was a diverse country. Early Americans didn’t want to be too alike. They sought economic opportunity—they wanted to make money and prosper. They also knew they lived in a vast country. The first towns and cities were very small, and it would be some time before North America would be fully explored, but the Founders needed a system of government that could expand with the new country.	<b>20</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>21</b>

## Chapter 1 / Section 2: NS1-U3C1S2 – The Role of Government

<b>The Judeo-Christian Heritage</b>	<p>Explain that religion was another tradition that greatly influenced the Founders—broadly speaking, the Judeo-Christian heritage. Many of the Founders were skeptical of religious orthodoxy—strict adherence to codified beliefs. Nevertheless, many of them also believed that organized religion could help make people better citizens. They thought it could be a channel for communicating virtue, as the ancient Romans believed.</p> <p>Explain that the Judeo-Christian heritage, however, emphasized private morality—the teachings of the Ten Commandments and the Sermon on the Mount—over the public virtue of the ancient Greeks and Romans. It emphasized love and benevolence, and considered each individual to have a soul, with dignity, worth, and rights of his or her own.</p>	<b>22</b>
<b>Contemporary Influences</b>	<p>Explain that a French nobleman, the Baron de Montesquieu was an important thinker. He admired the British system because it provided what he called “mixed government.” While the Empire was a monarchy, to be sure—and the Americans fought a war to be free of kings—Montesquieu pointed out that the British system was relatively balanced. Unlike other monarchies, the government wasn’t run by a king and a few nobles. The professional and middle classes had a say, too—even though it would not be until the 20th century that all adults would have the vote.</p> <p>Explain that another important thinker was John Locke, a British philosopher and hero of Thomas Jefferson. He was another major influence on the Founders. Locke proposed what he called the philosophy of “natural rights.” He believed that the state—what we often call “the government”—existed for the benefit of the individual. Society and government were there at the consent of the individual to protect the individual’s rights.</p> <p>Explain that James Madison, the fourth U.S. president, is known as the “Father of the Constitution.” His great achievement was to draw from all these influences and create a new system of government. He came up with a new concept that included aspects of two important ancient concepts—a democracy and a republic.</p>	<b>23</b>
<b>James Madison and Constitutional Republicanism</b>	Explain that in a democracy, as Madison saw it, the people administer the government themselves. This meant that direct democracy worked only in places like the city-states of ancient Greece. In a republic, the people’s representatives administer the government. This allows it to extend over a much broader area than a direct democracy.	<b>24</b>
<b>James Madison and Constitutional Republicanism</b>	Explain that by combining the two, he proposed the idea of a federal constitutional republic, a government that derives its power from the people by giving them the right to elect public officials to make laws for the whole as part of a strong federal government while at the same time protecting the rights of the people by establishing written restrictions on the power of government.	<b>25</b>
<b>James Madison and Constitutional Republicanism</b>	Explain that during the Constitutional Convention of 1787, Madison argued for a government that would encourage people to act as good republican citizens possessing the quality of civic virtue. At the same time it would safeguard their freedoms with a system of checks and balances and of separation of powers. Such a system would help ensure that no one part of the government could completely negate the others.	<b>26</b>
<b>James Madison and Constitutional Republicanism</b>	Explain that the result of these various influences and schools of thought was the United States Constitution and the system of government Americans enjoy today. You, as an heir of this system, enjoy the rights guaranteed to you by the Constitution. In return, you have a responsibility to protect and defend those rights both for yourself and others.	<b>27</b>

## Chapter 1 / Section 2: NS1-U3C1S2 – The Role of Government

<b>“Ordinary” Citizens Defend the Capitol on 9/11</b>	The Armed Services have special responsibility for defending the United States from aggression. But they don’t have sole responsibility. Sometimes “ordinary” citizens step up to extraordinary challenges to protect the country.	<b>28</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>29</b>
<b>“Ordinary” Citizens Defend the Capitol on 9/11</b>	Explain that on that day terrorists hijacked four aircraft at almost the same time. They planned to turn the planes into guided missiles.	<b>30</b>
<b>“Ordinary” Citizens Defend the Capitol on 9/11</b>	Explain that the terrorists used two jetliners to bring down the twin towers of the World Trade Center in New York. They slammed a third plane into the Pentagon, outside Washington, DC Nearly 3,000 people died in these attacks.	<b>31</b>
<b>“Ordinary” Citizens Defend the Capitol on 9/11</b>	<p>Explain that it was with the heroic passengers of United Flight 93 on 11 September 2001. They didn’t say “not my job” when the danger became apparent. They didn’t wait for anyone to tell them what to do. And they made the ultimate sacrifice, giving their lives.</p> <p>Explain that no one knows for sure what the hijackers intended to do with the fourth plane. That plane, United Flight 93, was en route from Newark, New Jersey, to San Francisco. It had 37 passengers aboard, including four hijackers.</p> <p>The hijackers took over the plane at 9:28 a.m. At 9:32 a.m. one of the hijackers announced there was a bomb on the plane. This was a lie. The terrorists made the announcement to explain why the aircraft had changed its course abruptly in the air over northeastern Ohio.</p> <p>Passengers and crew made phone calls from the plane. They learned about the attacks on the World Trade Center. They decided to rush the terrorists and try to retake the plane.</p>	<b>32-33</b>
<b>“Ordinary” Citizens Defend the Capitol on 9/11</b>	At 9:57 a.m., 29 minutes after the hijackers took over, the passengers made their move. As they tried to break through to the cockpit, the hijacker pilot rolled the plane from side to side. He pushed its nose up and down, trying to throw the counterattacking passengers and crew off balance.	<b>34</b>
<b>“Ordinary” Citizens Defend the Capitol on 9/11</b>	<p>Explain that at 10:03 a.m., United 93 plowed into a field in Shanksville, Pennsylvania. It was all over in less than seven minutes.</p> <p>Explain that the hijacker pilot’s objective “was to crash his airliner into symbols of the American Republic,” the 9/11 Commission report stated. “He was defeated by the unarmed, alerted passengers of United 93. We are sure that the nation owes a debt to the passengers of United 93,” the report also said. “Their actions saved the lives of countless others, and may have saved either the U.S. Capitol or the White House from destruction.”</p>	<b>35-36</b>
<b>Conclusion</b>	Explain that our federal constitutional republic was developed to encourage people to act as civic-minded good citizens. Inherent in citizenship are rights and responsibilities that should not be taken for granted.	<b>37</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>38</b>

## **Chapter 1 / Section 2: NS1-U3C1S2 – The Role of Government**

<b>Review Question</b>	The Review Question is “In what ways did Cincinnatus act as a role model for our Founding Fathers?” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>39</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>40</b>

### **III. Supplemental Activities -**

#### **A. In class Activity:**

Supplies required: Handout “What if there was no government”

When: At the end of class

Print copies of the “What if There was no Government” handout and the “Day in the life of Tom Phillips” handout. Cadets will fill out the “What if There was no Government” free writing activity in three minutes or less and share their thoughts with a classmate briefly. With their partner they will complete the “Day in the Life of Tom Philips” activity followed by a brief whole group discussion about the two activities.

B. Homework Activity: Print off the “How Government Affects You” handout. Each cadet will take this chart home overnight and record their activities and how that activity connects to the government. The realization will be that everything we do is somehow connected to the government.



#### **Tech Tip**

If possible, cadets could video excerpts of their day with an explanation of the connection each activity has to government and share it with the class.

### **IV. Evaluation - see CPS database for chapter test questions.**

**Chapter 1 / Section 2: NS1-U3C1S2 – The Role of Government**

Activity 1: In-Class Activity- What if there was No Government?

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

In 3 minutes, write a paragraph explaining what life would be like without government. When prompted, share your thoughts with a classmate.


## **Chapter 1 / Section 2: NS1-U3C1S2 – The Role of Government**

*Now that we have explored what life would be like without laws and the reasons that we have laws, let's look at how much the government affects our everyday activities. Read the story, "A Day in the Life of Tom Phillips." Underline each word in the story that involves the Government. Discuss with your partner how the daily activity is connected to a law, document, or government agency. For Example, begin by underlining "Tom Phillips." Your name is your identity in society. It's given to you at birth, recorded on a birth certificate, and used on the all legal documents throughout your life. If you don't like your name, you can change it through a legal procedure through the court system.*

### **"A Day in the Life of Tom Phillips"**

Tom Phillips is twelve years old. He lives at 2893 Pleasant Avenue in Hamilton, Ohio with his family, a mother and father, a brother, and a dog. Today was a school day, so Tom got up when his mother called home from work at 7:00 a.m. He washed his face with Dial soap, brushed his teeth with Crest toothpaste, and then got dressed for school.

Soon Tom came to the kitchen. He turned on the television and sat down to eat a breakfast of orange juice, a bowl of Cheerios, toast, and a quart of milk. When he finished eating, Tom attached a leash to his dog's collar and took the dog for a walk around the block.

Returning to his house, Tom heard the sound of the school bus. He grabbed his books and ran to meet the bus, which had stopped in front of his house with its red lights flashing. Tom boarded the bus and greeted the bus driver with a friendly smile. Another day of school was about to begin.

**Chapter 1 / Section 2: NS1-U3C1S2 – The Role of Government**

Activity 1: Take Home Activity- How Government Affects You

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Daily Activity	Government Connection

## **Unit 3 Chapter 2: NS1-U3C2 – Foundations of US Government**

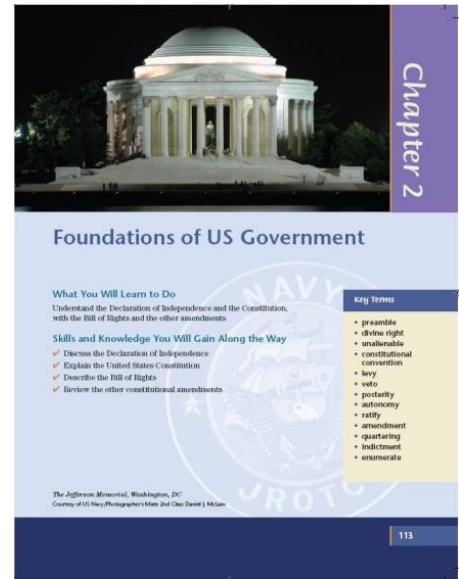
### **What Students Will Learn to Do:**

Understand the Declaration of Independence and the Constitution, with the Bill of Rights and the other amendments

### **Skills and Knowledge to be Gained:**

1. Discuss the Declaration of Independence
2. Explain the United States Constitution
3. Describe the Bill of Rights
4. Review the other constitutional amendments

### **Standards Linked in this Chapter:**



### **Common Core English Language Arts 9-10\***

#### Reading: Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).
- RI.9-10.9. Analyze seminal U.S. documents of historical and literary significance (e.g., Washington's Farewell Address, the Gettysburg Address, Roosevelt's Four Freedoms speech, King's "Letter from Birmingham Jail"), including how they address related themes and concepts.

#### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...
- W.9-10.8. Gather relevant information from multiple authoritative print and digital sources...

#### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions ...
- SL.9-10.2. Integrate multiple sources of information presented in diverse media or formats...

#### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

### **The College, Career, and Civic Life (C3) Framework for Social Studies State Standards \*\***

#### D2. Civic and Political Institutions



## **Unit 3 Chapter 2: NS1-U3C2 – Foundations of US Government**

- D2.Civ.1.9-12. Distinguish the powers and responsibilities of local, state, tribal, national, and international civic and political institutions.
- D2.Civ.2.9-12. Analyze the role of citizens in the U.S. political system, with attention to various theories of democracy, changes in Americans' participation over time, and alternative models from other countries, past and present.
- D2.Civ.7.9-12. Apply civic virtues and democratic principles when working with others.
- D2.Civ.14.9-12. Analyze historical, contemporary, and emerging means of changing societies, promoting the common good, and protecting rights.

### **D2. History**

- D2.His.1.9-12. Evaluate how historical events and developments were shaped by unique circumstances of time and place as well as broader historical contexts.
- D2.His.2.9-12. Analyze change and continuity in historical eras.
- D2.His.3.9-12. Use questions generated about individuals and groups to assess how the significance of their actions changes over time and is shaped by the historical context.
- D2.His.6.9-12. Analyze the ways in which the perspectives of those writing history shaped the history that they produced.
- D2.His.10.9-12. Detect possible limitations in various kinds of historical evidence and differing secondary interpretations.
- D2.His.11.9-12. Critique the usefulness of historical sources for a specific historical inquiry based on their maker, date, place of origin, intended audience, and purpose.

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

\*\*A complete listing of all linked C3 Framework for Social Studies State Standards are displayed on the Standards Chapter Matrix – C3 at the end of the Naval Science 1 Instructor's Guide.

## **Chapter 2 / Section 1: NS1-U3C2S1 – Declaration of Independence & Constitution**

(Section 1 of 3)

### **What Students Will Learn to Do:**

Understand the Declaration of Independence and the Constitution with the Bill of Rights and the other amendments

### **Skills and Knowledge to be Gained:**

1. Discuss the Declaration of Independence
2. Explain the United States Constitution

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Warm Up Questions	Opening Question	The Declaration of Independence (A)	Video1 of the Declaration of Independence	The Declaration of Independence (B)	Video2 of the Declaration of Independence
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The Declaration of Independence (C)	The Parts of the Declaration of Independence	Check on Learning A	The United States Constitution	The United States Constitution Video	The Articles Of Confederation	Shays' Rebellion and Need for a Stronger Government	Video of Articles of Confederation
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James Madison The Youthful Father of the Constitution	Video of Articles of Confederation	Check On Learning B	The Great Compromise	Other Constitutional Balancing Acts	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 3, Chapter 2. Place a checkmark beside the NS1-U3C2S1 PowerPoint presentation and these two CPS question deck files:  
NS1-U3C2S1 - Key Terms and NS1-U3C2S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 2 / Section 1: NS1-U3C2S1 – Declaration of Independence & Constitution

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>Explain that in the world, America is a unique nation based on ideas rather than race or geography. These ideas are foundational to our government and are contained in several historical documents. In this chapter, you will learn about two of the most important documents - the Declaration of Independence and the United States Constitution. You will learn why the Declaration of Independence was written and the parts of the document. You will get an overview of the United States Constitution and review its parts, including its articles, the Bill of Rights, and the other amendments to the Constitution that have been passed over the last 200+ years.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>Opening Question(Random Pick a Student – "RPS")</b>	This Opening Question is "Why do you think the early colonial citizens wanted to be independent of England?" Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student's name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on the Declaration of Independence and Constitution.	<b>8</b>
<b>The Declaration of Independence</b>	<p>Explain that every year Americans celebrate the Fourth of July with fireworks and parades. The Fourth of July is Independence Day in the United States—the "birthday" of our country.</p> <p>Explain that it was on 4 July 1776, that the Second Continental Congress signed the Declaration of Independence and proclaimed America's independence from the British Empire.</p>	<b>9</b>
<b>Video 1 of the Declaration of Independence</b>	Show first video of the Declaration of Independence	<b>10</b>

## Chapter 2 / Section 1: NS1-U3C2S1 – Declaration of Independence & Constitution

<b>The Declaration of Independence</b>	Explain that the Declaration of Independence cut the 13 American colonies' political ties to Britain and launched them forth on a brave new experiment in self-government. The United States wasn't much of a country when the Declaration was signed. It would take a bloody war and a failed first attempt at self-government before the original 13 colonies would become a single, smoothly functioning country. Despite these challenges, the Declaration gave rise to a powerful new way of thinking and started what has become known as 'the American experiment'.	<b>11-12</b>
<b>Video 2 of the Declaration of Independence</b>	Show second video of the Declaration of Independence	<b>13</b>
<b>The Declaration of Independence</b>	Explain that the Declaration of Independence and the United States Constitution are two of history's most remarkable philosophical and political documents. The Declaration's ideas and the Constitution's carefully balanced system of government have inspired people worldwide.	<b>14</b>
<b>The Parts of the Declaration of Independence</b>	Drafted by Thomas Jefferson, the Declaration of Independence has five parts: the Preamble, concept, grievances, attempts to resolve, declares independence. Some parts of the Declaration are better known than others, but this document contains words and phrases you'll hear for the rest of your life as an American citizen. They are an essential part of America's story and national identity.	<b>15-16</b>
<b>The Parts of the Declaration of Independence</b>	Explain that the Declaration opens with the preamble, or introduction. By announcing their independence from the king of England, the colonists knew they were taking a big step—as well as an enormous risk. If the revolution failed, the colonists would be tried for treason and executed. The preamble was their opportunity to explain themselves to the world. Even if they should fail, the world would still see why the colonists were compelled to act: "[A] decent respect to the opinions of mankind requires that they [the American people] should declare the causes which impel them to the separation."	<b>17</b>
<b>The Parts of the Declaration of Independence</b>	<p>Explain that next comes the really big idea—the challenge to the notion of the divine right of kings. The patriots insisted that God did not set a few men over others as kings. "All men are created equal," the Declaration thundered, "and are endowed by their Creator with certain unalienable rights. Such rights are not given: They are a basic part of human existence, and no one can take them away. Among these unalienable rights, the Declaration went on, are "life, liberty, and the pursuit of happiness."</p> <p>Explain that, from the notion of divine right, the Founders concluded that all governments derive their "just powers" from the "consent of the governed," not the right of the governors. In other words, governments exist for people, rather than the other way around.</p> <p>Explain that at the heart of all these ideas was a singular concept that the first democracies in ancient Greece never truly recognized, namely, "We hold these truths to be self-evident, that all Men are created equal . . ." It would take some time before "all men" in America received the protection of their freedoms the Declaration promised. It would take even longer before people realized that the American idea had to include "all women" as well. Nevertheless, those ideas were there at the beginning, just as the blossom is in the bud before it blooms.</p>	<b>18</b>

## Chapter 2 / Section 1: NS1-U3C2S1 – Declaration of Independence & Constitution

<b>The Parts of the Declaration of Independence</b>	Explain that the Declaration’s third section is a list of grievances, or complaints, against King George III, the ruler of the British Empire at the time of the Revolutionary War. Many of these grievances seem unimportant today, but to Thomas Jefferson and his colleagues in Philadelphia during the summer of 1776, they were important enough to spur them to challenge one of the most powerful monarchies on earth. If you look carefully, you can find in the Constitution and Bill of Rights provisions to keep abuses such as those of George III from happening again. (Read the Third Amendment, for instance.)	<b>19</b>
<b>The Parts of the Declaration of Independence</b>	Explain that the fourth section of the Declaration outlines steps the colonies took to resolve their differences with England. Like the list of grievances, this section may seem less important today, but the Founders wanted everyone to understand that the colonists weren’t just rebels. They thought of themselves as law-abiding British subjects. They saw themselves as part of a legal tradition going back centuries. They tried to make the existing system work before they decided to create a new one.	<b>20</b>
<b>The Parts of the Declaration of Independence</b>	Explain that in the fifth section, the States actually declare their independence. They declare “that these united colonies are, and of right ought to be free and independent states; that they are absolved from all allegiance to the British crown.”  Explain that the signers of the Declaration of Independence had no guarantees for the future. No one could assure them it would all turn out well. The leaders of the revolutionary movement knew they would all be hanged if their bold experiment failed. Even so, they were willing to put everything they had on the line—“our lives, our fortunes, and our sacred honor.”	<b>21</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students’ understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>22</b>
<b>The United States Constitution</b>	Explain that the constitution that governs the United States today was not our country’s first attempt at self-government. During the Revolutionary War through 1787, the country was governed by the Articles of Confederation.	<b>23</b>
<b>The United States Constitution Video</b>	Show video of the US Constitution.	<b>24</b>
<b>The Articles of Confederation</b>	Explain that the new country did manage some important things under this first system. It won the war for independence, for one thing. Moreover, other countries now recognized, or acknowledged, the United States as a real country, standing on its own. The most lasting achievement under the Articles is plain to see on any map of the United States, that is, the organization of the Northwest Territories, which eventually became the states of Ohio, Michigan, Indiana, Illinois, and Wisconsin. These were carved out of the territory to the north of the Ohio River and east of the Mississippi.	<b>25</b>
<b>The Articles of Confederation</b>	Explain that the Articles of Confederation were the kind of arrangement you might expect from a group of colonies who had cut loose from one powerful government and didn’t want to end up under the thumb of another. The Articles were also a system that appealed to a diverse group of colonies that really functioned as separate little countries. Different people founded these colonies for very different reasons. The colonies varied widely in size, geography, and population. Some, as in New England, were seafaring communities that looked out across the Atlantic. Others were farming communities that looked westward to the American heartland. The western borders of some of the smaller colonies were already defined. Other colonies, such as New York and Virginia, claimed vast tracts of land stretching farther inland. No one knew where their western borders would be drawn.	<b>26</b>

## Chapter 2 / Section 1: NS1-U3C2S1 – Declaration of Independence & Constitution

<b>Shays' Rebellion and the Need for a Stronger Government</b>	Explain that in 1786, Daniel Shays was the leader of a group of hundreds of Massachusetts farmers facing hard times. They were heavily in debt. Those who couldn't pay their debts lost their homes and their farms. Many of the farmers went to prison. It was a very unhappy situation. No one liked to see the farmers in such a tough spot. Mobs intervened to keep the farmers' property from being sold at auction.	<b>27</b>
<b>Shays' Rebellion and the Need for a Stronger Government</b>	Explain that in search of weapons to arm themselves, Shays and his men launched an attack on the federal arsenal at Springfield, Massachusetts. Shays' Rebellion failed, but the episode was a warning to the Massachusetts authorities and those who feared that others might try the same thing elsewhere. Faced with a rebellion that almost seized federal property, Congress did not have the authority to intervene in what was considered a state matter.	<b>28</b>
<b>Shays' Rebellion and the Need for a Stronger Government</b>	George Washington was one of a number of important people who felt the time had come for a stronger national government. He wrote to James Madison saying, "We are either a united people or we are not. If the former, let us act as a nation. If we are not, let us no longer act a farce by pretending to it."	<b>29</b>
<b>Shays' Rebellion and the Need for a Stronger Government</b>	<p>Explain that there was a Congress, but it took a two-thirds majority vote to pass a law. In those early days, the states couldn't even agree on a national currency.</p> <p>Explain that the Articles gave the former colonies independence from one another as well as from the national government. But after Daniel Shays led a group of rebellious farmers in a 1786 attack on a federal arsenal in Massachusetts, many of the Founders began to think the national government was too weak. The possibility of more armed uprisings wasn't the only thing that concerned them. The early leaders of the country had begun to notice what was missing in their weak national government. They had set it up with:</p> <ul style="list-style-type: none"> <li>• no real taxing authority</li> <li>• no executive or judicial branch</li> <li>• no power to regulate trade</li> <li>• no power to regulate relations between the states, or between a state and a foreign country.</li> </ul>	<b>30-31</b>
<b>Shays' Rebellion and the Need for a Stronger Government</b>	Explain that that is why in the late spring of 1787, a convention, or meeting, was called to amend the Articles of Confederation. Almost at once, the delegates decided to draw up a new constitution. The meeting has since been known as the Constitutional Convention. The delegates considered two possible approaches: James Madison's Virginia Plan and the New Jersey Plan.	<b>32</b>
<b>Video of Articles of Confederation</b>	Show video of Articles of Confederation	<b>33</b>
<b>James Madison – The Youthful "Father of the Constitution"</b>	<p>Explain that James Madison was one of the youngest of the Founding Fathers. But by 1787, when he was only 36 years old, his talents had been long recognized and admired. He was probably the most influential of the Framers at the Constitutional Convention in Philadelphia. This is in part because he arrived early and brought along a detailed plan. (This is a lesson that applies elsewhere in life, too.)</p> <p>It didn't hurt that he also kept the most detailed notes of the proceedings. Although they were meant to be secret, to let the delegates debate freely and try out ideas they would later reject, delegates were free to take as many notes as they wished. Madison attended nearly every session and kept careful notes. Much of what we know today about what happened at the convention comes from his records.</p>	<b>34</b>

## Chapter 2 / Section 1: NS1-U3C2S1 – Declaration of Independence & Constitution

<b>James Madison – The Youthful “Father of the Constitution”</b>	<p>Explain that the Virginia Plan proposed a strong central government with the three branches the United States has today: legislative, executive, and judicial. It called for empowering the legislature of the national government to:</p> <ul style="list-style-type: none"> <li>• pass laws that individual states could not pass, such as laws governing trade between states</li> <li>• strike down state laws in conflict with national laws</li> <li>• call forth the national armed forces if necessary to enforce laws passed by Congress.</li> </ul>	<b>35</b>
<b>James Madison – The Youthful “Father of the Constitution”</b>	<p>Explain that some weeks into the convention, William Paterson offered the New Jersey Plan, named for his home state. This plan called mainly for tinkering with the Articles of Confederation.</p> <p>Explain that under the New Jersey Plan, the national government would get some taxing authority and could levy import duties and a stamp tax to raise money for its operations. The national government would have the power to collect money from the states if they refused to pay. The national government would also have the power to regulate trade between states and between states and foreign countries. What’s more, the laws passed by Congress would be the supreme law of the land. No longer would federal laws face challenges from state law. The New Jersey Plan also included a form of an executive branch and a judicial branch.</p>	<b>36</b>
<b>James Madison – The Youthful “Father of the Constitution”</b>	<p>Explain that as talks progressed, the delegates focused increasingly on the Virginia Plan. The New Jersey Plan, many argued, just wasn’t different enough from the Articles of Confederation. Major questions remained, though. The two biggest were:</p> <ul style="list-style-type: none"> <li>• How much power should the national government have?</li> <li>• How would states’ representation be determined? Should each state’s representation depend on population or geographical size?</li> </ul> <p>Explain that equal representation for all states in the Congress was the rule under the Articles of Confederation. Not surprisingly, the less-populated states liked that arrangement while the more-populated states thought it was unfair. The debates were so intense that at times they threatened to derail the convention.</p>	<b>37-38</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students’ understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>39</b>
<b>The Great Compromise</b>	<p>Explain that major progress finally came when Roger Sherman of Connecticut dusted off a proposal someone had made earlier. This proposal called for treating all states equally in the upper house but apportioning, or assigning, the number of seats in the lower house of the legislature by population.</p> <p>Explain that the convention accepted the idea in what became known as the Great Compromise (or sometimes the Connecticut Compromise). It still holds today. The 435 seats in the House of Representatives are divided among the states by population. The least-populous states have only a single House member, while the most-populous have dozens of members. In the Senate, however, sparsely populated Alaska, Vermont, and Wyoming are each entitled to two members, as are populous California, New York, and Texas.</p>	<b>40</b>
<b>Other Constitutional Balancing Acts</b>	Explain that the Great Compromise was one of the more important compromises to be struck at the Constitutional Convention, but it was by no means the only one. Decisions made at the Constitutional Convention also:	<b>41-42</b>

## Chapter 2 / Section 1: NS1-U3C2S1 – Declaration of Independence & Constitution

	<ul style="list-style-type: none"> <li>• Balanced power between the state and federal governments by giving specific powers to the federal government (“the enumerated powers”) and leaving the rest in the hands of the states.</li> <li>• Balanced legislative powers between chambers, or houses, of Congress. All tax laws had to start in the House of Representatives. The Senate, on the other hand, won authority to approve presidential appointees, such as Cabinet secretaries and Supreme Court justices.</li> <li>• Checked the president’s power to conduct foreign policy by giving the Senate the right to ratify all treaties.</li> </ul>	
<b>Other Constitutional Balancing Acts</b>	<p>Explain that each branch of government has a specific role. As you learned in the last chapter, this arrangement is called the separation of powers. Under it:</p> <ul style="list-style-type: none"> <li>• The legislative branch makes the laws and levies taxes.</li> <li>• The executive branch enforces the laws.</li> <li>• The judicial branch interprets the laws and assures individuals’ rights.</li> </ul> <p>Explain that finally, in an arrangement not unlike the rock-paper-scissors game you may have sometimes played, the branches all have ways to check one another. Congress passes laws, but the president may veto them. Congress may override the president’s veto with a two-thirds majority vote. The Supreme Court may rule a law unconstitutional. The Supreme Court has also checked the powers of the executive branch at times by ruling its actions illegal, but the president appoints the Supreme Court justices, and the Senate confirms them. This system of checks and balances was created to prevent any one person or branch from gaining complete control over the government and thereby risking the same tyranny the Founders had faced before the revolution.</p>	<b>43-46</b>
<b>Other Constitutional Balancing Acts</b>	Explain that finally, the states preserve a say in the union by their collective power to approve or reject proposed constitutional amendments.	<b>47</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>48</b>
<b>Review Question</b>	The Review Question is “What are some examples of checks and balances in the Constitution?” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>49</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>50</b>



## **Chapter 2 / Section 1: NS1-U3C2S1 – Declaration of Independence & Constitution**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Handout: How to Create a Multi-flow Map

When: At the end of class

- Cadets will make a multi-flow map that illustrates the causes and effects of the Declaration of Independence, the Articles of Confederation or the US Constitution. Once they have completed their map, they will explain their map to at least one other person in the room.

B. Homework Activity: Using the flow map made in class, the cadet will write a paragraph that explains the reason/s the document that was chosen for the activity (Declaration of Independence, the Articles of Confederation or the US Constitution) is an important part of American government.



Tech Tip

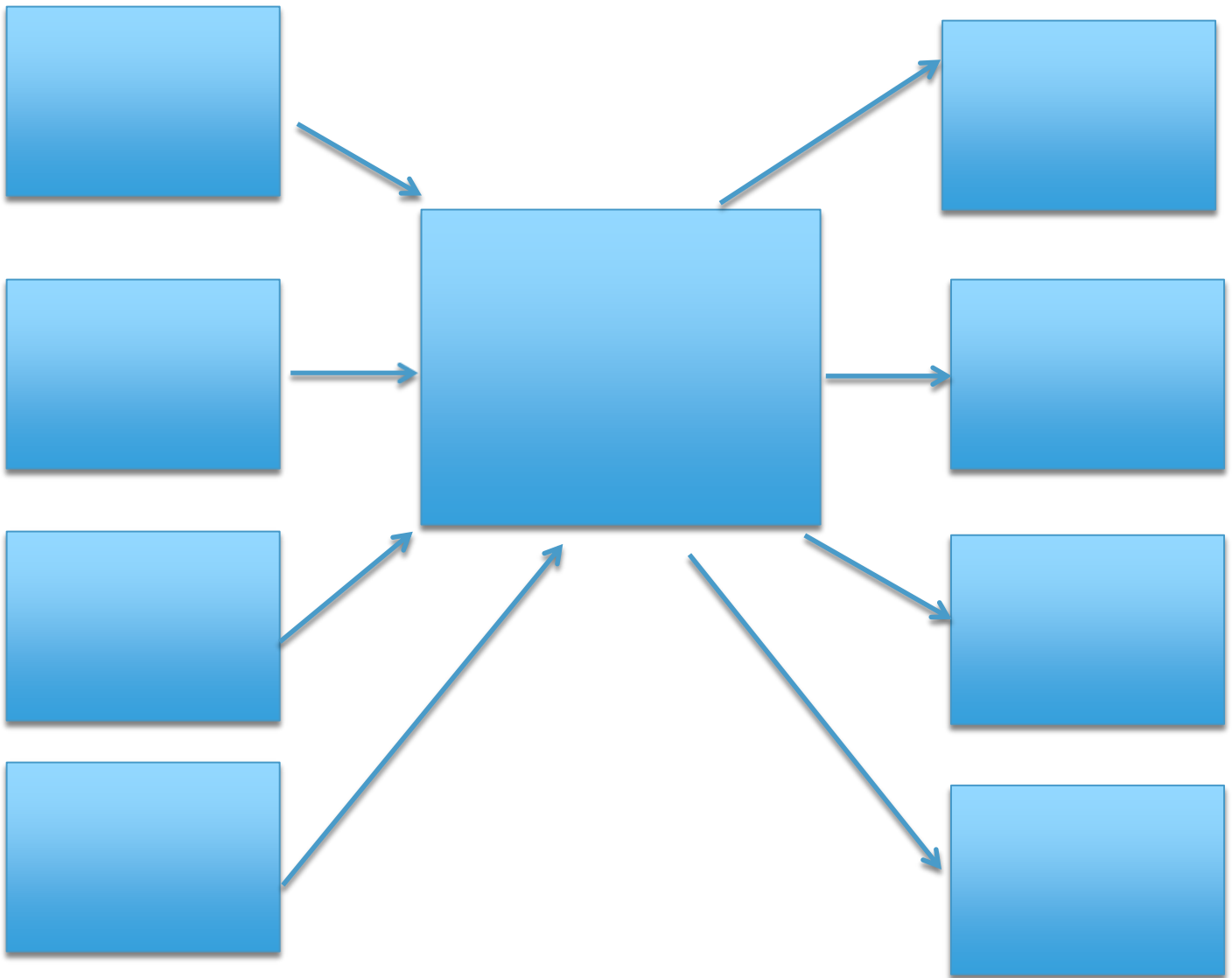
Cadets could make their flow map using a computer or mobile device app.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 2 / Section 1: NS1-U3C2S1 – Declaration of Independence & Constitution**

How to create a multi-flow map:

- In the center of your paper write the event that you are thinking about then draw a box around it. Choose from the Declaration of Independence, the Articles of Confederation, or the US Constitution.
- To identify something that caused the event to happen, write it to the left of the box. After writing, put a box around the statement and draw an arrow pointing towards the center.
- To identify something that was an effect of the event, write it to the right of the center box. After writing, put a box around the statement and draw an arrow from the center to the right.



## **Chapter 2 / Section 2: NS1-U3C2S2 – The Constitution and Bill of Rights**

(Section 2 of 3)

### **What Students Will Learn to Do:**

Understand the Declaration of Independence and the Constitution, with the Bill of Rights and the other amendments

### **Skills and Knowledge to be Gained:**

1. Explain the United States Constitution
2. Describe the Bill of Rights

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Warm Up Questions	Opening Question	An Overview of the United States Constitution	Video of an Overview of the United States Constitution	Article I	Article II
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Article III	Article IV	Article V	Check on Learning A	Article VI	Article VII	Bill Of Rights (A)	Video on Bill Of Rights	Bill Of Rights (B)
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First Amendment Video	First Amendment: Religious and Political Freedom	Second Amendment Video	The Second Amendment: Right to Bear Arms	Check On Learning B	Third Amendment Video	The Third Amendment: Quartering of Soldiers	Fourth Amendment Video
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The Fourth Amendment: Search and Seizure	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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## **Chapter 2 / Section 2: NS1-U3C2S2 – The Constitution and Bill of Rights**

### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 3, Chapter 2. Place a checkmark beside the NS1-U3C2S2 PowerPoint presentation, and these two CPS question deck files: NS1-U3C2S2 - Key Terms and NS1-U3C2S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

#### • II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>Explain that uniquely in the world, America is a nation based on ideas rather than race or geography. Those ideas foundational to our government are contained in several historical documents. In this chapter, you will learn about two of the most important, the Declaration of Independence and the United States Constitution. You will learn why the Declaration was written and you will also learn about the parts of the Declaration. You will get an overview of the U.S. constitution and review its parts, including the articles, the Bill of Rights, and the other amendments passed over the last 200+ years.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>6</b>
<b>Opening Question(Random Pick a Student – "RPS")</b>	This Opening Question is "What were the factors that led to the need and desire for a national constitutional document?" Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student's name or clicker number, chosen randomly. The student selected will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on the Constitution and Bill of Rights.	<b>7</b>
<b>An Overview of the United States Constitution</b>	Explain that the Constitution consists of a <i>preamble</i> which makes clear that this is the founding document of the United States. The Preamble states the intentions for which the republic has been formed, with the consent of the people through their elected	<b>8</b>

## Chapter 2 / Section 2: NS1-U3C2S2 – The Constitution and Bill of Rights

	officials: “We the people of the United States, in order to form a more perfect Union, establish justice, insure domestic tranquility, provide for the common defense, promote the general Welfare and secure the Blessings of Liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America.”	
<b>Video of an Overview of the United States Constitution</b>	Show Video of Overview of the United States Constitution	<b>9</b>
<b>Article I</b>	Explain that Article I details the duties of the Congress and sets forth the requirements to become a senator or representative. It explains how these officials are elected and establishes the powers that each house of Congress possesses. Section 8 gives Congress the power to declare war, raise and support armies, provide and maintain a navy, and make rules for the land and naval forces.	<b>10-11</b>
<b>Article II</b>	Explain that Article II describes the president’s powers and explains the requirements to become president. It also sets forth a process for electing the president and describes the president’s responsibilities to the people. For example, Section 2 declares the president the commander in chief of all the armed forces.	<b>12</b>
<b>Article III</b>	Explain that Article III covers the judicial branch. It sets up the federal courts and their duties as well as establishes the Supreme Court as the final interpreter of the Constitution. This means that any law or action taken by the Congress or the president can be brought before the Supreme Court, and the Court may deem it unconstitutional and therefore in violation of the principles on which the country is built.	<b>13</b>
<b>Article IV</b>	Explain that Article IV describes the relationship between the individual states and between the states and the federal government, ensuring both their autonomy and their adherence to federal law.	<b>14</b>
<b>Article V</b>	Explain that Article V provides for changing the Constitution by amendment with the support of a two-thirds majority from both chambers of Congress and the consent of three-fourths of the states.	<b>15</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students’ understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>16</b>
<b>Article VI</b>	Explain that Article VI provides for the adoption of all previous federal government debts and proclaims the Constitution to be the supreme law of the land.	<b>17</b>
<b>Article VII</b>	Explain that Article VII tells how the Constitution is to be ratified. By July, 1788 the majority of the states had ratified the Constitution, and the United States Constitution officially became the law of the United States.	<b>18</b>
<b>Bill of Rights</b>	Explain that the lack of a bill of rights in the original draft of the Constitution alarmed many people and stirred up opposition to the document. Some states refused to ratify the Constitution without a bill of rights. So, the Framers, seeing the support for the new Constitution falling into jeopardy, promised to draft a bill of rights as soon as the Constitution was ratified.	<b>19</b>
<b>Bill of Rights</b>	Explain that therefore, in 1791, the Framers created the first 10 amendments of the Constitution. These amendments would become known as the Bill of Rights. They drafted these amendments not only to more clearly define the rights of U.S. citizens, but also to limit the power of both the states and that of the new federal government. The Framers wanted a government strong enough not only to resist pressure from	<b>20</b>

## Chapter 2 / Section 2: NS1-U3C2S2 – The Constitution and Bill of Rights

	foreign enemies and the divided interests of the several states, but also to protect the individual rights for which they had battled the British.	
<b>Video on Bill of Rights</b>	Show video on Bill of Rights	<b>21</b>
<b>Bill of Rights</b>	Explain that as you read above, much of the Constitution is about large institutional matters—the setting up of federal courts, for instance. The Bill of Rights daily touches on ordinary individual lives. You might call it a statement of street-level liberty. Every time you attend—or choose not to attend—religious services, you are operating within the freedom of religion guaranteed by the First Amendment. Every time you gather with friends or neighbors in a public place to protest or support some cause, you use your freedom of assembly. Every time you decide for yourself what you will read, rather than letting a government censor decide, you benefit from freedom of the press.	<b>22</b>
<b>First Amendment: Religious and Political Freedom Video</b>	Show video on First Amendment	<b>23</b>
<b>First Amendment: Religious and Political Freedom</b>	<p>Explain that this amendment means there is no state religion (“establishment of religion”). Nor is there any preference for one faith over another. This also means the state may not pass laws to prevent people from practicing their religion, even if a majority of people don’t believe in its practice.</p> <p>Explain that the First Amendment also protects a citizen’s right to say what he or she feels in public, even if it’s critical of elected officials or other powerful people. Freedom of the press allows newspapers, radio and TV stations, and other media to have their say, too, within some constraints: If you publish false or untruthful material with spiteful intent that may be deemed libelous and subject to prosecution.</p>	<b>24-25</b>
<b>First Amendment: Religious and Political Freedom</b>	Explain that the Framers created the Bill of Rights with the idea that the people would practice the classical republican model of civic virtue. This means that while the First Amendment guarantees freedom of religion, speech, and the press, these freedoms come at a cost to those choosing to exercise them. Supreme Court Judge Oliver Wendell Holmes defined this cost in 1917, when he stated that if a person’s words “present a clear and present danger that they will create substantive evils, Congress has a right to prevent” the speech could be prohibited. In other words, if you yell “Fire!” in a crowded movie theater, your words are not protected by the Constitution because they present a clear and present danger to the public at large. This has become the paramount limitation on our rights as citizens of the United States. It underscores that each citizen must exercise his or her freedoms responsibly.	<b>26</b>
<b>The Second Amendment: Right to Bear Arms Video</b>	Show video about the Second Amendment	<b>27</b>
<b>The Second Amendment: Right to Bear Arms</b>	Explain that this amendment prevents the government from forbidding citizens to own weapons.	<b>28</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students’ understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>29</b>

## Chapter 2 / Section 2: NS1-U3C2S2 – The Constitution and Bill of Rights

<b>The Third Amendment: Quartering of Soldiers Video</b>	Show video on the Third Amendment	<b>30</b>
<b>The Third Amendment: Quartering of Soldiers</b>	Explain that before the Revolution, the British Army required people to give its soldiers a place to live in their own houses. They did this not only to save money on housing but also as another means of coercing the population into obedience. Naturally, the colonists were sensitive about the way British soldiers quite literally made themselves at home. That is why this practice, called quartering, was banned during peacetime. During wartime, service members may be lodged in private homes, but only if Congress passes the appropriate law.	<b>31</b>
<b>The Fourth Amendment: Search and Seizure Video</b>	Show video on the Fourth Amendment	<b>32</b>
<b>The Fourth Amendment: Search and Seizure</b>	<p>Explain that this amendment keeps police and other government officials from searching private homes or workplaces whenever they feel like it. This freedom is fundamental to what are known as civil liberties—the freedom to live one’s life untroubled by government and police interference.</p> <p>Explain that police may search homes, offices, and other such places only if they obtain a warrant. To do this, they must tell a judge what they are looking for and why they expect to find it in the place they want to search. The Fourth Amendment is a part of every workday for police agencies, courts, and lawyers.</p>	<b>33</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>34</b>
<b>Review Question</b>	The Review Question is “How is the second amendment relevant to current national discussions about gun control?” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>35</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>36</b>

## **Chapter 2 / Section 2: NS1-U3C2S2 – The Constitution and Bill of Rights**

### III. Supplemental Activities -

#### A. In class Activity: The Constitution and The Bill of Rights

Supplies required: Handout “Summary of the US Constitution”

When: Can be used during class or at the close of class

- Print copies of the “Summary of the United States Constitution” handout and have students review it making note of the parts that they think are the most important. Have students vote and defend their choices with an explanation.

B. Homework Activity: Print the “It’s Alive Activity” handout. Cadets will examine headlines of a newspaper to find examples of the US Constitution in action. Cadets may use the “Summary of the US Constitution” handout for guidance. They will also try to cite Articles and Amendments for their findings. The instructor may want to save front pages of newspapers prior to this activity in case cadets do not have access to a newspaper at home. If cadets have access to the Internet they can use online news sources to gather their headlines.

### IV. Evaluation - see CPS database for chapter test questions



## **Chapter 2 / Section 2: NS1-U3C2S2 – The Constitution and Bill of Rights**

### **SUMMARY OF THE U.S. CONSTITUTION**

#### **The Preamble**

The Preamble lists the reasons that the 13 original colonies separated from their mother country, and became an independent nation.

We the People of the United States, in Order to form a more perfect Union, establish Justice, make good government & laws, insure domestic Tranquility, peace in our homes, provide for the common defense, national security, promote the general Welfare, healthy communities and secure the Blessings of Liberty freedom to ourselves and our Posterity, family & friends to ordain and establish, give authority this Constitution the supreme law of the land for the United States of America.



#### **The Seven Articles of the US Constitution**

The Constitution is our plan for government. The Articles of the Constitution talk about the duties of the three main parts of government: the Executive Branch, the Legislative Branch, and the Judicial Branch. The articles also talk about the separate powers of the Federal and State government, and how to change the Constitution.

Article 1: Legislative Branch: the U.S. Congress makes the laws for the United States. Congress has two parts, called "Houses," the House of Representatives and the Senate.

Article 2: Executive Branch: the President, Vice-President, Cabinet, and Departments under the Cabinet Secretaries carry out the laws made by Congress.

Article 3: Judicial Branch: the Supreme Court decides court cases according to US Constitution. The courts under the Supreme Court decide criminal and civil court cases according to the correct federal, state, and local laws.

Article 4: States' powers: States have the power to make and carry out their own laws. State laws that are related to the people and problems of their area. States respect other states laws and work together with other states to fix regional problems.

Article 5: Amendments: The Constitution can be changed. New amendments can be added to the US Constitution with the approval by a two-thirds vote in each house of Congress (67, 281) and three-fourth vote by the states (38).

Article 6: Federal powers: The Constitution and federal laws are higher than state and local laws. All laws must agree with the US Constitution.

Article 7: Ratification: The Constitution was presented to George Washington and the men at the Constitutional Convention on September 17, 1787, Representatives from twelve out of the thirteen original states signed the Constitution. From September 1787 to July 1788, the states meet, talked about, and finally voted to approve the Constitution.

## **Chapter 2 / Section 2: NS1-U3C2S2 – The Constitution and Bill of Rights**

### **The Twenty-seven Amendments to the US Constitution**

1st People have freedom of religion, freedom of speech, freedom of the press, freedom of assembly, and the right to petition the Government. 1791.

2nd People have the right to have a weapon to protect themselves. 1791.

3rd Soldiers cannot take or live in a person's house. 1791.

4th The government cannot arrest a person or search their property unless there is "probable cause." 1791.

5th The government must follow the law (due process) before punishing a person. 1791.

6th A person has the right to a fair and speedy trial by a jury. 1791.

7th A person has the right to a jury trial for civil cases. 1791.

8th The government cannot demand excessive bail or fines, or any cruel and unusual punishment. 1791.

9th The Constitution does not include all of the rights of the people and the states. 1791.

10th Any powers that the Constitution does not give to the federal government belong to the states. 1791.

11th Citizens cannot sue states in federal courts. (There are some exceptions). 1795.

12th The President and Vice President are elected on a party ticket. 1804.

13th Slavery is illegal in the United States. 1865.

14th Every person born in the USA is a citizen. An immigrant can become a naturalized citizen. 1868

15th All US male citizens have the right to vote. 1870.

16th Congress can tax income. 1913.

17th The people can elect US Senators. 1913.

18th Alcohol is illegal. (Prohibition). 1919.

19th All US female citizens have the right to vote. 1920.

20th The President is inaugurated in January. Congress begins to meet in January. 1933.

21st Alcohol is legal. Each state can make laws about making, selling, and drinking alcohol. 1933.

22nd The President cannot serve for more than two terms. 1951.

23rd The US Citizens in the District of Columbia have the right to vote for President. 1961.

24th It is illegal to make a citizen pay a voting fee or take a reading test to vote. 1964.

25th If the President dies or cannot serve, the Vice-President becomes President. If both die, the Speaker of the House becomes President. 1967.

26th US citizens who are 18 years old or older have the right to vote. 1971.

27th Congress must limit when and how much its members are paid. 1992.

## Chapter 2 / Section 2: NS1-U3C2S2 – The Constitution and Bill of Rights

### Activity 1: Take Home Activity – It’s Alive

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_



#### **It’s Alive!!!**

Although the US Constitution is over 200 years old, it is still very much a part of what we do as Americans and still works! In this activity, you will use newspapers headlines to find examples of the Constitution alive and well today!

Fill in the chart below with the headline you find, which Article or Amendment you think the headline refers to, and a brief description of why you chose that headline. One has been given as an example. Try to complete the whole chart!

You may use the “Summary of the Constitution” handout for guidance.

<u><b>Headline</b></u>	<u><b>Article?</b></u>	<u><b>Amendment?</b></u>	<u><b>Brief Description</b></u>
<i><b>Example:</b></i>  Heads Roll at GM over Botched Recall	Article III: Judicial Branch		Families suing GM over ignition switch. Judicial branch settles disputes

## **Chapter 2 / Section 3: NS1-U3C2S3 – The Bill of Rights and Other Amendments**

(Section 3 of 3)

### **What Students Will Learn to Do:**

Understand the Declaration of Independence and the Constitution, with the Bill of Rights and the other amendments

### **Skills and Knowledge to be Gained:**

1. Explain the United States Constitution
2. Describe the Bill of Rights
3. Review the other constitutional amendments

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Key terms	Key Term Definitions	Opening Question	Warm Up Questions	The Fifth Amendment Video	The Fifth Amendment: Criminal Proceedings	The Sixth Amendment Video	The Sixth Amendment: The Right to a Jury Trial
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The Seventh Amendment Video	The Eighth Amendment Video	The Eighth Amendment: Punishment for Crimes	Check On Learning A	The Ninth Amendment Video	The Ninth Amendment: Unremunerated Rights	The Tenth Amendment Video	The Tenth Amendment: Powers Reserved to States	Check on Learning B
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Other Constitutional Amendments	Conclusion	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 3, chapter 2. Place a checkmark beside the NS1-U3C2S3 PowerPoint presentation, and these two CPS question deck files: NS1-U3C2S3 - Key Terms and NS1-U3C2S3 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 2 / Section 3: NS1-U3C2S3 – The Bill of Rights and Other Amendments

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>Explain that uniquely in the world, America is a nation based on ideas rather than race or geography. Those ideas foundational to our government are contained in several historical documents. In this chapter, you will learn about two of the most important ideas - the Declaration of Independence and the United States Constitution. You will learn why the Declaration was written and you will learn about its parts. You will get an overview of the U.S. Constitution and review its parts, including its articles, the Bill of Rights, and the other amendments passed over the last 200+ years.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “How is the Constitution different from the Bill of Rights in terms of its effect on citizens?” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the Bill of Rights and other amendments.	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.	<b>7</b>
<b>The Fifth Amendment: Criminal Proceedings and Due Process Video</b>	Show video on the Fifth Amendment	<b>8</b>
<b>The Fifth Amendment: Criminal Proceedings</b>	<p>Explain that you may not think much about the Fifth Amendment unless you get into a scrape with the law. However, it is a part of the bedrock of your civil liberties. The Fifth Amendment calls for those accused of a serious (“infamous”) crime to be indicted before they are tried. That ensures that there is real evidence against the defendants and discourages the police from fabricating charges.</p> <p>Explain that the Fifth Amendment prevents someone from being tried again for a crime if he or she has been found not guilty (that would be “double jeopardy”). It also prevents people from being forced to testify against themselves. You may have seen movies where people have said “I’ll plead the Fifth,” meaning that they refuse to testify against themselves in a court case. The prosecutor in such a situation is forced to find other witnesses and evidence to win a conviction.</p>	<b>9-10</b>

## Chapter 2 / Section 3: NS1-U3C2S3 – The Bill of Rights and Other Amendments

	Explain that the final part of this amendment ensures that private property is not taken away from someone except with fair payment. If your town needs part of your backyard for a new school, for instance, the town must pay you what the land is worth, however badly it needs the school.	
<b>The Sixth Amendment: The Right to a Jury Trial Video</b>	Show video on the Sixth Amendment	<b>11</b>
<b>The Sixth Amendment: The Right to a Jury Trial</b>	Explain that like the other amendments touching on matters of criminal justice, this is one with which most citizens have little direct experience. But by offering protections to all—even those who appear to have broken the law—the Sixth Amendment protects everyone. It guarantees criminal defendants a “speedy” public trial by a fair-minded jury. The Sixth also guarantees the accused a defense lawyer. It sets standards for witnesses’ presentation of evidence and ensures the accused know the accusations against them so that they might better defend themselves.	<b>12</b>
<b>The Seventh Amendment: The Right to a Civil Trial Video</b>	Show Video on the Seventh Amendment. Explain that most of the courtroom dramas you see on television or at the movies depict criminal cases. However, civil lawsuits, those disputes between citizens or companies over money, are an important part of the justice system, as well. This amendment promises jury trials in the case of civil as well as criminal cases.	<b>13</b>
<b>The Eighth Amendment: Punishment for Crimes Video</b>	Show video on the Eighth Amendment.	<b>14</b>
<b>The Eighth Amendment: Punishment for Crimes</b>	Explain that bail is the money or property given to a court to guarantee that a criminal defendant will show up for trial. Bail allows the accused, who is presumed innocent until proven guilty, go free until the trial. This amendment says that bail shall not be “excessive.” It also forbids “cruel and unusual punishments.” If you have followed Supreme Court cases involving the death penalty, you know that the concept of “cruel and unusual punishment” changes over time.	<b>15</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students’ understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>16</b>
<b>The Ninth Amendment: Unremunerated Rights Video</b>	Show video on the Ninth Amendment	<b>17</b>
<b>The Ninth Amendment: Unremunerated Rights</b>	Explain that in other words, just because the Constitution doesn’t say anything about a particular right doesn’t mean that that right doesn’t belong to the citizens. Every right does not need to be enumerated. Under some systems, citizens have only the rights their governments expressly give them. The Framers wanted to make certain that the United States was not one of those systems.	<b>18</b>
<b>The Tenth Amendment: Powers Reserved to States Video</b>	Show video on the Tenth Amendment	<b>19</b>

## Chapter 2 / Section 3: NS1-U3C2S3 – The Bill of Rights and Other Amendments

<b>The Tenth Amendment: Powers Reserved to States</b>	Explain that this amendment makes clear that any power not clearly assigned to the federal government or forbidden to the states, belongs to the states or the people. Once again, freedom, not restriction, is the starting point of the U.S. system of government.	<b>20</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>21</b>
<b>Other Constitutional Amendments</b>	Explain that once the Bill of Rights had been ratified, additional amendments to the Constitution came slowly. There have been only 17 amendments since the Bill of Rights. The most recent was ratified in 1992. Six of the amendments define what a person is and who has the right to vote. Even after more than 200 years, the United States is still growing and changing, expanding its definition of freedom so that all might receive the freedoms defined in the Declaration of Independence and the Constitution.	<b>22</b>
<b>Other Constitutional Amendments</b>	<p><i>1. Amendment XI - Passed by Congress March 4, 1794; ratified February 7, 1795.</i> Explain that this amendment clarifies judicial power over foreign nationals, and limits the ability of citizens to sue states.</p> <p><i>2. Amendment XII - Passed by Congress December 9, 1803; ratified June 15, 1804.</i> Explain that this amendment changes the procedures for electing a vice president. At first, the vice president was the runner-up in the presidential race. Under the new system, voters chose a president and a vice president separately.</p> <p><i>3. Amendment XIII - Passed by Congress January 31, 1865; ratified December 6, 1865.</i> Explain that this landmark amendment ended slavery throughout the United States.</p>	<b>23</b>
<b>Other Constitutional Amendments</b>	<p><i>4. Amendment XIV - Passed by Congress June 13, 1866; ratified July 9, 1868.</i> Explain that this amendment, known for its phrase "equal protection of the laws," declared the newly freed African-American slaves to be U.S. citizens.</p> <p><i>5. Amendment XV - Passed by Congress February 26, 1869; ratified February 3, 1870.</i> Explain that this amendment outlawed racial tests for voting. It also made it illegal to keep people from voting just because they had once been enslaved.</p> <p><i>6. Amendment XVI - Passed by Congress July 2, 1909; ratified February 3, 1913.</i> Explain that this amendment allowed the federal government to introduce a personal income tax.</p>	<b>24</b>
<b>Other Constitutional Amendments</b>	<p><i>7. Amendment XVII - Passed by Congress May 13, 1912; ratified April 8, 1913.</i> Explain that this amendment provided for the popular (direct) election of senators. Up until this point, House members were elected by the people, but state legislatures elected senators.</p> <p><i>8. Amendment XVIII - Passed by Congress December 18, 1917; ratified January 16, 1919; repealed by Amendment XXI.</i> Explain that this amendment banned alcoholic beverages in the United States ("Prohibition").</p> <p><i>9. Amendment XIX - Passed by Congress June 4, 1919; ratified August 18, 1920.</i> Explain that this amendment gave women the right to vote.</p>	<b>25</b>

## Chapter 2 / Section 3: NS1-U3C2S3 – The Bill of Rights and Other Amendments

<b>Other Constitutional Amendments</b>	<p><i>10. Amendment XX - Passed by Congress March 2, 1932; ratified January 23, 1933.</i> Explain that this amendment pushed the inauguration of a new president ahead from March to January 20. It also moved the day a new Congress convenes from December to January 3. It clarified procedures for Congress to follow in filling either Presidential or Vice-Presidential vacancies.</p> <p><i>11. Amendment XXI - Passed by Congress February 20, 1933; ratified December 5, 1933.</i> Explain that this amendment repealed Amendment XVIII and ended Prohibition.</p> <p><i>12. Amendment XXII - Passed by Congress March 21, 1947; ratified February 27, 1951.</i> Explain that this amendment put into law a practice that was followed from George Washington until Franklin Roosevelt: a limit of two terms for any President. (Franklin Roosevelt was elected four times.)</p>	<b>26</b>
<b>Other Constitutional Amendments</b>	<p><i>13. Amendment XXIII - Passed by Congress June 16, 1960; ratified March 29, 1961.</i> Explain that this amendment gives residents of the District of Columbia the right to vote in presidential elections.</p> <p><i>14. Amendment XXIV - Passed by Congress August 27, 1962; ratified January 23, 1964.</i> Explain that a century after the Civil War, this amendment was enacted to defend the voting rights of African-Americans: It forbade states to require taxes (head taxes) as a condition of voting. Some Southern states had used such requirements to keep African-Americans from casting ballots.</p>	<b>27</b>
<b>Other Constitutional Amendments</b>	<p><i>15. Amendment XXV - Passed by Congress July 6, 1965; ratified February 10, 1967.</i> Explain that this amendment, passed after the assassination of President John F. Kennedy in 1963, clarified the presidential succession. It also provided for the appointment of a new vice president to succeed one who had become president. In addition, this amendment provided for temporary transfers of presidential power to the vice president (as when the president is in the hospital) and for situations in which the president cannot speak for himself to declare himself unable to serve.</p> <p><i>16. Amendment XXVI - Passed by Congress March 23, 1971; ratified July 1, 1971.</i> Explain that this amendment gave 18-year-olds the vote in federal elections. Before that, states set varying age requirements for voting, but most required voters to be 21.</p> <p><i>17. Amendment XXVII - Originally proposed September 25, 1789; ratified May 7, 1992.</i> Explain that this amendment makes it harder for Congress to vote itself a pay raise. If it does vote one, the extra money doesn't start until after the next election.</p>	<b>28</b>
<b>Conclusion</b>	<p>Explain that the Declaration of Independence is the document that launched the United States. It set forth a radical new vision of individual liberty and a government deriving its "just powers from the consent of the governed."</p> <p>Explain that during its first years, including those of the Revolutionary War, the country was governed by the Articles of Confederation. The Articles provided a loose connection among the states and only a weak central government.</p>	<b>29</b>
<b>Conclusion</b>	<p>Explain that after a few years it became clear that a stronger national government was needed. A convention was called in the spring of 1787 to revise the Articles. Almost immediately the delegates decided to draw up a new constitution. The new constitution provided for a stronger federal government with executive, legislative, and judicial branches. By July 1788, a majority of states had ratified it and it took effect. Congress and the states modified it almost immediately by adding the Bill of Rights. Over the following two centuries, they added 17 amendments.</p>	<b>30-31</b>



## Chapter 2 / Section 3: NS1-U3C2S3 – The Bill of Rights and Other Amendments

<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>32</b>
<b>Review Question</b>	The Review Question is “Why do you think the concept of enumeration was included as an amendment?” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>33</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>34</b>

### III. Supplemental Activities -

#### A. In class Activity: You Have the Right

Supplies required: Handout “You Have the Right”

When: can be used during or at the end of class

- Copy and distribute the 2 page handout, “You Have the Right....” Cadets read each statement and determine which amendment each scenario is referencing. They should then compare and discuss answers with another classmate.

B. Homework Activity: Each cadet will make a poster advertising their selection for “the most important” amendment to constitution. All cadets will share their posters in class and a vote will be held via a student response system to determine a class decision on the “Most Valuable Amendment”.



#### Tech Tip

There are many online games available for practice on identifying the amendments to the constitution. Some are listed below. Students can also view the Ted Ed video and create their own amendment video using iMovie or a comparable program.

iCivics: [Do I have a Right Game](#)  
[Bill of Rights Matching Game](#)  
[TedEd Video](#)

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 2 / Section 3: NS1-U3C2S3 – The Bill of Rights and Other Amendments**

Activity 1: In-Class Activity- You Have the Right To . . .

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

For each scenario, place the number of the amendment to the US Constitution that would best fit the situation.

\_\_\_\_\_ 1. Mr. Smith is watching TV and hears a knock on his door. He opens the door and finds three police officers on the step asking if they can come to discuss crime in the neighborhood. While they are there, they see bomb-making ingredients under the couch. They arrest Mr. Smith.

\_\_\_\_\_ 2. Greta is organizing some classmates to protest the new city curfew by having a quiet sit-in on the lawn of the city building. The mayor hears about this and he tells Greta that they will not be allowed to have their protest and if they try to do so, they will be arrested by the police.

\_\_\_\_\_ 3. Hans was arrested, tried and found innocent for murdering his wife. A few years later new DNA test reveal that he was with her the night she was murdered. The prosecutor tells Hans, "I will see you back in court!"

\_\_\_\_\_ 4. Kadisha is excited to buy her new gun after her safety class as she has always wanted to learn how to trap shoot. When she gets to the gun store the owner explains to her that she can only buy one rifle because that's what citizens are limited to in the Constitution.

\_\_\_\_\_ 5. The city of Hootville was in chaos, so the governor called in the National Guard. Officers showed up at Jim's home and demanded a place to stay and a hot meal.

\_\_\_\_\_ 6. Ivan was arrested for stealing. He tried to explain to the police that he was innocent, but they wouldn't listen to him. When he said that he wanted a lawyer, the policeman said, "They won't listen to you and we know you are guilty, so we are taking you to jail right now and locking you up for good!"

## **Chapter 2 / Section 3: NS1-U3C2S3 – The Bill of Rights and Other Amendments**

\_\_\_\_\_ 7. Kim was arrested, tried and convicted for kidnapping. Upon sentencing the judge said, “I can either send you to prison for 15 years or make you walk five hundred miles backwards without food or water.”

\_\_\_\_\_ 8. When Bethany’s case was ready to be heard, she was surprised that it was just a judge hearing her case. When she questioned her attorney about this he said, “We couldn’t find anyone available today, so the judge will decide by herself.”

\_\_\_\_\_ 9. When Bo told his mom that he wanted to be an accountant, she said that not only he couldn’t do that, but he couldn’t ever move out of the state of Oklahoma either because the Constitution said so.

\_\_\_\_\_ 10. When Audrey’s neighbor cut down her tree, she shouted over the fence, “I am going to sue you for killing my beloved Oak tree. The jury will believe me.” The neighbor replied, “That tree wasn’t worth much. You can’t get a jury to hear that case. Juries are only for criminal cases!”

## **Chapter 2 / Section 3: NS1-U3C2S3 – The Bill of Rights and Other Amendments**

Activity 1: Take Home Activity- Most Valuable Amendment Contest

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

You have been asked to make a poster for the “Most Valuable Amendment” contest! Your poster will be used to make a case that your favorite amendment should be voted as the most important amendment to the US Constitution. You should use words, pictures, and colors to convince the crowd to vote for your amendment!

Use the space below to plan your poster for this important event!

Amendment # \_\_\_\_\_

What does your amendment say?

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Why is this amendment so valuable?

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What images come to mind when you think of this amendment?

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## Unit Chapter 3 : NS1-U3C3 – National Defense

### What Students Will Learn to Do:

Understand how the US armed forces are organized under the control of elected and appointed civilian leaders

### Skills and Knowledge to be Gained:

1. Explain the defense structure of the United States
2. Describe the organization of the US Navy
3. Discuss the roles of the US Army and Air Force

### Standards Linked in this Chapter:

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
- W.9-10.2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately...

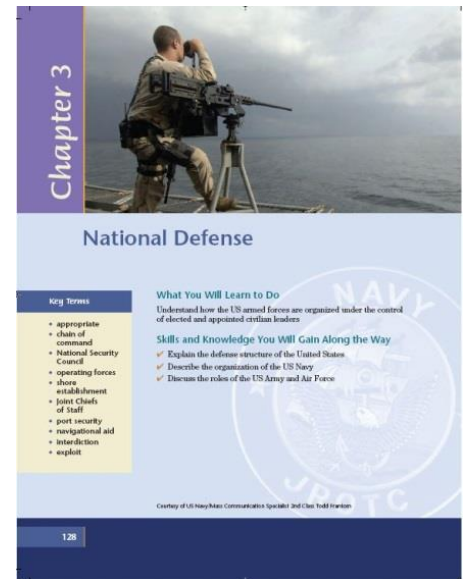
##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.



## **Chapter 3 / Section 1: NS1-U3C3S1 – US Defense Structure & Navy Organization**

(Section 1 of 2)

### **What Students Will Learn to Do:**

Explain the defense structure of the United States

### **Skills and Knowledge to be Gained:**

1. Explain the defense structure of the United States
2. Describe the organization of the US Navy

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Key terms	Key Term Definitions	Warm Up Questions	Opening Question	The Defense Structure of the United States (A)	Check On Learning A	The Defense Structure of the United States (B)	The Last 20 Presidents of the United States
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The Secretary of Defense	The National Security Council	The Department of Defense	The Chief of Naval Operations	The Joint Chiefs of Staff	Check on Learning B	The U.S. Navy	Closing Questions	Review Questions
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Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 3, chapter 3. Place a checkmark beside the NS1-U3C3S1 PowerPoint presentation, and these two CPS question deck files: NS1-U3C3S1 - Key Terms and NS1-U3C3S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

#### **II. Instructional Flow:**

## Chapter 3 / Section 1: NS1-U3C3S1 – US Defense Structure & Navy Organization

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>To have a nation, national defense is necessary. In this chapter, you will learn the structure of our defense system and its relation to civilian government. You will also learn the role of the U.S. Navy and the other military services in protecting our freedom.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.	<b>7</b>
<b>Opening Question(Random Pick a Student – "RPS")</b>	This Opening Question is "What is the function of our country's National Security Council?" Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student's name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on US defense structure and Navy organization.	<b>8</b>
<b>The Defense Structure of the United States</b>	Explain that both Congress and the president have important roles to play in the defense of the United States. Article I of the Constitution gives Congress the power to declare war, raise and support armies, and provide and maintain a navy, and Article II names the president as commander in chief of the U.S. armed forces.	<b>9-10</b>
<b>The Defense Structure of the United States</b>	Explain that because the military falls under the authority of two elected branches of government, the official actions of the military have the weight of the Constitution and the American people behind them. That is why whenever military officers are commissioned into service, they do not swear an oath to serve and defend the president or the Congress, but the Constitution. In that way, no single person or body can outweigh the military's obligation to the country and its people.	<b>11-12</b>
<b>The Defense Structure of the United States</b>	Explain that Congress makes the rules for the military and decides how much money to provide for national defense. The Congress appropriates funds, declares wars, and confirms promotions of military officers that fall beneath its authority.	<b>13</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>14</b>
<b>The Defense Structure of the United States</b>	Explain that the president has a drastically different role than Congress. As commander in chief, the president sits at the top of the chain of command and directs the actions of the military in peace or war.	<b>15</b>

## Chapter 3 / Section 1: NS1-U3C3S1 – US Defense Structure & Navy Organization

<b>The Last 20 Presidents of the United States</b>	<p>Explain that the following are the last 20 Presidents of the United States:</p> <ul style="list-style-type: none"> <li>• Barack Obama</li> <li>• George W. Bush</li> <li>• Bill Clinton</li> <li>• George H. W. Bush</li> <li>• Ronald Reagan</li> <li>• Jimmy Carter</li> <li>• Richard Nixon</li> <li>• Lyndon B. Johnson</li> <li>• John F. Kennedy</li> <li>• Dwight D. Eisenhower</li> <li>• Harry S. Truman</li> <li>• Franklin D. Roosevelt</li> <li>• Herbert Hoover</li> <li>• Calvin Coolidge</li> <li>• Warren G. Harding</li> <li>• Woodrow Wilson</li> </ul>	<b>16</b>
<b>The Secretary of Defense</b>	<p>Explain that a president has many responsibilities and can't personally handle all of the matters presented to the White House. For that reason, the president appoints a group of top officials to handle certain aspects of the administration's policies. These men and women are known as the president's Cabinet. The Cabinet member responsible for military matters is the known as the Secretary of Defense. The secretary runs the Department of Defense (DoD). The DoD is the ultimate authority beneath the president for national defense and managing military resources. As with all members of the Cabinet, the president appoints and the Senate confirms the Secretary of Defense</p>	<b>17</b>
<b>The National Security Council</b>	<p>Explain that the Secretary of Defense serves not only in the Cabinet but also on the National Security Council (NSC). This group consists of the president, the vice president, the Secretary of State, the Secretary of the Treasury, and the Secretary of Defense. The NSC discusses national security and foreign policy questions and advises the president on such matters. An official called the national security adviser coordinates the NSC's work and reports directly to the president. The president may appoint other members to the NSC and may invite other Cabinet members to sit in on discussions of subjects that touch on their departments' respective responsibilities.</p>	<b>18-20</b>
<b>The Department of Defense</b>	<p>Explain that the Secretary of Defense has undersecretaries, assistant secretaries, and agencies that report to him or her. In addition, the secretary oversees three military departments: the Department of the Navy, the Department of the Army, and the Department of the Air Force. The person in charge of each of these is a civilian whose title is also "secretary"—Secretary of the Navy, for instance. The president appoints these individuals and the Senate confirms the appointments</p> <p>Explain that the Secretary of the Navy heads the Department of the Navy and is responsible for outfitting, equipping, recruiting, and training the United States Navy and the United States Marine Corps.</p>	<b>21-22</b>
<b>The Chief of Naval Operations</b>	<p>Explain that under the Secretary of the Navy is the Navy's top military officer, the Chief of Naval Operations, or CNO. The CNO is responsible for the two main parts of the Navy—the operating forces and the naval shore establishment. The CNO also serves as principal naval adviser to the president and the Secretary of the Navy on the conduct of war.</p>	<b>23</b>



## Chapter 3 / Section 1: NS1-U3C3S1 – US Defense Structure & Navy Organization

<b>The Joint Chiefs of Staff</b>	Explain that the CNO has counterparts in other service branches—the Army Chief of Staff, the Air Force Chief of Staff, and the Commandant of the Marine Corps. These four top military officials, plus a chairman and vice chairman, form what is called the Joint Chiefs of Staff. The chairman is the senior military adviser to the president, the National Security Council, and the Secretary of Defense.	<b>24</b>
<b>The Joint Chiefs of Staff</b>	Explain that the chairman does not exercise command over the Joint Chiefs or senior commanders in the field, however. Those commanders report directly through the Secretary of Defense to the president.	<b>25</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>26</b>
<b>The U.S. Navy</b>	Explain that the mission of the Navy is to maintain, train, and equip combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas.	<b>27</b>
<b>The U.S. Navy</b>	Explain that each of the two main divisions of the Navy is responsible for one part of its mission. The operating forces are supposed to win wars, deter aggression, and maintain freedom of the seas. The shore establishment maintains, trains, and equips the operating forces for combat.	<b>28-29</b>
<b>The U.S. Navy</b>	Explain that the operating forces include several fleets, known by their numbers. The 6th Fleet, in the Mediterranean Sea, is the primary operating force of U.S. Naval Forces Europe, headquartered in London, England.	<b>30-31</b>
<b>The U.S. Navy</b>	Explain that the 5th Fleet operates in the Arabian Gulf, the Red Sea, the Gulf of Oman, and in parts of the Indian Ocean. Half the world's oil supply travels through these waters. The United States and its allies want to keep these sea lanes open. The U.S. Naval Forces Central Command is in charge of this area	<b>32</b>
<b>The U.S. Navy</b>	Explain that US Naval Forces Central Command (CENTCOM) operates the 5 <sup>th</sup> Fleet located in Manama, Bahrain. It includes much of the Middle East including Iraq, Pakistan, and Afghanistan.	<b>33-34</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>35</b>
<b>Review Question</b>	The Review Question is "What is the mission of the US Navy?" Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>36</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>37</b>

## Chapter 3 / Section 1: NS1-U3C3S1 – US Defense Structure & Navy Organization

### III. Supplemental Activities -

#### A. In class Activity: National Defense

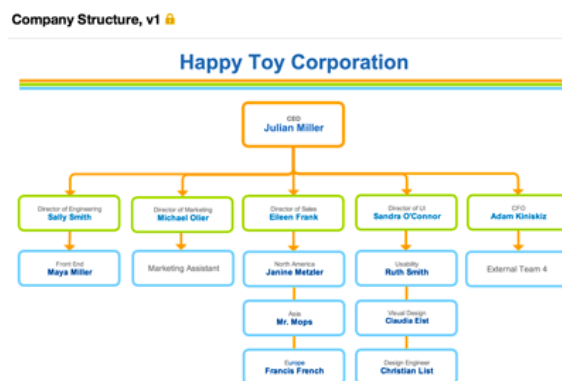
Supplies Needed: Handout

When: At the end of Chapter 3 Class

- In class: Copy and distribute Handout – National Defense. Cadets will answer the question on the activity and a full class discussion will then take place.

B. Homework Activity: Cadets will use the handout – Chain of Command and draw an organizational chart of the Chain of Command from the Commander in Chief of the Armed Forces to their Naval Science Instructor using the information from the section in class.

Sample:



Tech Tip: There are many great online chart makers for cadets to use to make a digital organizational chart such as [Gliffy](https://www.gliffy.com/).

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 3 / Section 1: NS1-U3C3S1 – US Defense Structure & Navy Organization**

Activity 1: In-Class Activity – National Defense

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: The top three leaders of our military services are civilians. Why do you think our forefathers put into the Constitution that the President of the United States shall be the Commander of Chief of the Armed Forces?

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## **Chapter 3 / Section 1: NS1-U3C3S1 – US Defense Structure & Navy Organization**

Activity1: Take Home Activity – Chain of Command

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Draw an organizational diagram in the space below of the Chain of Command from the Commander in Chief of the Armed Forces to your Naval Science Instructor. Include the name of the individual currently serving in that position.

## **Chapter 3 / Section 2: NS1-U3C3S2 – The Navy, Army, and Air Force**

(Section 2 of 2)

### **What Students Will Learn to Do:**

Understand how the US armed forces are organized under the control of elected and appointed civilian leaders and explain the defense structure of the United States

### **Skills and Knowledge to be Gained:**

1. Describe the organization of the US Navy
2. Discuss the roles of the US Army and Air Force

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Warm Up Questions	Opening Question	The U.S. Navy	Check On Learning A	The Shore Establishment	Relationship with the Marine Corps
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The United States Coast Guard and Merchant Marine	Check on Learning B	The U.S. Army and Air Force	U.S Military Forces	Conclusion	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 3, chapter 3. Place a checkmark beside the NS1-U3C3S2 PowerPoint presentation, and these two CPS question deck files: U3C3S2- Key Terms and U3C3S2- Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 3 / Section 2: NS1-U3C3S2 – The Navy, Army, and Air Force

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>To have a nation, national defense is necessary. In this chapter, you will learn the structure of our defense system and its relation to civilian government. You will also learn the role of the U.S. Navy and the other military services in protecting our freedom.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.	<b>7</b>
<b>Opening Question(Random Pick a Student – "RPS")</b>	This Opening Question is "Why is it significant that those who lead our armed forces are elected officials?" Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student's name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on the Navy, Army, and Air Force.	<b>8</b>
<b>The U.S. Navy</b>	Explain that the Atlantic Fleet Command is based in Norfolk, Virginia. The 2nd Fleet is the major force responsible for U.S. security in this area and for the freedom of the naval shipping lanes there.	<b>9</b>
<b>The U.S. Navy</b>	Explain that the Pacific Fleet Command is responsible for the entire Pacific Ocean. It maintains multiple fleets to ensure the security of this large area. The 3rd Fleet, with its base in San Diego, California, operates in the Eastern Pacific, and the 7th Fleet, based in Yokosuka, Japan, operates in the Western Pacific.	<b>10</b>
<b>The U.S. Navy</b>	Explain that you'll notice that some fleet numbers are missing. That's a result of some renumbering, especially after World War II, when the Navy decided not to reassign fleet numbers.	<b>11</b>
<b>The U.S. Navy</b>	Explain that in addition to these commands, the Navy has what are known as "type commands." That is, ships are grouped by type—surface ships under the Surface Force Command and submarines under the Submarine Command. Aircraft carriers, naval aircraft squadrons, and naval air stations are under the administrative control of the appropriate naval air force commander. Normally, a type command controls a ship when it is training. When it goes on missions, the ship comes under the operational control of a fleet commander.	<b>12-13</b>

## Chapter 3 / Section 2: NS1-U3C3S2 – The Navy, Army, and Air Force

<b>The U.S. Navy</b>	Explain that the operating forces have other important tasks. The Military Sealift Command brings equipment, fuel, supplies, and ammunition to wherever American forces need them around the world.	<b>14</b>
<b>The U.S. Navy</b>	Explain that operational Test and Evaluation Force (OTEF) is another part of the operating forces. The OTEF inspects and assesses the operation of new ships, submarines, aircraft, equipment, and space systems and how they fit with the Navy's goals and missions.	<b>15</b>
<b>The U.S. Navy</b>	Explain that the Naval Reserve is also part of the operating forces. The Reserve includes people, equipment, ships, and aircraft acting as part-time forces to serve with the active-duty forces in time of war or national emergency.	<b>16</b>
<b>The U.S. Navy</b>	Explain that another part of the operating forces is the Naval Special Warfare Command, which oversees the Navy SEALs—the Navy's sea, air, and land special forces.	<b>17</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>18</b>
<b>The Shore Establishment</b>	Explain that the shore establishment is responsible for the operation and maintenance of the standing Navy both at home and abroad. It has seven major responsibilities:	<b>19</b>
<b>The Shore Establishment</b>	<p>Explain the seven major responsibilities of the Shore Establishment</p> <ol style="list-style-type: none"> <li>1. Repair and maintenance facilities for ships, submarines, aircraft, and related equipment</li> <li>2. Communications facilities</li> <li>3. Personnel recruiting and training</li> <li>4. Intelligence and meteorological support</li> <li>5. Stores and procurement—the management of supplies in warehouses</li> <li>6. Medical and dental facilities</li> <li>7. Maintenance of naval air bases.</li> </ol>	<b>20-23</b>
<b>Relationship with the Marine Corps</b>	Explain that unlike the other two military department secretaries, the Secretary of the Navy has not one but two service chiefs reporting to him: the Chief of Naval Operations and the Commandant of the Marine Corps.	<b>24</b>
<b>Relationship with the Marine Corps</b>	<p>Explain that the Commandant of the Marine Corps is the top Marine. He directs the three combat divisions of the Corps, with their air wings and support units. The operating forces of the Marines are divided into two commands, the Fleet Marine Force Pacific and the Fleet Marine Force Atlantic. All Marine air and ground tactical units report to one of these two commands.</p> <p>Explain that the operating forces of the two branches, Navy and Marines, support each other.</p>	<b>25-26</b>
<b>The United States Coast Guard and Merchant Marine</b>	<p>Explain that during peacetime, the United States Coast Guard is part of the Department of Homeland Security. In time of war, the Coast Guard becomes part of the Navy. Although it is the smallest of the U.S. armed forces, the Coast Guard has quite a list of responsibilities:</p> <ol style="list-style-type: none"> <li>1. Law enforcement in U.S. territorial waters</li> <li>2. Port security</li> </ol>	<b>27-28</b>

## Chapter 3 / Section 2: NS1-U3C3S2 – The Navy, Army, and Air Force

	<ol style="list-style-type: none"> <li>3. Safety and maintenance of navigational aids</li> <li>4. Search and rescue for those lost at sea</li> <li>5. Interdiction of illegal drug trafficking at sea</li> <li>6. Pollution control in the event of a major ecological contamination like an oil spill</li> <li>7. Immigration control.</li> </ol>	
<b>The United States Coast Guard and Merchant Marine</b>	Explain that finally, the federal government has one more presence on the seas: the United States Merchant Marine. The Merchant Marine functions under the Department of Transportation's Maritime Administration. It regulates the rates and practices of shipping lines and acts as a secondary resupply service to the Navy and Coast Guard. The Merchant Marine is not part of the Navy, but in time of war it becomes a primary carrier of supplies and personnel for the armed services.	<b>29</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>30</b>
<b>The U.S. Army and Air Force</b>	<p>Explain that the U.S. Army celebrates 14 June 1775 as its "birthday." On that date, the Continental Congress adopted the existing Continental Army. It appointed a committee to "draft the rules and regulations for the government of the Army."</p> <p>Explain that the Army is the oldest branch of the U.S. armed services. The Constitution calls for Congress to "raise and support armies" to provide for "the common defense." After ratification of the Constitution, Congress and President George Washington established the Department of War as part of the president's Cabinet. This arrangement continued until the National Security Act of 1947 created the Department of Defense.</p>	<b>31</b>
<b>The U.S. Army and Air Force</b>	Explain that the Army's mission is to provide forces able to conduct prompt, sustained combat on land as well as stability and reconstruction operations, as needed. This means that the Army must be ready to defend areas vital to U.S. national interests at home and overseas. This is similar to the mission of the U.S. Air Force, though the methods the two groups use to fulfill their mission vary greatly.	<b>32</b>
<b>The U.S. Army and Air Force</b>	Explain that the U.S. Air Force organizes, trains, and equips forces for offensive, defensive, and reconnaissance operations that are conducted either in the skies or in space. The Air Force began in the early 20th century as a branch of the Army called the Army Air Corps. After passage of the National Security Act of 1947, the Air Force became an independent department and began to receive separate funding. Its mission was broadened. This mission is to defend the United States by controlling and exploiting the air and space over hostile nations and maintaining the security of areas vital to U.S. national interests. This involves intercepting possibly hostile aircraft, operating U.S. military satellites, and supporting U.S. ground forces through bombing and air-defense missions.	<b>33-34</b>
<b>U.S Military Forces</b>	<p>Explain that as of June 2006 the branches of the U.S. Military consisted of a total of 1,381,401.</p> <ul style="list-style-type: none"> <li>• Army - 496,362 Soldiers</li> <li>• Marine Corps - 178,923 Marines</li> <li>• Navy – 353,496 Sailors</li> <li>• Air Force – 352, 620 Airmen</li> </ul>	<b>35</b>
<b>Conclusion</b>	Explain that the United States armed forces answer to the will of the people through their democratically elected civilian leaders. The Constitution gives Congress the authority to "raise and support" the Army and to "provide and maintain" the Navy.	<b>36-37</b>



## Chapter 3 / Section 2: NS1-U3C3S2 – The Navy, Army, and Air Force

	Congress enacts the rules for the armed forces and decides how much to appropriate to them. It also has power to declare war. The president, meanwhile, leads the armed forces as the commander in chief.	
<b>Conclusion</b>	Explain that the head of each military branch—the Chief of Naval Operations, the Commandant of the Marine Corps, the Army Chief of Staff, and the Air Force Chief of Staff—answers to a civilian secretary within the Department of Defense. These three secretaries—of the Navy, of the Army, and of the Air Force—report to the Secretary of Defense, who reports in turn to the president. The four top officers, together with a chairman and vice chairman, function together as the Joint Chiefs of Staff. They provide the president, National Security Council, and Secretary of Defense with professional military advice.	<b>38</b>
<b>Conclusion</b>	Explain that the Mission of the U.S. Navy is to <i>Maintain, train and equip combat-ready naval forces capable of winning wars, deterring aggression and maintaining freedom of the seas</i>	<b>39</b>
<b>Conclusion</b>	Explain that the operating forces are supposed to win wars, deter aggression, and maintain freedom of the seas. The shore establishment maintains, trains, and equips forces for combat. The Secretary of the Navy has two service chiefs reporting to him: the Chief of Naval Operations and the Commandant of the Marine Corps.	<b>40-41</b>
<b>Conclusion</b>	Explain that while their missions differ, the Navy, Marine Corps, Coast Guard, Merchant Marine, Army, and Air Force all work to defend the liberties of every American.	<b>42</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>43</b>
<b>Review Question</b>	The Review Question is “Explain the difference between operating forces and the shore establishment.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>44</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>45</b>

### III. Supplemental Activities -

#### A. In class Activity: Bubble Map Organization

Supplies required: Bubble Map Handout

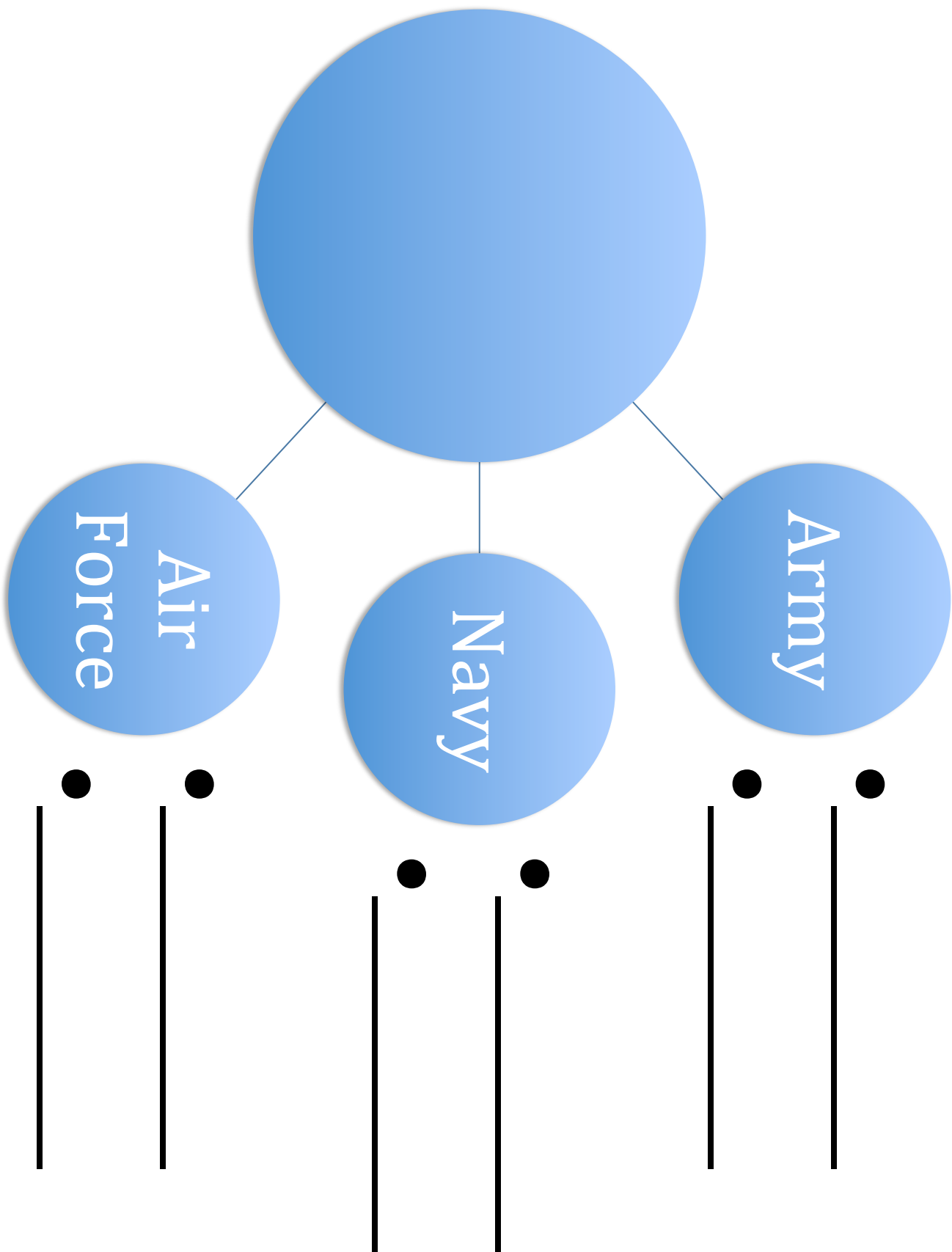
When: At the end of class

- Copy and distribute the bubble map organization graphic. Cadets fill in two important characteristics of each branch that show how each is unique and, in the large bubble, write at least three characteristics of how they are the same.

B. Homework Activity: Cadets should complete the handout explaining which branch they believe is the most critical and why.

### IV. Evaluation - see CPS database for chapter test questions.

Directions: For each small bubble, list two important characteristics. In the large bubble, list three ways they are alike.



## **Chapter 3 / Section 2: NS1-U3C3S2 – The Navy, Army, and Air Force**

Activity 1: Take Home Activity – Navy, Army and Air Force

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

The President of the United States has asked you to report to him which branch of the armed forces is the most critical. Prepare your answer below.

I believe the most critical branch is \_\_\_\_\_.

I believe this because:

1.

2.

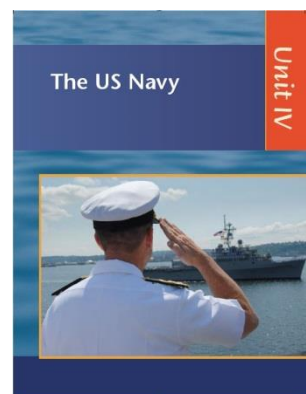
3.

An example to support my answer is:

## UNIT 4: THE U.S. NAVY

Unit Overview**Unit Objective:**

In this unit, you will learn the types, designations, and missions of Navy ships and aircraft. You will also learn Navy shipboard terminology, customs, and courtesies. The unit also includes the origins and development of Naval Aviation.

**Unit Organization:**

Chapter Number	Chapter Name	Instructional Section / PowerPoint
1	Navy Ships	NS1-U4C1S1 – The Mission of Navy Ships
		NS1-U4C1S2 – Types of Ships
		NS1-U4C1S3 – Ships, Customs and Courtesies
2	Naval Aviation	NS1-U4C2S1 – Background of Naval Aviation
		NS1-U4C2S2 – Naval Aircraft and Missions

## Unit 4 Chapter 1: NS1-U4C1 – Navy Ships

### What Students Will Learn to Do:

In this chapter, you will learn the mission and types of Navy ships. You will also learn ship terminology and customs and courtesies followed on board a ship or boat.

### Skills and Knowledge to be Gained:

1. Explain the mission of Navy ships.
2. Explain ship terminology.
3. List types of Navy ships.
4. Describe shipboard customs and courtesies.

### Standards Linked in this Chapter:

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

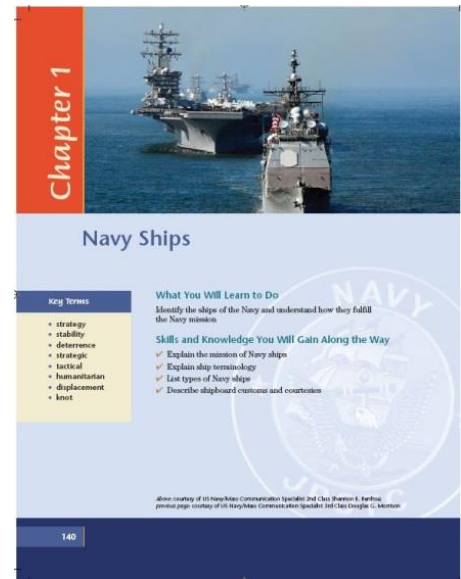
##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.



## **Chapter 1 / Section 1: NS1-U4C1S1 – The Mission of Navy Ships**

(Section 1 of 3)

### **What Students Will Learn to Do:**

Identify the ships of the Navy and understand how they fulfill the Navy mission

### **Skills and Knowledge to be Gained:**

1. Explain the mission of Navy Ships
2. Explain ship terminology

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Opening Question	Keyterms	Key Term Definitions	Warm Up Questions	The Mission of Navy Ships	The Navy's Mission	Strategic Deterrence	Video Navy Submarines
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Sea Control	Projection of Power Ashore	Naval Presence	Check On Learning A	Ship Terminology	Ship Terminology- Directions	Video Ship Structure and Construction	Structural Terms (A)	Check on Learning B
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Structural Terms (B)	Decks	Ship Size and Speed	Ship Identification	Armaments and Armor	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 4, chapter 1. Place a checkmark beside the NS1-U4C1S1 PowerPoint presentation, and these two CPS question deck files: NS1-U4C1S1 - Key Terms and NS1-U4C1S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 1: NS1-U4C1S1 – The Mission of Navy Ships

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this chapter, you will learn the mission and types of Navy ships. You will also learn ship terminology and customs and courtesies followed on board a ship or boat.</p>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “List 2-3 qualities of a good citizen.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the mission of Navy ships.</p>	<b>4</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>5</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>6-8</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>9</b>
<b>The Mission of Navy Ships</b>	<p>Explain that the purpose of Navy ships is to carry out the military strategy of the United States.</p> <p>Explain that that strategy includes three parts:</p> <ol style="list-style-type: none"> <li>1. Peacetime engagement</li> <li>2. Deterrence and conflict prevention</li> <li>3. Fight and win.</li> </ol>	<b>10</b>
<b>The Mission of Navy Ships</b>	Explain that the first element means that during peacetime the U.S. has forces around the world to promote economic and political stability. This means the United States is paying attention to what’s going on in the global neighborhood. The presence of American ships encourages free trade and peaceful connections among nations by ensuring the security of the seas.	<b>11</b>
<b>The Mission of Navy Ships</b>	Explain that deterrence, the second element of the Navy’s strategy, is derived from the adage, “If you seek peace, prepare for war.” In other words, if a country places combat power where it cannot be ignored, a potential enemy is less likely to become hostile for fear of immediate reprisal.	<b>12</b>
<b>The Mission of Navy Ships</b>	Explain that the third element of the strategy—fight and win—means that U.S. forces must be ready for combat at all times.	<b>13</b>

## Chapter 1 / Section 1: NS1-U4C1S1 – The Mission of Navy Ships

<b>The Navy's Mission</b>	<p>Explain that the Navy's mission in carrying out the national strategy is to maintain, train, and equip combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas.</p> <p>Explain that over the years, the Navy has seen this mission as having four elements:</p> <ol style="list-style-type: none"> <li>1. Strategic deterrence</li> <li>2. Sea control</li> <li>3. Projection of power ashore</li> <li>4. Naval presence.</li> </ol>	<b>14-15</b>
<b>Strategic Deterrence</b>	<p>Explain that strategic deterrence means convincing a potential enemy that an attack on the United States is not a good idea. The best example of this is the Navy's submarine force. These fast and maneuverable underwater ships are nuclear powered and can maintain secret operations for months. Add to this capability of the strategic missile submarine force, which can deliver nuclear weapons to targets across the globe, and strategic deterrence becomes a reality. Potential enemies who know that to attack the United States would be to risk devastation will be less inclined to attack.</p>	<b>16-17</b>
<b>Video on Navy Submarines</b>	Show video on Navy Submarines	<b>18</b>
<b>Sea Control</b>	<p>Explain that sea control refers to keeping the seas open to the United States, its allies, and other friendly nations. It also means being able to deny a potential enemy the use of the seas. Operation Anaconda during the Civil War was a good example of sea control: the Union fleet maintained control of the Confederate sea lanes by blockading Southern ports and preventing the Confederates from trading with Europe.</p>	<b>19</b>
<b>Projection of Power Ashore</b>	<p>Explain that projection of power ashore refers to the use of the seas to carry a fight to a potential enemy beyond U.S. borders and into its own. The United States is largely bound by water, with nearly 13,000 miles of coastline split between the Pacific, Atlantic, and Arctic Oceans. To defend its vast shoreline, the United States must be able to strike at any enemy before it reaches the shore. Over the past two centuries, the United States has refined the ways it accomplishes this mission. It has made strides such as the advancement from smooth-bore cannon mountings to Tomahawk cruise missiles, and from rowboats to tactical aircraft that allow troops to quickly land on enemy soil. Because of these and other advancements, a foreign enemy military force has landed on American soil only three times in more than 200 years.</p>	<b>20</b>
<b>Naval Presence</b>	<p>Explain that naval presence is the ability to show the flag around the world—to be visible on the open seas anywhere on the globe. This presence can be a silent threat but it can also be quite visible—as when the Navy provides humanitarian assistance. Still, with a strong naval presence and the implied threat of action, the United States Navy helps keep the seas free and open to all and ensures compliance with the international law of the sea.</p>	<b>21</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>22</b>
<b>Ship Terminology</b>	<p>Explain that the Navy has a lot of specialized lingo. Some of these terms have to do with being a military organization while others have to do with being a nautical organization. In this section you will learn some of the basic terms.</p> <p>Explain that in the Navy, a majority of a Sailor's time is spent on a ship, and several terms have been adapted to fit a Sailor's environment. Instead of saying, "upstairs,"</p>	<b>23</b>



## Chapter 1 / Section 1: NS1-U4C1S1 – The Mission of Navy Ships

	Sailors say topside, and they say below to mean “downstairs.” Given the construction of the ship, terms like “floor” and “ceiling” are called deck and overhead, respectively, while walls have been labeled as bulkheads and hallways are passageways. These terms and others are as much a matter of tradition in today’s Navy as they are of practicality. They are part of what distinguishes the Navy.	
<b>Ship Terminology - Directions</b>	Explain that Navy language labels lengthwise direction on a ship as fore (toward the front) or aft (toward the rear). Crosswise is athwartships. The front of the ship is the bow. The rear is the stern. If you move toward the bow, you’re going forward, in Navy talk. To go aft is to head toward the stern. An object closer to the bow than is another object is forward of that other object. If something is closer to the stern than is another object, Navy talk says it’s abaft of the other object.	<b>24-28</b>
<b>Ship Terminology - Directions</b>	Explain that a ship’s centerline divides it in half lengthwise. When you face forward along the centerline, everything on your right is to starboard, and everything to your left is to port. Fixtures and equipment are described in terms of the side of the ship they are on—such as the port anchor or the starboard gangway.	<b>29</b>
<b>Ship Terminology - Directions</b>	Explain that moving toward the centerline is going inboard. Moving away is going outboard. The section around the midpoint is called amidships. The widest part of the ship, usually in the mid ship area, is its beam.	<b>30</b>
<b>Ship Terminology - Directions</b>	<p>Explain that human beings live in a ship or on board a ship. Inanimate objects, stores, and equipment are aboard a ship. You board a ship or go on board. Supplies, on the other hand, are taken aboard and struck below. If you climb the mast, the rigging, or any other area above the highest solid structure, you go aloft.</p> <p>Explain that an object hanging against the side, bow, or stern is over the side, bow, or stern. An object in the water but not touching the ship is outboard of or off the ship (off the starboard side, off the port bow, and so on).</p> <p>Explain that an object in front of a ship is ahead of it. An object to the rear is astern. Cooking is done in the galley, not in the kitchen.</p>	<b>31-33</b>
<b>Video on Ship Structure and Construction</b>	Show video on Ship Structure and Construction	<b>34</b>
<b>Structural Terms</b>	Explain that the keel is the backbone of the ship. Most steel ships have a keel that does not extend below the ship’s bottom; such keels are known as flat keels.	<b>35</b>
<b>Structural Terms</b>	<p>Explain that the hull is the supporting body of a ship. It’s like an envelope. Inside it are supports that prevent it from collapsing from the pressure of the water. Vertical walls called bulkheads divide the interior of a ship’s hull into compartments for machinery, berthing, mess or dining, and other purposes.</p> <p>Explain that bulkheads run both transversely and longitudinally—across the beam or along the length of the ship. Some bulkheads are just partitions, like room dividers in a house. Others form watertight compartments that are essential to the ship’s structure.</p>	<b>36-37</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>38</b>
<b>Structural Terms</b>	Explain that a ship’s waterline is the water level along the hull of a ship afloat. The vertical distance from the bottom of the keel to the waterline is the ship’s draft. Freeboard is the distance from the waterline to the main deck.	<b>39</b>

## **Chapter 1 / Section 1: NS1-U4C1S1 – The Mission of Navy Ships**

<b>Decks</b>	Explain that the decks provide additional hull strength and protection for internal space. A ship does have some rooms that are actually called rooms—the wardroom, stateroom, and engine room, for example, but most “rooms” are called something else aboard a ship. The place where you sleep is called a berthing, and you eat on the mess deck.	<b>40</b>
<b>Decks</b>	<p>Explain that a deck exposed to the weather is called a weather deck. A deck that extends from side to side and from bow to stern is a complete deck. On an aircraft carrier, the uppermost complete deck is called the flight deck. It’s where the planes land and take off.</p> <p>Explain that on every other kind of ship except an aircraft carrier, the uppermost complete deck is the main deck. On an aircraft carrier, however, the main deck is the hangar deck. This is where the aircraft are stowed and serviced when they’re not on the flight deck.</p>	<b>41-42</b>
<b>Decks</b>	Explain that ladders go from one deck level to another. They may or may not be covered by hatches.	<b>43</b>
<b>Decks</b>	Explain that doors give access through bulkheads. Hatches give access through decks. Watertight doors form a watertight seal when properly closed. All doors leading to weather decks are watertight. The doors are held closed by fittings called dogs.	<b>44-45</b>
<b>Decks</b>	<p>Explain that the forecastle (pronounced fohk-s’l), on most ships, is the forward portion of the weather deck.</p> <p>Explain that the quarterdeck is not an actual deck, but an area designated by the commanding officer for official functions. When the ship is in port, it’s where the officer of the deck (officer in charge of the deck) has his or her station. Its location depends on how the ship is moored or which side is tied to the pier.</p>	<b>46-47</b>
<b>Ship Size and Speed</b>	<p>Explain that the size of a ship is given in terms of displacement in tons. The Navy uses full-load displacement, which describes the condition of the ship complete and ready to deploy.</p> <p>Explain that the speeds of ships are given in knots. When a ship goes 20 nautical miles an hour, its speed is said to be 20 knots. Don’t ever say 20 knots per hour!</p>	<b>48</b>
<b>Ship Identification</b>	Explain that each Navy ship is identified by name and designation. In the case of USS Nimitz (CVN 68), for instance, USS means United States ship. CVN is the designation for a nuclear-powered aircraft carrier. The ship’s hull number (68) is a general indication of the number of ships of the same type that have been built. (Some gaps occur because of the cancellation of shipbuilding orders.) A ship’s hull number never changes unless its designation also changes.	<b>49</b>
<b>Armaments and Armor</b>	Explain that Armament refers to a ship’s offensive weapons—guns, rockets, and even aircraft. A ship’s armor is the protective layers of steel lining the ship’s hull for defense against attacks.	<b>50</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>51</b>

## **Chapter 1 / Section 1: NS1-U4C1S1 – The Mission of Navy Ships**

<b>Review Question</b>	The Review Question is “Name 2-3 reasons that submarines are very valuable to our nation’s defense.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in the RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>52</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>53</b>

### **III. Supplemental Activities -**

#### **A. In class Activity:**

Supplies required: White Board

When: This is a good activity to do before the lesson to get the student thinking about what the Navy is for. Then return to the activity throughout the period and conclude with it.

- With the class: Have the class come up with a list of the missions of the Navy. What is the Navy used for? As you go through the lesson refer back to the list they generated to add or subtract items that the Navy does. With the background of the lesson at the end of the period ask the class what areas or missions does the Navy spend most of its time doing?

B. Homework Activity: Bring to class a news article or report on the US Navy were the Navy is being used to shape world actions or shape the opinion of the US States. Be prepared to discuss in class how the US Navy is meeting the goals of the United States.

### **IV. Evaluation - see CPS database for chapter test questions.**

## Chapter 1 / Section 2: NS1-U4C1S2 – Types of Ships

(Section 2 of 3)

### What Students Will Learn to Do:

Identify the ships of the Navy and understand how they fulfill the Navy mission

### Skills and Knowledge to be Gained:

1. List Types of Navy Ships

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Opening Question	Warm Up Questions	Types of Navy Ships	Types of Warships- Aircraft Carriers (A)	Video on Aircraft Carriers	Types of Warships- Aircraft Carriers (B)	Types of Warships- Cruisers (A)	Video on Cruisers and Missiles
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Types of Warships- Cruisers (B)	Check On Learning A	Types of Warships- Destroyers	Types of Warships- Frigates	Check on Learning B	Submarines (A)	Video on Submarines	Submarines (B)	Attack Submarines
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Video on Seawolf Submarine	Fleet Ballistic Missile Submarines	Guided Missile Submarines	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 4, chapter 1. Place a checkmark beside the NS1-U4C1S2 PowerPoint presentation, and these two CPS question deck files: NS1-U4C1S2 - Key Terms and NS1-U4C1S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 2: NS1-U4C1S2 – Types of Ships

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.  In this chapter, you will learn the mission and types of Navy ships. You will also learn ship terminology and customs and courtesies followed on board a ship or boat.	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “Does being on a submarine appeal to you? List 2-3 reasons why or why not.” Since this is a discussion question, it can be engaged using the RPS, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the type of ships.	<b>4</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.  Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.	<b>5</b>
<b>Types of Navy Ships</b>	Explain that all Navy ships are either combatant ships or auxiliary ships. Combatant ships, in turn, fall into one of two categories: warships or other combatants.	<b>6-7</b>
<b>Types of Warships-Aircraft Carriers</b>	Explain that <u>aircraft carriers</u> include multipurpose carriers (CVs) and multipurpose carriers with nuclear propulsion (CVNs). Both are intended to carry, launch, retrieve, and handle combat aircraft quickly and effectively. A carrier can approach the enemy at high speed, launch planes for an attack, recover them, and retire before the enemy can even spot it. The aircraft carrier is a formidable long-range offensive weapon. It is at the center of the modern carrier battle group.	<b>8-10</b>
<b>Video on Aircraft Carriers</b>	Show video on aircraft carriers	<b>11</b>
<b>Types of Warships-Aircraft Carriers</b>	Explain that the Nimitz-class CVNs displace about 97,000 tons when heading into combat. Such a ship carries about 6,000 men and women, including the carrier air group. A carrier can operate between 85 to 90 aircraft on a deck about 1,090 feet long and 85 feet wide, maintaining flight operations for a near indefinite amount of time if need be.	<b>12</b>
<b>Types of Warships-Aircraft Carriers</b>	Explain that carriers have angled flight decks designed to launch and recover planes simultaneously. They have a special hangar deck that can be used to stow planes as well as hydraulic elevators that bring planes from the hangar to the flight deck	<b>13</b>

## Chapter 1 / Section 2: NS1-U4C1S2 – Types of Ships

<b>Types of Warships- Aircraft Carriers</b>	Explain that the Nimitz-class CVNs carry various defensive systems in addition to aircraft such as the 20-mm Phalanx Close-In Weapon System or CIWS.	<b>14</b>
<b>Types of Warships- Aircraft Carriers</b>	Explain that as a self-sustaining defense and attack platform, a carrier is also equipped with a large series of repair shops, parts and munitions compartments, and fast-fueling equipment. The power plant and engines of the modern carrier are able to propel these 97,000-ton behemoths, which can move at speeds in excess of 30 knots. Combine this with a carrier's sea-keeping ability and you have a platform that can rapidly move into an enemy position and carry out sustained flight operations despite storms and other environmental factors.	<b>15</b>
<b>Types of Warships- Aircraft Carriers</b>	<p>Explain that in times of crisis, the question is always, "Where are the carriers?" The aircraft carrier is the centerpiece of naval operating forces. Carriers support and operate aircraft that can carry out attacks on air and surface targets, as well as targets ashore. Carriers can also engage in sustained operations in support of other forces, such as search-and-rescue operations or maintenance of air cover for amphibious assaults and troops already ashore.</p> <p>Explain that aircraft carriers are deployed worldwide. They can provide anything from peacetime presence to full-scale war. They have become the symbol of United States Naval supremacy around the world.</p>	<b>16</b>
<b>Types of Warships - Cruisers</b>	Explain that these ships, designated CGs, are the modern Navy's primary surface warfare platform. They can carry out missions either within a carrier battle group or independently. Cruising at more than 30 knots, the guided-missile cruiser acts as both an escort for surface forces and as a fire-support platform for amphibious and land operations.	<b>17-18</b>
<b>Types of Warships - Cruisers</b>	Explain that as the name implies, guided-missile cruisers are designed to carry the Tomahawk cruise missile in addition to the two five-inch gun mountings and dual-CIWS emplacements to provide a heavy and sustained course of fire in the event of attack. Cruisers displace about 10,000 tons and are about 567 feet long with a beam of 55 feet, making them the largest surface warfare ships in the fleet. The Ticonderoga-class cruisers can employ vertical launch missile tubes that, when coordinated with the shipboard anti-air warfare combat weapons system or Aegis, can deliver a payload to a surface location from more than 200 miles away.	<b>19-20</b>
<b>Video on Cruisers and Missiles</b>	Show video on cruisers and missiles	<b>21</b>
<b>Types of Warships - Cruisers</b>	Explain that today's guided-missile cruisers perform mainly in a battle-force role and can undertake a multitude of missions such as air warfare (AW), undersea warfare (USW) and surface warfare (SUW). They are also capable of anti-air warfare (AAW), and expeditionary strike groups (ESG). In addition, they can conduct reconnaissance operations as well as act as flagships for surface-action groups.	<b>22</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>23</b>
<b>Types of Warships - Destroyers</b>	Explain that destroyers are known as "the greyhounds of the sea" for their speed. They evolved around the turn of the 20th century in response to a new threat at sea. This was the small torpedo boat that could dash in close to a larger ship, release torpedoes, and get away before an enemy's defense could adjust. The world's navies recognized the need to defend against these sorts of attacks, and so the torpedo boat destroyer—later just "destroyer"—came into being.	<b>24-25</b>

## Chapter 1 / Section 2: NS1-U4C1S2 – Types of Ships

<b>Types of Warships - Destroyers</b>	Explain that today's destroyers (DDs) and guided-missile destroyers (DDGs) are useful in almost any kind of naval operation. They are fast and carry a variety of armaments, but relatively little or no armor, making their displacement run from about 8,300 tons to 9,000 tons. Their real advantages are speed and mobility.	<b>26</b>
<b>Types of Warships - Destroyers</b>	Explain that both types of destroyers operate in support of carrier battle groups, surface-action groups, amphibious-support groups, and replenishment groups. DDs perform primarily undersea-warfare duty. But they can also engage in anti-air and anti-surface warfare with their guided-missile counterparts, which can act as a cruise missile platform for precision bombing ashore. Destroyers make up the Navy's largest group of similar types of ships and are the Navy's "workhorse." There are two classes of destroyers: Zumwalt Class and Arleigh Burke Class	<b>27</b>
<b>Types of Warships - Destroyers</b>	<p>Explain that the Arleigh Burke, commissioned in 1991, was the most powerful surface combatant ever put to sea. Arleigh Burke-class destroyers are equipped with the Aegis Combat System, which integrates the ship's sensors and weapons systems to engage missile threats against the ship and tracks the movement of aircraft from hundreds of miles away. Destroyers of this type carry 56 Tomahawk cruise missiles, among other systems for power projection ashore.</p> <p>Explain that these ships displace 9,033 tons and are powered by four GE LM 2500 gas turbines, each rated at 33,600 horsepower with a power turbine speed of 3,600 revolutions per minute, driving two shafts, with controllable pitch propellers for increased maneuverability and control.</p>	<b>28</b>
<b>Types of Warships - Destroyers</b>	Explain that Zumwalt-class destroyers have a low radar profile; an integrated power system, which can send electricity to the electric drive motors and weapons. Despite being 40% larger than an Arleigh Burke-class destroyer the radar signature is more like a fishing boat.	<b>29</b>
<b>Types of Warships - Frigates</b>	Explain that frigate is the Navy's term for ships used for open-ocean escort and patrol missions. Although similar in build to destroyers, they are slower and have only one propeller. They carry less armament, but can operate in shallower water and therefore enter ports other ship classes can't. Explain that frigates are undersea warfare combatants meant to protect shipping interests for amphibious expeditionary forces, supply groups, and merchant convoys as well as to act as an anti-submarine warfare platform and coastal defense force.	<b>30-32</b>
<b>Types of Warships - Frigates</b>	<p>Explain that different classes of frigates carry different armaments depending on their mission.</p> <p>Explain that the Oliver Hazard Perry-class of frigate carries a single CIWS in addition to a single Harpoon missile launcher, two SH-60 LAMPS helicopters, two Mk32 triple-torpedo tubes, and a pair of dual .50-caliber machine guns for close-in fire support.</p> <p>Explain that guided-missile frigates (FFG) have an anti-air warfare capability, but with some limitations. They are meant to be money-saving surface combatant ships, but they are also known for their toughness and durability—they can take a number of hits and still survive. Given their age and the nature of their construction, however, FFGs have limited versatility. They do not have the multi-mission ability of other U.S. Navy ships. For these reasons, the Navy's current five-year shipbuilding plan includes no new frigates. A plan is in place to phase out these ships with the introduction of the new DDX type destroyer.</p>	<b>33</b>
<b>Types of Warships - Frigates</b>	Explain that the littoral combat ship (LCS) is a class of small surface vessels intended for operations in the "littoral zone" (close to shore).	<b>34-35</b>

## Chapter 1 / Section 2: NS1-U4C1S2 – Types of Ships

<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>36</b>
<b>Submarines</b>	Explain that in the mid-1950s, nuclear-powered submarines began to replace diesel subs in the U.S. Navy. These earlier subs, designated SS, had trouble staying at sea for very long and were prone to detection when forced to surface for oxygen and to recharge battery power. Today's submarine fleet is entirely nuclear. Its attack submarines (SSNs) and ballistic missile submarines (SSBNs) operate a nuclear reactor and air-filtration system able to sustain ship power and life support for months without surfacing. These features make them the most sustainable submarine fleet in the world.	<b>37-38</b>
<b>Submarines</b>	<p>Explain that nuclear power has made the submersible surface ship a true submarine. The modern submarine no longer needs frequent refueling or resupplying. The first SSN, Nautilus, steamed more than 62,000 miles without refueling. The Triton, another early nuclear sub (commissioned in 1956), traveled around the globe underwater, remaining submerged for 83 days.</p> <p>Explain that today's submarines have special air-revitalization equipment to change the air every few minutes. Other equipment lets the submarine take oxygen from seawater to renew oxygen supplies, making the submarine truly self-sustaining.</p>	<b>39</b>
<b>Video on Submarines</b>	Show video on submarines	<b>40</b>
<b>Submarines</b>	<p>Explain that There are currently three types of submarines in operation:</p> <ul style="list-style-type: none"> <li>• Attack submarines (SSNs)</li> <li>• Ballistic missile submarines (SSBNs)</li> <li>• Guided missile submarines (SSGNS)</li> </ul>	<b>41</b>
<b>Attack Submarines</b>	Explain that the mission of attack subs is to locate and destroy enemy ships and submarines. They act as scouts, deliver supplies and personnel to locations in enemy territory, perform rescue and reconnaissance missions, and are the primary defense against enemy submarine attack.	<b>42</b>
<b>Attack Submarines</b>	Explain that the goal of technical superiority over numerical superiority is still the driving force in American submarine development. Many developing countries have state-of-the-art non-nuclear submarines able to slip past many surface defenses undetected. Countering their threat is the primary mission of U.S. nuclear attack subs. While there are other methods to counter the threat of these silent predators, the saying, "The best way to find a sub is with another sub," still holds true.	<b>43</b>
<b>Attack Submarines</b>	Explain that in 1989 the Navy began construction of the Seawolf-class submarine, which was meant to be the premier anti-ballistic missile submarine defense platform. It is designed to be the fastest and quietest attack sub to date. With the fall of the Soviet Union and the end of the Cold War, the Seawolf-class's production level has dropped, but the mission hasn't changed. Armed with advanced sensors and an array of sound suppression and detection systems, the Seawolf-class is the premier attack sub to date with a capability to seek and destroy enemy submarines and surface ships and to fire cruise missiles in support of surface forces.	<b>44-45</b>
<b>Video on Seawolf Submarine</b>	Show video on Seawolf submarine	<b>46</b>



## Chapter 1 / Section 2: NS1-U4C1S2 – Types of Ships

<b>Fleet Ballistic Missile Submarines</b>	Explain that fleet Ballistic Missile Submarines (SSBNs) are nuclear-powered submarines armed with Trident II Ship Launched Ballistic Missiles, or SLBMs. The sole mission of the SSBN fleet, since its initial deployment in 1960, has been the strategic deterrence of any hostile nation, especially those with nuclear-launch capability. They represent the most survivable nuclear-strike platform in the U.S. military. A single SSBN could deliver several nuclear payloads on an enemy, even if all other U.S. airborne or land-based missiles had been destroyed.	<b>47</b>
<b>Fleet Ballistic Missile Submarines</b>	Explain that the Ohio-class SSBN is roughly 560 feet in length and has a beam of 42 feet. It displaces 18,750 tons when completely submerged. Armed with four torpedo tubes with Mk 48 torpedoes, the Ohio-class can reach cruise speeds of more than 20 knots. It can carry up to 24 Trident I or Trident II SLBMs, each with multiple nuclear warheads able to independently target individual objectives on re-entry. They are the most destructive weapons platform in the U.S. arsenal.	<b>48</b>
<b>Guided Missile Submarines</b>	<p>Explain in 2002, Electric Boat received a contract for the conversion of four Ohio-class Trident subs. This created a unique submarine force.</p> <p>Explain that to accompany the construction of the Virginia-class and further the SSGN program, some Ohio-class submarines will be converted to carry the same Tomahawk cruise missile platforms, making them SSGNs. This means that for the first time in naval history, a submarine force can independently destroy targets ashore, on the surface, and beneath the waves without the use of surface ships or nuclear ordinance or the need to surface. It full supports a new strategic concept and was designed for dominance across a broad spectrum of missions as well as open ocean “blue water” missions.</p>	<b>49-50</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>51</b>
<b>Review Question</b>	The Review Question is “List 2-3 things you learned in this lesson that you did not already know.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>52</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>53</b>

### III. Supplemental Activities -

#### A. In class Activity: Berthing Rack

Supplies required: Wardrobe box and empty boxes your Navy shoes come in, a couple of yard sticks or dowels, and masking tape.

When: This is a good activity to do after discussing submarines.

- With the class: We are going to make a representation of a space on a submarine. Ask the class about how much room does a Sailor have to sleep or for their gear on a submarine? The average wardrobe box is 24" on each side. If you cut one side down the middle and use each half to extend the side that it is connected to the box, you end up with a "C" with dimensions 36 X 24 X 36 inches. Using the rulers or dowels make

## Chapter 1 / Section 2: NS1-U4C1S2 – Types of Ships

post on the corners to hold the box in a "c" shape when lying on the floor. Depending on the box it will probably not be long enough but you can show how long the box should be by putting down a line of tape to represent the missing portion of the box on the floor. The total length of the box should be 76 inches. You have now made a very close approximation of the space you get to sleep in, the average mattress thickness is 4 inches, you lose that space. Where do you keep your gear? If you have a bottom or middle rack you have a "bed pan" which means you lift up the metal pan that your mattress is in to reveal a space about 6.5 inches deep the dimension of your mattress. If you have a top locker you get a "B" locker. The standard "B" lockers are 26x20x25 inches - use the shoe boxes to approximate that space. Everyone gets a stand-up locker, approximately 10x22x41 inches, use the shoe boxes to make the stand-up locker. Now measure 30 inches from the side of the rack. That is the average width of a passage way, the area between racks is usually a bit larger. You can lay a line of tape down to show this width, but a line of desks works even better, bulkheads on ships always have pipes, wires, and other gear attached to them that always stick out into the passageway. We now have our own mini submarine space.

- Class question:
  - How much space does the average Sailor get on a submarine for their gear?  
(A -approximately 15 square ft.)
  - How wide is the average passage way? (A- 30 inches)
  - The racks are three high, how easy is it to get into the bottom, middle, or top rack?
  - How easy is it to walk down a passage way? What about people going different directions through the same passageway?
  - Could you live here for 90 days?

B. Homework Activity: Copy and Distribute the Handout – Comparisons. Have the cadets research either US surface combatants or submarines and develop a comparison chart of the similarities and differences. For example the Arleigh Burke class DDG has one 5" gun whereas the Ticonderoga class CG has two 5" guns. (If they really dig into the specifics they would also find that the newer DDGs have a new and improved 5" gun).

IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 1 / Section 2: NS1-U4C1S2 – Types of Ships**

Activity1: Take Home Activity – Comparisons

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Research either US surface combatants or submarines and develop a comparison chart of the similarities and differences. For example the Arleigh Burke class DDG has one 5" gun whereas the Ticonderoga class CG has two 5" guns.

## **Chapter 1 / Section 3: NS1-U4C1S3 – Ships, Customs, and Courtesies**

(Section 3 of 3)

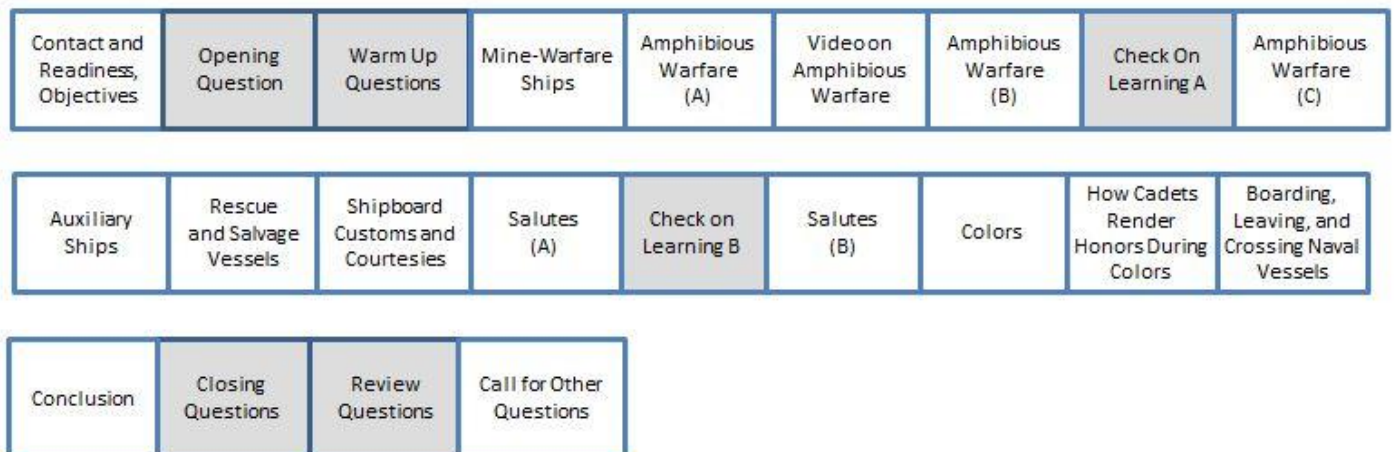
### **What Students Will Learn to Do:**

Identify the ships of the Navy and understand how they fulfill the Navy mission

### **Skills and Knowledge to be Gained:**

1. List types of Navy ships
2. Describe shipboard customs and courtesies

### **LESSON FLOW OUTLINE**



Key:



### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 4, chapter 1. Place a checkmark beside the NS1-U4C1S3 PowerPoint presentation, and these two CPS question deck files: NS1-U4C1S3 - Key Terms and NS1-U4C1S3 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 3: NS1-U4C1S3 – Ships, Customs, and Courtesies

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this chapter, you will learn the mission and types of Navy ships. You will also learn ship terminology and customs and courtesies followed on board a ship or boat.</p>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “Does being on a submarine appeal to you? List 2-3 reasons why or why not.” Since this is a discussion question, it can be engaged using the CPS RPS, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on ships, customs, and courtesies.</p>	<b>4</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>5</b>
<b>Mine-Warfare Ships</b>	<p>Explain that the Navy has two types of mine-warfare ships. These ships, the Mines Countermeasure Ships (MCM) and the Minehunter, Coastal (MHC), are designed to clear mines from vital waterways.</p>	<b>6-8</b>
<b>Mine-Warfare Ships</b>	<p>Explain that the MCM can find and destroy mines, whether they are moored or placed on the sea floor. Using sonar and video-imaging systems, the MCM locates the mine, cuts loose any mooring using an onboard cable cutter, and detonates the mine. In addition to these systems, the MCM carries two .50-caliber machine guns. It is 224 feet long with a beam of 39 feet and displaces 1,312 tons when fully loaded.</p> <p>Explain that the MHC acts as a smaller minesweeping platform designed for use in coastal waters. Limited by an underway life span of 15 days, the MHC relies on a support ship or facilities onshore for resupply. Running 188 feet in length with a beam of 36 feet, the MHC displaces 893 tons when fully loaded. Its reinforced plastic fiberglass hull decreases displacement and allows the MHC to operate in shallower waters than the MCM can.</p>	<b>9-11</b>
<b>Amphibious Warfare</b>	<p>Explain that amphibious warfare means an attack launched from the sea involving naval forces and ground combat troops, usually beginning with surface warships and airplanes bombing hostile shores. Later, amphibious ships bring in combat-ready ground forces—Marines, special operations forces, or other joint combat forces—while landing craft and helicopters move the ground troops from ship to shore. Amphibious assaults are intended to quickly capture enemy territory or to deny the enemy the use of that land. There are two types of amphibious ships:</p> <ul style="list-style-type: none"> <li>• Amphibious command ships</li> <li>• Amphibious assault ships</li> </ul>	<b>12-14</b>

## Chapter 1 / Section 3: NS1-U4C1S3 – Ships, Customs, and Courtesies

<b>Video on Amphibious Warfare</b>	Show video on Amphibious Warfare	<b>15</b>
<b>Amphibious Warfare</b>	<p><i>Amphibious Command Ships</i> - Explain that amphibious command ships, designated LCCs, provide amphibious command and control for major amphibious operations. LCCs are more than 634 long and 108 feet in beam, displacing more than 18,500 tons. With their up-to-date command-and-control facilities, these ships have become the flagships of several Naval fleets. USS Blue Ridge, for example, is the command ship of the 7th Fleet in Yokosuka, Japan, while USS Mount Whitney is the command ship of the 6th Fleet in Gaeta, Italy.</p> <p><i>Amphibious Assault Ships</i> - Explain that a single amphibious assault ship, designated an LHA, can load up, rapidly deploy, and land a Marine battalion into enemy territory otherwise inaccessible by land, using a combination of helicopters, landing craft, and amphibious vehicles. Armed with five-inch guns and point-defense missiles, the LHA can provide limited shore bombardment and defend itself from attack during amphibious operations, but it relies mainly on escort ships for defense.</p>	<b>16-17</b>
<b>Amphibious Warfare</b>	Explain that another kind of amphibious assault ship (LHD) are replacing older LHA assault ships as part of the Seapower 21 Program.	<b>18</b>
<b>Amphibious Warfare</b>	Explain that the Amphibious Transport Dock (LPD) can carry about 700 Marines and their equipment. The LPD can launch its landing craft through an opening in the stern while the ship is underway or dead in the water. In addition, the deck over the well carrying the landing craft provides a platform for helicopters.	<b>19</b>
<b>Amphibious Warfare</b>	Explain that dock landing ships, designated LSDs, were designed to transport amphibious craft and vehicles, along with crew and troops. These ships also have a helicopter platform over the well deck.	<b>20</b>
<b>Amphibious Warfare</b>	Explain that the Navy calls the technique of using helicopters instead of landing vehicles to put troops on the beach vertical envelopment. Because it enables placement of troops and supplies in any position accessible by air, vertical envelopment is much more effective than the older methods. You may have seen the older system in movies about the D-Day landings on the Normandy beaches during World War II. While in the landing craft, troops are vulnerable to a number of attacks, such as mortar and artillery fire or fixed gun emplacements. Helicopters allow troops to avoid such fixed defensive positions. Combined with the relatively rapid speed of deployment, vertical envelopment allows the landing troops, and not the defenders, to choose the areas of engagement, simultaneously making amphibious assault easier and coastal defense significantly more difficult.	<b>21</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>22</b>
<b>Amphibious Warfare</b>	Explain that LHDs are more than 800 feet long with a beam of more than 100 feet and a displacement of about 40,000 tons. Carrying a crew of 1,108 sailors and able to transport 1,894 Marines or other landing forces, the LHD can travel at more than 20 knots, making the determination of a potential landing zone difficult for an enemy to determine.	<b>23</b>
<b>Amphibious Warfare</b>	Explain that the LPD is 680 feet long with a beam of 105 feet and carries a crew of 400. It reaches speeds of around 21 knots and a displacement of about 24,900 tons.	<b>24</b>

## Chapter 1 / Section 3: NS1-U4C1S3 – Ships, Customs, and Courtesies

<b>Amphibious Warfare</b>	Explain that LSD are more than 600 feet long and 84 feet in beam. Their crews total 419 officers and Sailors, and the ships can carry 504 Marines.	<b>25</b>
<b>Amphibious Warfare</b>	Explain that an air-cushioned landing craft (LCAC) travels over the water using a large pocket of air to ride over the waves while carrying troops and equipment from ship to shore and across the beach. With four gas turbine engines, it can transfer 60 to 75 tons of equipment more than 200 miles at 40 knots. It can transfer troops and equipment over 70 percent of the world's coastline.	<b>26-27</b>
<b>Auxiliary Ships</b>	<p>Explain that auxiliary ships are the lifeline of the Navy's combatant force. The auxiliaries bring fuel, supplies, and repair parties to the combat ships, wherever they are. There are several different kinds of auxiliary ships for several different purposes. Each has a designation beginning with the letter A.</p> <p>Explain that transferring fuel, munitions, supplies, and personnel from one ship to another while ships are under way is called replenishment at sea. Usually the replenishment ship maintains its course and speed, and the other ship (or ships) pulls into position alongside it.</p>	<b>28</b>
<b>Auxiliary Ships</b>	<p>Explain that fast combat support ships (AOEs) carry not only fuel and ammunition (the "E" in their designation stands for "explosives") but can supply dry and refrigerated stores. AOEs move fast enough to keep up with a battle group for extended periods. They are the largest and most powerful auxiliary ships in the Navy.</p> <p>Explain that AOEs can carry more than 177,000 barrels of oil, 2,150 tons of ammunition, 500 tons of dry stores, and 250 tons of refrigerated stores. An AOE receives oil and other supplies from shuttle ships and then distributes these items among carrier-battle-group ships. Ships are particularly vulnerable to attack while being supplied, so the AOEs move quickly to transfer supplies and reduce that vulnerability.</p>	<b>29-31</b>
<b>Rescue and Salvage Vessels</b>	Explain that rescue and salvage ships have the designation ARS. Their mission is to provide fire-fighting, dewatering, battle-damage repair, and rescue towing assistance. They must often do their work in combat zones or areas of high threat. Their focus is to move damaged combat ships out of hostile areas and to tow them to repair ships or bases in safe areas.	<b>32</b>
<b>Rescue and Salvage Vessels</b>	Explain that the Navy is also responsible for salvaging ships owned by the federal government. Sometimes it salvages privately owned ships as well. This work is also part of the ARS vessels' mission.	<b>33</b>
<b>Shipboard Customs and Courtesies</b>	Explain that over hundreds of years at sea, the British and American navies developed a great number of special customs and courtesies, some of which you may have already learned from your Cadet Field Manual. Customs are behaviors performed for so long that they have become common practice. Courtesies are expressions of consideration or respect for others. These may take the form of words or actions. In this section, you will read about customs and courtesies aboard U.S. Navy ships.	<b>34</b>
<b>Salutes</b>	Explain that when aboard ship, Sailors salute the commanding officer every time they meet. That includes chance meetings as well as formal meetings. Sailors also salute any visiting officers senior to the commander on every meeting. They salute other officers only the first time they meet each day.	<b>35</b>

## Chapter 1 / Section 3: NS1-U4C1S3 – Ships, Customs, and Courtesies

<b>Salutes</b>	Explain that <i>side honors</i> is a special ceremony for officials or officers boarding or leaving a ship. A group of four to eight sailors called side boys (whether they are men or women) line up along the gangway. Half are on one side and half on the other. The higher the officer's rank, the more side boys there are. The Boatswain's Mate of the Watch (BMOW) sounds a pipe. The side boys begin the salute at the first note of the pipe and finish together at the last note.	<b>36-38</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>39</b>
<b>Salutes</b>	Explain that another ceremony involving a salute is <i>passing honors</i> . When two naval vessels pass each other—within 600 yards for ships and 400 yards for boats—"Attention" is called. All sailors in view on the deck give a hand salute. Sailors render passing honors to U.S. Navy vessels, U.S. Coast Guard vessels, and those of most foreign navies.	<b>40</b>
<b>Colors</b>	Explain that the colors ceremony is the hoisting and lowering of the national flag. The national flag—the Stars and Stripes—flies on the fantail at the stern of a ship in port. A color detail, usually consisting of two junior personnel and a petty officer, performs the colors ceremony. The colors ceremony is performed twice a day when the ship is not underway. Morning colors is at 0800 hours and evening colors is at sunset.	<b>41</b>
<b>Colors</b>	Explain that ships not underway also raise and lower a flag called the jack at morning and evening colors. It flies its ensign day and night from the gaff near the top of the main mast. The U.S. jack consists of 50 white stars on a dark-blue field and resembles the upper-left corner of the Stars and Stripes. The powerful symbol of the Navy Jack "Don't Tread on Me" flag was first used by the Continental Navy in 1775 and is being now used again by the US Navy in the War on Terrorism.	<b>42-43</b>
<b>Colors</b>	Explain that the national anthem is part of the colors ceremony whenever possible. If a band or an audio recording is available, Attention is sounded, and then "The Star-Spangled Banner" is played. At morning colors, hoisting of the ensign—the flag—starts with the music while at evening colors, the lowering of the flag starts with the music and ends at the last note. If no band or audiotape is available, a bugler plays. If no bugler is available, a whistle can signal the beginning and end of the ceremony.  Explain that when a ship is underway, it flies its ensign day and night. There is no ceremony for raising or lowering the flag.	<b>44</b>
<b>How Cadets Render Honors During Colors</b>	Explain that during the colors ceremony, cadets in ranks come to Attention. The person in charge of the formation salutes until "Carry on" is sounded. If not in ranks but in uniform, cadets face the colors and render a hand salute until they hear the order "Carry on." If in civilian clothes or athletic attire, they face the colors standing at Attention and put their right hand or hat in hand over their heart until they hear "Carry on." If no flag is in sight, they face the direction of the music and make the proper gesture until they hear "Carry on."	<b>45-46</b>



## Chapter 1 / Section 3: NS1-U4C1S3 – Ships, Customs, and Courtesies

<b>Boarding, Leaving, and Crossing Naval Vessels</b>	<p>Explain that if you are in uniform, when you come to the top of the brow, come to attention, face aft to the flag (if it's flying) and salute. Then face the Officer of the Desk (OOD) and salute. While holding the salute, show your identification card and say, "I request permission to come aboard, sir/ma'am." You must salute even if the OOD is enlisted and not an officer. When the OOD returns your salute and grants permission, you may go aboard.</p> <p>Explain that if you are not in uniform, the procedure is the same, but no salute is required.</p> <p>Explain that when you board a ship other than your own, or when you board your own ship for the first time, you follow the same procedures as above, but also state your purpose: "Reporting as ordered," for instance.</p>	<b>47</b>
<b>Boarding, Leaving, and Crossing Naval Vessels</b>	<p>Explain that this is the same as boarding, only in reverse. You step onto the quarterdeck, face the OOD, present your identification card, and salute. Say, "I request permission to go ashore, sir/ma'am." When you receive permission, step onto the brow, face aft, and salute the ensign, if it is flying. Then go ashore.</p> <p>Explain that in you are in civilian dress, follow the same practice, but no salute is required.</p>	<b>48</b>
<b>Boarding, Leaving, and Crossing Naval Vessels</b>	Explain that smaller ships sometimes nest beside other ships. You may have to cross one or more ships side by side to get to your ship or to get ashore. The procedure is the same as for boarding or leaving a ship except that you must ask permission to cross over.	<b>49</b>
<b>Boarding, Leaving, and Crossing Naval Vessels</b>	Explain that the quarterdeck is a ceremonial area. You should always treat it with respect. You should always be in the uniform of the day when you appear there, unless you are returning from leave or liberty. Never smoke, eat, or drink on the quarterdeck. Do not lounge in or around the quarterdeck. Cross it only when necessary.	<b>50-51</b>
<b>Boarding, Leaving, and Crossing Naval Vessels</b>	Explain that when you are moving through passageways, step aside to allow those senior to you in rank to pass first. If other juniors are present, call out "Gangway" so everyone can make way for the senior person in rank.	<b>52</b>
<b>Boarding, Leaving, and Crossing Naval Vessels</b>	Explain that always call the commanding officer of a ship "Captain," regardless of rank.	<b>53</b>
<b>Conclusion</b>	Explain that the National Military Strategy includes three concepts—peaceful engagement, deterrence and conflict prevention, and fight and win. The Navy seeks to fulfill its mission through four areas: strategic deterrence, sea control, projection of power ashore, and naval presence.	<b>54</b>
<b>Conclusion</b>	Explain that the Navy operates a wide range of types of ships—combatants and auxiliaries—to accomplish these goals. The aircraft carrier is the center of the modern carrier battle group. In times of peace or during building tension, it projects "forward presence." In times of war, it can carry, launch, and retrieve combat aircraft quickly and efficiently, fulfilling the mission before the enemy even sees them. Under the sea, the fleet ballistic missile submarines make up the backbone of the Navy's strategic deterrence.	<b>55</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>56</b>

## **Chapter 1 / Section 3: NS1-U4C1S3 – Ships, Customs, and Courtesies**

<b>Review Question</b>	The Review Question is “List the steps in the process of boarding a ship while in uniform.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>57</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>58</b>

### **III. Supplemental Activities -**

#### **A. In class Activity: Ships, Customs and Courtesies**

Supplies required: If your unit has a Quarter Deck set it up and use that, otherwise set up an area to represent a Quarter Deck. Recommend at least the US Ensign, podium, and a bell if you have one.

When: This is a good activity to do after the lesson, or at least after the section on ship's Quarter Decks.

- **With the class**: Have students man the Quarter Deck and then have each student enter or exit the 'ship' via the Quarter Deck. If your class has upperclassmen or cadet officers have them enter as well, this is a good time to see the differences in enlisted, officer, and Commanding Officer arrivals and departures differ.
- **Class question**: What direction do you turn to salute if it is between 0800 and sunset, do you do the same thing after sunset? Does the Officer of the Deck say different thing depending on if it is an officer or enlisted. What must you show to get on or off the ship to the Officer of the Deck?

**B. Homework Activity**: Copy and Distribute the Handout – Navy Missions. Have the cadets write a short essay on how the Navy's missions are supported by the different types of ships. The essay should discuss at least one of the four missions: strategic deterrence, sea control, projection of power ashore, or naval presence.

### **IV. Evaluation - see CPS database for chapter test questions.**

## **Chapter 1 / Section 3: NS1-U4C1S3 – Ships, Customs, and Courtesies**

## Activity1: Take Home Activity – Navy Missions

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: write a short essay on how the Navy's missions are supported by the different types of ships. Your essay should discuss at least one of the four missions: strategic deterrence, sea control, projection of power ashore, or naval presence.

[illegible]

## Unit 4 Chapter 2: NS1-U4C2 – Naval Aviation

### What Students Will Learn to Do:

Understand the background of US Navy aviation and learn about Navy aircraft in use today

### Skills and Knowledge to be Gained:

1. Explain the background of naval aviation
2. Describe naval aviation and missions

### Standards Linked in this Chapter:

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...
- RI.9-10.5. Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...
- W.9-10.6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products...
- W.9-10.8. Gather relevant information from multiple authoritative print and digital sources...

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

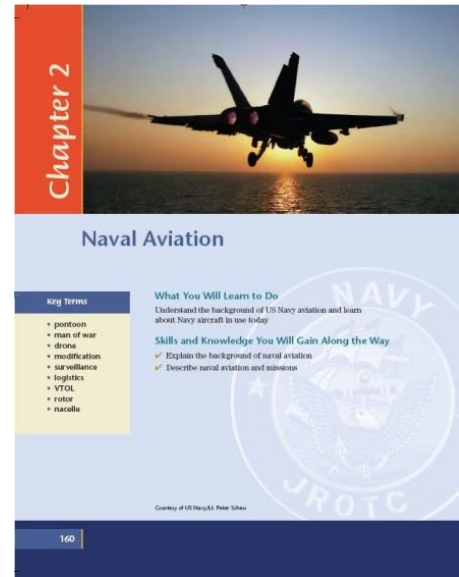
##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

#### **The College, Career, and Civic Life (C3) Framework for Social Studies State Standards \*\***

##### D2. Civic and Political Institutions

- D2.Civ.7.9-12. Apply civic virtues and democratic principles when working with others.
- D2.Civ.8.9-12. Evaluate social and political systems in different contexts, times, and places, that promote civic virtues and enact democratic principles.
- D2.Civ.11.9-12. Evaluate multiple procedures for making governmental decisions at the local, state, national, and international levels in terms of the civic purposes achieved.



## **Unit 4 Chapter 2: NS1-U4C2 – Naval Aviation**

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor’s Guide.

## **Chapter 2 / Section 1: NS1-U4C2S1 – Background of Naval Aviation**

(Section 1 of 2)

### **What Students Will Learn to Do:**

Understand the background of US Navy aviation and learn about Navy aircraft in use today

### **Skills and Knowledge to be Gained:**

1. Explain the background of naval aviation

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Opening Question	Keyterms	Key Term Definitions	Warm Up Questions	Background of Naval Aviation (A)	Video on First Aircraft Carrier	Background of Naval Aviation (B)	Check On Learning A
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Aircraft	Check on Learning B	Aircraft Model Designations	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 4, chapter 2. Place a checkmark beside the NS1-U4C2S1 PowerPoint presentation, and these two CPS question deck files: NS1-U4C2S1 - Key Terms and NS1-U4C2S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 2 / Section 1: NS1-U4C2S1 – Background of Naval Aviation

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.  This chapter will familiarize you with the historical background of Naval Aviation. In addition, you will learn the types and missions of various Naval aircraft.	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 ways that aircraft carriers support warfare.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the background of Naval aviation.	<b>4</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>5</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.  Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.	<b>7</b>
<b>Background of Naval Aviation</b>	Explain that naval aviation goes back to two achievements by a flyer named Eugene Ely. On 14 November 1910 he became the first pilot to complete a takeoff from a ship. On 18 January 1911 he made the first successful aircraft landing on the deck of a ship.	<b>8</b>
<b>Background of Naval Aviation</b>	Explain that in the years after that, the Navy tried four ways to combine aircraft with the fleet: <ul style="list-style-type: none"> <li>• aircraft carriers</li> <li>• flying boats</li> <li>• lighter-than-air craft</li> <li>• pontoon aircraft operating from ships other than carriers.</li> </ul> Explain that during the first era of naval aviation, propeller-driven combat planes took off from small early aircraft carriers. Pontoon planes—with floats that let them land on or take off from water—operated from men of war. Flying boats flew antisubmarine-warfare (ASW) patrols. And huge dirigibles—similar to blimps—roamed the skies.	<b>9-10</b>
<b>Background of Naval Aviation</b>	Explain that the second era of naval aviation involved jet aircraft, giant aircraft carriers, helicopters, and large, long-range patrol planes.	<b>11</b>
<b>Background of Naval Aviation</b>	Explain that the Navy’s first aircraft carrier was USS Langley (CV 1). It was originally a coal ship but was converted to a new purpose. Its commission date was 20 March 1922. In July of that year, Congress approved changing over two ships being built as	<b>12</b>

## Chapter 2 / Section 1: NS1-U4C2S1 – Background of Naval Aviation

	battle cruisers to aircraft carriers. They were commissioned as USS Lexington (CV 2) and USS Saratoga (CV 3) in 1927.	
<b>Video on First Aircraft Carrier</b>	Show video on first aircraft carrier	<b>13</b>
<b>Background of Naval Aviation</b>	Explain that air power came into its own during World War II. The Japanese attack on Pearl Harbor on 7 December 1941 showed the effectiveness of long-range carrier-based air strikes. Not long after came another military first: the Battle of the Coral Sea in May 1942. This was a battle of aircraft launched from carriers. The Japanese and American fleets engaged in the battle never saw each other.	<b>14-15</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>16</b>
<b>Aircraft</b>	Explain that in addition to aircraft launched from carriers, the Navy has relied on a variety of planes and helicopters to carry out fleet-support missions. In today's Navy, helicopters do many things that pontoon planes and dirigibles used to do: scouting, rescue, and patrol missions	<b>17</b>
<b>Aircraft</b>	Explain that modern naval aircraft fall into two categories—fixed-wing (airplanes) and rotary-wing (helicopters).	<b>18</b>
<b>Aircraft</b>	Explain that three important developments in aircraft carriers came only after the war, however. <ol style="list-style-type: none"> <li>1. The angled flight deck. This allows a carrier to launch and recover aircraft at the same time. In 1952, a mockup of an angled flight deck on USS Midway showed how this concept could work. The following January, test operations began on USS Antietam, the first ship actually built as an angled-deck carrier.</li> <li>2. The steam catapult, introduced in 1954. It can propel a 60,000-pound aircraft to a speed of 150 miles an hour in two seconds.</li> <li>3. Nuclear power, introduced in 1961. This allowed carriers to accommodate more planes and larger crews. It also let them stay at sea longer and steam at 30 knots for great stretches at a time.</li> </ol>	<b>19</b>
<b>Aircraft</b>	Explain that fighter and attack jet planes can strike at an enemy as well as protect the fleet from enemy aircraft and surface ships. The Navy uses patrol aircraft and long-range multi-engine aircraft in undersea-warfare missions. These aircraft also perform photographic and escort missions. Carrier-based aircraft also make reconnaissance flights. They provide the fleet with early warnings of potential trouble.	<b>20</b>
<b>Aircraft</b>	Explain that helicopters came into their own during the Korean War. They were used in amphibious operations in support of the Marines. They also helped deliver supplies, equipment, and personnel to ships at sea. This is "vertical replenishment," as you learned in the last chapter.	<b>21</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>22</b>



## Chapter 2 / Section 1: NS1-U4C2S1 – Background of Naval Aviation

<b>Aircraft Model Designations</b>	<p>Explain that all aircraft in the U.S. armed forces have “tri-service designations.” That means a given model of plane has the same designation code, whether it’s used in the Navy, the Army, or the Air Force.</p> <p>Explain that each basic designator has a letter and a number. The letter signals the basic mission of the aircraft.</p>	<b>23</b>
<b>Aircraft Model Designations</b>	<p>Explain that the number (one, two, or three digits) shows the design number of the type of aircraft. Thus an F-14 is the 14th fighter design. If a design is modified, another letter (A, B, C, etc.) follows the design number. The B in S-3B tells us that this antisubmarine plane is a modification of the original design.</p>	<b>24-26</b>
<b>Aircraft Model Designations</b>	<p>Explain that when the mission of an aircraft changes, another letter goes in front of the basic mission symbol. Explain that some of these mission-modification letters are, as you see, the same as the basic mission letters.</p> <p>Explain this is how the system works: If the Navy modifies an A-6 for use as an electronic-warfare aircraft, it becomes an EA-6.</p> <p>Explain that other letters put at the very front of an aircraft’s designator are called “special use” symbols. They signal that an aircraft has some special status. Six letters are currently in use this way</p>	<b>27-28</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	<p>Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.</p>	<b>29</b>
<b>Review Question</b>	<p>The Review Question is “What was significant about the Battle of the Coral Sea?” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.</p>	<b>30</b>
<b>Call for Other Questions</b>	<p>Provide the opportunity for students to ask final questions regarding the content covered.</p>	<b>31</b>

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: None

When: After talking about the Battle of Midway or at the end of class

- In Class: Have the Cadets write a brief description of the Battle of Midway. List by name the aircraft carriers involved, how long was the battle, damages to both sides and the outcome.

<http://www.history.navy.mil/photos/events/wwii-pac/midway/midway.htm>

B. Homework Activity: Have the Cadets find an event that occurred in the last 5 years that reflects the mission of naval aviation by the United States in the 21st Century. Some areas of operations to review might be the Eastern Mediterranean Sea, the South China Sea, and The Persian Gulf. What was the purpose of sending an aircraft carrier to the region?

### IV. Evaluation - see CPS database for chapter test questions.

## Chapter 2 / Section 2: NS1-U4C2S2 – Naval Aircraft and Missions

(Section 2 of 2)

### What Students Will Learn to Do:

Understand the background of US Navy aviation and learn about Navy aircraft in use today

### Skills and Knowledge to be Gained:

1. Describe naval aviation and missions

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Opening Question	Keyterms	Key Term Definitions	Warm Up Questions	Naval Aircraft and Missions	Fighter/Attack Aircraft	Check On Learning A	Airborne Early Warning
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Undersea Warfare	Logistics Aircraft	Trainers	Check on Learning B	Unmanned Aerial Vehicles(UAV)	Rotary-Wing Aircraft	VTOL	Conclusion	Closing Questions
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Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 4, chapter 2. Place a checkmark beside the NS1-U4C2S2 PowerPoint presentation, and these two CPS question deck files: NS1-U4C2S2 - Key Terms and NS1-U4C2S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 2 / Section 2: NS1-U4C2S2 – Naval Aircraft and Missions

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.  This chapter will familiarize you with the historical background of Naval Aviation. In addition, you will learn the types and missions of various Naval aircraft.	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “Explain a situation where a ‘combination helicopter/airplane’ might be useful.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on Naval aircraft and missions.	<b>4</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>5</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>6-7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.  Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.	<b>8</b>
<b>Naval Aircraft and Missions</b>	Explain that the Navy groups aircraft of the same type into squadrons for training, maintenance, and administration. Aircraft of various squadrons combine and deploy as operational air groups aboard ships. The battle group’s mission determines the types and numbers of squadrons.	<b>9-10</b>
<b>Fighter/Attack Aircraft</b>	Explain that the single-seat F/A-18 Hornet is the nation’s first carrier-launched strike-fighter. It was built with the ability to drop bombs or deny access to sea lanes. But it was also designed as a fighter plane, too—able to engage enemy pilots in the sky. The F/A-18 replaced the F-14 Tomcat, which was the Navy’s primary air-to-air superiority fighter for 36 years, until 2006.  Explain that the F/A-18 Hornet operates in 37 tactical squadrons from air stations worldwide, and from 10 aircraft carriers. The U.S. Navy’s Blue Angels Flight Demonstration Squadron proudly flies the Hornet in air shows across America.  Explain that the Hornet proved itself during Operation Desert Storm in 1991. Hornets took direct hits from surface-to-air missiles, recovered successfully, underwent rapid repairs, and resumed missions the next day.	<b>11</b>

## Chapter 2 / Section 2: NS1-U4C2S2 – Naval Aircraft and Missions

<b>Fighter/Attack Aircraft</b>	<p>Explain that the newest model, the Super Hornet, carries out an even wider variety of missions.</p> <p>Explain that the newest models, the E and F, rolled out at McDonnell Douglas (now part of the Boeing Company) 17 September 1995. The E is a single seat aircraft while the F is a two-seater. Both can fly almost twice the speed of sound, at altitudes up to 50,000 feet, and for ranges greater than 1,300 miles. Also being deployed is the F/A-18 G or Growler, which is meant to replace the EA-6B Prowler as the Navy's primary electronic-warfare aircraft by 2010. Carrying some of the most advanced electronic surveillance and jamming equipment in the world, this new version of the Hornet will revolutionize the battlefield. It will introduce an electronic-warfare aircraft that will outmaneuver many of the world's fighters and take the fight to enemies both on the ground and in the skies.</p>	<b>12-14</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>15</b>
<b>Airborne Early Warning</b>	Explain that the E-2C Hawkeye is the Navy's all-weather, carrier-based tactical-warning and control-system aircraft. It provides airborne early warning and command-and-control function for the entire battle group. Other missions for the E-2C include surface surveillance coordination, strike-and-interceptor control, search-and-rescue guidance, and communications relay.	<b>16</b>
<b>Airborne Early Warning</b>	<p>Explain that the Hawkeye provides its early warning by flying in front of the battle group to look for enemy surface ships and aircraft. The newest variant of this aircraft, the Hawkeye D, has a new mission computer, improved radar displays, and "cooperative engagement capability." This last element helps bring streams of data from several different sources to give commanders one big picture of a battle, whether at sea or on land.</p> <p>Explain that the Hawkeye carries a crew of five—two pilots and three mission system operators. It can exceed 300 knots and has a range of 1,500 miles.</p>	<b>17</b>
<b>Airborne Command Post (TACAMO)</b>	<p>Explain that the E-6B Mercury is the Navy's strategic airborne command post. It also relays communications for fleet ballistic missile submarines. It can launch land-based intercontinental ballistic missiles.</p> <p>Explain that the E-6B can fly above 40,000 feet. It has a range of more than 7,500 miles and can travel at 600 miles per hour</p>	<b>18</b>
<b>Undersea Warfare</b>	Explain that the P-3C Orion is the Navy's sole land-based antisubmarine-warfare aircraft. The Navy took delivery of its first Orion in July 1962. It has gone through a designation change from P3V to P-3 and three major models: P-3A, P-3B, and P-3C. The Navy has kept repairing and refurbishing the airframes of these planes. It's upgraded the weapons, electronics, and other systems, too. The Navy is cutting back the Orion's numbers, however—down to 130 by 2010 from an original 227. The P-8 Poseidon Multi-mission Maritime Aircraft (MMA) began replacing the P-3 in 2013.	<b>19</b>
<b>Logistics Aircraft</b>	Explain that the C-2A Greyhound is a twin-engine cargo-passenger aircraft. Its primary mission is carrier on-board delivery. The C-2A can deliver up to 10,000 pounds of cargo. The cabin can carry cargo or passengers or both. The Navy is overhauling this plane to extend its service life from 15,020 landings and 10,000 flight hours to 36,000 landings and 15,000 flight hours. The C-2As are getting structural enhancements, rewiring, avionics-systems improvements, and new propeller systems. Congress and the Chief of Naval Operation have required two passenger safety improvements to be	<b>20</b>

## Chapter 2 / Section 2: NS1-U4C2S2 – Naval Aircraft and Missions

	part of the program, too. One is a system to avoid midair collisions; the other warns pilots when they are flying too close to the ground (“terrain”).	
<b>Logistics Aircraft</b>	<p>Explain that some other Navy logistics aircraft are:</p> <ul style="list-style-type: none"> <li>• the C-9 Skytrain. A twin-jet version of the civilian DC-9, it provides primarily fleet logistical support</li> <li>• the C-12F Huron. A twin-engine turboprop aircraft, it transports equipment and passengers between naval air stations</li> <li>• the C-130 Hercules. A four-engine turboprop aircraft, it can take off from and land on short runways. It hauls cargo and people.</li> </ul>	<b>21-22</b>
<b>Trainers</b>	<p>Explain that the T-6A Texan II is single-engine, two-seat turbo prop and represents the next generation of primary basic trainers. Its mission is to provide primary flight training for Navy and Marine Corps student pilots.</p> <p>Explain that the T-45A Goshawk is a two-seat jet trainer, used for intermediate and advanced pilot training.</p>	<b>23</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>24</b>
<b>Unmanned Aerial Vehicles (UAV)</b>	<p>Explain that the RQ-2A Pioneer is an unmanned aerial vehicle. It can perform a wide variety of missions: reconnaissance, surveillance, target acquisition, and battle-damage assessment. It can provide tactical commanders with real-time images of a battlefield or target.</p> <p>Explain that the Navy introduced the Pioneer as a land-based system in 1986 but now uses it at sea as well. The Pioneer can travel at speeds higher than 100 miles per hour. Its ceiling is 15,000 feet and its range more than 115 miles.</p>	<b>25</b>
<b>Rotary-Wing Aircraft</b>	Explain that the helicopter has been an important part of naval operations since World War II. Helicopters play a role in the transfer of supplies and in search-and-rescue operations, as well as undersea warfare (USW), mine warfare, and special warfare.	<b>26</b>
<b>Rotary-Wing Aircraft</b>	Explain that the SH-60 is a twin-engine helicopter. Its primary mission is to detect and destroy enemy submarines. The Navy also uses it for search and rescue, advanced scouting, special operations, cargo lift, and intercepting drug smugglers. It can be deployed on cruisers, destroyers, and frigates as well as aircraft carriers.	<b>27</b>
<b>Rotary-Wing Aircraft</b>	Explain that the MH-53E Sea Dragon operates from carriers and other warships. Its primary mission is airborne mine countermeasures. It seeks out and destroys enemy minefields. It can also deliver troops or cargo to a ship.	<b>28</b>
<b>Rotary-Wing Aircraft</b>	Explain that the TH-57 Sea Ranger is the primary training helicopter for those preparing to become naval aviators. It can also perform some photo, chase, and utility missions.	<b>29</b>
<b>VTOL</b>	Explain that the V-22 Osprey is a helicopter that can turn into a propeller airplane once it takes off. The Osprey is a tiltrotor aircraft with a 38-foot rotor system and engine/transmission nacelle mounted on each wing tip. It can operate as a helicopter when taking off and landing vertically. Once airborne, the nacelles rotate forward 90 degrees for horizontal flight, converting the V-22 to a high-speed, fuel-efficient turboprop airplane. The wing rotates for compact storage aboard ship. The Osprey’s ceiling is up to 25,000 feet and it can cruise at more than 272 knots.	<b>30-31</b>

## **Chapter 2 / Section 2: NS1-U4C2S2 – Naval Aircraft and Missions**

	Explain that the plane's first flight occurred in March 1989. The V-22 is the world's first production tiltrotor aircraft. Planned purchases include 360 for the Marine Corps, 48 for the Navy, and 50 for the Air Force.	
<b>Conclusion</b>	Explain that naval aviation goes back to the first years of flight. The first aircraft carriers were introduced in the 1920s. Not until World War II, though, did naval air power truly come into its own. The challenge of naval aviation is to integrate aircraft with the fleet. Today the Navy relies on a combination of jet aircraft, giant nuclear-powered aircraft carriers, helicopters, and large, long-range patrol planes.	<b>32</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>33</b>
<b>Review Question</b>	The Review Question is "List 2-3 things that are different AND 2-3 things that are similar between planes and helicopters" Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>34</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>35</b>

### **III. Supplemental Activities -**

#### **A. In class Activity: Naval Aircraft and Missions**

Supplies required: Internet Access

When: At the end of class

- Have the Cadets choose a Carrier Air Wing (CVW) and identify the aircraft carrier it is currently assigned to, its tail code, the squadrons and type of aircraft that are currently assigned to that CVW. If they need help they can use the following website.

[http://en.wikipedia.org/wiki/Carrier\\_air\\_wing#Active\\_Carrier\\_Air\\_Wings\\_and\\_identification](http://en.wikipedia.org/wiki/Carrier_air_wing#Active_Carrier_Air_Wings_and_identification)

**B. Homework Activity:** Using one of the links below or one of their own, have the cadets choose an active Navy or Marine Corp aircraft squadron and create a one page fact sheet. Include information such as squadron logo, history, type aircraft flown, aircraft specifications (crew, speed, endurance, weapons).

<http://www.seaforces.org/usnair/current-units.htm>

<http://www.public.navy.mil/Pages/AirSquadrons.aspx>

[http://en.wikipedia.org/wiki/List\\_of\\_United\\_States\\_Navy\\_aircraft\\_squadrons](http://en.wikipedia.org/wiki/List_of_United_States_Navy_aircraft_squadrons)

[http://en.wikipedia.org/wiki/List\\_of\\_active\\_United\\_States\\_Marine\\_Corps\\_aircraft\\_squadrons](http://en.wikipedia.org/wiki/List_of_active_United_States_Marine_Corps_aircraft_squadrons)

### **IV. Evaluation - see CPS database for chapter test questions.**

## **Chapter 2 / Section 2: NS1-U4C2S2 – Naval Aircraft and Missions**

Activity1: Take Home Activity – Naval Aircraft and Missions

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Using one of the links below or one of your own, choose an active Navy or Marine Corp aircraft squadron and create a one page fact sheet. Include information such as squadron logo, history, type aircraft flown, aircraft specifications (crew, speed, endurance, weapons).

<http://www.seaforces.org/usnair/current-units.htm>

<http://www.public.navy.mil/Pages/AirSquadrons.aspx>

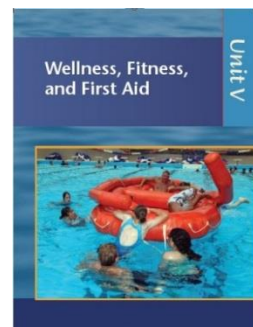
[http://en.wikipedia.org/wiki/List of United States Navy aircraft squadrons](http://en.wikipedia.org/wiki/List_of_United_States_Navy_aircraft_squadrons)

[http://en.wikipedia.org/wiki/List of active United States Marine Corps aircraft squadrons](http://en.wikipedia.org/wiki/List_of_active_United_States_Marine_Corps_aircraft_squadrons)

## UNIT 5: WELLNESS, FITNESS and FIRST AID

Unit Overview**Unit Objective:**

In this unit, you will learn how to use exercise and nutrition to maximize your physical well-being, gain awareness of the dangers to wellness of alcohol and other drugs, and the principles and techniques of first aid.

**Unit Organization:**

Chapter Number	Chapter Name	Instructional Section / PowerPoint
1	Choosing the Right Exercise Program	NS1-U5C1S1 – Components of Fitness
		NS1-U5C1S2 – The FIT Principle
		NS1-U5C1S3 – Choosing the Right Exercise Program
2	Evaluating Your Physical Fitness	NS1-U5C2S1 – Evaluating Your Physical Fitness
3	You Are What You Eat	NS1-U5C3S1 – You are What You Eat
4	Nutrition – Nourishing Your Body	NS1-U5C4S1 – Nutrition – Nourishing Your Body
5	Dietary Guidelines	NS1-U5C5S1 – Dietary Guidelines
6	Controlling Fat	NS1-U5C6S1 – Nutrition and Obesity
		NS1-U5C6S2 – Planning a Balanced Diet
		NS1-U5C6S3 – Special Diets and Evaluating Foods
7	Taking Care of Yourself	NS1-U5C7S1 – Taking Care of Yourself
8	Understanding and Controlling Stress	NS1-U5C8S1 – Understanding and Controlling Stress
9	Drug Awareness	NS1-U5C9S1 – Drug Use, Misuse, and Abuse; Alcohol
		NS1-U5C9S2 – Drugs- Part 1
		NS1-U5C9S3 – Drugs- Part 2
10	First Aid	NS1-U5C10S1 – First Aid and Life-Saving
		NS1-U5C10S2 – CPR and Emergency First Aid
		NS1-U5C10S3 - Burns
		NS1-U5C10S4 – First Aid for Poisons and Wounds
		NS1-U5C10S5 – Heat and Cold Weather
		NS1-U5C10S6 – Bites, Stings, and Poisonous Hazards



## **Unit 5 Chapter 1: NS1-U5C1– Choosing the Right Exercise Program for You**

### **What Students Will Learn to Do:**

Develop a personal exercise program

### **Skills and Knowledge to be Gained:**

1. Classify exercises as aerobic, anaerobic, isometric, and isotonic
2. Compare the benefits of aerobic, anaerobic, isometric, and, isotonic exercise
3. Identify the benefits of regular exercise
4. Determine the essential components of a good exercise program

### **Standards Linked in this Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or text...
- W.9-10.8. Gather relevant information from multiple authoritative print and digital sources...

##### Speaking and Listening

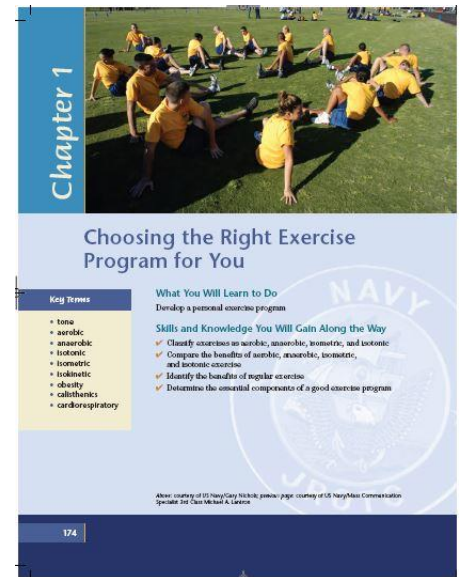
- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions ...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

#### **National Health Education Standards 9-10 (NHES)\*\***

- NHES Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- NHES Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- NHES Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health.
- NHES Standard 6: Students will demonstrate the ability to use goal-setting skills to enhance health.



## **Unit 5 Chapter 1: NS1-U5C1– Choosing the Right Exercise Program for You**

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor’s Guide.

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor’s Guide.

## **Chapter 1 / Section 1: NS1-U5C1S1 – Components of Fitness**

us(Section 1 of 3)

### **What Students Will Learn to Do:**

Develop a personal exercise program

### **Skills and Knowledge to be Gained:**

1. Classify exercises as aerobic, anaerobic, isometric, and isotonic
2. Compare the benefits of aerobic, anaerobic, isometric, and isotonic exercise
3. Identify the benefits of regular exercise
4. Determine the essential components of a good exercise program

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	KeyTerm Definitions	Opening Question	Warm Up Questions	Introduction	Components of Fitness	Cardiorespiratory Endurance	Muscular Strength and Endurance
Flexibility	Body Composition	History Connection	Check On Learning A	The Benefits Of Exercise	Types of Exercise (A)	Check on Learning B	Types of Exercise (B)	Aerobic Exercise
Anaerobic Exercise	Isotonic, Isometric, and Isokinetic Exercise	Closing Questions	Review Questions	Call for Other Questions				

Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 5, Chapter 1. Place a checkmark beside the NS1-U5C1S1 PowerPoint presentation, and these two CPS question deck files: NS1-U5C1S1 - Key Terms and NS1-U5C1S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 1: NS1-U5C1S1 – Components of Fitness

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn to identify the benefits of exercise in general. You will also learn the different classes of exercise—aerobic, anaerobic, isometric, and isotonic—and the benefits of each specific type. In addition, you will be able to determine the essential components of a good exercise program.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “List 2-3 ways you motivate yourself to exercise regularly.” Since this is a discussion question, it can be engaged using RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the components of fitness.</p>	<b>7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>Introduction</b>	<p>Explain that what you eat and how much you exercise can directly affect how you look and feel. When it comes to your appearance, diet and exercise help you maintain proper weight, muscle tone, and healthy hair and skin. When it comes to your health, diet and exercise can lower your risk of heart disease, high blood pressure, and other health problems, including depression. Staying healthy and looking good means following a balanced diet and exercising regularly. This chapter discusses guidelines for a healthier lifestyle that will help keep you fit and feeling great, now and throughout your life. This first chapter specifically covers exercise and describes types of exercises and strategies for sticking with an exercise program.</p>	<b>9-10</b>
<b>Introduction</b>	<p>Explain that some people consider exercise a chore; others think it’s fun. There are even those who avoid it altogether. With the right outlook, however, almost anyone can find an exercise program that they enjoy. More and more people find ways to keep fit, from walking to joining fitness clubs, because they recognize the importance of exercise for physical and mental health.</p>	<b>11</b>

## Chapter 1 / Section 1: NS1-U5C1S1 – Components of Fitness

<b>Introduction</b>	Explain that although the fitness craze has hit many older Americans, it has not yet reached most of America's youth. This is unfortunate because not only is exercise good for young people, it can also be fun. You can form friendships with people you meet while exercising on the track or basketball court or at the gym or pool. You will feel better about yourself, improve your resistance to disease, and relieve stress found at school and work. Basically, being fit improves your overall health—both physically and mentally.	<b>12</b>
<b>Introduction</b>	Do you think you are physically fit? Physical fitness is the ability of the heart, blood vessels, lungs, and muscles to work together to meet the body's needs. When you are physically fit, your body's systems work as a team allowing you to breathe easily and contract muscles in coordinated movement.	<b>13</b>
<b>Introduction</b>	Explain that your body is made for activity. Stimulating your muscles, bones, heart, lungs, and blood vessels with regular exercise helps you gain or maintain physical fitness. A program of vigorous exercise, however, is not the only important factor in fitness and a healthy lifestyle. Rest, sleep, and good nutrition are just as important.	<b>14</b>
<b>Components of Fitness</b>	Explain that each individual has his or her own potential of fitness. For example, you may not have the capability of becoming an Olympic weightlifter or a professional gymnast; yet you can reach your own personal best. Physical fitness can be divided into four health-related areas: cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition. Each component is a necessary part of fitness.	<b>15</b>
<b>Cardiorespiratory Endurance</b>	Explain that the first component, cardiorespiratory endurance, is the ability of your heart, blood vessels, and lungs to distribute nutrients and oxygen and to remove wastes. When you exercise, your heart and lungs must supply more oxygen to your muscles than they need when you are resting. When you are at rest, for example, your heart pumps about 5 to 6 quarts (5.5 to 6.6 liters) of blood per minute, but it pumps about 20 to 25 quarts (22 to 27 liters) when you are exercising.	<b>16</b>
<b>Cardiorespiratory Endurance</b>	Explain that if your heart and lungs function easily during hard exercise and recover quickly afterward, you probably have good cardiorespiratory endurance. People with poor cardiorespiratory endurance might be left short of breath and have a very high heart rate after light exercise. Their lungs and heart are unable to keep up with the muscles' demand for oxygen.	<b>17</b>
<b>Muscular Strength and Endurance</b>	Explain that the capacity of a muscle or a group of muscles to exert or resist a force is called muscular strength. In contrast, muscular endurance is the ability of muscles to keep working for an extended time. For example, the amount of weight you can lift is one measure of your muscular strength. How long you can hold that weight—or how many times you can lift it—is a measure of your muscular endurance. You need muscular strength for all sports and most everyday activities. Acts of muscular endurance include repeated actions, such as raking leaves, shoveling snow, or doing sit-ups.	<b>18</b>
<b>Flexibility</b>	Explain that the ability to use a muscle throughout its entire range of motion is called flexibility. This means that you can bend, stretch, and twist your joints easily. The sit-and-reach test measures the flexibility of specific groups of muscles in the back and legs, but it is also used to indicate overall flexibility. However, flexibility can vary in different joints of the body. Some people may show poor flexibility in the sit-and-reach test, for example, yet have excellent flexibility in the shoulders and arms. Stretching exercises, if done correctly, can increase flexibility and may reduce the risk of injury during exercise.	<b>19</b>

## Chapter 1 / Section 1: NS1-U5C1S1 – Components of Fitness

<b>Body Composition</b>	Explain that the fourth component of physical fitness, body composition, is the amount of body fat compared to lean tissue, such as muscle and bone. Skinfold measurement is one method for assessing body fat. Excessive body fat has been linked with heart disease, diabetes, arthritis, cancer, and other harmful health conditions.	<b>20</b>
<b>History Connection</b>	Explain that great emphasis was placed on physical fitness in the schools of ancient Greece. Students received instruction in exercise and sports such as wrestling, running, and jumping. In fact, the word gymnasium comes from the ancient Greek word gymnasion, meaning “school.”	<b>21</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students’ understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>22</b>
<b>The Benefits of Exercise</b>	What happens inside you when you run, swim, dance, play hockey, or enjoy some other form of exercise? As the muscles in your arms, shoulders, or legs alternately contract and relax, they use energy that comes from chemical reactions in which oxygen combines with nutrients. Because of the increased needs of your muscles, your heart beats faster, and you breathe more rapidly and deeply. The flow of blood to your heart, lungs, and skeletal muscles increases as your blood vessels dilate, or widen. Your blood pressure and body temperature rise, and you begin to sweat. How do these responses benefit your body?	<b>23</b>
<b>The Benefits of Exercise</b>	Explain that there are many physical benefits to exercise. Some include: <ul style="list-style-type: none"> <li>• Reduces Blood Pressure</li> <li>• Increases muscle strength and endurance</li> <li>• Increases efficiency of heart and lungs</li> <li>• Aids digestion and helps prevent constipation</li> <li>• Increases bone strength</li> <li>• Increases flexibility</li> <li>• Improves posture and appearance</li> <li>• Reduces risk of cardiovascular disease</li> <li>• Increases resistance to disease</li> <li>• Helps reduce body fat and control appetite</li> <li>• Increases physical stamina</li> <li>• Increases resistance to muscle and bone injury</li> </ul>	<b>24</b>
<b>The Benefits of Exercise</b>	Explain that there are also many psychological and social benefits to exercise including: <ul style="list-style-type: none"> <li>• Improves mental alertness</li> <li>• Improves self-image</li> <li>• Improves quality of sleep</li> <li>• Increases ability to concentrate</li> <li>• Resistance to mental fatigue</li> <li>• Increases social involvement</li> <li>• Relieves stress and improves relaxation</li> <li>• Helps control anxiety and depression</li> </ul>	<b>25</b>

## Chapter 1 / Section 1: NS1-U5C1S1 – Components of Fitness

<b>The Benefits of Exercise</b>	<p>Explain that the reason blood circulates more rapidly through vessels during exercise, the rate at which it brings oxygen and nutrients to, and removes wastes from your tissues is increased. This increased circulation rate is one reason why you feel refreshed and energetic after a hard workout. In addition, over time, regular exercise may increase the number of capillaries in your body. These additional capillaries provide muscles with a greater supply of blood, not just when you are exercising but at all times.</p> <p>Explain that cardiorespiratory endurance is significantly improved by an exercise program. Your heart becomes stronger and pumps blood more efficiently. Regular exercise can also lower your blood pressure and can improve the function of your lungs. An exercise program can help prevent atherosclerosis and coronary heart disease.</p>	<b>26</b>
<b>The Benefits of Exercise</b>	Explain that as you stretch your muscles when you exercise, you can improve your flexibility by loosening stiff muscles and joints. When you run, swim, or do other endurance exercises on a regular basis, your muscles become stronger and are able to work longer. Regular exercise also strengthens your bones, making them thicker and denser. Strong bones and muscles are less likely to be injured than are weak ones.	<b>27</b>
<b>The Benefits of Exercise</b>	Explain that exercise can also improve or maintain body composition. A regular workout is important in keeping body fat within recommended levels. A program of regular exercise is an important factor in successful weight loss or weight maintenance.	<b>28</b>
<b>The Benefits of Exercise</b>	<p>Explain that people who exercise regularly are likely to sleep better, feel more self-confident, and focus more productively on their work. Exercise may also increase creativity by releasing body chemicals that stimulate the brain's centers of creativity.</p> <p>Explain that one of the most important psychological benefits of exercise is the reduction of emotional stress. Simple stretching exercises, for example, can help you relax tense muscles and allow you to sleep better. If you are feeling depressed, exercise can generally help make you feel better. In fact, many health professionals consider exercise an important part of a complete treatment for depression, whether the depression is mild or serious.</p>	<b>29-30</b>
<b>Types of Exercise</b>	Explain that no single exercise can improve or maintain all four components of physical fitness. You should participate in whatever recreational activities you enjoy to get the benefits of regular exercise	<b>31</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>32</b>
<b>Types of Exercise</b>	Explain that exercises can be classified into different types, depending on what their performance involves. Included among these are aerobic, anaerobic, isotonic, isometric, and isokinetic exercise.	<b>33</b>
<b>Aerobic Exercise</b>	Explain that nonstop, repetitive, strenuous physical activity that raises the breathing and heart rates is called aerobic exercise. Aerobic exercises increase the amount of oxygen that is taken in and used by the body. Aerobic exercise works the heart, lungs, and blood vessels. As you exercise aerobically, your heart beats faster and you breathe in more air, so your blood can supply more oxygen to your hard-working muscles. This type of physical exercise improves blood and oxygen flow to vital organs, as well as lung capacity (the ability to take in and use more air). Swimming, riding a bike,	<b>34-35</b>

## Chapter 1 / Section 1: NS1-U5C1S1 – Components of Fitness

	running, brisk walking, and cross-country skiing are all forms of aerobic exercise. If aerobic exercises last for at least 20 minutes at a time and are done frequently, that is, on a regular, ongoing basis, they will improve cardiovascular endurance. Aerobic exercises are therefore especially important in maintaining the health of your circulatory and respiratory systems. Activities that provide good aerobic exercise do not always improve muscular strength. They do, however, generally improve your muscular endurance.	
<b>Anaerobic Exercise</b>	Explain that anaerobic exercise, on the other hand, works the muscles intensely in fast bursts of movement and does not require as much oxygen as aerobic exercise. Rather than a focus on endurance, anaerobic exercise requires bursts of power and energy and the ability to maneuver quickly. For example, a sprinter working his or her leg muscles hard in a burst of energy to cross the finish line in a few seconds is performing an anaerobic exercise. Many sports, from tennis to football, require anaerobic work to move from one point to another as quickly as possible. Imagine for 20 minutes you exercise like a weight lifter. Although your overall exercise time is 20 minutes, the periods of intense physical activity come only when you actually lift the weight. Anaerobic exercise is intense physical activity that lasts only from a few seconds to a few minutes, during which time muscles use up more oxygen than the blood can supply. Anaerobic exercises usually improve the flexibility, strength, and sometimes speed at which muscles work. However, it does not specifically condition the cardiovascular and respiratory systems. Most anaerobic exercises are designed to develop specific skills, agility, flexibility, or strength. Lifting weights, sprinting, push-ups, and some forms of gymnastics, for example, are usually considered anaerobic activities.	<b>36-37</b>
<b>Isotonic, Isometric, and Isokinetic Exercise</b>	Explain that other forms of exercise concentrate specifically on firming and toning muscles and building muscle strength. Working against resistance builds muscle strength. You work against resistance when you try to open a tight lid on a jar or push a heavy piece of furniture across a room. Three types of exercise—isotonic, isometric, and isokinetic—can increase the strength and endurance of specific groups of muscles. Isometric exercise builds muscle strength by using resistance without joint movement, while isotonic exercise uses resistance with joint movement. For example, when you try to pull your locked hands apart, you perform an isometric exercise. You contract your muscles but do not move any joints. Most weight training, on the other hand, is isotonic. When you do bicep curls, you contract your muscles and bend your elbows to raise the weights to shoulder level. Isotonic exercise involves the contraction and relaxation of muscles through the full range of their motion. You can perform isotonic exercises with or without weights. Through repetition of isotonic exercises, you can develop muscle strength.	<b>38-39</b>
<b>Isotonic, Isometric, and Isokinetic Exercise</b>	Explain that perhaps you have seen an accident victim or injured athlete use a special machine in order to recover the use of specific muscle groups. They are performing isokinetic exercises. Isokinetic exercises are exercises that involve moving a muscle through a range of motion against a resistance, or weight that changes. Unlike isotonic exercises, isokinetic exercises always use special machinery to provide the resistance. Many exercise machines in gymnasiums and fitness centers provide isokinetic exercise. It is frequently employed by physical therapists to help people recover from injury or surgery	<b>40</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>41</b>



## Chapter 1 / Section 1: NS1-U5C1S1 – Components of Fitness

<b>Review Question</b>	The Review Question is, “Which of the psychological or social benefits of exercise might perhaps improve your grades?” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>42</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>43</b>

### III. Supplemental Activities -

#### A. In class Activity:

Supplies needed: Handout “Components of Fitness”

When: At the end of class

- In Class: Individually, or in small groups, have cadets fill out part one and two of the Components of Fitness handout (parts 1 & 2). When all cadets have had a chance to review their answers have a whole class discussion regarding their answers

B. Homework Activity: Each cadet will use the handout (parts 3 & 4) to record their activities for a period determined by the instructor and collect data regarding those activities. They will begin accessing individual needs to start making their personal exercise program.



Tech Tip: Have the Cadets research videos of various exercises on line and bring examples of aerobic, anaerobic, isometric, isotonic, and isokinetic to class. Students can vote, using student response devices, on what each video is demonstrating.

### IV. Evaluation - see CPS database for chapter test questions.

## Chapter 1 / Section 1: NS1-U5C1S1 – Components of Fitness

## Activity 1: In Class Activity- Components of Fitness

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

## Aerobic or Anaerobic?

(Part One):

A- Classify each of the following items in the T-chart as either aerobic or anaerobic.

## Swimming laps

## Walking

## Push-ups

## Jumping rope

## Biking

skiing

## Tennis

## Weight lifting

## Hill climbing

## Downhill Skiing

## Playing Baseball

## Interval training

## Squats

## Sprints

## Rowing

## Golfing

## Yoga

## Cross-country

B- Add 5 more of each aerobic and anaerobic activities not listed above to the chart below. Be prepared to defend your answers.


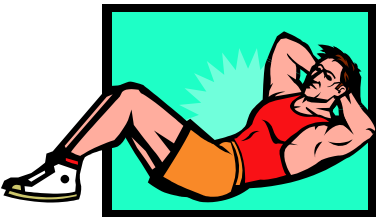

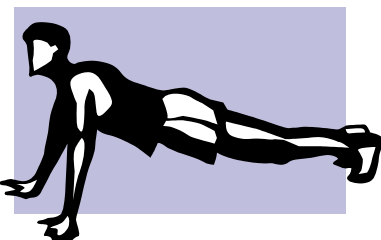
Aerobic	Anaerobic

## Chapter 1 / Section 1: NS1-U5C1S1 – Components of Fitness

### Activity 1: In Class Activity- Components of Fitness - Identifying Exercises

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

(Part Two): For each image, determine if the exercise shown is **isotonic**, **isometric**, or **isokinetic**. Give reasons for your answer on the table below.

Exercise Example	Isotonic, Isometric or Isokinetic?	How do you know?
		
		
		
		

## **Chapter 1 / Section 1: NS1-U5C1S1 – Components of Fitness**

Activity 1: Take Home Activity – Components of Fitness

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

(Part Three): Take Inventory

Monitor your activities for a period of time your instructor gives you, (1, 2 or 3 days) and fill in the chart below:

<b><u>Date &amp; Time</u></b>	<b><u>Activity</u></b>	<b><u>Length of Activity</u></b>	<b><u>Aerobic or Anaerobic</u></b>	<b><u>Health Benefit - Psychological or Physical?</u></b>

## Chapter 1 / Section 1: NS1-U5C1S1 – Components of Fitness

## Activity 1: Take Home Activity – Components of Fitness

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

(Part 4) Answer the following questions about your experience:

1. What do you notice about your activities within the period?
2. Which activities do you enjoy the most?
3. What do you enjoy about being active?
4. What can you do to improve your personal exercise program?
5. What benefits will you notice if you improve your personal exercise program?

## Chapter 1 / Section 2: NS1-U5C1S2 – The FIT Principle

(Section 2 of 3)

### What Students Will Learn to Do:

Develop a personal exercise program

### Skills and Knowledge to be Gained:

1. Classify exercises as aerobic, anaerobic, isometric, and isotonic
2. Compare the benefits of aerobic, anaerobic, isometric, and isotonic exercise
3. Identify the benefits of regular exercise
4. Determine the essential components of a good exercise program

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Defining Your Goals	The FIT Principle	Frequency of Exercise	Intensity of Exercise
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Exercise Time	Check On Learning A	Phases of Exercise	Warming up and Stretching	The Workout	Cooling Down and Stretching	Checking Your Progress	Your Resting Heart Rate	Check on Learning B
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Your Changing Shape	A Safe Workout	Equipping For Safety	Fluids and Food	Avoiding Overexertion	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, chapter 1. Place a checkmark beside the NS1-U5C1S2 PowerPoint presentation, and these two CPS question deck files: NS1-U5C1S2- Key Terms and NS1-U5C1S2- Lesson Questions.

## **Chapter 1 / Section 2: NS1-U5C1S2 – The FIT Principle**

- Ensure that every student has a functional CPS response pad and a textbook.

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn to identify the benefits of exercise in general. You will also learn the different classes of exercise—aerobic, anaerobic, isometric, and isotonic—and the benefits of each specific type. In addition, you will be able to determine the essential components of a good exercise program.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “What do you think the overall fitness level is of US Youth?” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the FIT principle.</p>	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>Defining Your Goals</b>	<p>Do you want to obtain total fitness, increase your stamina, have a trimmer body, achieve better coordination, or just feel more alert? Your goals help to determine the best exercise program for you. If your goal is to strengthen muscles, for example, your program might include anaerobic exercises such as lifting weights. If you want to improve your cardiorespiratory endurance, you may develop a program of aerobic exercise. Basketball, jumping rope, or brisk walking will fit into this type of program. Most likely, you have a combination of goals in mind. For example, you may want to increase both your cardiorespiratory endurance and your flexibility.</p>	<b>8</b>

## Chapter 1 / Section 2: NS1-U5C1S2 – The FIT Principle

<b>Defining Your Goals</b>	<p>Explain that as you create your exercise program, remember that your fitness program should be fun! Choose activities or a sport that you enjoy and will look forward to. Combine exercise with social activities. For example, take a hike with a group of your friends. You can often develop an enjoyable fitness program by expanding on the activities that are already a part of your life, as shown by the weekly exercise record in Figure 1.2.</p>	<b>9-10</b>
<b>Defining Your Goals</b>	<p>Explain the Youth Fitness Fact Sheet:</p> <ul style="list-style-type: none"> <li>• Youth fitness in the United States has not improved in the last 10 years and, in some cases, has declined.</li> <li>• Approximately 50 percent of girls ages 6 to 17 and 30 percent of boys ages 6 to 12 cannot run a mile in less than 10 minutes.</li> <li>• Fifty-five percent of girls ages 6 to 17 and 25 percent of boys ages 6 to 12 cannot do a pull-up.</li> <li>• Boys generally perform better than girls on fitness tests, except in the area of flexibility.</li> <li>• Girls' scores increase until age 14, where they plateau and then decrease (with the exception of flexibility. Flexibility continues to improve to age 17).</li> <li>• American children have become more fat, including obese, since 1950 (U.S. Public Health Service).</li> <li>• Forty percent of children between the ages of 5 and 8 show at least one heart disease risk factor, e.g., obesity (overweight), elevated cholesterol, or high blood pressure.</li> <li>• Only 36 percent of America's school children in grades 5 through 12 are enrolled in daily physical education, with the average number of gym classes per week in grades 5 through 12 being 3.6.</li> </ul>	<b>11-12</b>
<b>The FIT Principle</b>	<p>Explain that the effectiveness of your exercise depends on three factors: how often you exercise, how hard you exercise, and how long you exercise at each workout session. These ingredients make up the FIT principle, which stands for frequency, intensity, and time. To achieve fitness, you need to meet minimum standards for each FIT factor. Do you think the students playing basketball are FIT?</p>	<b>13</b>
<b>Frequency of Exercise</b>	<p>Explain that to stay physically fit, you should exercise frequently, preferably three or more times a week. As you become more fit, some studies suggest that if the intensity of your exercise is moderate, four times a week is most effective in increasing cardiorespiratory endurance and weight loss. If you exercise vigorously, however, do not do so more than five times a week. Otherwise, injuries can result.</p>	<b>14</b>
<b>Frequency of Exercise</b>	<p>Explain that no matter what your goal is, you should spread your exercise out over the week. Being inactive during the week does not prepare your body for an intense weekend workout. Weekend athletes are more likely to injure themselves than those who exercise regularly throughout the week.</p>	<b>15</b>
<b>Intensity of Exercise</b>	<p>Explain that if your goal is increased cardiorespiratory endurance, you must work your cardiovascular and respiratory systems with greater than normal effort through aerobic exercise. The intensity of a workout is indicated by the number of times your heart beats per minute. The more intense the exercise, the faster your heart rate.</p>	<b>16</b>



## Chapter 1 / Section 2: NS1-U5C1S2 – The FIT Principle

<b>Intensity of Exercise</b>	Explain that your maximum heart rate is your heart's top speed or your heart rate when you have exercised to the point of exhaustion. For teenagers, this rate is about 200 beats per minute. You should not try to work out at your maximum heart rate, since exercise at that intensity puts a strain on your heart. Your target heart rate, which is lower than your maximum heart rate, is the approximate heart rate you need to maintain during aerobic exercise in order to benefit from the workout. Your target heart rate depends on your age, your current level of fitness, your resting heart rate, and your maximum heart rate. It is often expressed as a range, such as 145 to 170 beats per minute. Do you think that cross-country skiing is intensive exercise?	<b>17</b>
<b>Intensity of Exercise</b>	Explain that during exercise, you need to check your heart rate regularly to determine whether it is within your target heart range. To check your heart rate, you need to stop exercising briefly and count your pulse. Your heart rate slows down quickly, so take your pulse for only six seconds and multiply by ten to get an accurate count of the number of heart beats per minute.	<b>18</b>
<b>Intensity of Exercise</b>	Explain that the “talk test” is an easy way to check your exercise intensity. If you are out of breath to the degree that while exercising that you cannot talk, your exercise level is too intense. If you can sing while you exercise, however, you probably are not working hard enough. You are working at the proper intensity if you can talk comfortably.	<b>19</b>
<b>Exercise Time</b>	Explain that finally, the amount of time spent exercising affects your level of fitness. If you are just beginning an exercise program, start out with only a short period of exercise—about 10 or 15 minutes. Then increase the exercise time gradually, by no more than 10 percent a week. Increasing your exercise program needs to take place over several weeks, as illustrated in Figure 1.3. Once your workout program is well established, most research suggests that 20 to 30 minutes of vigorous exercise four times a week will lead to greater fitness. If your goal is cardiorespiratory improvement, you must exercise within your target heart range for 20 to 30 minutes each session. If your goal is to reduce body fat, your exercise period should be a minimum of 30 minutes, which is longer than the 20-minute minimum required for a cardiorespiratory workout. You should, however, exercise only at a moderate level of intensity, that is, about 60 percent of your maximum heart rate. This is because, at a moderate level of intensity, your muscles tend to use body fat as an energy source, rather than the glucose that is used to provide energy for high-intensity exercise. In order to burn a significant amount of fat, you need to exercise for at least 30 minutes.	<b>20-21</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>22</b>
<b>Phases of Exercise</b>	Explain that a complete fitness workout should be preceded by a warm-up session and followed by a cooling down session. Although skipping these preliminary and follow-up procedures does not always result in injury, the safest and most healthy exercises include these two phases.	<b>23</b>
<b>Warming up and Stretching</b>	Explain that before doing any type of exercise you must warm up. A warm-up is a 5- to 10-minute period of mild exercise that prepares your body for vigorous exercise. During a warm-up, your body temperature begins to rise, your heart rate picks up, blood flow to your muscles increases, and your muscles become more elastic and less likely to become injured.	<b>24</b>

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<b>Warming up and Stretching</b>	Explain that some people suggest that you go through the motions of your planned activity when you warm up. Rather than doing these movements at full intensity, do them at a slower pace. If you are planning to run, for example, start out by walking. Then gradually increase your speed until reaching your usual pace.	<b>25</b>
<b>Warming up and Stretching</b>	Explain that your warm-up should include 5 to 10 minutes of stretching. As you know, stretching increases your flexibility, and proper stretching may decrease your chance of injury. However, it is very important to know your limits and stretch according to safe guidelines, such as those given in Building Health Skills in Chapter 2. Don't overstretch, as that can damage ligaments and weaken joints. Stretching should be a constant, even pull on the muscles on both sides of your body. Because muscles work in pairs, you need to stretch both muscles in a pair. As you stretch each muscle group, you should feel tension but not pain. Do not bounce when you stretch, since bouncing can tear muscle fibers.	<b>26</b>
<b>The Workout</b>	<p>Explain that the goal of this phase of exercise is to improve one or more of the components of physical fitness. Figure 1.4 summarizes the parts of a total fitness workout, which includes strength/endurance exercises as well as those designed to improve cardiovascular fitness. Depending on your goals, you may not plan on doing both cardiovascular and strength/endurance exercises. Alternatively, you might switch between cardiorespiratory and strength/endurance workouts in successive exercise sessions. If you do both in the same session. However, the cardiorespiratory workout should be done first.</p> <p>Explain that it is important to do strengthening exercises on alternating days because a full day is needed for your muscles to recover from such a workout. Also, when doing muscle strengthening exercises, you should plan on short periods or sets of physical activity followed by rest periods during which the muscles can recover.</p>	<b>27-28</b>
<b>Cooling Down and Stretching</b>	<p>Explain that a slow warm-up period brings you safely from minimal to maximal activity. The cool-down is a period of milder exercise that allows your body and your heart rate to return slowly and safely to their resting states. Your cool down should be at least as long as your warm-up. If you stop exercising abruptly, blood can collect in the muscles you were using. When this happens, blood may not return fast enough to your heart and brain. As a result, you may become dizzy and faint. Walking is a common method of cooling down.</p> <p>Explain that stretching after your cool-down loosens muscles that have tightened from exercise and prevents muscle and joint soreness. Spend at least five minutes repeating the stretches you did before your workout.</p>	<b>29-30</b>
<b>Checking Your Progress</b>	Explain that one of the most exciting and gratifying aspects of sticking with a fitness program is seeing your progress. Your fitness will improve only gradually, so wait three or four weeks before retesting your fitness. In most exercise programs, you will begin to notice significant changes within 12 weeks. You may find that you look better, sleep better, or feel more energetic. Perhaps you will notice that you have gained muscle strength, lost weight, or lowered your resting heart rate.	<b>31</b>
<b>Your Resting Heart Rate</b>	Explain that someone with average cardiovascular fitness has a resting heart rate between 72 and 84 beats per minute. In general, girls and women have higher resting heart rates than boys and men. In either gender, a resting heart rate below 72 beats per minute usually indicates a good fitness level. A young athlete in top competitive condition may have a resting heart rate as low as 40 beats per minute. The athlete's	<b>32</b>

## Chapter 1 / Section 2: NS1-U5C1S2 – The FIT Principle

	heart is so strong and efficient that it doesn't need to beat more rapidly to meet the body's needs. Your resting heart rate will probably not drop that low, but you may notice a drop of five to ten beats per minute after three to four weeks of exercise.	
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>33</b>
<b>Your Changing Shape</b>	Explain that if one of your goals is to lose body fat, you need to combine your exercise program with changes in your eating habits. As you track your progress, keep in mind that to be healthy, your body must store some fat. You cannot expect to lose all your body fat. In addition, remember that it is possible to lose fat tissue without losing weight. If you lose fat and gain muscle, you may even find that you weigh more than when you began your program. This is because muscle tissue is heavier than fat.	<b>34</b>
<b>Your Changing Shape</b>	Explain that to keep track of your overall progress in your workout program, you might keep a record in a table such as that shown in Figure 1.5. About every three or four weeks, write your fitness data in the table. Then, as the weeks go by, you can compare early data with later test results.	<b>35</b>
<b>A Safe Workout</b>	Explain that anyone who exercises faces the risk of injury. Although some injuries may be unavoidable, most can be prevented by following some common-sense practices.	<b>36</b>
<b>Equipping for Safety</b>	Explain that you do not need expensive equipment in order to be safe. Depending on the activity you choose, you may need nothing more than sneakers. The key point is to choose the right equipment for your particular kind of exercise. Proper clothing, footwear, and protective gear help you to avoid discomfort and injury.	<b>37</b>
<b>Equipping for Safety</b>	Explain that clothing should be comfortable and allow unrestricted movement. Avoid clothing that inhibits your body's ability to cool itself through the evaporation of sweat. Also avoid any clothing that might cause you to trip or get caught in your equipment. For example, do not wear loose-fitting long pants or skirts when bicycling. Long pants and long sleeves are appropriate in sports such as skating, where falls and skin scrapes are a risk.	<b>38</b>
<b>Equipping for Safety</b>	Explain that to protect your feet from injury, footwear must fit properly, be in good condition, and provide support and protection. Although athletic footwear is highly specialized, you probably do not need to buy expensive shoes. For example, do not waste your money on shoes meant for professional runners if your main activities are walking and bicycling.	<b>39</b>
<b>Equipping for Safety</b>	Explain that shoulder pads, helmets, mouth guards, and other protective gear are designed to prevent injuries in contact sports such as football and hockey. Hard-shell helmets worn by football players, hockey players, and baseball players at bat are designed to protect the head from a direct blow. Of course, you would not play a contact sport without a helmet, but did you know that you should regard a helmet as standard operating equipment anytime you get on wheeled sports equipment? A helmet should be worn each time you bike, skateboard, or roller skate. Knee and elbow pads are important equipment for skateboarders and roller skaters.	<b>40</b>

## **Chapter 1 / Section 2: NS1-U5C1S2 – The FIT Principle**

<b>Fluids and Food</b>	<p>Explain that your body can require water even when you are not thirsty. If you exercise for more than 45 minutes, you should take fluids during your exercise period. This is especially important in hot weather. To help prevent dehydration on warm days, you should have a cup of fluid a few minutes before you exercise and every 15 minutes during your exercise.</p> <p>Explain that you need energy for exercising, and you get that energy from the food you eat.</p>	<b>41</b>
<b>Avoiding Overexertion</b>	<p>Explain that you may feel unusually tired during the session or even a few hours after if you exercise too intensely, too long, or too often. This feeling of weakness is a signal that you have overworked your body. Other signs of overexertion include nausea or vomiting during or after a workout, and muscle or joint aches and pains that do not go away quickly. If you experience any of these symptoms, you need to cut back the intensity and length of your exercise. Avoid overexertion by sticking to a consistent exercise schedule, rather than occasional bursts of activity followed by periods of inactivity. In addition, always keep your exercise within your comfort level. Do not make the mistake of pushing yourself too hard in order to reach your fitness goal quickly.</p>	<b>42</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	<p>Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.</p>	<b>43</b>
<b>Review Question</b>	<p>The Review Question is “Discuss how the FIT Principle can guide your personal exercise program.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.</p>	<b>44</b>
<b>Call for Other Questions</b>	<p>Provide the opportunity for students to ask final questions regarding the content covered.</p>	<b>45</b>

## **Chapter 1 / Section 2: NS1-U5C1S2 – The FIT Principle**

### III. Supplemental Activities -

#### A. In class Activity: FIT Principle

Supplies required: Goal Setting Sheet

When: At the end of the Lesson

- Cadets will use the goal setting sheet to begin thinking about their Personal Fitness Plan

B. Take Home Activity: Cadets will review their fitness goals with a partner and get the activity sheet signed. Using the Daily Workout Log handout, have the Cadets keep track of their physical activity for a period determined by the instructor. Copies should be made available each day for cadets to use.



#### Tech Tip

There are many online apps and workout journaling tools available for mobile devices that cadets can use to track their fitness

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 1 / Section 2: NS1-U5C1S2 – The FIT Principle**

### Activity 1: In-Class Activity- Goal Setting

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

### **Goal Setting**

The FIT principle refers to Frequency, Intensity, Type and Time. When developing your goals, keep the FIT principle in mind, By changing one or more of these variables each week, you will soon feel better, look better and have more endurance.

<b><u>Frequency</u></b>	_____ <b>days a week</b>  Sun. Mon. Tues. Wed. Thurs. Fri. Sat.
<b><u>Intensity</u></b>	<b>Easy</b>  <b>Medium</b>  <b>Vigorous</b>
<b><u>Type of Activity</u></b>	<b>Name a few activities that you will enjoy doing:</b>  1.  2.  3.  4.  5.
<b><u>Time</u></b>	<b>How many minutes per day?</b>

I am committed to getting regular physical activity to improve my health.  
To the best of my ability I will follow my goals as described above.

Cadet Signature \_\_\_\_\_ Parent Signature \_\_\_\_\_

## **Chapter 1 / Section 2: NS1-U5C1S2 – The FIT Principle**

### Activity 1: Take Home Activity – Daily Workout

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

#### **Daily Workout Log**

Day of the Week:	Date:	
Goals:		
Cardio Exercise:	Time/Distance:	Notes:

<u>Exercise</u>	<u>Weight</u>	<u>Sets</u>	<u>Reps</u>	<u>Notes</u>

Stretching:	Notes:
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## **Chapter 1 / Section 3: NS1-U5C1S3 – Choosing the Right Exercise Program**

(Section 3 of 3)

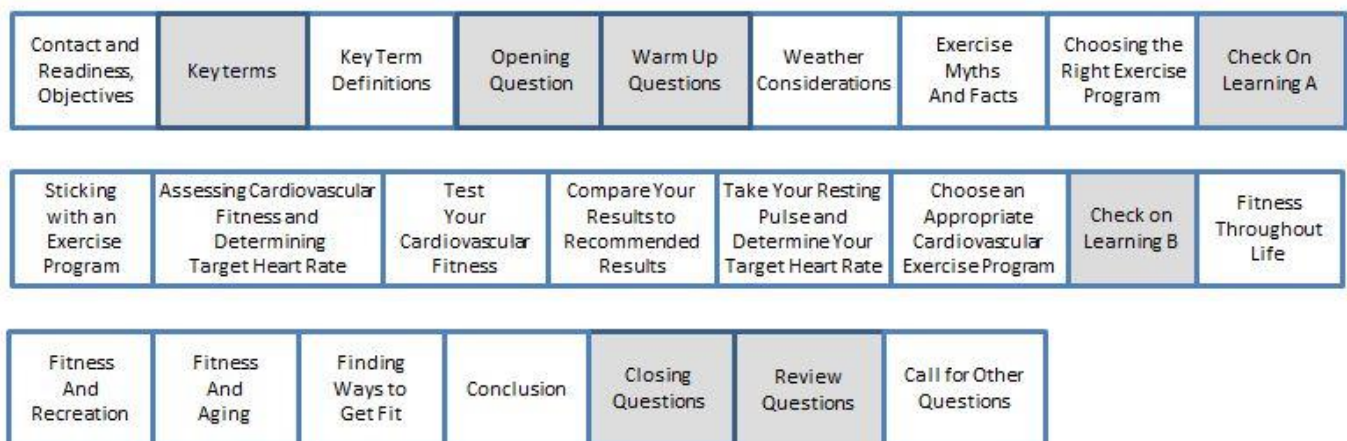
### **What Students Will Learn to Do:**

Develop a personal exercise program

### **Skills and Knowledge to be Gained:**

1. Classify exercises as aerobic, anaerobic, isometric, and isotonic
2. Compare the benefits of aerobic, anaerobic, isometric, and isotonic exercise
3. Identify the benefits of regular exercise
4. Determine the essential components of a good exercise program

### **LESSON FLOW OUTLINE**



Key:



### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 5, Chapter 1. Place a checkmark beside the NS1-U5C1S3 PowerPoint presentation, and these two CPS question deck files: NS1-U5C1S3 - Key Terms and NS1-U5C1S3 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.



## Chapter 1 / Section 3: NS1-U5C1S3 – Choosing the Right Exercise Program

### II. Instructional Flow:

<u>Flow Item</u>	<u>Textbook Content / Student Engagement and Assessment</u>	<u>Slides</u>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn to identify the benefits of exercise in general. You will also learn the different classes of exercise including aerobic, anaerobic, isometric, and isotonic. You will also learn the benefits of each specific type. In addition, you will be able to determine the essential components of a good exercise program.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “List 2-3 reasons why it is important to include recovery days in your fitness program.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, with a focus of choosing the right exercise program.</p>	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each warm-up question with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>Weather Considerations</b>	<p>Ensure that your clothing is appropriate for the weather. Regardless of the air temperature, you should feel slightly cool at the beginning of your workout. When you exercise outdoors on warm, sunny days, wear light-colored clothing to reflect the sun’s rays, and dress lightly to prevent overheating. The lighter or more sun sensitive your skin is, the more you will need to protect yourself from sunburn with a sunscreen lotion.</p>	<b>8-9</b>
<b>Exercise Myths and Facts</b>	<ol style="list-style-type: none"> <li>1. MYTH: “No pain, no gain”; exercise to the point of feeling pain is the only way to improve your abilities. <i>FACT: Pain is a danger signal, a signal that you are causing harm. Sharp or sudden pain should be a signal to stop immediately.</i></li> <li>2. MYTH: Sit-ups and other abdominal exercises will decrease fat in the stomach area. <i>FACT: You cannot “spot reduce” or lose fat just in one area.</i></li> <li>3. MYTH: Drinking fluids before exercising can cause stomach cramps. <i>FACT: Water alone will not cause cramps. Without adequate water, dehydration will occur and can lead to muscle cramps and other more serious problems.</i></li> <li>4. MYTH: Being thin is a sign of fitness. <i>FACT: Thin people who do not exercise are likely to have poor heart, lung, and muscular fitness. Cardiovascular fitness is a better indication of overall fitness</i></li> </ol>	<b>10-12</b>

## Chapter 1 / Section 3: NS1-U5C1S3 – Choosing the Right Exercise Program

	<p><i>than is your appearance.</i></p> <p>5. MYTH: If women lift weights, they will develop large muscles.  <i>FACT: Women actually have less muscle tissue and more fat tissue than men. They also have a balance of hormones that is different from men and that prevents the development of large muscle mass.</i></p> <p>6. MYTH: Exercise is unsafe for older people.  <i>FACT: The health of elderly people can benefit greatly from moderate exercise.</i></p>	
<b>Choosing the Right Exercise Program</b>	Explain that your exercise program should be based on your current fitness ratings and your own interests, needs, and abilities. Even if you think you are perfectly healthy, it makes good sense to check with a physician or other health-care professional to be sure your new activities will not put you at risk. Once you have a physician approved exercise plan, an exercise specialist, such as your physical education teacher, can help you select the best exercises. Moreover, he or she can give you specific pointers on the techniques that will make the activities safe and effective.	<b>13</b>
<b>Choosing the Right Exercise Program</b>	Explain that the type of exercise program you choose should have three parts: warm-up, conditioning, and cool-down.	<b>14</b>
<b>Choosing the Right Exercise Program</b>	Explain that the warm-up period allows for a slow increase in the heart rate and sends extra blood through muscles to warm them up. Your warm-up could include slow walking, mild stretching, or calisthenics. Remember, warm-up for five to seven minutes.	<b>15</b>
<b>Choosing the Right Exercise Program</b>	Explain that the conditioning period brings you into cardiorespiratory endurance and/or muscle strengthening activities. This is where most of your exercising occurs. These exercises should push your body to its normal limit, and when you are feeling strong, a little beyond. As exercising becomes easier, your normal limit should change. Walk or jog a little farther; do a few more sit-ups or push-ups. When weight training to gain bulk, increase to heavier weights. To build strength without bulk, keep lighter weights and increase repetitions. With muscle strengthening exercises, give your muscles a day off between workouts to rest or work your upper body one day and your lower body the next. The conditioning period generally lasts twenty minutes.	<b>16</b>
<b>Choosing the Right Exercise Program</b>	Explain that the cool-down period allows your heart rate to slow down, relaxes muscles, and cools the body. Slow walking, simple calisthenics, and mild stretching are good ways to cool down. Stretching during cool-down can prevent muscle cramps and soreness. Your cool-down period should last four to six minutes.	<b>17</b>
<b>Choosing the Right Exercise Program</b>	Explain that figure 1.6 is a sample of a weekly physical fitness training schedule. Notice how it includes the warm-up and conditioning periods as well as a cool-down period.	<b>18</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>19</b>
<b>Sticking with an Exercise Program</b>	<p>Explain that even though many people know how important exercise is to a healthy lifestyle, they have trouble adhering to an exercise program. Follow these tips and you will find it easier to maintain your resolution to become or remain physically fit.</p> <ul style="list-style-type: none"> <li>• Think of fitness as part of your daily routine, just like brushing your teeth, going to class, or eating dinner.</li> <li>• Set realistic and specific goals for yourself. If you have never jogged before, do not expect to jog three miles your first time out. You may become discouraged. Plan to jog one mile and stick with it, even if you have to walk part of the way. You will find that you progress quickly, which will build your</li> </ul>	<b>20</b>

## Chapter 1 / Section 3: NS1-U5C1S3 – Choosing the Right Exercise Program

	<p>self-confidence.</p> <ul style="list-style-type: none"> <li>• Exercise at least three times a week. If you exercise less than this, you probably will not see much progress, giving you an easy excuse to give up.</li> <li>• Keep track of your progress in a journal. It is motivating to look back at where you started and see how far you have come.</li> <li>• If you are a routine person who enjoys consistency, keep the same exercise routine from week to week. If you get bored easily and like change, develop several exercise routines you can alternate from week to week.</li> <li>• Exercise with a friend or with a group. You will get support from others and feel more committed to stick with it.</li> <li>• Choose a place to exercise that is convenient for you. If the place you plan to exercise is far from home or school, you may not get there as often as you should.</li> <li>• Wear comfortable clothing and shoes to make your exercise experience as pleasant as possible.</li> <li>• Stay positive and have fun. Remember that you are doing something good for yourself. Be serious and consistent with your exercise routine, but enjoy it as well. If you choose an exercise program that you just cannot learn to enjoy, try something else. There is an exercise program for everyone!</li> </ul> <p><b>Caution: Before beginning any exercise or diet program, it is important that you have the approval of your physician.</b></p>	
<b>Assessing Cardiovascular Fitness and Determining Target Heart Rate</b>	Explain that when you exercise, your heart and lungs must supply your muscles with more oxygen than they need when you are resting. Your heart, for example, pumps about 5 quarts (about 5.5 liters) of blood per minute when you are at rest and 20 to 25 quarts (about 22 to 27 liters) when you are exercising vigorously. Running track is a great way to get a cardiovascular workout.	<b>21</b>
<b>Assessing Cardiovascular Fitness and Determining Target Heart Rate</b>	Explain that your target heart rate is the heart rate you need to maintain during exercise in order to improve your cardiovascular fitness. The following test is a simple method of assessing your cardiovascular fitness and the procedure for determining the range in which your target heart rate should fall. These are followed by a few guidelines for improving cardiovascular fitness.	<b>22</b>
<b>Test Your Cardiovascular Fitness</b>	Explain that before you take this test or begin an exercise program, have a physical examination to be sure you do not have any health problems that rule out vigorous exercise. The examination should include a check of your blood pressure and resting heart rate. Do not attempt this test if you are ill or if you have a history of health problems.	<b>23</b>
<b>Test Your Cardiovascular Fitness</b>	Explain that to test your cardiovascular fitness, you must walk and/or run one mile as fast as you can. You can alternate running with walking, but your goal is to cover one mile in as little time as possible. You will need to work with a partner. Your partner should use a watch with a second hand to measure the time, in minutes and seconds, it takes you to complete the distance of one mile.	<b>24</b>
<b>Compare Your Results to Recommended Results</b>	Compare your score to the scores listed in Table 1.2. To be at a good fitness level, your time should be no greater than the minimum times listed in the table.	<b>25</b>

## Chapter 1 / Section 3: NS1-U5C1S3 – Choosing the Right Exercise Program

<b>Take Your Resting Pulse and Determine Your Target Heart Rate</b>	<p>Explain that to determine your resting heart rate, you will need a watch or clock with a second hand. Use your index finger or middle finger to find your pulse, either in your wrist or in your neck. Then count the number of pulse beats during one minute.</p> <p>Subtract your resting heart rate from 200, which is approximately your maximum heart rate. Then multiply the resulting number first by 0.6 and then by 0.8.</p>	<b>26</b>
<b>Take Your Resting Pulse and Determine Your Target Heart Rate</b>	Add your resting heart rate to each of the two numbers you obtained in the previous step. The two sums give you the range in which your target heart rate should be.	<b>27</b>
<b>Choose an Appropriate Cardiovascular Exercise Program</b>	Ask your physical education teacher to help you select appropriate activities for building cardiovascular fitness, such as those in the table. Select moderate intensity activities first. Then, as your fitness improves, switch to activities of higher intensity.	<b>28</b>
<b>Choose an Appropriate Cardiovascular Exercise Program</b>	<p>Do these activities three to four times a week. Take your pulse rate immediately after you stop exercising to see if you are exercising in your target heart range. (Because your heart rate begins to decrease as soon as you stop exercising, count the beats in 6 seconds and multiply this number by 10 to get the total number of beats for 60 seconds.)</p> <p>Explain that after you have been exercising regularly for a while, repeat the cardiovascular walk/run fitness test to monitor your progress.</p>	<b>29</b>
<b>Choose an Appropriate Cardiovascular Exercise Program</b>	<p>Apply the Skill</p> <ol style="list-style-type: none"> <li>1. Complete the timed one mile walk/run to determine your cardiovascular fitness level. Record your results. Be sure to do warm-up stretches before you begin.</li> <li>2. Determine the range in which your target heart rate falls.</li> <li>3. After a physical checkup by a qualified health-care professional, design a cardiovascular fitness program that will improve your fitness level.</li> </ol>	<b>30</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>31</b>
<b>Fitness Throughout Life</b>	Explain that one of the most important and challenging things you can do for yourself is to start exercising now and continue your program for your entire life. If you begin and continue an exercise program when you are young, it will help you stay healthy and fit as you age. Some people are discouraged from achieving this goal because they think that exercise is too difficult or time-consuming. They do not realize that many activities that they already perform may actually be forms of exercise. In addition, fitness activities can actually be a lot of fun. Both aerobic dance classes and recreational dancing can help you become physically fit.	<b>32</b>
<b>Fitness and Recreation</b>	Do you have fun riding your bike to visit a friend? Is a brisk walk on a cool morning something that you enjoy? At school dances, do you love to jump and turn enthusiastically to the beat of fast music? Do you and your friends ever get together for a hike, a quick game of basketball, or a swim at a local lake or pool? If you answered 'yes' to any of those questions, you already perform activities that contribute to your physical fitness. Recreational activities that involve exercise, such as walking, biking, dancing, and swimming, are an important part of a fitness program.	<b>33</b>

## Chapter 1 / Section 3: NS1-U5C1S3 – Choosing the Right Exercise Program

<b>Fitness and Aging</b>	Explain that as people age, they undergo physical changes. Their bodies become less flexible, and their bones tend to fracture more easily. However, those changes do not have to prevent older people from being physically fit. Studies have shown that moderate exercise can minimize and sometimes eliminate the effects of many physical problems associated with aging, such as cardiovascular disease and arthritis. This is true even if exercise begins later in life.	<b>34</b>
<b>Fitness and Aging</b>	Explain that some senior citizens mistakenly think that they need to avoid exercise to protect themselves from injury. In fact, bones and muscles are more likely to stay strong and function well if they are exercised regularly. Exercise can significantly reduce the risk of osteoporosis, a condition in which the bones of the elderly, particularly elderly women become fragile. Senior citizens who get little exercise are generally less healthy than those seniors who remain active.	<b>35</b>
<b>Fitness and Aging</b>	Explain that moderation is especially important in a fitness program for older adults. Older adults may not have the ability to exercise at as high an intensity as they were once able. Older adults are more likely than younger people to develop circulatory system problems, and the target heart rate for exercise decreases as a person ages. The elderly also need to be especially careful not to put too much stress on bones and muscles. If older adults continue to benefit from regular exercise if they exercise carefully and with moderation.	<b>36</b>
<b>Finding Ways to Get Fit</b>	Do you still think you simply cannot bring yourself to plan and carry out a fitness program? Then at least try to increase your daily level of activity. Make a game of trying to add just a little more exercise each day. If you travel mostly by car or bus, bicycle or walk instead. Use stairs instead of an elevator. If you already walk quite a bit, pick up your pace or jog for a short distance. A small amount of exercise is better than none at all. People who get even a little bit of exercise have less risk of cardiovascular disease than those who are completely inactive.	<b>37</b>
<b>Conclusion</b>	<p>Explain that regular exercise is important to maintaining your health. It can make you feel and look better and help your body fight disease. Different exercise programs have different benefits. For example, aerobic dancing is excellent for a strong heart and weight lifting is especially effective for strong muscles. No matter what exercise program you choose, remember that the most important thing is for you to stay active. So much in life today makes things easy for us. Elevators, escalators, cars, electric appliances simplify life to the degree that it is easy to get out of shape. In addition to an exercise program, take the stairs, walk or bike to the store, go bowling with friends instead of watching television. It can be fun, and it is all to your benefit!</p> <p>Explain that in the next chapter, you will learn about the exercises designed for the NJROTC Physical Fitness Test and the Presidential Physical Fitness Award (PPFA) program.</p>	<b>38</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>39</b>
<b>Review Question</b>	The Review Question is “Describe the process for determining your target heart rate.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>40</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>41</b>

## **Chapter 1 / Section 3: NS1-U5C1S3 – Choosing the Right Exercise Program**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Activity Log from NS1-U5C1S2

When: Anytime during the class when the instructor deems appropriate

- In Class: Cadets examine their fitness logs that they have completed over the past few days and determine if they have been doing easy, moderate, or vigorous activities. They then select two activities; one from the easy category and one from the moderate or vigorous category. Cadets record these two activities on the Heart Rate Log handout along with their resting heart rate that was determined during class.

B. Homework Activity: Cadets measure their heart rates after participating in the two activities chosen in class and written down on the Heart Rate Log. They record their heart rate 1-2 minutes after completing the activities and complete a bar graph that shows their resting heart rate, the easy activity heart rate and the moderate/vigorous heart rate. Cadets complete the activity by answering the questions about heart rate on the log sheet



Tech Tip: Heart rate monitors are a good way to measure heart rate throughout the day. If possible, cadets could use these devices for this activity.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 1 / Section 3: NS1-U5C1S3 – Choosing the Right Exercise Program**

Activity 1: In-Class Activity- Heart Rate Activity and Log

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

- 1. Review your Daily Fitness Log and choose one easy activity and one moderate or rigorous activity.**
- 2. Record your resting heart rate on the chart.**
- 3. Perform your easy activity, wait 1-2 minutes and take your heart rate. Do your moderate/vigorous activity next, wait 1-2 minutes and take your heart rate.**
- 4. Record your easy heart rate and moderate/vigorous activity heart rate below.**

<b><u>Resting Heart Rate:</u></b>  _____ beats per minute	<b><u>Activity One: Easy</u></b>  _____ beats per minute	<b><u>Activity Two:</u></b> <b><u>Moderate/Vigorous</u></b>  _____ beats per minute
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**In the space below, create a bar graph illustrating your heart rate measurements. Be sure to label your bar graph appropriately.**

## **Chapter 1 / Section 3: NS1-U5C1S3 – Choosing the Right Exercise Program**

Respond to the following questions:

1. What effect does the intensity level of an activity have on heart rate?
  
  
  
  
  
  
  
  
  
  
2. Which activity in your fitness log would most increase your heart rate? Least?
  
  
  
  
  
  
  
  
  
  
3. How do low intensity activities benefit health? Why should both low and high intensity types of activities be in your fitness plan?
  
  
  
  
  
  
  
  
  
  
4. Why is it important to know your target heart rates?
  
  
  
  
  
  
  
  
  
  
5. Do you reach your target heart rate during your vigorous activities?
  
  
  
  
  
  
  
  
  
  
6. Do you need to change your Personal Fitness Plan? If so, how? Why?



## **Unit 5 Chapter 2: NS1-U5C2 – Evaluating Your Physical Fitness**

### **What Students Will Learn to Do:**

Understand the basic physical exercises paramount for success in NJROTC

### **Skills and Knowledge to be Gained:**

1. Explain why stretching is important to building healthy skills
2. Describe the proper techniques for the three basic physical fitness exercises evaluated in NJROTC
3. Describe the Presidential Physical Fitness Award
4. Identify the events in the Presidential Physical Fitness Award

### **Standards Linked in this Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions ...
- SL.9-10.4. Present information, findings, and supporting evidence clearly, concisely, and logically...

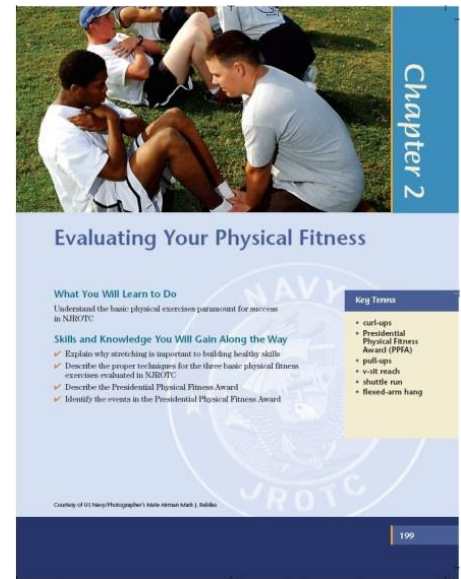
##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases ...

#### **National Health Education Standards 9-10 (NHES)\*\***

- NHES Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- NHES Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- NHES Standard 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.



## **Unit 5 Chapter 2: NS1-U5C2 – Evaluating Your Physical Fitness**

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor's Guide.

## **Chapter 2 / Section 1: NS1-U5C2S1 – Evaluating Your Physical Fitness**

(Section 1 of 1)

### **What Students Will Learn to Do:**

Understand the basic physical exercises paramount for success in NJROTC

### **Skills and Knowledge to be Gained:**

1. Explain why stretching is important to building healthy skills
2. Describe the proper techniques for the three basic physical fitness exercises evaluated in NJROTC
3. Describe the Presidential Physical Fitness Award
4. Identify the events in the Presidential Physical Fitness Award

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Introduction	Building Health Skills	Warming Up, Cooling Down, and Stretching (A)	Check On Learning A
Warming Up, Cooling Down, and Stretching (B)	Check on Learning B	The NJROTC Cadet Challenge	Improving Your Scores	More than Healthy Rewards	Conclusion	Closing Questions	Review Questions	Call for Other Questions

Key:

Textbook Content	Student Engagement and Assessment
------------------	-----------------------------------

### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 5, Chapter 2. Place a checkmark beside the NS1-U5C2S1 PowerPoint presentation, and these two CPS question deck files:  
NS1-U5C2S1 - Key Terms and NS1-U5C2S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 2 / Section 1: NS1-U5C2S1 – Evaluating Your Physical Fitness

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.  In this lesson, you will learn about the importance of stretching before exercise, proper techniques for the exercises evaluated in NJROTC, and the events in the Presidential Fitness Award.	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-7</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 things you already know about stretching.” Since this is a discussion question, it can be engaged using the RPS, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ response to the question on the slide, ‘Focusing on evaluating your physical fitness’.	<b>8</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.  Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.	<b>9</b>
<b>Introduction</b>	Explain that this is it! Time to put on your sneakers and start warming up for what may be the toughest part of your unit—participating in exercises designed for the Cadet Challenge. Get ready to tackle these exercises which are developed to assess your physical ability: sit and reach, curl-ups, push-ups, and a run. They require endurance, speed, strength, and flexibility. What can the Cadet Challenge do for you? First, it allows you to develop an understanding of and appreciation for physical fitness. Further, it shows how an exercise program can improve health and appearance, thereby improving self-confidence. Finally, there is the personal satisfaction associated with striving to achieve a goal as well as recognizing and recording your own progress.	<b>10-11</b>
<b>Building Health Skills</b>	Explain that as you go through this or any exercise program, it’s important to protect your body as well as develop some health skills. These skills include knowing how to warm up, cool down, and, stretch. These activities should be viewed as essential conditioning that ensure the body can sustain periods of exercise like the Cadet Challenge.	<b>12</b>
<b>Warming Up, Cooling Down, and Stretching</b>	Imagine that you are about to go on a five-mile bicycle ride or play your favorite sport. You know that these are strenuous activities that put stress on your bones, muscles, and tendons. How should you prepare your body for these activities? After the activity, what should you do to minimize the effects of the stress your body has just undergone?	<b>13</b>

## Chapter 2 / Section 1: NS1-U5C2S1 – Evaluating Your Physical Fitness

<b>Warming Up, Cooling Down, and Stretching</b>	<p>Explain that before a workout, use slow movements to warm up the muscles that you will use. When the muscles are warmed up, stretch them. Stretching cold muscles is not effective and can cause injury. After your workout, cool down by slowly moving the muscles you used. Then stretch these muscles as you did before the workout.</p> <p>Explain that although no single stretching routine is appropriate for every activity, the stretching exercises that follow provide a base for you to build on. It is important not to rush when you perform these movements. A pulled muscle can hold you up much longer than the few minutes of warming up/stretching and cooling down/stretching needed with each workout.</p>	<b>14</b>
<b>Warming Up, Cooling Down, and Stretching</b>	Explain that when you perform stretching exercises, do not bounce. Bouncing can tear muscle fibers, and scar tissue can form as a result.	<b>15</b>
<b>Warming Up, Cooling Down, and Stretching</b>	Explain that before your workout, walk, jog slowly, or do the activity that you are about to participate in at a reduced pace. This warms up your muscles, preparing them for the more intense activity of the workout itself. Similarly, immediately following the workout, you need to continue moving your muscles at a reduced pace for five to ten minutes, as you did in the warm-up. This cool-down period helps ease the body back to normal levels of muscular activity.	<b>16</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered thus far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>17</b>
<b>Warming Up, Cooling Down, and Stretching</b>	Explain that no single stretching exercise is appropriate for every activity, but the following five exercises are a base on which to build. Do not rush the warm-ups! A pulled muscle can delay exercising much longer than the time needed for warm ups.	<b>18</b>
<b>Warming Up, Cooling Down, and Stretching</b>	Stand with feet apart, knees bent, and one hand on your hip. Extend the opposite arm overhead and stretch to the side, as shown in Figure 2.1. Hold 15 seconds. Repeat in the other direction. Do five times in each direction.	<b>19</b>
<b>Warming Up, Cooling Down, and Stretching</b>	Grasp your hands behind your back and hold. Stand with your feet apart and knees slightly bent, and lean over at the waist. Pull up your arms behind you, as shown in Figure 2.2, and hold 15 seconds.	<b>20</b>
<b>Warming Up, Cooling Down, and Stretching</b>	Lie on your back with legs extended. Bring one knee up to your chest. Grasp the leg behind the knee and pull the knee closer to your chest. Next, curl your shoulders toward your knee. Figure 2.3 shows how this is done. Hold this position for 15 seconds. Switch to the opposite leg and repeat.	<b>21</b>
<b>Warming Up, Cooling Down, and Stretching</b>	Stand in a stride position with your right leg forward and hands on your hips. Lean your upper body forward. Simultaneously bend your right leg and extend your left leg back in a continuous line with your upper body. Push your left heel to the ground. Figure 2.4 shows this position. Hold for 15 seconds. Repeat with the other leg. Do this five times on each side.	<b>22</b>
<b>Warming Up, Cooling Down, and Stretching</b>	Sit on the floor and extend one leg, toes facing up. Tuck your other foot against your extended thigh. Reach forward over your extended leg and slide your hands down your leg until you feel a stretch. Hold for 15 seconds. Switch to the other leg. Repeat with each leg twice.	<b>23</b>

## Chapter 2 / Section 1: NS1-U5C2S1 – Evaluating Your Physical Fitness

<b>Warming Up, Cooling Down, and Stretching</b>	<p>Take five minutes to practice these stretching exercises.</p> <p>Explain that each day for a week, do the stretching routine and record how you felt before and after the routine. Include any soreness or stiffness. At the end of the week, evaluate the stretching routine and your reactions to it. What are its benefits?</p> <p>Note: Select a favorite sport or other physical activity and then ask your physical education teacher or coach to suggest an appropriate warm-up routine for that activity, including stretching exercises.</p>	<b>24</b>
<b>Warming Up, Cooling Down, and Stretching</b>	<p>Explain that as you prepare for the Cadet Challenge, remember to follow these basic rules:</p> <ul style="list-style-type: none"> <li>• To produce positive results, exercise at least three times a week</li> <li>• Begin your exercise program by warming up for 5 to 7 minutes</li> <li>• Spend at least 20 minutes on conditioning then cool down for 4 to 6 minutes</li> <li>• Make the sit and reach part of your warm-up or cool down.</li> </ul>	<b>25</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>26</b>
<b>The NJROTC Cadet Challenge</b>	<p>Explain that the NJROTC Cadet Challenge consists of the following four events:</p> <ul style="list-style-type: none"> <li>• Sit and Reach</li> <li>• Curl-ups</li> <li>• Right Angle Push-ups</li> <li>• Run/Walk.</li> </ul>	<b>27</b>
<b>The NJROTC Cadet Challenge- Sit and Reach</b>	The <i>sit and reach</i> test serves as an important functional measure of hip and back flexibility. After a sufficient warm-up, the <i>sit and reach</i> is conducted by sitting on the floor with knees fully extended, feet together, ankles at right angles, and toes pointed up. Reaching forward slowly, attempt to touch the tips of your toes with your fingertips. This position must be maintained for one second. You will have three attempts to perform the sit and reach per evaluation period.	<b>28</b>
<b>The NJROTC Cadet Challenge- Curl-ups</b>	Conduct curl-ups on a flat, clean surface, preferably with a mat. Start in lying position on your back with your knees up so your feet are flat on the floor and about 10 inches from your buttocks. You should have your arms crossed so that your hands are placed on opposite shoulders with your elbows close to your chest. Have your partner hold your feet at the instep. At the command, "ready go," raise the trunk of your body, curling up to touch the elbows to the thighs; then lower your back so that your shoulder blades touch the floor/mat. This constitutes one repetition of a curl-up. You should attempt as many curl-ups as possible in the time allotted and may rest in either the UP or DOWN position. During each repetition, bouncing off the floor/mat is not allowed and the fingers must touch the shoulders at all times.	<b>29</b>
<b>The NJROTC Cadet Challenge- Right Angle Push-ups</b>	<p>Lie face down on the mat/floor with your hands under your shoulders, fingers straight, and legs parallel with your toes supporting the feet. Your feet should remain together. This is the standard starting position for push-ups. Straighten the arms to push off the ground keeping the back and knees straight. Now, lower the body until there is a 90-degree angle at the elbows with the upper arm parallel to the mat/floor.</p> <p>Explain that a partner may hold his or her hand under your chest at the point of the 90-degree angle (typically one fist-length from the ground) so that you go down only until your chest touches your partner's hand, then back up. When you return to the UP position this constitutes one repetition of a push-up. At no time should your buttocks be raised. You should attempt as many push-ups as possible in the time allotted and are allowed to rest in the UP position.</p>	<b>30</b>

## Chapter 2 / Section 1: NS1-U5C2S1 – Evaluating Your Physical Fitness

<b>The NJROTC Cadet Challenge-Run/Walk</b>	Explain that the <i>run/walk</i> is meant to measure your cardiorespiratory endurance. This event is conducted on a flat area that has a known measured distance of one mile with a designated start and finish line. Start from the standing position. At the command, “ready, go,” start running the specified distance. A distance of 1 mile is used for this event. Although walking is permitted, try to cover the distance in the shortest time possible. Scores are recorded to the nearest second.	<b>31</b>
<b>Improving Your Scores</b>	Explain that the exercises in the NJROTC Cadet Challenge test your endurance and physical strength. Initially, it does not matter what you score on these events. Although you should always strive to do your best, even for the purpose of establishing a base score from which to build. From there, however, you should develop a routine exercise programs so that your score will improve and along with it, your health will improve as well.	<b>32</b>
<b>More than Healthy Rewards</b>	Explain that in 2007, President George W. Bush started the President’s Challenge Program. His purpose was to encourage all Americans to make being active a part of their everyday life..	<b>33-36</b>
<b>Conclusion</b>	<p>Explain that the Cadet Challenge is an introduction to a specific goal. You will see your scores improve as you continue to practice. Making healthy changes in your lifestyle and working hard to reach this goal will make you a stronger, more healthy individual, both mentally and physically, and will bring you the great satisfaction of a job well done.</p> <p>Explain that the following chapter introduces you to the importance of good nutrition. You will learn that “you are what you eat”. You will also learn how a balanced diet is essential when planning a fitness program.</p>	<b>37</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>38</b>
<b>Review Question</b>	The Review Question is “List 2-3 benefits that a person gets from being physically fit.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>39</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>40</b>

## **Chapter 2 / Section 1: NS1-U5C2S1 – Evaluating Your Physical Fitness**

### III. Supplemental Activities -

#### A. In class Activity: Evaluating your Physical Fitness

Supplies required: Space for Cadets to exercise and evaluate

When: Anytime during class or at the end of class

- In Class: Cadets will pair up and take turns doing the sit and reach, curl up and right angle push-up, exercises. While one cadet is exercising, the other cadet will evaluate the technique using the checklist

B. Homework Activity: Cadets will describe the Cadet Challenge, including identifying the events, and explaining each step of the challenge and how they plan to prepare for the event.



Tech Tip: Cadets videotape each other doing the exercises and point out technique adjustments needed. Videotaping could be done on mobile phone, tablet, Flipcam, or standard video camera

### IV. Evaluation - see CPS database for chapter test questions.



## **Chapter 2 / Section 1: NS1-U5C2S1 – Evaluating Your Physical Fitness**

Activity 1: In-Class Activity- Evaluating your Physical Fitness

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

### **Partner Activity: Technique Check-In**

#### **Sit and Reach**

- ☐ Cadet is sitting on the floor with knees fully extended
- ☐ Cadet has feet together and ankles at right angles
- ☐ Cadet's toes are pointing up
- ☐ Cadet moves slowly to touch the tips of toes
- ☐ Cadet can hold toes for one second

How many attempts did Cadet take? \_\_\_\_\_

#### **Curl Ups**

- ☐ Cadet is lying on back with knees up and feet flat on floor
- ☐ Cadet is crossing arms to opposite shoulders
- ☐ Cadet can curl up and touch elbows to thighs and lower back down

How many curl-ups did Cadet complete? \_\_\_\_\_

#### **Right Angle Push-ups**

- ☐ Cadet is lying face down on mat/floor
- ☐ Cadet has hands under shoulders with fingers straight
- ☐ Cadet's legs are parallel with toes supporting feet
- ☐ Cadet straightens arms to push off of the ground
- ☐ Cadet's back, buttocks and knees are straight
- ☐ Cadet lowers body to 90 degrees at elbows

How many reps did Cadet complete? \_\_\_\_\_

## **Chapter 2 / Section 1: NS1-U5C2S1 – Evaluating Your Physical Fitness**

## Activity 1: Take Home – Cadet Challenge

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Describe the Cadet Challenge, include identifying the events, and explain each step of the challenge and how you plan to prepare for the event.

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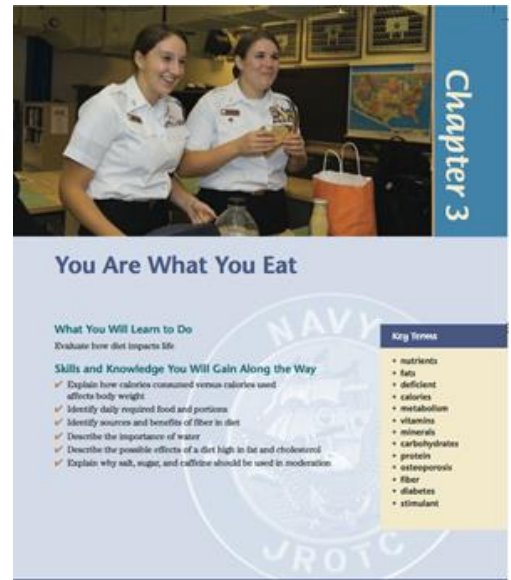
## **Unit 5 Chapter 3: NS1-U5C3 – You Are What You Eat**

### **What Students Will Learn to Do:**

Evaluate how diet impacts life

### **Skills and Knowledge to be Gained:**

1. Explain how calories consumed vs calories used affects body weight
2. Identify daily required food portions
3. Identify sources and benefits of fiber in the diet
4. Describe the importance of water
5. Describe the possible effects of a diet high in fat and cholesterol
6. Explain why salt, sugar and caffeine should be used in moderation



### **Standards Linked in this Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading and Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says ...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...
- RI.9-10.7. Analyze various accounts of a subject told in different mediums...

##### Writing

- W.9-10.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- W.9-10.7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem...

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

#### **National Health Education Standards 9-10 (NHES)\*\***

- NHES Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.

## **Unit 5 Chapter 3: NS1-U5C3 – You Are What You Eat**

- NHES Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- NHES Standard 3: Students will demonstrate the ability to access valid information, products, and services to enhance health.

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor's Guide.

## **Chapter 3 / Section 1: NS1-U5C3S1 – You Are What You Eat**

(Section 1 of 1)

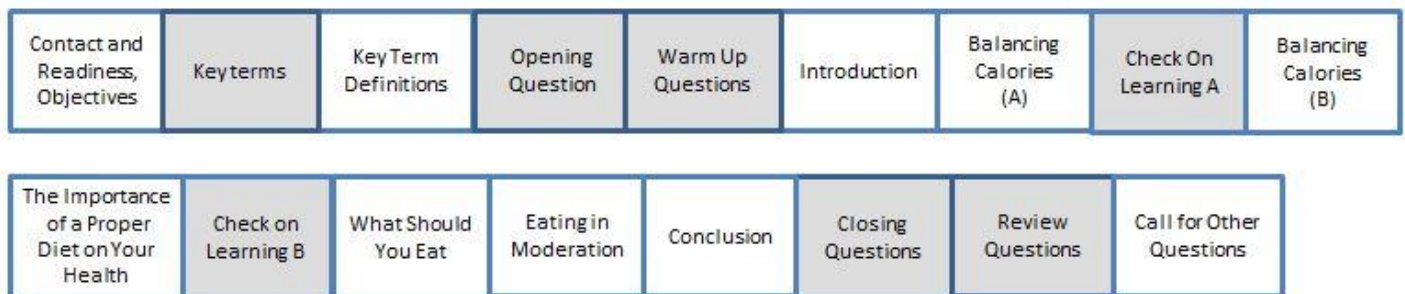
### **What Students Will Learn to Do:**

Evaluate how diet impacts life

### **Skills and Knowledge to be Gained:**

1. Explain how calories consumed vs calories used affects body weight
2. Identify daily required food portions
3. Identify sources and benefits of fiber in the diet
4. Describe the importance of water
5. Describe the possible effects of a diet high in fat and cholesterol
6. Explain why salt, sugar and caffeine should be used in moderation

### **LESSON FLOW OUTLINE**



Key:



### **Outline of Instruction:**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 5, Chapter 3. Place a checkmark beside the NS1-U5C3S1 PowerPoint presentation, and these two CPS question deck files: NS1-U5C3S1 - Key Terms and NS1-U5C3S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 3 / Section 1: NS1-U5C3S1 – You Are What You Eat

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will evaluate the impact of diet on your life. You will learn how calories consumed versus calories used affects body weight. You will also learn about daily requirements and portions of foods, the sources and benefits of dietary fiber, the importance of water, and the possible effects of consuming too much fat, cholesterol, salt, sugar, and caffeine.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-9</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 strategies you might use to manage your weight in a healthy way.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on you are what you eat.	<b>10</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.	<b>11</b>
<b>Introduction</b>	Explain that a healthy lifestyle includes good nutrition as well as exercise. You need to eat well to maintain an exercise program. Just as a car will not run without fuel, your body will not work properly without the right nutrients. Eating a balanced diet also helps you maintain proper weight and lowers your risk for disease. This chapter explains the importance of proper diet to your health.	<b>12</b>
<b>Introduction</b>	Explain that Americans live in a fast-paced culture and frequently eat ‘on the run’. Eating on the run too often, however, may affect your nutrition and weight. You can end up consuming too many fats and too few vegetables and fruit, leaving you overweight and/or deficient in certain nutrients. Learning to eat balanced meals even on the run, contributes to your overall well-being by helping to maintain proper weight, providing energy for physical activity, and supplying nutrients for good health.	<b>13</b>
<b>Introduction</b>	Although too many fats can be bad for you, your body needs a certain amount of fat from the foods you eat. Many necessary vitamins are fat-soluble only. Without fat, these vitamins cannot be absorbed into your system.	<b>14</b>

## Chapter 3 / Section 1: NS1-U5C3S1 – You Are What You Eat

<b>Balancing Calories</b>	Explain that you must eat to fuel your body. The more active you are, the more fuel your body requires. Even if you remain very still, your body uses a certain amount of energy, or calories, on basic functions that work all the time, keeping you alive. Such functions include your heart beating, your lungs inhaling, and your nerves delivering information. You do not have much control over the amount of calories used for these basic functions. Some people's bodies naturally use more calories to sustain their basic functions. Some people's bodies use less. It's often said that those who use more have a high metabolism, meaning they can eat more and not gain weight.	<b>15</b>
<b>Balancing Calories</b>	Explain that your body also uses calories to do everything else throughout the day, from brushing your teeth, to studying, to stretching. Unlike your basic functions, however, you can control how many calories you voluntarily use throughout the day by how active you are. For example, you will use more calories if you choose to walk for an hour instead of watching television for an hour. Also, the more effort you put into an activity, the more calories you burn. For example, walking at a brisk pace uses more calories than walking at a leisurely pace.	<b>16</b>
<b>Balancing Calories</b>	Explain that when your body uses the same amount of calories daily than you eat daily, your weight stays the same. If you eat more calories than your body uses, your body stores the unused calories as fat and you gain weight. If you eat fewer calories than your body needs, your body uses the stored fat for energy and you lose weight. It's a balancing act between numbers of calories eaten and calories used.	<b>17</b>
<b>Check on Learning Questions A(Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow up discussion as appropriate.	<b>18</b>
<b>Balancing Calories</b>	Introduce the upcoming example of making sensible choices when choosing the foods you eat.	<b>19</b>
<b>Balancing Calories</b>	Explain that Karen wonders why she keeps gaining weight. She's gained 10 pounds over the last year. One Saturday, she and her friend, Andrea meet at the local fast-food restaurant for lunch. While they wait in line, Andrea says she played tennis that morning. Karen admits she slept late and then watched television. Andrea orders a salad with grilled chicken and light Italian dressing and a small soda. Karen orders a double hamburger with mayonnaise only, a large order of French fries, and a large chocolate milkshake.	<b>20</b>
<b>Balancing Calories</b>	Explain that Andrea shakes her head and asks Karen if she ever eats any fruit or vegetables. Karen shrugs and says "sometimes." Andrea explains that she eats hamburgers and French fries every once in a while. In fact, she had that for lunch a few days ago, which is why she ordered a salad today. Andrea tells Karen that eating fruit and vegetables more often than fried foods and sweets would help her maintain her desired weight and that she would feel better as well. Karen thinks about this for a moment as they sit down to eat.	<b>21</b>
<b>Balancing Calories</b>	Explain that perhaps if Karen had access to the following calorie counts, she would reconsider what she ordered. Keep in mind that most people need to consume between 2,000 and 3,000 total calories a day. The table in this slide is shown as figure 3.1 in the textbook and shows the caloric difference between the two food orders.	<b>22</b>
<b>Balancing Calories</b>	Explain that even if Karen did not want a salad, she could cut her calories considerably by ordering a single hamburger with mustard and ketchup, a small milkshake, and a regular order of fries. She could also have lettuce and tomato on the burger, thereby including a few vegetables in her diet. Her new calorie intake would look similar to what is shown in this slide.	<b>23</b>

## Chapter 3 / Section 1: NS1-U5C3S1 – You Are What You Eat

<b>Balancing Calories</b>	How many calories are contained in the food you eat? This chart is also shown in your text book and gives you an idea of the number of calories contained in everyday foods.	<b>24</b>
<b>Balancing Calories</b>	Explain that if Karen really wants to lose an extra 10 pounds, she should skip the milkshake and replace fries with a small salad and light dressing. This would reduce her caloric intake to about 400 calories for lunch. Like Andrea, she should also try to get some exercise. Playing tennis for an hour uses 3 times as many calories as does watching tv for an hour. If Karen sticks to eating sensibly and exercising daily, she'll soon start using more calories than she eats and will lose the extra pounds.	<b>25</b>
<b>The Importance of a Proper Diet on Your Health</b>	Explain that what you eat to get those calories is just as important as eating the correct amount of calories to supply your body with energy and maintain proper weight. If you eat as Karen does every day, you are giving your body too much fat, cholesterol, salt, and sugar, and you are denying your body many necessary nutrients. Many health problems are related to a poor diet. These problems can start when you are young. At your next physical examination, ask your doctor about your cholesterol, blood pressure, and blood sugar levels. You may be surprised to find you need to change your diet to improve your health.	<b>26</b>
<b>Check on Learning Questions B(Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow up discussion as appropriate.	<b>27</b>
<b>What Should You Eat</b>	Explain that the United States Department of Agriculture(USDA) developed the Food Guide Pyramid (shown on slide and in textbook as figure 3.2) to indicate how many servings of the six different food groups you should eat daily in order to get the nutrients needed by your body. If you follow these guidelines, you will get enough vitamins and minerals to keep your body's processes functioning properly, and you will have enough carbohydrates, protein, and fat to supply your body with energy. When you do not get enough of certain nutrients, you increase your risk of disease. For example, if you do not get enough calcium, a mineral found in milk products, almonds, sardines, leafy vegetables, and beans, you can develop osteoporosis.	<b>28 - 29</b>
<b>What Should You Eat</b>	Explain that your body also needs fiber, the only form of carbohydrate that is not an energy source. Fiber aids in digestion. It prevents cholesterol, fats, and other toxic materials from entering the bloodstream and for this reason fiber may lessen your chances of cancer and heart disease. It also helps balance your blood sugar levels, which is important if you suffer from diabetes. To obtain fiber, eat raw or lightly cooked vegetables, fresh fruit, beans, nuts, whole wheat or bran breads, cereals, and crackers.	<b>30 - 31</b>
<b>What Should You Eat</b>	Explain that one final nutrient which contains no calories is water. Water can be obtained from plain or sparkling water, fruits and vegetables and their juices, milk and yogurt, cooked cereal, rice and soups. More than 65 percent of the body is water. As the body loses water through normal activity and exercise, it must be replaced. Water aids in digestion, regulates temperature, carries vitamins and minerals to all parts of the body, and is important for the removal of waste products from the kidneys. Drink a minimum of five to six glasses of water a day. On the days you exercise, you may need to drink more.	<b>32 - 33</b>
<b>Eating in Moderation</b>	Explain that although your body needs fat for energy, too much fat can make you gain weight and can lead to high cholesterol. Cholesterol, a type of fat, is a natural, waxy substance produced by your body and is also found in animal products. Your body needs some cholesterol to remain healthy, but too much is harmful. In Figure 3.3, observe that cholesterol forms plaque on artery walls, restricting the flow of blood within blood vessels. This leads to high blood pressure and an increased risk of heart disease. To lower cholesterol levels, lower intake of fat by eating less meat, using oil-	<b>34</b>



## Chapter 3 / Section 1: NS1-U5C3S1 – You Are What You Eat

	free dressings, avoiding fried foods, eating low-fat dairy products, and consuming lots of fiber.	
<b>Eating in Moderation</b>	Explain that many foods, especially prepackaged foods and restaurant foods, already have added salt, so don't shake on more salt. Too much salt in your diet forces your body to retain unnecessary water and may contribute to high blood pressure.	<b>35</b>
<b>Eating in Moderation</b>	Explain that sugary foods like candy, soda, syrup, and table sugar supply you with calories and few (if any) nutrients. These foods contain "empty calories". They give your body calories and nothing else. Avoid them while dieting, and do not eat them as a replacement for other foods that do provide nutrition. Many fruits and vegetables naturally contain sugar, but they also provide many other important nutrients.	<b>36</b>
<b>Eating in Moderation</b>	Limit your intake of coffee, tea, and sodas that contain caffeine, which is a stimulant. Although caffeine temporarily reduces drowsiness and makes you more alert, in large quantities it can upset your stomach, make you nervous and irritable, keep you awake when you want to sleep, and give you diarrhea.	<b>37</b>
<b>Conclusion</b>	Explain that your body needs food for energy, just like a car needs fuel to run. How much food your body needs depends on how active you are and how many calories your body uses to keep its basic functions operating. You know you are getting the right amount of calories from food when you maintain your ideal weight.	<b>38</b>
<b>Conclusion</b>	Not only does food supply you with energy, but the right foods also provide the nutrients your body needs to operate properly and also lower your risk of disease. Eating a healthy, balanced diet and exercising regularly increase your chances of a long, strong, and disease-free life.	<b>39</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson with follow-up reinforcement and discussion as appropriate.	<b>40</b>
<b>Review Question</b>	The Review Question is, "How would someone with a slow metabolism plan his/her meals with this in mind?" Question is designed to provide an opportunity for some reflection and assimilation of the content covered and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>41</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>42</b>

## **Chapter 3 / Section 1: NS1-U5C3S1 – You Are What You Eat**

### III. Supplemental Activities -

#### A. In Class Activity:

Supplies required: Food Diary Handout

When: Best at the end of the class

- In Class: Handout Food Diary and have cadets record food eaten so far that day. Cadets also check off food categories from the food pyramid. Have cadets then plan the rest of the day as they remember good nutrition facts from class presentation.

B. At Home Activity: Cadets will keep the food dairy for one week and then answer the questions that follow.



Tech Tip: There are many apps for mobile devices that can be used as food journals. Offer these options for students if they have access to a smart phone or tablet and the internet.

### IV. Evaluation - see CPS database for chapter test questions.

## Chapter 3 / Section 1: NS1-U5C3S1 – You Are What You Eat

Activity 1: In Class and Take Home Activity- Food Diary

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

# Food Diary

Use this chart to track the foods you eat over the week. Write in the foods you eat and mark the corresponding check boxes for each serving from a food group to track whether you are meeting recommended servings. Don't forget to include beverages.

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Milk & Milk Products	000	000	000	000	000	000	000
Vegetables	000	000	000	000	000	000	000
Fruits	00	00	00	00	00	00	00
Grains	000000	000000	000000	000000	000000	000000	000000
Meat & Beans	00	00	00	00	00	00	00
Breakfast							
Snack							
Lunch							
Snack							
Dinner							
Evening Snack							

## **Chapter 3 / Section 1: NS1-U5C3S1 – You Are What You Eat**

Activity 1: Take Home Activity- You Are What You Eat – Food Diary Questions

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

1. How many glasses of water did you drink this week? Do you think you drank enough water this week? Did you increase your water intake when you were exercising?
  
  
  
  
  
  
  
  
  
  
2. Did you eat more calories than you used? Explain the relationship between your 'calories in' and your 'calories out' using your food diary.
  
  
  
  
  
  
  
  
  
  
3. Look at your food diary and discuss the amount of sugar, salt and caffeine you had for the week. Do you need to cut back on any of these items? What effect does having too much sugar, salt or caffeine have on your body?
  
  
  
  
  
  
  
  
  
  
4. What do you notice about your food diary and the recommended portions of each food group on the food pyramid? Are there any categories you need to adjust? If so, which ones and why?
  
  
  
  
  
  
  
  
  
  
5. Circle the sources of fiber that you see in your food diary. Why is fiber important in your diet?
  
  
  
  
  
  
  
  
  
  
6. Underline items in your food diary that are high in fat. What harm can diets that are high in fat cause to your body?

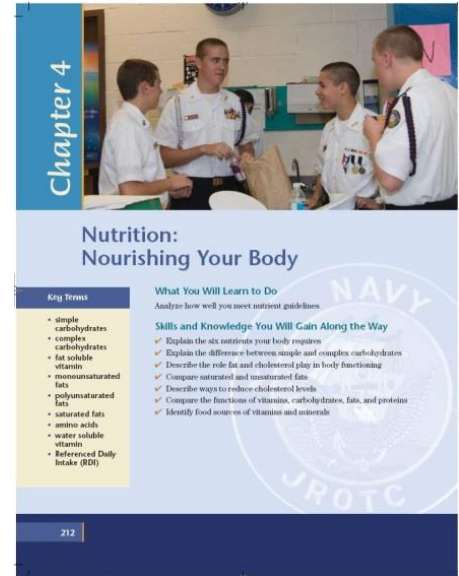
## **Unit 5 Chapter 4: NS1-U5C4 – Nutrition: Nourishing Your Body**

### **What Students Will Learn to Do:**

Analyze how well you meet nutrient guidelines

### **Skills and Knowledge to be Gained:**

1. Explain the six nutrients your body requires
2. Explain the difference between simple and complex carbohydrates
3. Describe the role fat and cholesterol play in body functioning
4. Compare saturated and unsaturated fats
5. Describe ways to reduce cholesterol levels
6. Compare the functions of vitamins, carbohydrates, fats, and proteins
7. Identify food sources of vitamins and minerals



### **Standards Linked in this Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading and Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says ...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...
- W.9-10.2. Write information/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

##### Language

- L.9-10.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

#### **National Health Education Standards 9-10 (NHES)\*\***

- NHES Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- NHES Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.

## **Unit 5 Chapter 4: NS1-U5C4 – Nutrition: Nourishing Your Body**

- NHES Standard 3: Students will demonstrate the ability to access valid information, products, and services to enhance health.

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor's Guide.

## **Chapter 4 / Section 1: NS1-U5C4S1 – Nutrition – Nourishing Your Body**

(Section 1 of 1)

### **What Students Will Learn to Do:**

Analyze how well you meet nutrient guidelines

### **Skills and Knowledge to be Gained:**

1. Explain the six nutrients your body requires
2. Explain the difference between simple and complex carbohydrates
3. Describe the role fat and cholesterol play in body functioning
4. Compare saturated and unsaturated fats
5. Describe ways to reduce cholesterol levels
6. Compare the functions of vitamins, carbohydrates, fats, and proteins
7. Identify food sources of vitamins and minerals

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Introduction	Carbohydrates	Nourishing Your Body's Fuel and Fats	Cardiovascular Disease Is the Main Killer of Americans
Nourishing Your Body with Proteins	Check On Learning A	Regulating Body with Vitamins, Minerals, Water	Vitamins	Minerals (A)	Check on Learning B	Minerals (B)	Water	Hunger and Malnutrition
Malnutrition	A World Problem	Conclusion	Closing Questions	Review Questions	Call for Other Questions			

Key:

Textbook Content	Student Engagement and Assessment
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## **Chapter 4 / Section 1: NS1-U5C4S1 – Nutrition – Nourishing Your Body**

### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, chapter 4. Place a checkmark beside the NS1-U5C4S1 PowerPoint presentation, and these two CPS question deck files: NS1-U5C4S1 - Key Terms and NS1-U5C4S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

#### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn to analyze how well you meet nutrient guidelines. You will learn the six nutrients your body requires, the difference between simple and complex carbohydrates, the role of fat and cholesterol in body function, the difference between saturated and unsaturated fats, the functions of vitamins, carbohydrates, fats and proteins, and the food sources of vitamins and minerals.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-8</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 health issues that you think are responsible for the most deaths in the United States” Since this is a discussion question, it can be engaged using the RPS, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on nourishing your body.	<b>9</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>10</b>
<b>Introduction</b>	Explain that nutrition is the science of nourishing the body properly to reach the higher levels of dynamic living. This chapter introduces you to the six nutrients and shows you how to best provide them in a diet that is well rounded yet diversified. You will learn the newest methods available in how to choose your foods and how to read labels. Finally, you will better understand how to maintain a lean body, free from the damaging effects of carrying too much personal fat.	<b>11</b>



## Chapter 4 / Section 1: NS1-U5C4S1 – Nutrition – Nourishing Your Body

<b>Introduction</b>	Explain that our diets have radically changed during the past 35 years. With the advent of fast-food outlets, an increase in dual-career parents, and sky-rocketing numbers of single-parent households, most Americans now have a hurry-up lifestyle where proper eating habits take a back seat to convenience and lack of time.	<b>12</b>
<b>Introduction</b>	Explain that knowing that our lifestyles are busy and sometimes hurried, it is very important that young adults have at least a basic understanding of nutrients, how to obtain them, and how to control fat. This knowledge will lead to a more dynamic life and a higher quality lifestyle. The six types of nutrients are carbohydrates, fats, proteins, vitamins, minerals, and water.	<b>13</b>
<b>Introduction</b>	Explain that we also refer to the first three nutrients, carbohydrates, fats, and proteins, as foodstuffs. They give us the energy for all of the bodily processes. When our body uses the foodstuffs, it releases energy. We measure this energy in calories.	<b>14</b>
<b>Carbohydrates</b>	Explain that carbohydrates are the starches and sugars found in fruits, grains, and vegetables. They have a caloric value of four calories per gram and supply us with short-and long-term energy to accomplish everything from thinking and breathing to running a race.	<b>15</b>
<b>Carbohydrates</b>	<p>Explain that the short-term carbohydrates are the sugars, or simple carbohydrates, which are quickly digested and absorbed into the blood. The most important simple sugar is glucose, or blood sugar. Before the body's cells can use other simple sugars (such as fructose, sucrose, and lactose) for energy, a change must occur converting them into glucose. Many sugary foods are sources of simple carbohydrates; however, those such as soda and candy have few other nutrients, while fruit is an excellent source of simple carbohydrates and contains many other vitamins and minerals as well.</p> <p>Explain that the long-term carbohydrates are starches, or complex carbohydrates, which are made up of combinations of simple sugars. They take longer to digest because the body must break them into simple sugars (glucose) before they can enter the bloodstream. When your body has extra glucose that it does not need immediately for energy, it converts it into the complex carbohydrate glycogen and stores it in the muscles and liver to be released later when energy is needed, usually for short periods of strenuous activity. After your muscles and liver store as much glycogen as they can hold, your body changes the rest to body fat for long-term energy. Long distance runners use carbohydrate loading (eating large quantities of carbohydrates) to have the long-term energy they need to complete the race.</p>	<b>16</b>
<b>Carbohydrates</b>	Explain that good sources of complex carbohydrates are grains (such as bread, cereal, pasta, and rice) and starchy vegetables (such as peas, corn, beans, and potatoes). These starchy foods are also important sources of vitamins, minerals, and fiber. Fiber provides no calories but is roughage that aids in the movement of food through the digestive system.	<b>17</b>
<b>Nourishing Your Body's Fuel and Fats</b>	Explain that fats, or lipids, perform the vital roles of maintaining body temperature, insulating body organs, providing the body with stored energy, and carrying the <u>fat soluble vitamins</u> A, D, E, and K to the cells. One gram of fat is the equivalent of nine calories of energy, more than twice the amount of carbohydrates; therefore, a minimum consumption of fats is the most sensible approach to maintaining a lean body fat content.	<b>18</b>
<b>Nourishing Your Body's Fuel and Fats</b>	Explain that triglycerides are the primary fats in the foods we eat, as well as the fats stored in body tissue. They include saturated fat, which mainly comes from animal sources and does not melt at room temperature, and monounsaturated and polyunsaturated fats, which are usually liquid oils of vegetable origin. When you eat	<b>19</b>

## Chapter 4 / Section 1: NS1-U5C4S1 – Nutrition – Nourishing Your Body

	too many calories, your liver changes them into triglycerides and stores them as fat. When you eat too many saturated fats, your liver makes more cholesterol than your body needs, which is unhealthy.	
<b>Cardiovascular Disease Is the Main Killer of Americans</b>	Explain that your liver already produces about 1,000 milligrams (mg) of cholesterol daily and diet adds another 400 to 500 mg. Cholesterol, a waxy, sticky substance found in animal and human tissue, insulates nerves and forms hormones, cell membranes, vitamin D, and bile to aid in food digestion.	<b>20</b>
<b>Cardiovascular Disease Is the Main Killer of Americans</b>	<p>Explain that your blood carries cholesterol by way of lipoproteins, with low density lipoproteins (LDL) carrying cholesterol from the liver to the cells to accomplish the functions mentioned. Unfortunately, the LDLs deposit any cholesterol that is not needed by the cells in the arteries, giving them the nickname of the “bad guys.” Cholesterol accumulated on the inside walls of the arteries is a factor in the development of atherosclerosis. Eventually, cardiovascular disease, in the form of a heart attack or stroke, may result.</p> <p>Explain that the high density lipoproteins (HDL) carry the extra cholesterol in your blood to the liver to dispose of it, thus preventing cholesterol from building up in the arteries. For this reason, HDLs are known as the “good guys.” To keep cholesterol at a normal level in the body, you must lower LDL levels and raise HDL levels. Steps you can take to accomplish this are to eat less fat, especially saturated fat, maintain appropriate body weight, and participate in a regular exercise program. Eating more fiber will also help because it binds with cholesterol and carries it out of the body; and consuming monounsaturated fats, such as olive, canola, and peanut oils, raises HDLs.</p>	<b>21-22</b>
<b>Nourishing Your Body with Proteins</b>	Explain that the body contains substances called proteins in every cell. They aid in the development and maintenance of muscle, bone, skin, and blood. Proteins are also the key behind keeping the immune system strong. They control the chemical activities in the body that transport oxygen, iron, and nutrients to the body cells. The body can also use protein for energy if it is low on carbohydrates and fats; but in most cases, its role as an energy source is minor. Proteins, like carbohydrates, contain four calories per gram.	<b>23</b>
<b>Nourishing Your Body with Proteins</b>	Explain that the building blocks of protein are the amino acids. These chains of carbon, hydrogen, oxygen, and nitrogen linked together in different ways control all of the body’s chemical activities. There are 22 amino acids found in the human tissue, but the body cannot manufacture all of them. Eight (nine for children) amino acids, known as the essential amino acids, must come from the food we eat because the body cannot produce them. We refer to the food products that contain all eight essential amino acids as having complete proteins. The best sources of complete proteins are meat, fish, poultry, and dairy products.	<b>24</b>
<b>Nourishing Your Body with Proteins</b>	<p>Explain that plant foods generally contain incomplete proteins since they are either low on or lack an essential amino acid. However, plant foods can be combined easily, such as rice and beans or peanut butter and bread, to include all essential amino acids in high enough amounts to form a complete protein.</p> <p>Explain that the remaining 14 amino acids are known as the nonessential amino acids. They are still necessary for bodily functioning, but are called nonessential because they do not have to be supplied in the diet. Instead, the body manufactures nonessential amino acids itself.</p>	<b>25</b>
<b>Nourishing Your Body with Proteins</b>	Keep in mind that although animal and dairy products are sources of complete proteins, many are often high in fat as well. As you will read later in this text, Americans get most of their protein from animal sources instead of from combinations of complex carbohydrates. You will have a healthier diet and still meet your protein	<b>26</b>

## Chapter 4 / Section 1: NS1-U5C4S1 – Nutrition – Nourishing Your Body

	needs if you consume less fatty foods and more carbohydrates in the forms of grains and vegetables.	
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>27</b>
<b>Regulating Your Body with Vitamins, Minerals, and Water</b>	Explain that three important components that your body needs to be healthy are vitamins, minerals, and water. Vitamins and minerals are found in the foods you eat, and water is essential for proper hydration.	<b>28</b>
<b>Vitamins</b>	Explain that vitamins are promoters of health and wellness. Unlike the carbohydrates, fats, and proteins, the body does not digest vitamins; instead, food products release them and your body tissues absorb them. Vitamins are classified as either fat soluble or water soluble. With the help of fats, the intestinal tract absorbs fat soluble vitamins (A, D, E, and K) and stores them in the body. The water in the tissues dissolves the water soluble vitamins (B complex and C).	<b>29</b>
<b>Vitamins</b>	Explain that many countries have standards for vitamin and mineral requirements to recommend daily amounts needed for good health. For example, the standards for the United States are the Referenced Daily Intakes (RDI). From time to time, the federal government reviews these standards and proposes new ones as research continues and more complete information about vitamins and minerals is discovered. Table 4.1 shows the current U.S. RDI for vitamins.	<b>30-36</b>
<b>Vitamins</b>	<p>Explain that according to a 10-year study of 11,348 U.S. adults, vitamin C was effective at cutting death rates from heart disease and stroke. Sources of vitamin C are illustrated on the following page. The study tested three groups getting</p> <ul style="list-style-type: none"> <li>• 50 mg or more a day in food, plus an average supplement of 500 mg</li> <li>• 50 or more mg and no supplement</li> <li>• Less than 50 mg with no supplement</li> </ul> <p>Explain that men in Group 1 had a 35 percent lower mortality rate and 42 percent lower death rate from heart disease and stroke. Women in Group 1 were 25 percent less likely to die of heart disease or stroke and had a 10 percent lower mortality rate.</p>	<b>37</b>
<b>Minerals</b>	Explain that minerals are elements found in the environment that help regulate the bodily processes. Without minerals, the body cannot absorb vitamins. Macro-minerals, shown in Table 4.2, are minerals that the body needs in large amounts. These minerals are calcium, phosphorus, magnesium, potassium, sulfur, sodium, and chloride.	<b>38-41</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>42</b>
<b>Minerals</b>	Explain that although sodium is a macro-mineral, many Americans consume too much of it, which can contribute to high blood pressure. High blood pressure, in turn, can contribute to cardiovascular disease. On the other hand, many Americans do not consume enough calcium, and a calcium deficiency can lead to osteoporosis later in life.	<b>43</b>

## Chapter 4 / Section 1: NS1-U5C4S1 – Nutrition – Nourishing Your Body

<b>Minerals</b>	Explain that although the body only needs trace minerals (such as selenium, manganese, molybdenum, iron, copper, zinc, iodine, and chromium, shown in Table 4.3) in very small amounts, they are also essential for proper functioning of the body. For example, an iron deficiency can reduce the number and size of red blood cells, causing weakness, sleepiness, and headaches. Iron is contained in many foods.	<b>44-47</b>
<b>Minerals</b>	Explain that a study has found that heart-disease patients who received 150 mcg of chromium per day had a dramatic jump in the HDL cholesterol, the good stuff that helps keep arteries clear.	<b>48</b>
<b>Water</b>	Explain that about 60 to 70 percent of your body is water, with most of your blood, brain, and muscles being water and even 20 percent of your bones. Water carries the other nutrients, when dissolved, to all parts of the body where and when needed. It also aids in digestion, regulation of temperature, removal of wastes, joint lubrication, and biochemical processes taking place in the body all the time. Without water you would die in a few days. To maintain all the bodily functions water helps carry out, you need to consume the equivalent of six to eight glasses of water a day. If you exercise regularly, you may need as many as ten glasses, especially on the days you exercise.	<b>49</b>
<b>Hunger and Malnutrition</b>	Explain that as long as people can easily obtain an abundant and varied diet, it is not difficult for them to meet their nutritional needs. When such fortunate people become hungry, they can usually satisfy their need for food. However, many people in the world cannot obtain enough of the right foods, and in some cases cannot get much food at all. For them, hunger is a way of life—an ongoing, painful condition over which they have little control. Poor nutrition is a serious, worldwide problem.	<b>50</b>
<b>Malnutrition</b>	<p>Explain that technically, malnutrition is any condition in which a person's nutrient consumption is inadequate or unbalanced. Most cases, however, are the result of consuming too little of one or more nutrients. Malnutrition harms every system of the body and also damages emotional well-being.</p> <p>Explain that when people are malnourished, they do not have the energy to perform well in school or at work. Malnourished people are also more susceptible to disease than those who eat a healthy diet. Malnourished children usually grow much more slowly than children whose diet is adequate. If malnutrition occurs during pregnancy, the baby may weigh less than normal and have serious health problems.</p>	<b>51</b>
<b>Malnutrition</b>	Explain that there are various types of malnutrition, including the vitamin and mineral deficiencies discussed earlier in this chapter. In one especially serious condition known as protein energy malnutrition, the diet does not contain adequate protein, nor does it supply enough calories to meet the body's energy needs. The effects of this condition are especially severe on children because their bodies need protein and calories for growth. Severe cases can cause death, either directly through starvation or indirectly through the diseases to which its victims become susceptible. Protein-energy malnutrition is the most serious nutrition problem affecting people in developing countries today.	<b>52</b>
<b>Malnutrition</b>	Explain that malnutrition has various causes. In some cases, people may be undernourished because they are unaware of the foods that they need for good health. Also, diseases and other conditions may prevent the digestive system from absorbing nutrients. But, indirectly, poverty is by far the most common cause of malnutrition. Victims of severe poverty cannot afford to buy or grow the food they need.	<b>53</b>

## Chapter 4 / Section 1: NS1-U5C4S1 – Nutrition – Nourishing Your Body

<b>A World Problem</b>	Explain that hunger and malnutrition are an especially severe problem in many of the world's poorer nations. Severe famines, for example, have devastated countries such as Somalia and Bangladesh. However, hunger is also a problem in more prosperous countries, including the United States. Although few people starve in the United States, many are not receiving adequate nutrition. Hungry people in the United States are those who have little or no income, such as homeless people, teenage runaways, families dealing with unemployment, and some elderly people.	<b>54</b>
<b>A World Problem</b>	Explain that various programs and organizations are trying to solve the problem of malnutrition and provide food for those who need it. For example, the Food and Agriculture Organization of the United Nations combats hunger by helping people improve methods of agriculture and food distribution. The U.S. government sponsors the Food Stamp Program that enables low-income people to purchase the food that they need. Volunteers also work hard to help those who are hungry. For example, soup kitchens, which are often staffed by volunteers, provide meals for those in need.	<b>55</b>
<b>Conclusion</b>	Explain that understanding what nutrition your body needs is essential to maintaining both physical and emotional health. Without the proper balance of carbohydrates, fats, proteins, vitamins, and minerals, you open the door to all kinds of health problems—some possibly fatal. Even with a fast-paced lifestyle, it's still possible to eat correctly and give your body the fuel it needs.	<b>56</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>57</b>
<b>Review Question</b>	The Review Question is "List 2-3 benefits that a person gets from being physically fit." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>58</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>59</b>

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Handouts

When: At the end of the lesson

- Using the handout "Nourishing your body", answer the questions about nutrition

B. Homework Activity: Copy and distribute the handout – Nutrient Guidelines. Have the Cadets describe how they meet the nutrient guidelines described in this lesson. Have them discuss the six nutrients and how they are or are not included in their diet. Be sure to discuss carbohydrates, fats (saturated and unsaturated) vitamins, and minerals. What dietary goals do they have to eat healthier? What things they are doing well now?

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 4 / Section 1: NS1-U5C4S1 – Nutrition – Nourishing Your Body**

### Activity 1: In-Class Activity - Nourishing Your Body

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: In your own words, answer the following questions.

1. What is the difference between simple and complex carbohydrates?

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2. List the 6 nutrients.

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3. Explain the differences between saturated, monosaturated and polysaturated fats.

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4. List some good sources of vitamins and minerals in your diet.

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5. Ask your parents or grandparents if they have had their cholesterol levels checked lately. If they have, asked them if they remember their numbers. What are some ways someone could reduce their cholesterol levels?

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## **Chapter 4 / Section 1: NS1-U5C4S1 – Nutrition – Nourishing Your Body**

## Activity 1: Take Home Activity – Nutrient Guidelines

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Using complete sentences, correct punctuation and spelling, answer the following.

Describe how you well you meet the nutrient guidelines described in this lesson. Discuss the six nutrients and how they are or are not included in your diet. Be sure to discuss carbohydrates, fats (saturated and unsaturated) vitamins, and minerals. What dietary goals do you have to eat healthier? What things are you doing well now?

[illegible]

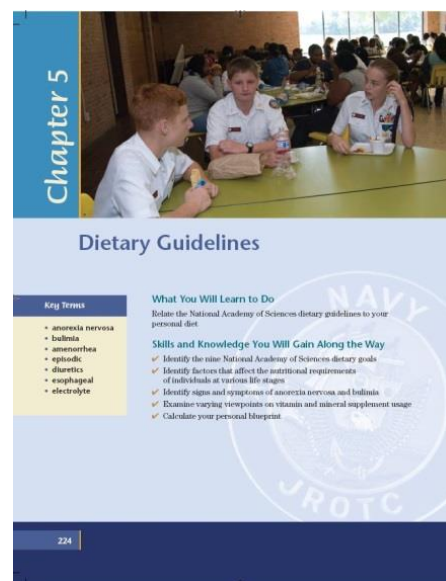
## Unit 5 Chapter 5: NS1-U5C5 – Dietary Guidelines

### What Students Will Learn to Do:

Relate the National Academy of Sciences dietary guidelines to your personal diet

### Skills and Knowledge to be Gained:

1. Identify the nine National Academy of Sciences dietary goals
2. Identify factors that affect the nutritional requirements of individuals at various life stages
3. Identify signs and symptoms of anorexia nervosa and bulimia
4. Examine varying viewpoints on vitamin and mineral supplement usage
5. Calculate your personal blueprint



### Standards Linked in this Chapter:

#### **Common Core English Language Arts 9-10\***

##### Reading and Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says ...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...
- RI.9-10.8. Delineate and evaluate the argument and specific claims in a text...

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

#### **National Health Education Standards 9-10 (NHES)\*\***

- NHES Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- NHES Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- NHES Standard 3: Students will demonstrate the ability to access valid information, products, and services to enhance health.
- NHES Standard 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- NHES Standard 6: Students will demonstrate the ability to use goal-setting skills to enhance health.



## **Unit 5 Chapter 5: NS1-U5C5 – Dietary Guidelines**

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor's Guide.

## Chapter 5 / Section 1: NS1-U5C5S1 – Dietary Guidelines

(Section 1 of 1)

### What Students Will Learn to Do:

Relate the National Academy of Sciences dietary guidelines to your personal diet

### Skills and Knowledge to be Gained:

1. Identify the nine National Academy of Sciences dietary goals
2. Identify factors that affect the nutritional requirements of individuals at various life stages
3. Identify signs and symptoms of anorexia nervosa and bulimia
4. Examine varying viewpoints on vitamin and mineral supplement usage
5. Calculate your personal blueprint

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	KeyTerm Definitions	Opening Question	Warm Up Questions	Introduction	The Lifetime Eating Plan	The New American Diet Step by Step	Eating Disorders (A)
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Check On Learning A	Eating Disorders (B)	Guideline #1	Guideline #2	Guideline #3	Guideline #4	Guideline #5	Guideline #6	Check on Learning B
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Guideline #7	Guideline #8	Your Nutrition Prescription	Guideline #9	Conclusion	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, Chapter 5. Place a checkmark beside the NS1-U5C5S1 PowerPoint presentation, and these two CPS question deck files:  
NS1-U5C5S1 - Key Terms and NS1-U5C5S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 5 / Section 1: NS1-U5C5S1 – Dietary Guidelines

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn how to use the National Academy of Sciences dietary guidelines to improve your own diet. You will learn the nine National Academy of Sciences dietary goals, nutritional needs at various stages of an individual's life, symptoms of anorexia nervosa and bulimia, varying viewpoints on vitamin and mineral supplements, and how to calculate your personal dietary blueprint.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-7</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 reasons that you think eating disorders are so prevalent in today's society.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student's name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students' responses to the question on the slide, focusing on dietary guidelines.	<b>8</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students' level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>9</b>
<b>Introduction</b>	Explain that today's hurry-up lifestyles, diverse family structures, fast-food restaurants, and personal finances have all impacted on the way we eat. Thus, America has become a country that is overweight and suffering greatly from cardiovascular disease, cancer, diabetes, and other ailments that hinder efforts to live a dynamic lifestyle.	<b>10</b>
<b>The Lifetime Eating Plan</b>	Explain that nutritional needs vary at different ages. There are different needs for children (age two to adolescence), adolescents, adults, and the elderly. There are also special nutritional conditions and needs for women who are pregnant.	<b>11</b>
<b>The Lifetime Eating Plan</b>	Explain that the special concerns for teens are that they often have erratic eating habits. Their calcium requirements are high and after the onset of menstruation, females need more iron. General dietary recommendations are to ensure you eat sufficient calories to support your growth and activity levels with high-carbohydrate foods as are consuming iron-rich foods and keep healthy snacks available.	<b>12</b>

## Chapter 5 / Section 1: NS1-U5C5S1 – Dietary Guidelines

<b>The Lifetime Eating Plan</b>	Explain that pregnant women need to increase their caloric intake and to eat adequate amounts of protein, iron, calcium, folic acid, and vitamin C. Proper nutrition is essential in order to avoid complications that might include nausea, heartburn, constipation, and gestational diabetes. General dietary recommendations during pregnancy are to eat two dairy servings daily and two cups of calcium-rich vegetables. Also, a pregnant woman should eat green leafy vegetables, legumes, broccoli, asparagus, and whole grains and should avoid overcooking. An obstetrician may recommend vitamin supplements. A pregnant woman should drink at least eight glasses of liquid daily and should also avoid drinking any alcohol and caffeine.	<b>13</b>
<b>The New American Diet—Step by Step</b>	Explain that another popular eating plan is the New American Diet. This plan yields similar dietary recommendations as those explained elsewhere in these nine guidelines. The basis for this plan is the development of a healthier lifestyle by following a three phase approach. Phase I stresses the use of substitutions to your current diet. Phase II introduces new recipes and Phase III prescribes a new way of eating.	<b>14</b>
<b>Eating Disorders</b>	Explain that eating disorders such as anorexia nervosa and bulimia are common among young women in today's society. Females who suffer from anorexia nervosa experience extreme weight loss, amenorrhea, and a variety of psychological disorders. This disorder manifests itself as an obsessive preoccupation with weight loss. For 10 to 15 percent of its victims, the disease becomes compulsive and can result in death from starvation.	<b>15</b>
<b>Eating Disorders</b>	<p>Explain that a female with anorexia nervosa usually exhibits the following characteristics:</p> <ul style="list-style-type: none"> <li>• An unwillingness to maintain minimal normal body weight for the individual's age and height; weight loss that leads to the maintenance of a body weight 15 percent below normal; or a failure to gain the amount of weight expected during a period of growth, resulting in a body weight that is at least 15 percent below normal weight.</li> <li>• An inordinate fear of gaining weight and/or becoming fat despite being significantly underweight.</li> <li>• An unrealistic perception of body weight, size, or shape. The person, usually female, "feels fat" or perceives that one specific part of the body is "too fat."</li> <li>• An absence of at least three, otherwise normal, menstrual cycles.</li> </ul>	<b>16-17</b>

## Chapter 5 / Section 1: NS1-U5C5S1 – Dietary Guidelines

<b>Eating Disorders</b>	<p>Explain that on the other hand, young women with bulimia experience alternate cycles of binge eating and restrictive eating. Purging usually follows binges, primarily by self-induced vomiting supplemented with the use of laxatives and diuretics. The physical and psychological results of a struggle with bulimia include esophageal inflammation, erosion of tooth enamel caused by repeated vomiting, the possibility of electrolyte imbalances, and altered mood states, particularly anxiety and depression.</p> <p>Explain that a person, most likely a young female, with bulimia normally exhibits the following characteristics:</p> <ul style="list-style-type: none"> <li>• An episodic eating binge, characterized by rapid consumption of large amounts of food in a short time.</li> <li>• At least two eating binges per week for at least three months, even possibly experiencing a loss of control over eating behavior while in the process of binges.</li> <li>• Frequent purges after eating; then engaging in fasting, strict dieting, or vigorous exercise.</li> <li>• A constant concern over body shape, size, and weight.</li> </ul>	<b>18-20</b>
<b>Eating Disorders</b>	<p>Explain that if you think someone has an eating disorder,</p> <ul style="list-style-type: none"> <li>• Express your concern about the person's health. Although the person may deny there is a problem, show that you care.</li> <li>• Try to focus on feelings that the person may be experiencing, such as excessive worrying, anxiety, poor self-esteem, anger, or hurt. Encourage the person to talk about issues not related to food. Be a good listener.</li> <li>• Encourage the person to talk to parents, relatives, or a health care or mental health professional.</li> <li>• Talk to someone else (possibly a professional) about your concerns for that person.</li> <li>• Do not label the person. That may make the person feel accused, strengthening feelings of denial.</li> </ul>	<b>21</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>22</b>
<b>Eating Disorders</b>	<p>Explain that the National Academy of Sciences believes there is a close association between total fat intake, that is, saturated fat, high cholesterol, and heart disease. The NAS developed nine guidelines for reducing the risk of chronic diseases and helping to provide protection against the possibility of early disease.</p> <p>Note: The American diet should consist of a total fat intake between 35 to 40 percent of the total calories consumed each day. However, the typical American diet consists of nearly 50 percent fat calories.</p>	<b>23</b>
<b>Guideline #1</b>	Explain that the goals of this guideline are to reduce your total fat intake to 30 percent or less of your total calories, to reduce your estimated fatty acids (building blocks of fat) intake to less than 10 percent of your total calories, and to reduce your cholesterol intake to less than 300 milligrams. Take a look at Figure 5.1 and determine which of these foods has the lowest percent are of saturated fat.	<b>24</b>

## Chapter 5 / Section 1: NS1-U5C5S1 – Dietary Guidelines

<b>Guideline #1</b>	<p>Explain that tips for achieving these goals include the following:</p> <ul style="list-style-type: none"> <li>• Limit your egg intake. Use two or three egg whites for every yolk. Cholesterol is in the yolk, and egg white is a great source of protein.</li> <li>• Use skim, nonfat, or one percent milk. Purchase low-fat or nonfat cheeses, yogurt, and other dairy products.</li> <li>• Use margarine sparingly. The soft tub or liquid margarine is best.</li> <li>• Read labels. Avoid foods that contain trans-fat. Trans-fats cause the same type of damage in your arteries as saturated fats and cholesterol. Trans-fats are found in foods that contain solid plant fat such as stick margarine, cream filling in cookies, and baking shortening.</li> <li>• When ordering in a restaurant, order foods contain only half the oils or fat products.</li> <li>• Try to eat three servings of fish per week. Cold water and deep sea running fish are best they contain high omega 3 oils (fat that may aid in the maintenance of the heart and blood vessels).</li> <li>• Eat lean red meat and then only sparingly.</li> <li>• Bake and broil meat products, if possible.</li> <li>• Use cooking oils containing low saturated fats.</li> <li>• When eating snacks, choose low-fat, low sugar items and include fresh fruits and vegetables as often as possible.</li> <li>• Learn how to read a label and calculate the fat content in food products.</li> </ul> <p>Explain that Figure 5.2 shows a sample food label that might appear on a package.</p>	<b>25</b>
<b>Guideline #1</b>	<p>Explain that an alternative goal for Guideline #1 is to reduce fat intake to 20 percent or less of your total calories, to reduce saturated fat to 5 percent of your total, to reduce cholesterol intake to 100 milligrams, and to use only 4 to 7 teaspoons of mono- or polyunsaturated fat a day.</p> <p>Explain that your eating habits can affect your health. Try to develop an eating plan that will keep you at your healthiest level and avoid eating disorders. A discussion of two acceptable eating plans and two common, potentially dangerous eating disorders was given at the beginning of this chapter.</p>	<b>26</b>
<b>Guideline #2</b>	<p>Explain that the goal of Guideline #2 is to increase starches and other complex carbohydrates. The typical American diet consists of 22 percent complex carbohydrates and 24 percent sugar.</p> <p>Explain that general dietary recommendations are to receive 60 to 65 percent of your diet from the carbohydrate group, 50 to 55 percent of that from the complex carbohydrates, and 20 percent from sugar, with most of that coming from fruits.</p> <p>Note: Almost all nutritionists agree with the National Academy's number two guideline. By choosing those percentages, you will receive more than adequate amounts of fiber.</p>	<b>27</b>
<b>Guideline #3</b>	<p>Explain that the goal of this guideline is to maintain protein intakes at moderate levels. Americans receive 68 percent of their protein from animal sources (compared to 4 to 5 percent for the Chinese). There is evidence pointing to the rise in some cancers with the increase in animal protein.</p> <p>Explain that the body needs no more than 0.45 of a gram of protein per pound of lean body weight per day. Since the minimum requirement is 0.16 grams per pound, 10 to 15 percent of your food should come from proteins and the majority of those proteins should come from plant sources.</p>	<b>28</b>

## Chapter 5 / Section 1: NS1-U5C5S1 – Dietary Guidelines

<b>Guideline #4</b>	<p>Explain that the goal of this guideline is to balance food intake and physical activity to maintain appropriate body weight. Approximately one-third of the American population is overweight. Overweight teenage boys are more likely to die by age 45 at a higher than usual rate. Teenage girls who are overweight are eight times more likely to have trouble in later years with daily routines such as climbing stairs, lifting, and walking.</p> <p>Explain that to balance food intake and physical activity requires planning each day's food intake based upon these guidelines as well as each week's physical activities to include at least three 30-minute workouts. While in school, participating in sports programs and daily physical activities is the best way to accomplish this goal.</p>	<b>29</b>
<b>Guideline #5</b>	<p>Explain that the main goal of Guidelines #5 is to avoid alcoholic beverages. Alcohol can produce the following problems with nutritional balance and wellness:</p> <ul style="list-style-type: none"> <li>• Upsets metabolism</li> <li>• Produces fullness, thus the person does not eat a balanced diet</li> <li>• Increases nutritional needs</li> <li>• Causes inadequate assimilation (digestion and absorption) of the nutrients</li> </ul> <p>Explain that it is not easy to avoid the temptation of alcoholic beverages, particularly with the pressure that our peers put upon us. The best way to avoid alcoholic beverages is to make the decision not to drink an alcoholic beverage before it is offered to you.</p>	<b>30</b>
<b>Guideline #5</b>	<p>Explain that trying to avoid putting yourself into a situation that will force you to make the choice to drink or not to drink alcohol. First, make the decision not to drink alcoholic beverages and let your friends know that alcohol is not for you. Whenever possible, avoid parties and other events where alcohol is served. If you have to attend these events, always plan ahead and have your decision made and then stick to it.</p>	<b>31</b>
<b>Guideline #6</b>	<p>Explain that the goal here is to limit the daily intake of salt to no more than 3 grams. Salt is 60 percent chloride and 40 percent sodium. Too much sodium can lead to high blood pressure in some people (those who are salt sensitive). Furthermore, salt absorbs water in the body, causing the blood pressure to increase because of the larger volume of water the heart must pass through the system. Try to avoid adding salt to your meals. It is best not to add table salt to any of your meals. All processed or manufactured food has salt added. Just read the label on any canned food and you will be surprised how much salt has already been added.</p>	<b>32</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	<p>Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.</p>	<b>33</b>
<b>Guideline #7</b>	<p>Explain that the goal for Guideline #7 is to maintain adequate calcium intake. Most Americans do not receive enough calcium from their normal diet alone. Ninety-nine percent of our body's calcium is present in the bones and teeth. One percent aids in the functioning of the blood, muscles, and nerves.</p> <p>Explain that to meet its need for calcium, the body will pull calcium from the bones, causing them to lose their density. This condition, known as osteoporosis, can lead to hip, leg, and arm fractures. Diets that are low in calcium may also cause hypertension (high blood pressure) and some forms of cancer.</p>	<b>34</b>

## Chapter 5 / Section 1: NS1-U5C5S1 – Dietary Guidelines

	<p>To prevent osteoporosis, women especially should:</p> <ul style="list-style-type: none"> <li>• Participate in lifelong weight-bearing exercises to ensure the density of the bones</li> <li>• Avoid excessive protein</li> <li>• Eat a diet rich in calcium (skim milk, certain fruits, and vegetables)</li> <li>• Take calcium supplements, if needed</li> <li>• Avoid starvation diets</li> <li>• Avoid alcohol and smoking</li> </ul>	
<b>Guideline #7</b>	<p>Explain that to meet its need for calcium, the body will pull calcium from the bones, causing them to lose their density. This condition, known as osteoporosis, can lead to hip, leg, and arm fractures. Diets that are low in calcium may also cause hypertension (high blood pressure) and some forms of cancer.</p> <p>Explain that the referenced daily intake for ages 11 to 24 is 1200 milligrams a day. Adult men and women need 1000 milligrams. Pregnant and nursing women also need 1200 milligrams.</p>	<b>35</b>
<b>Guideline #8</b>	<p>Explain that the goal for Guideline #8 is to avoid taking dietary supplements in excess of the referenced daily intake in any one day.</p> <p>Explain that there are two schools of thought on this guideline. One thought is that we can get all of our vitamins and minerals from our normal diet without supplementation. The other opinion is that by taking supplemental dosages of specific vitamins and minerals, we can protect ourselves from birth defects, cataracts, cardiovascular disease, and cancer, as well as strengthen the immune system.</p>	<b>36</b>
<b>Guideline #8</b>	<p>Explain that as an alternative to Guideline #8, you can</p> <ul style="list-style-type: none"> <li>• Take a general vitamin/mineral supplement daily, not to exceed the RDI</li> <li>• Take a calcium supplement</li> <li>• Take antioxidant vitamins in supplemental form: vitamin C, vitamin E, and beta-carotene</li> </ul> <p>Note: Always consult a healthcare professional before taking any supplements.</p>	<b>37</b>
<b>Your Nutrition Prescription</b>	<p>Explain that vitamin and mineral supplements are indispensable anti-aging weapons, but too many people use them shotgun style—a handful of this, a bunch of that—rather than coordinating them for the most nutritionally effective strategy. To ensure that you are not over- or underdoing any element, you need a prescription customized for your age, gender, health, and lifestyle. Look at the Supplement Blueprint in Table 5.1 and see how much of each supplement you take. Then answer the following six questions. For each yes answer, follow the directions for revising the Supplement Blueprint. If you end up with more than one recommendation for a particular nutrient, follow the highest single dosage.</p> <ul style="list-style-type: none"> <li>• Are you male? Delete iron.</li> <li>• Do you smoke or live/work with a smoker, or do you live in an air-polluted area? Increase C to 1000 mg, selenium to 400 mcg, beta-carotene to 25,000 IU, E to 400 IU, copper to 3 mg, and zinc to 50 mg.</li> <li>• Do you exercise at least three times a week for 20 or more minutes? Increase E to 400 IU, magnesium to 400 mg, B-1 to 100 mg, and zinc to 50 mg.</li> <li>• Are you taking birth-control pills? Increase B-6 to 50 mg.</li> <li>• Are you pregnant or nursing? Increase folic acid to 800 mcg, iron to 60 mg, calcium to 1300 mg, and magnesium to 400 mg. Delete A.</li> <li>• Do you have high cholesterol levels and/or a family history of heart disease?</li> </ul>	<b>38-39</b>



## Chapter 5 / Section 1: NS1-U5C5S1 – Dietary Guidelines

	Increase E to 400 IU, C to 1000 mg, beta-carotene to 25,000 IU, chromium to 200 mcg, and magnesium to 400 mg.	
<b>Your Nutrition Prescription</b>	Explain that according to Ronald Hoffman, Director of the Center for Holistic Medicine in New York City, supplements are especially important for people who: 1) do not eat fresh fruits and vegetables daily; 2) do not eat dairy products more than once a week; or 3) do not eat at least two full meals a day. Some of the above recommendations are higher than the U.S. RDI's because longevity research has surpassed the former standards. However, all recommendations are well within safety guidelines. Avoid taking more than the amounts suggested; mega dosing can be dangerous. Remember, check with your doctor before starting any supplement regimen.	<b>40</b>
<b>Guideline #9</b>	<p>Explain that the goal for this guideline is to maintain an optimal intake of fluoride, particularly during tooth formation which normally continues until the beginning of the teenage years. The requirement for sufficient intake of fluoride begins during pregnancy and ensures proper tooth and bone development.</p> <p>Explain that fluoride is important to tooth and bone formation. It makes the teeth harder, and they can resist decay and breakdown. Only two-thirds of the U.S. population receives fluoridated water. The National Research Council of the National Academy of Sciences recommends 1 milligram of fluoride for each liter of water consumed.</p>	<b>41</b>
<b>Guideline #9</b>	Explain that most cities and towns in the United States add fluoride to the communities' drinking water, which provides the fluoride needed to help fight tooth decay. It is also recommended that you brush your teeth with a fluoride toothpaste to ensure that you are providing adequate protection for your teeth.	<b>42</b>
<b>Conclusion</b>	Explain that the nine guidelines presented in this chapter are the results of one of the most comprehensive scientific analysis of potential health risks and benefits stemming from diet. Implementing these guidelines means that we will need to devote more time and attention to our daily diets and to the risk factors associated with improper diets.	<b>43</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>44</b>
<b>Review Question</b>	The Review Question is "How do food intake and physical activity offset each other?". Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>45</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>46</b>

## Chapter 5 / Section 1: NS1-U5C5S1 – Dietary Guidelines

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Dietary Guidelines Goal Sheet

When: Anytime during the class

- In Class: Copy and distribute the Dietary Guidelines Goal Sheet. Ask Cadets to rate themselves for each of the nine guidelines. Discuss any that need further clarification.

#### B. Homework Activity: Cadets make goals for any guidelines not receiving a 5 rating.



Tech Tip: Cadets can go online and take the “Eating Attitudes Test” to determine if they may need to see a health care professional about Anorexia or Bulimia

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 5 / Section 1: NS1-U5C5S1 – Dietary Guidelines**

### Activity 1: In-Class and Take Home Activity- Dietary Guidelines Goal Sheet

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Using your food journal, for each guideline, rate how well you are doing.

Use this scale: Excellent = 5, Good = 4, Moderate = 3, Fair = 2, and Poor = 1.

For any goal that does not receive a 5, state what your goal will be to get to a 5.

<b><u>Guideline</u></b>	<b><u>Rating</u></b>	<b><u>Goal</u></b>
<b>Reduce Intake of Calories Fat and Cholesterol</b> <ul style="list-style-type: none"><li>• Total Fat is 30% or less of total calories</li><li>• Fatty Acids less than 10% of total calories</li><li>• Cholesterol less than 300 milligram</li></ul>		
<b>Increase Starches + Complex Carbohydrates</b>		
<b>Maintain Protein intakes to moderate levels</b>		
<b>Balance food intake with physical exercise</b>		
<b>Limit Salt Intake</b>		
<b>Maintain adequate calcium intake</b>		
<b>Avoid taking supplements in excess of RDI</b>		
<b>Maintain optimum intake of fluoride</b>		
<b>Avoid Alcoholic Beverages</b>		

## **Unit 5 Chapter 6: NS1-U5C6 – Controlling Fat**

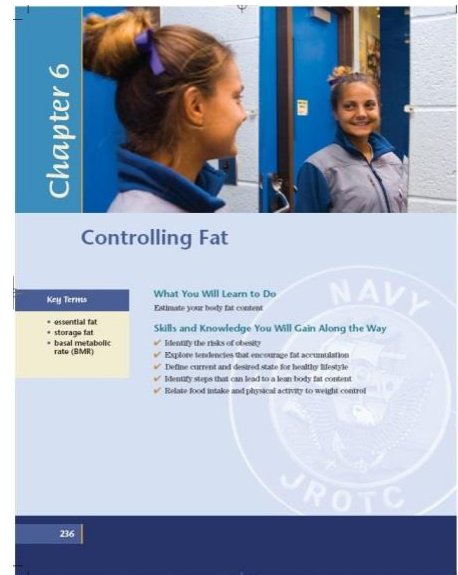
### **What Students Will Learn to Do:**

Estimate your body fat content

### **Skills and Knowledge to be Gained:**

1. Identify the risks of obesity
2. Explore tendencies that encourage fat accumulation
3. Define current and desired state for healthy lifestyle
4. Identify steps that can lead to a lean body fat content
5. Relate food intake and physical activity to weight control

### **Standards Linked in this Chapter:**



### **Common Core English Language Arts 9-10\***

#### Reading and Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says ...
- RI.9-10.3. Analyze how the author unfolds an analysis or series of ideas or events...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...
- RI.9-10.8. Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient...

#### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...
- W.9-10.8. Gather relevant information from multiple authoritative print and digital sources...

#### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

#### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

### **National Health Education Standards 9-10 (NHES)\*\***

- NHES Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- NHES Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- NHES Standard 3: Students will demonstrate the ability to access valid information, products, and services to enhance health.

## **Unit 5 Chapter 6: NS1-U5C6 – Controlling Fat**

- NHES Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health.
- NHES Standard 8: Students will demonstrate the ability to advocate for personal, family, and community health.

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor's Guide.

## Chapter 6 / Section 1: NS1-U5C6S1 – Nutrition and Obesity

(Section 1 of 3)

### What Students Will Learn to Do:

Estimate your body fat content

### Skills and Knowledge to be Gained:

1. Identify the risks of obesity
2. Explore tendencies that encourage fat accumulation
3. Define current and desired state for healthy lifestyle
4. Identify steps that can lead to a lean body fat content
5. Relate food intake and physical activity to weight control

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Introduction	Fat Control	Step 1: Restricting Your Fat Intake	Check On Learning A
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Step 2: Exercise	Step 3: Food Control and Choice	Step 4: Measuring Your Body Fat	Check on Learning B	The Road to Fat Control	Carbohydrates How to Eat Them	Protein: Don't Worry	Vitamins, Minerals, and Water: The Regulators	Closing Questions
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Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, Chapter 6. Place a checkmark beside the NS1-U5C6S1 PowerPoint presentation, and these two CPS question deck files:  
NS1-U5C6S1 - Key Terms and NS1-U5C6S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 6 / Section 1: NS1-U5C6S1 – Controlling Fat

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.  In this lesson, you will learn how fat and obesity affect your health and how to control your body weight and percentage of body fat.	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 factors that will affect a person’s body composition.” Since this is a discussion question, it can be engaged using RPS, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on nutrition and obesity.	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.  Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.	<b>7</b>
<b>Introduction</b>	Explain that in today’s society, obese and overweight people, young and old, seek corrective advice from all types of organizations and individuals. These “experts,” for many reasons, attempt to encourage and control what we eat, how we eat, when we eat, and how much of what we eat.	<b>8</b>
<b>Introduction</b>	Explain that in this chapter, you learn how it is possible, to carry an amount of fat without difficulty that is helpful and encourages the dynamic living principle. You will see in the simplest terms, a method designed to keep you healthy and promote enjoyment of living while participating in life to your fullest potential.	<b>9</b>
<b>Fat Control</b>	Explain that when you are obese or overweight, you increase your risk of cardiovascular disease, high blood pressure, gall bladder disease, diabetes, and certain types of cancer. Obesity also prevents you from performing actively at your highest potential and from raising your self-esteem and self-assurance.	<b>10</b>
<b>Fat Control</b>	Explain that determining whether you are obese or overweight is not dependent on how much you weigh on a scale. All of us have our own unique and special body types, which include our inherited strengths and weaknesses and tendencies that encourage accumulation of fat in our formative years, such as the following: <ul style="list-style-type: none"> <li>• Family eating habits</li> <li>• A tendency to develop more fat cells</li> <li>• A large skeletal structure</li> <li>• Any number of unproven theories passed down through the years.</li> </ul>	<b>11</b>

## Chapter 6 / Section 1: NS1-U5C6S1 – Controlling Fat

<b>Fat Control</b>	<p>Explain that to ensure you follow a proper and proven method for obtaining a more healthy lifestyle, we will present you with a few guidelines to help you learn how to control your fat intake.</p> <p>Explain that the steps to controlling body fat are a combination of restricting your fat intake, getting adequate exercise, making the right food choices, understanding how to measure your body fat and how to use the information in your overall wellness program.</p>	<b>12</b>		
<b>Step 1: Restricting Your Fat Intake</b>	Explain that most of us are continually trying to lower our body fat. When you diet, the body says you need to store more fat instead of storing less fat. In females especially, this causes the body to slow down, which reduces the fat burning enzymes. Therefore, with each diet you undertake, the body reduces more fat burning enzymes, making it harder for you to lose fat. But remember, fat levels that drop too low are also unhealthy and unsafe. A certain amount of essential fat is necessary to maintain the bodily functions discussed earlier.	<b>13</b>		
<b>Step 1: Restricting Your Fat Intake</b>	Explain that most women should not go below eight percent, as this would upset the menstrual cycle, the ability to conceive children, and would eventually upset hormonal balance. In men, the lower limit is approximately three to four percent.	<b>14</b>		
<b>Step 1: Restricting Your Fat Intake</b>	Explain that storage fat, on the other hand, is the fat reserve that can become a problem for many of us. Women in general seem to have a greater propensity to store fat. The reason for this is most likely the presence of estrogen, which increases the fat-storing capability. Evidence points to the hips, thighs, and buttocks as the body’s most common fat storage areas.	<b>15</b>		
<b>Step 1: Restricting Your Fat Intake</b>	<p>Explain that the following are ratings of body fat percentages by age and gender:</p> <table><tr><td><b>Males ages 18 to 30:</b> Athletes 6–10% Good 11–14% Acceptable 15–17% Possibly needs help 18% and over (Obese/Overweight)</td><td><b>Females ages 18 to 30:</b> Athletes 10–15% Good 16–19% Acceptable 20–24% Possibly needs help 25% and over (Obese/Overweight)</td></tr></table>	<b>Males ages 18 to 30:</b> Athletes 6–10% Good 11–14% Acceptable 15–17% Possibly needs help 18% and over (Obese/Overweight)	<b>Females ages 18 to 30:</b> Athletes 10–15% Good 16–19% Acceptable 20–24% Possibly needs help 25% and over (Obese/Overweight)	<b>16</b>
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<b>Step 1: Restricting Your Fat Intake</b>	Explain that the average-weight adult has approximately 25 to 30 billion fat cells, whereas the average overweight adult has between 60 to 100 billion fat cells. Some overweight people can have as many as 200 billion. Many factors are responsible for the development of these fat cells. Despite the reasons, a person’s growth and/or activities may or may not use all of the foods, or calories, consumed. The body will store the non-used calories as fat. For maximum benefit, keep saturated fat to a minimum. Count your total fat intake over a seven-day period. If you over do it, just cut back the next day.	<b>17</b>		
<b>Step 1: Restricting Your Fat Intake</b>	Explain that when your fat content is where you desire, the next step is to develop a lifetime guideline for healthy eating. Calculate your daily intake of carbohydrates, fats, and proteins (as you did in the Journal Exercises in the previous chapters). Then choose one of the following plans and stick to it. The two plans that best enhance the dynamic living profile are Plan #2 and Plan #3. Either plan you select will require an effort on your part to make it succeed. Be assured, it will work and you can enjoy the benefits of that change.	<b>18</b>		
<b>Step 1: Restricting Your Fat Intake</b>	<table><tr><td><b>Plan #1 (Average American Diet)</b> Fat 37–42% Saturated Fat 12–15% Protein 10–15%</td><td><b>Plan #2 (The New American Diet)</b> Fat 20% Saturated Fat 6% Protein 10–15%</td></tr></table>	<b>Plan #1 (Average American Diet)</b> Fat 37–42% Saturated Fat 12–15% Protein 10–15%	<b>Plan #2 (The New American Diet)</b> Fat 20% Saturated Fat 6% Protein 10–15%	<b>19</b>
<b>Plan #1 (Average American Diet)</b> Fat 37–42% Saturated Fat 12–15% Protein 10–15%	<b>Plan #2 (The New American Diet)</b> Fat 20% Saturated Fat 6% Protein 10–15%			



## Chapter 6 / Section 1: NS1-U5C6S1 – Controlling Fat

	<p>Carbohydrates 40–45%</p> <p><b>Plan #3 (The Lifetime Eating Plan)</b>            Fat 10%            Saturated Fat Low            Protein 10–15%            Carbohydrates 75–80%</p>	<p>Carbohydrates 60–65%</p> <p><b>Plan #4 (U.S. Dietary Goals)</b>            Fat 30%            Saturated Fat 10%            Protein 10%            Carbohydrates 60%</p>	
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.		<b>20</b>
<b>Step 2: Exercise—How the Body Burns Food (Calories/Energy)</b>	Explain that in addition to eating a healthy diet, you must follow an exercise program to maintain a lean body fat content. Balancing the number of calories you consume with how many calories your body burns daily is the key to maintaining body fat content and weight. People gain body fat when they consume more calories daily than their body uses for energy. Keep in mind that one pound of body fat contains approximately 3,500 calories. Therefore, if a person wants to lose a pound of body fat in one week, he or she must burn 3,500 calories more than he or she consumes over the course of the week.		<b>21</b>
<b>Step 2: Exercise—How the Body Burns Food (Calories/Energy)</b>	Explain that your body burns calories even when it is at complete rest. Basal metabolic rate (BMR) is the number of calories burned at complete rest, and it varies based on age, health, and body size, shape, and weight. For example, after age 25, most people's BMR decreases approximately 1 percent because their requirements for energy slow down. In addition to your BMR, your body burns calories through muscle activity; and while you do not have much control over your BMR, you do have control over the amount of physical activity in which you participate. Obviously, the more active you are, the more calories you use.		<b>22</b>
<b>Step 2: Exercise—How the Body Burns Food (Calories/Energy)</b>	Choose an exercise program that accomplishes the two goals of improving your heart and lungs, as well as working your muscles. You can increase the efficiency of the heart and respiratory system through exercises such as jogging, swimming, and biking that increase the heart rate and maintain it for a set period of time. The time will vary based on your age, abilities, and the exercise being performed.		<b>23</b>
<b>Step 2: Exercise—How the Body Burns Food (Calories/Energy)</b>	Explain that the second goal of working your muscles includes toning your muscles and/or increasing your muscle size and improving your muscle strength. Because muscle burns more energy than fat, the more muscle tissue you have, the more calories you burn. This is also true of your BMR, meaning that even at rest, the more muscle mass you have, the more energy your body will burn. You can work your muscles through weight training and exercises such as push-ups and sit-ups.		<b>24</b>
<b>Step 3: Food Control and Choice</b>	Explain that people eat for many different reasons: they feel hungry, the time of day, they missed a meal, or they are following their family's eating routine. Whatever the reason to eat at any given time, it is the choice of food that will truly make the difference in whether you will develop an overweight problem or maintain the dynamic living profile.		<b>25</b>

## Chapter 6 / Section 1: NS1-U5C6S1 – Controlling Fat

<b>Step 3: Food Control and Choice</b>	<p>Explain that, as you learned in previous chapters, the most recent USDA-approved Food Guide Pyramid can be accessed at <a href="http://www.mypyramid.gov">www.mypyramid.gov</a>. This is an interactive website where you can enter your age, gender, and level of activity to design an eating program geared toward your body type and lifestyle. For example, if you are a 16-year-old female who gets 30 to 60 minutes of exercise per day, you should be getting 2,000 calories per day, consisting of:</p> <ul style="list-style-type: none"> <li>• Six ounces of whole grains (breads, pastas, cereals, and so on)</li> <li>• Two and a half cups of vegetables (it is recommended that you eat more dark green vegetables such as spinach and other leafy greens; orange vegetables such as sweet potatoes and squashes; dried beans and peas)</li> <li>• Two cups of fruit (fresh, frozen, dried, or canned, but try to go easy on the fruit juices)</li> <li>• Three cups of milk (low- or no-fat is preferable)</li> <li>• Five and a half ounces of lean protein foods (broiled, grilled or baked) with a variety of poultry, fish, beans, peas, nuts, and seeds.</li> </ul> <p>Explain that limiting your oil (butter and other fats) intake to six teaspoons per day, and trying to avoid an excess of sugar is optimal. You should strive to limit your extra oils and sugars to 265 calories per day.</p>	<b>26</b>
<b>Step 4: Measuring Your Body Fat</b>	<p>Explain that this section presents two fairly accurate methods of measuring your body fat. Follow the directions and do not be discouraged. Body types differ, and you are unique.</p> <p>Explain that your body does not need large amounts of fat. When your reserve, fat begins to melt away, you can determine the right level by using the “pinch an inch” test as a simple method of measuring and maintaining your body’s fat.</p> <p>Explain that you can perform the “pinch an inch” test by pinching the skin fold of your triceps (women only), waist, or thighs between your fingers. If the fat is over an inch between your thumb and forefinger, you might consider continuing your fat control program</p>	<b>27</b>
<b>Step 4: Measuring Your Body Fat</b>	<p>Explain that Jack H. Wilmore, an exercise physiologist at the University of Texas in Austin, created separate charts for men and women to measure body fat. There are different methods for taking body measurements specific to men and women as well.</p>	<b>28</b>
<b>Step 4: Measuring Your Body Fat</b>	<p>Explain that for women: Measure the circumference of your hips at the widest point and plot that measurement and your height on the chart in Figure 6.1. Then, using a straight edge, draw a line connecting the two plots. Your body fat percentage is where the line crosses the percent fat column. Refer to the appropriate chart in Step 1 to see if your fat content is acceptable, good, athletic, or needs help.</p>	<b>29</b>
<b>Step 4: Measuring Your Body Fat</b>	<p>Explain that for men: Refer to Figure 6.2 and measure the circumference of your waist at the exact level of the belly button, making sure to keep the tape perfectly horizontal. Plot that measurement and your weight on the chart at the top of the next column. Then, using a straight edge, draw a line connecting the two plots. Your body fat percentage is where the line crosses the percent fat column. Refer to the appropriate chart on in Step 1 to see if your fat content is acceptable, good, athletic, or needs help.</p>	<b>30</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	<p>Check in on students’ understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.</p>	<b>31</b>

## Chapter 6 / Section 1: NS1-U5C6S1 – Controlling Fat

<b>The Road to Fat Control</b>	Explain that a 1992 Consumer Reports survey with 68 nutrition experts indicated a deepening concern over America’s dietary habits and implicated the leading causes of death as being associated with eating and drinking. The causes of death are coronary artery disease (heart attack), cancer, cerebral vascular disease (stroke), diabetes, liver disease, bowel disorders, and osteoporosis.	<b>32</b>
<b>The Road to Fat Control</b>	Explain that the 68 experts agreed on a reasonable diet for the American people as one that closely resembles the dietary guidelines set forth by the U.S. RDI and the Department of Health and Human Services. Additionally, the experts were much more deliberate in defining an “ideal” diet as one that maximizes the immune system, reduces the risk of disease, and minimizes the process of aging.	<b>33</b>
<b>Carbohydrates: How to Eat Them</b>	Explain that a definition of natural foods is one that fits the carbohydrate category perfectly. Natural foods are foods that are as unrefined as possible and free from additives and preservatives. Fruits, vegetables, and grains in their natural state are the key elements to a maximized immune system and a body fat content that will maintain itself for a lifetime.	<b>34</b>
<b>Carbohydrates: How to Eat Them</b>	Explain that depending on your gender, body type, and level of activity, experts recommend at least three ounces of whole grains, a variety of fruits and vegetables, low or no-fat dairy products, broiled, grilled, or baked poultry, and a limited amount of red meat, fat and sugar. To be realistic, in our hurry-up lifestyles this may not be possible. However, evidence supports eating small amounts of these natural products several times a day for maximum benefit.	<b>35</b>
<b>Carbohydrates: How to Eat Them</b>	Explain that when you design your own eating program at <a href="http://www.mypyramid.gov">www.mypyramid.gov</a> , you can ensure you will be receiving all the carbohydrates you need (20 to 35 grams a day) without worrying about supplemental fiber. Plus, there is also room to enjoy a sweet treat. But remember, read the label and keep the fat content at a reasonable level, and your sugar intake close to zero.	<b>36</b>
<b>Protein: Don’t Worry</b>	Explain that if you are eating the recommended amounts of carbohydrates in a diversified manner, tests indicate you will receive your complete protein needs without concern. Most of your protein (about 85 to 90 percent) should come from plant sources or the complex carbohydrates. Studies indicate that populations eating a high degree of protein coming from animal products (as do Americans, with 70 to 75 percent) will have a higher incidence of health-related problems.	<b>37</b>
<b>Vitamins, Minerals, and Water: The Regulators</b>	Explain that in general, the experts believe that you can receive your vitamins and minerals in sufficient amounts from a well-balanced diet. They also suggest that you drink water at a rate of six to eight glasses per day—more if you work out rigorously.	<b>38</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>39</b>
<b>Review Question</b>	The Review Question is “How do food intake and physical activity offset each other?” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>40</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>41</b>

## **Chapter 6 / Section 1: NS1-U5C6S1 – Controlling Fat**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Handouts

When: At the end of the lesson

- Copy and distribute the McDonalds Nutrition Facts chart to the class. Have cadets study the chart and have a discussion about what they notice (calories, fat, sodium, carbs, fiber, healthy vs. unhealthy, etc.). Next, distribute the Exercises and Calories Burned chart and have a discussion about what they notice (weight and effect on calories burned, activity level, etc.).

B. Homework Activity: Using the McDonalds Nutrition Facts chart and the Exercises and Calories Burned Chart, cadets will fill in the Food Intake and Physical Activity exercise.



Tech Tip: There are many online calculators for students to use to measure daily intake and calories burned. If cadets have access, they could use these and report back what they noticed about their diet and level of activity.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 6 / Section 1: NS1-U5C6S1 – Controlling Fat**

### Activity 1: Take Home Activity- Food Intake /Physical Activity

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Using the McDonalds Nutritional Information Chart, choose a meal that you might eat at McDonalds. Calculate the total calories eaten in this meal. Now go to the “Calories Burned” chart and figure out what exercises you would need to do to burn off that meal. Don’t forget to check your weight at the top of the graph.

1. List your meal here:

<b><u>Food Item</u></b>	<b><u>Calories Consumed</u></b>	<b><u>Fat</u></b>	<b><u>Sodium</u></b>	<b><u>Carbs</u></b>	<b><u>Fiber</u></b>

Total Calories Consumed \_\_\_\_\_

2. List activity here:

<b><u>Activity</u></b>	<b><u>Calories Burned</u></b>

Total Calories Burned \_\_\_\_\_

## **Chapter 6 / Section 1: NS1-U5C6S1 – Controlling Fat**

3. What do you notice about the relationship between the calories taken in and the calories burned?
4. Is it possible to make adjustments to your food selections that are healthier? If so, what kind of adjustments could be made?
5. Go back and look at the fat, sodium, carbohydrates and fiber of the foods you selected in #1. What do you notice? Is there anything that should be changed to make the meal healthier?
6. If you continued to eat the meal you selected over a long period of time, would it be good for your health or could it possibly have a negative effect on your health? Explain.
7. Do you think that your current level of physical activity matches your current level of food consumption? Would you do anything differently? Explain.



# McDonald's USA Nutrition Facts for Popular Menu Items

We provide a nutrition analysis of our menu items to help you balance your McDonald's meal with other foods you eat. Our goal is to provide you with the information you need to make sensible decisions about balance, variety and moderation in your diet.

Nutrition Facts	Serving Size	Calories	Calories from Fat	Total Fat (g)	% Daily Value**	Saturated Fat (g)	% Daily Value**	Trans Fat (g)	Cholesterol (mg)	% Daily Value**	Sodium (mg)	% Daily Value**	Carbohydrates (g)	% Daily Value**	Dietary Fiber (g)	% Daily Value**	Sugars (g)	Protein (g)	% DAILY VALUE			
																			Vitamin A	Vitamin C	Calcium	Iron
Burgers & Sandwiches																						
Big Mac®	7.6 oz (215 g)	550	260	29	45	10	50	1.5	75	25	1000	42	46	15	3	13	9	25	6	2	25	25
Quarter Pounder® with Cheese+	7.1 oz (202 g)	520	240	26	40	12	61	1.5	90	31	1180	49	42	14	3	11	10	30	10	2	30	25
Hamburger	3.5 oz (100 g)	250	80	9	13	3.5	16	0.5	25	9	490	20	31	10	1	6	6	12	0	2	10	15
Cheeseburger	4 oz (115 g)	300	110	12	19	6	28	0.5	40	13	720	30	33	11	2	7	7	15	6	2	20	15
Filet-O-Fish®	5 oz (143 g)	380	170	18	28	3.5	19	0	40	14	610	25	39	13	2	6	5	16	2	0	15	15
Ranch Snack Wrap® (Crispy)	4.2 oz (118 g)	350	170	19	29	5	26	0	35	11	750	31	31	10	1	5	2	14	2	2	10	10
Ranch Snack Wrap® (Grilled)	4.2 oz (118 g)	270	110	12	18	4	21	0	45	15	700	29	25	8	1	5	2	16	2	2	10	10
McRib ®†	7.4 oz (209 g)	500	240	26	40	10	48	0	70	23	980	41	44	15	3	10	11	22	2	2	15	20
Chicken																						
Chicken McNuggets® (4 piece)	2.3 oz (65 g)	190	110	12	18	2	10	0	25	9	360	15	12	4	1	2	0	9	0	2	0	2
Premium Crispy Chicken Classic Sandwich	7.5 oz (213 g)	510	200	22	33	3.5	18	0	45	16	990	41	56	19	3	13	10	24	4	6	15	20
Premium Grilled Chicken Classic Sandwich	7 oz (200 g)	350	80	9	13	2	9	0	65	22	820	34	42	14	3	13	8	28	4	8	15	20
McChicken ®	5 oz (143 g)	360	140	16	25	3	15	0	35	11	800	33	40	13	2	7	5	14	0	2	10	15
Breakfast																						
Blueberry Banana Nut Oatmeal†	8.6 oz (254 g)	290	70	8	13	2	10	0	10	3	180	8	49	16	5	19	21	6	2	6	6	40
Egg McMuffin®	4.9 oz (139 g)	300	110	12	19	5	24	0	260	87	820	34	30	10	2	8	3	18	10	0	30	20
Sausage McMuffin® with Egg	5.8 oz (164 g)	450	250	27	42	10	51	0	285	95	920	38	30	10	2	8	2	21	10	2	30	20
Bacon, Egg & Cheese McGriddles®	5.8 oz (165 g)	420	160	18	28	8	38	0	240	80	1110	46	48	16	2	8	15	15	10	0	20	15
Big Breakfast with Hotcakes (Regular Size Biscuit)	14.8 oz (420 g)	1090	510	56	87	19	96	0	575	192	2150	90	111	37	6	23	17	36	15	2	25	40
Cinnamon Melts	4 oz (114 g)	460	170	19	30	9	43	0	15	5	370	15	66	22	3	11	32	6	4	0	6	15

Nutrition Facts	Serving Size	Calories	Calories from Fat	Total Fat (g)	% Daily Value**	Saturated Fat (g)	% Daily Value**	Trans Fat (g)	Cholesterol (mg)	% Daily Value**	Sodium (mg)	% Daily Value**	Carbohydrates (g)	% Daily Value**	Dietary Fiber (g)	% Daily Value**	Sugars (g)	Protein (g)	% DAILY VALUE			
																			Vitamin A	Vitamin C	Calcium	Iron
Fruit & Maple Oatmeal †	9.2 oz (251 g)	290	40	4.5	7	1.5	9	0	5	2	160	7	57	19	5	19	32	5	2	130	10	10
Salads																						
Side Salad	3.1 oz (87 g)	20	0	0	0	0	0	0	0	0	10	0	4	1	1	6	2	1	45	25	2	4
Premium Bacon Ranch Salad (without chicken)	7.8 oz (223 g)	140	70	7	11	3.5	18	0	25	9	300	12	10	3	3	13	4	9	160	30	15	8
Premium Bacon Ranch Salad with Crispy Chicken	11.3 oz (319 g)	390	190	22	33	6	29	0	70	23	870	36	24	8	4	15	7	26	160	35	15	10
Premium Bacon Ranch Salad with Grilled Chicken	10.8 oz (305 g)	230	80	9	13	4	20	0	85	29	700	29	10	3	4	15	5	30	160	35	15	10
Snacks & Sides																						
Apple Slices†	1.2 oz (34 g)	15	0	0	0	0	0	0	0	0	0	0	4	1	0	0	3	0	0	160	2	0
Fruit 'n Yogurt Parfait	5.2 oz (149 g)	150	20	2	3	1	5	0	5	2	70	3	30	10	1	3	23	4	2	15	10	4
Snack Size Fruit & Walnuts	1 pkg (163 g)	210	70	8	13	1.5	7	0	5	2	60	2	31	10	2	9	25	4	0	170	8	2
Large French Fries	5.4 oz (154 g)	500	220	25	38	3.5	17	0	0	0	350	15	63	21	6	26	0	6	0	20	2	8
Medium French Fries	4.1 oz (117 g)	380	170	19	29	2.5	13	0	0	0	270	11	48	16	5	20	0	4	0	15	2	6
Small French Fries	2.5 oz (71 g)	230	100	11	18	1.5	8	0	0	0	160	7	29	10	3	12	0	3	0	8	2	4
Kids Fries	1.1 oz (31 g)	100	45	5	8	0.5	4	0	0	0	70	3	13	4	1	5	0	1	0	4	0	2
Beverages																						
1% Low Fat Milk	1 carton (236 ml)	100	20	2.5	4	1.5	8	0	10	3	125	5	12	4	0	0	12	8	10	4	30	0
Fat Free Choc Milk	1 (236 ml)	130	0	0	0	0	0	0	5	2	135	6	23	8	0	0	22	9	10	0	30	8
Minute Maid® 100% Apple Juice Box	6.8 fl oz (200 ml)	100	0	0	0	0	0	0	0	0	15	1	23	8	0	0	22	0	0	100	10	0
Dasani® Water	16.9 fl oz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soda (Small)	16 fl oz cup	150	0	0	0	0	0	0	0	0	10	0	40	13	0	0	40	0	0	0	0	0
Diet Soda (Small)§	16 fl oz cup	0	0	0	0	0	0	0	0	0	20	1	0	0	0	0	0	0	0	0	0	0
Iced Coffee--Regular (Small)§	16 fl oz cup	140	50	5	8	3.5	17	0	20	7	40	2	22	7	0	0	22	1	4	0	4	0
Latte (Large)§	20 fl oz cup	210	100	11	18	7	33	0	35	12	150	6	16	5	0	0	16	11	8	0	40	2
354																						



Nutrition Facts	Serving Size	Calories	Calories from Fat	Total Fat (g)	% Daily Value**	Saturated Fat (g)	% Daily Value**	Trans Fat (g)	Cholesterol (mg)	% Daily Value**	Sodium (mg)	% Daily Value**	Carbohydrates (g)	% Daily Value**	Dietary Fiber (g)	% Daily Value**	Sugars (g)	Protein (g)	% DAILY VALUE			
																			Vitamin A	Vitamin C	Calcium	Iron
Flavored Latte (Small)§	12 fl oz cup	230	60	7	10	4	20	0	20	7	140	6	35	12	0	0	35	7	4	0	25	0
Nonfat Latte (Small)§	12 fl oz cup	90	0	0	0	0	0	0	5	2	115	5	13	4	0	0	13	9	10	0	30	0
Hot Chocolate (Small)§	12 fl oz cup	300	110	12	18	7	35	0	25	8	135	6	41	14	0	0	35	8	6	0	25	4
Strawberry Banana Smoothie (12 fl oz cup)	12 fl oz cup (347 g)	210	5	0.5	1	0	0	0	5	1	35	1	49	16	2	10	44	2	2	70	8	6

Desserts/Shakes																						
Dipped Cone†	4.3 oz (121 g)	270	110	12	19	9	44	0	15	6	80	3	35	12	1	2	27	5	6	0	15	6
Vanilla Reduced Fat Ice Cream Cone	3.7 oz (105 g)	170	40	4.5	7	3	14	0	15	6	70	3	27	9	0	0	20	5	6	0	15	2
Hot Fudge Sundae	6.3 oz (179 g)	330	80	9	14	7	34	0	25	8	170	7	53	18	1	3	48	8	8	0	25	8
Baked Hot Apple Pie	2.7 oz (77 g)	250	110	13	19	7	35	0	0	0	170	7	32	11	4	15	13	2	4	25	2	6
McCafé Shake (12 fl oz cup)	12 fl oz	570	160	17	27	11	55	1	50	16	240	10	91	30	1	3	76	12	20	0	40	10
Chocolate Chip Cookie	1 (33 g)	160	70	8	12	3.5	19	0	10	3	90	4	21	7	1	3	15	2	2	0	2	8
Fruit 'n Yogurt Parfait	5.2 oz (149 g)	150	20	2	3	1	5	0	5	2	70	3	30	10	1	3	23	4	2	15	10	4
Low Fat Caramel Dip	0.7 oz (21 g)	70	5	0.5	1	0	0	0	5	1	35	2	15	5	0	0	9	0	0	0	2	0
Tangy Barbeque Sauce	1 pkg (28 g)	50	0	0	0	0	0	0	0	0	260	11	12	4	0	0	10	0	2	0	0	0
Honey	1 pkg (14 g)	50	0	0	0	0	0	0	0	0	0	0	12	4	0	0	11	0	0	0	0	0
Newman's Own® Ranch Dressing	2 fl oz (59 ml)	170	130	15	23	2.5	12	0	20	6	530	22	9	3	0	0	4	1	0	0	4	0
Sweet 'N Sour Sauce	1 pkg (28 g)	50	0	0	0	0	0	0	0	0	150	6	12	4	0	0	10	0	2	0	0	0
Honey Mustard Sauce	0.8 oz (22 g)	60	35	4	6	0.5	3	0	5	2	115	5	6	2	1	4	5	0	0	0	0	0
Chipotle Barbeque Sauce	1 oz (28 g)	50	0	0	0	0	0	0	0	0	190	8	11	4	0	0	10	0	4	0	2	2

**Note: Nutrient contributions from individual components may not equal the total due to federal rounding regulations. Percent Daily Values (DV) and RDIs are based on unrounded values.**

**This list has been generated by McDonalds.com and is effective 08-07-2012.**

\* Contains less than 2% of the Daily Value of these nutrients

† Available at participating McDonald's

+ Based on the weight before cooking 4 oz. (113.4g)

§ The values represent the sodium derived from ingredients plus water. Sodium content of the water is based on the value listed for municipal water in the USDA National Nutrient Database. The actual amount of sodium may be higher or lower depending upon the sodium content of the water where the beverage is dispensed.

\*\* Percent Daily Values (DV) are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

The nutrition information on this website is derived from testing conducted in accredited laboratories, published resources, or from information provided from McDonald's suppliers. The nutrition information is based on standard product formulations and serving sizes. All nutrition information is based on average values for ingredients from McDonald's suppliers throughout the U.S. and is rounded to meet current US FDA NLEA guidelines. Variation in serving sizes, preparation techniques, product testing and sources of supply, as well as regional and seasonal differences may affect the nutrition values for each product. In addition, product formulations change periodically. You should expect some variation in the nutrient content of the products purchased in our restaurants. None of our products is certified as vegetarian. This information is correct as of December 2010, unless stated otherwise.

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EQUAL® 0 Calorie Sweetener is a registered trademark of Merisant Company



## Exercise and Calories Burned

Below you will find a chart containing calories burned during different types of exercise and activities. This is influenced by factors such as body weight, workout intensity, conditioning level and metabolism. Many activities are shown in the alphabetized list below, with calories expended per hour for four different weights: 130 lbs, 155 lbs, 180 lbs, 205 lbs. Keep in mind that these numbers are approximations and that individual differences do apply.

Exercise & Calories Burned per Hour	130 lbs	155 lbs	180 lbs	205 lbs
Aerobics, general	384	457	531	605
Archery	207	246	286	326
Backpacking, Hiking with pack	413	493	572	651
Badminton	266	317	368	419
Bagging grass, leaves	236	281	327	372
Basketball, game	354	422	490	558
Basketball, shooting baskets	266	317	368	419
Boating, power, speed boat	148	176	204	233
Bowling	177	211	245	279
Calisthenics, light, pushups, situps...	207	246	286	326
Calisthenics, fast, pushups, situps...	472	563	654	745
Canoeing	236	281	327	372
Carpentry, general	207	246	286	326
Circuit training, minimal rest	472	563	654	745
Cleaning, dusting	148	176	204	233
Climbing hills, carrying up to 9 lbs	413	493	572	651
Construction, exterior, remodeling	325	387	449	512
Crew, sculling, rowing, competition	708	844	981	1117
Cricket (batting, bowling)	295	352	409	465
Cross country snow skiing, slow	413	493	572	651
Cross country skiing, moderate	472	563	654	745
Cycling, <10mph, leisure bicycling	236	281	327	372
Cycling, >20mph, racing	944	1126	1308	1489
Dance - Ballet, twist, jazz, tap	266	317	368	419
Darts (wall or lawn)	148	176	204	233
Diving, springboard or platform	177	211	245	279
Downhill snow skiing, moderate	354	422	490	558
Fishing in stream, in waders	354	422	490	558
Fishing, general	177	211	245	279

<b>Exercise &amp; Calories Burned per Hour</b>	<b>130 lbs</b>	<b>155 lbs</b>	<b>180 lbs</b>	<b>205 lbs</b>
Fishing, ice fishing	118	141	163	186
Football or baseball, playing catch	148	176	204	233
Football, competitive	531	633	735	838
Frisbee playing, general	177	211	245	279
Frisbee, ultimate frisbee	472	563	654	745
Gardening, general	236	281	327	372
Golf, general	266	317	368	419
Golf, miniature golf	177	211	245	279
Gymnastics	236	281	327	372
Hacky sack	236	281	327	372
Handball	708	844	981	1117
Health club exercise	325	387	449	512
Hiking, cross country	354	422	490	558
Hockey, ice or field	472	563	654	745
Horseback riding, trotting	384	457	531	605
Horseshoe pitching	177	211	245	279
Housework, moderate	207	246	286	326
Hunting, general	295	352	409	465
Ice skating, average speed	413	493	572	651
Jazzercise	354	422	490	558
Judo, karate, jujitsu, martial arts	590	704	817	931
Juggling	236	281	327	372
Jumping rope, moderate	590	704	817	931
Kayaking	295	352	409	465
Kick boxing	590	704	817	931
Marching band, playing instrument	236	281	327	372
Marching, rapidly, military	384	457	531	605
Mowing lawn, walk, power mower	325	387	449	512
Playing pool, billiards	148	176	204	233
Polo	472	563	654	745
Race walking	384	457	531	605
Racquetball, playing	413	493	572	651
Raking lawn	254	303	351	400
Riding motorcycle	148	176	204	233
Rock climbing	472	563	654	745
Roller blading, in-line skating	708	844	981	1117
Roller skating	413	493	572	651
Rowing machine, moderate	413	493	572	651
Running, 5 mph (12 minute mile)	472	563	654	745
Shoveling snow by hand	354	422	490	558
Sitting, light office work	89	106	123	140
Skateboarding	295	352	409	465

## Chapter 6 / Section 2: NS1-U5C6S2 – Planning a Balanced Diet

(Section 2 of 3)

### What Students Will Learn to Do:

Estimate your body fat content

### Skills and Knowledge to be Gained:

1. Identify the risks of obesity
2. Explore tendencies that encourage fat accumulation
3. Define current and desired state for healthy lifestyle
4. Identify steps that can lead to a lean body fat content
5. Relate food intake and physical activity to weight control

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Opening Question	Warm Up Questions	Planning a Balanced Diet	Meals	Fast Food	Check On Learning A	Improving Your Diet	Managing Your Weight
Assessing Your Weight	Appetite, Hunger, and Metabolism	Check on Learning B	Dangers of Obesity	Reducing Weight and Fat Safely	Recognizing Eating Patterns	Planning Helpful Strategies	Exercising	Fad Diets, Diet Aids, and Fasting
Gaining Body Weight Wisely	Nutrient Dense Foods	Dieting Myths and Facts	Closing Questions	Review Questions	Call for Other Questions	Check On Learning C		

Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, chapter 6. Place a checkmark beside the NS1-U5C6S2 PowerPoint presentation, and these two CPS question deck files:  
NS1-U5C6S2 - Key Terms and NS1-U5C6S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 6 / Section 2: NS1-U5C6S2 – Planning a Balanced Diet

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.  In this lesson, you will learn how fat and obesity affect your health and how to control your body weight and percentage of body fat.	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 fad diets or other crazy ways people try to lose weight.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on controlling fat.	<b>4</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.  Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.	<b>5</b>
<b>Planning a Balanced Diet</b>	Explain that up and down Elm Street, families begin the day with healthy breakfasts. The Gilmores eat bran muffins, orange juice, and shredded-wheat cereal with milk. Across the street, the Lins sit down to a traditional Korean breakfast of soybean soup with chunks of bean curd (tofu) and rice	<b>6</b>
<b>Planning a Balanced Diet</b>	Explain that people’s food choices are influenced by many factors, one of which is their culture. The term culture refers to the way of life of a group of people, including their customs and beliefs. Food is one important aspect of culture. As the two breakfasts demonstrate, different groups consume different foods. Look at Figure 6.3 and imagine which breakfast you would choose.	<b>7-8</b>
<b>Planning a Balanced Diet</b>	Explain that both culture and personal preferences affect the types of food that are served in your household. Some families may dislike fish, for example, while others may choose not to eat red meat. In addition, most people respond to peer pressure when selecting food. When you eat a meal with friends, you may choose different foods than when you are by yourself or with your family. Your economic situation also plays a role in what you decide to eat. People with low incomes may not be able to afford to buy certain foods.	<b>9</b>
<b>Planning a Balanced Diet</b>	Explain that when you are making decisions about what to eat, consider the nutrition content of foods. There are many ways of meeting your nutritional needs, no matter what your preferences are. With a little imagination, you can have a variety of well-balanced meals and snacks.	<b>10</b>
<b>Meals</b>	What is your favorite meal of the day? Whether it is breakfast, lunch, or dinner, all meals should provide you with a balance of healthy nutrients.	<b>11</b>

## Chapter 6 / Section 2: NS1-U5C6S2 – Planning a Balanced Diet

<b>Meals</b>	Explain that even if you are rushed in the morning, do not neglect breakfast. Many nutritionists believe that breakfast is the most important meal of the day. After a night without food, your stomach is empty, and your body needs fuel for the day's activities. A good, balanced breakfast should provide as much as one-third of your daily food needs. If your breakfast is inadequate, you may be tempted later to eat snacks that are low in nutrient density.	<b>12</b>
<b>Meals</b>	Explain that school cafeterias provide nutritionally balanced meals planned by dietitians. Some school cafeterias even offer nutritious snacks, salad bars, and special diet foods. Because lunch makes up another third of your food needs for the day, make sure that you choose nutrient-dense foods. You might, for example, eat a turkey sandwich on whole-wheat bread, a salad, a carton of milk, and an orange.	<b>13</b>
<b>Meals</b>	Explain that in many cultures around the world, lunch is the major meal of the day. In the United States, the biggest meal is generally the evening meal. Because you may be less physically active after this meal, supper should not account for more than the final third of your daily calorie needs. The evening meal can be an opportunity to fill in gaps in the day's Food Guide Pyramid selections. Suppose, for example, you have not eaten foods from the vegetable group at breakfast and lunch. You might volunteer to prepare a fresh green salad for dinner that includes several vegetables, such as spinach, carrots, and celery.	<b>14</b>
<b>Meals</b>	<p>Explain that snacks can contribute significantly to your nutritional needs if you choose them wisely. However, many snack foods such as those frequently sold in movie theaters, vending machines, and the snack-food sections of supermarkets, are high in fats and sugar and low in nutrient density. If you fill up on chips, soft drinks, and candy bars, you may have no appetite for the nutrient-dense foods that you need. Moreover, because snack foods are often high in calories, frequent snacking may result in unwanted weight gain. Finally, many snack foods such as soft drinks and chocolate contain caffeine. Caffeine can cause nervousness and sleeplessness.</p> <p>Explain that for snacks, choose foods with a high nutritional density. Instead of an evening snack of cookies, try satisfying your craving for sweets with some fruit. Make a bagel, rather than a doughnut, your after-school treat. When you go to the movies, choose unbuttered popcorn instead of chips or candy.</p>	<b>15</b>
<b>Fast Food</b>	<p>Picture this: A friend and you drop by your favorite fast-food restaurant several times a week for a meal of double cheeseburgers, fries, and shakes. Table 6.1 shows a nutritional breakdown of your favorite fast-food meal.</p> <p>Explain that similar to this one, many fast-food meals are high in fat and calories. When you eat in fast-food restaurants, follow these guidelines:</p> <ul style="list-style-type: none"> <li>• Substitute low-fat or nonfat milk or orange juice for shakes and soft drinks</li> <li>• Select the salad bar in place of fries and onion rings</li> <li>• Choose a grilled chicken sandwich instead of a hamburger or cheeseburger</li> <li>• Sauces and dressings can add a lot of fat; use them sparingly</li> <li>• Taste food before adding extra salt to it.</li> </ul>	<b>16-17</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>18</b>
<b>Improving Your Diet</b>	Explain that the Food Guide Pyramid's recommendations can help you select specific kinds and amounts of food. In addition, nutrition experts have identified some general ways in which the American diet can be improved. Their recommendations, called the Dietary Guidelines for Americans, can help you plan a healthy diet.	<b>19</b>

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<b>Improving Your Diet</b>	<ul style="list-style-type: none"> <li>• Eat a variety of foods. To obtain all the different nutrients you need, choose a wide selection of foods.</li> <li>• Balance the food you eat with physical activity to maintain or improve your weight. Health problems can develop if you are too fat or too thin.</li> <li>• Choose a diet with plenty of grain products, vegetables, and fruits. These foods are especially rich in starch and fiber.</li> <li>• Choose a diet low in fat, saturated fat, and cholesterol. Choose lean meats, fish, poultry, and legumes instead of fatty meat. Cut away all visible fat on meats, and remove the skin from poultry. Limit fried foods, including potato chips, French fries, and doughnuts.</li> <li>• Choose a diet moderate in sugars. Foods high in sugar are high in calories but often low in more useful nutrients. Limit your intake of sweet snacks and soft drinks.</li> <li>• Choose a diet moderate in salt and sodium. Sodium, which is found in table salt and salty foods, has been linked to high blood pressure. Avoid eating too many salty snacks, pickled foods, luncheon meats, and canned soups. Do not add salt to foods at the table.</li> <li>• Adults who use alcohol should do so in moderation. Alcoholic beverages are very low in nutrient density. In addition, as you will learn later, alcohol can damage every system in your body. Many adults choose not to drink at all, but those who do drink alcohol should strictly limit their intake.</li> </ul>	<b>20</b>
<b>Improving Your Diet</b>	Explain that after adolescents become adults, their activity levels generally decrease, and continue to do so as they grow older. As activity decreases, so do energy needs. For this reason, adults need to watch their caloric intake carefully. Older adults, moreover, may need to increase the fiber in their diet as an aid to digestion. With proper attention to their nutritional needs, older adults can live healthy and vigorous lives.	<b>21-22</b>
<b>Managing Your Weight</b>	Are you content with your weight, or would you like to change it in some way? If you are comparing yourself to athletes, film stars, and friends whose appearance you admire, you may be trying to achieve a weight that is unrealistic for you and could even be unhealthy. When people have unrealistic expectations about their weight, they sometimes develop eating disorders such as anorexia nervosa and bulimia. However, some people do have good reasons for wanting to lose or gain weight. Those reasons relate to health, and not to some idealized concept of physical appearance.	<b>23</b>
<b>Assessing Your Weight</b>	Explain that Ana and her best friend Thuy are the same height. Ana weighs 10 pounds more than Thuy, but both girls have a weight that is appropriate for them. Thuy is small boned, while Ana has a larger bone structure. In addition, Ana is very athletic, and some of her extra weight is in the form of muscle mass rather than body fat. A person's appropriate weight depends on various factors, including body structure and level of activity. Your appropriate weight is one that you feel comfortable with, one that does not present any health risks. A physician or nutrition expert can help you determine your appropriate weight.	<b>24</b>
<b>Appetite, Hunger, and Metabolism</b>	Explain that the amount of body fat, rather than weight, should be your concern. Various tests measure body fat. In one test, for example, an instrument called a skin-fold caliper is used to measure the fat deposits that accumulate under the skin.	<b>25</b>

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<b>Appetite, Hunger, and Metabolism</b>	Explain that if an appropriate test has determined that you should change your weight, you will probably need to modify your eating habits. Once you have achieved a healthy weight, you will want to maintain it. To maintain a healthy weight, the number of calories that you eat each day should match the daily calorie needs of your body. Calories are units of energy. If you eat more calories than your body can use, your body will store the excess energy as fat, causing you to gain weight. A diet that contains fewer calories than you need can cause you lose weight	<b>26</b>
<b>Appetite, Hunger, and Metabolism</b>	Explain that your calorie needs are partly determined by your activity level; the more active you are, the more calories you need. In addition, your basal metabolic rate—the rate at which you use energy when your body is completely at rest—affects your caloric needs. The higher your basal metabolic rate, the more calories you will burn. Various factors affect basal metabolic rate. For example, older people tend to have a lower basal metabolic rate than do younger persons. Children and pregnant women tend to have higher basal metabolic rates than the rest of the population. Regular exercise may help increase a person’s basal metabolic rate.	<b>27</b>
<b>Appetite, Hunger, and Metabolism</b>	Explain that if you are trying to change your eating habits, your task will be easier if you understand the physical and emotional factors that make you crave food. Hunger is a feeling of physical discomfort that is caused by your body’s need for nutrients. Appetite, in contrast, is a desire for food that is based on emotional factors rather than nutritional need. Unlike hunger, which is an inborn response, appetite is learned. For example, suppose you smell chicken roasting. Your appetite may make you want to eat the chicken because you have learned to associate that particular aroma with a delicious taste. Your appetite may sometimes make you eat even when you are not hungry.	<b>28</b>
<b>Appetite, Hunger, and Metabolism</b>	Explain that appetite and hunger are not the only factors that affect people’s eating behavior. Emotional stress, for example, can influence eating. Some people crave more food when they experience stress, while others lose their appetite. People may eat because they are bored or because they are with others who are eating.	<b>29</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>30</b>
<b>Dangers of Obesity</b>	Explain that if you frequently eat more calories than you need, you risk becoming overweight. People are overweight if they weigh more than 10 percent above their appropriate weight. The condition known as obesity occurs when a person’s weight is 20 percent or more above an appropriate weight. Obesity can create many serious health problems and risks, as illustrated in Figure 6.4. Obese people may suffer from high blood pressure and may experience difficulty breathing. Obesity also increases a person’s risk of heart attack, stroke, diabetes, arthritis, and certain forms of cancer. People who are significantly overweight should make every effort to reduce their weight to a healthier level.	<b>31</b>
<b>Reducing Weight and Fat Safely</b>	Explain that a sensible program of weight loss involves choosing nutritionally balanced meals and snacks. Even though you want to reduce the number of calories that you consume, you still need to make sure that you are obtaining the nutrients necessary for good health. Choose low-calorie foods that are high in nutrient density.	<b>32</b>
<b>Recognizing Eating Patterns</b>	Explain that before you plan your diet, keep a diary of what you presently eat. Record the foods that you consume, when you eat them, and how you feel at these times. Use calorie guides to count the approximate number of calories you consume each day.  Explain that as you review your diary, you may discover eating patterns or behaviors you were not aware of. You may even find out what triggers your overeating. Some	<b>33</b>



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	people overeat when they are disappointed, depressed, excited, or tired.	
<b>Planning Helpful Strategies</b>	<p>Explain that the following are some strategies that will help you eat sensibly:</p> <ul style="list-style-type: none"> <li>• Do not try to lose weight too fast. If you change your eating habits gradually rather than suddenly, your weight-loss program will be more successful in the long run.</li> <li>• Take small portions of food and eat your food slowly so that you can enjoy its taste.</li> <li>• If you tend to overeat when you are unhappy or bored, think of an enjoyable behavior that you might substitute for eating—taking a walk, for example.</li> <li>• To avoid between-meal hunger, save some food from regular meals, such as bread, and later eat it as a snack.</li> <li>• If you occasionally overeat, do not become upset. Just go back to your sensible eating habits.</li> </ul>	<b>34</b>
<b>Exercising</b>	Explain that your weight reduction program should involve regular exercise, such as walking, dancing, or swimming. Changing your eating habits alone is far less effective than eating changes combined with exercise. When you decrease your calorie intake but do not exercise, your basal metabolic rate goes down. Thus, your body does not burn calories as rapidly as it did before you began reducing your caloric intake, and your weight loss slows or stops.	<b>35</b>
<b>Fad Diets, Diet Aids, and Fasting</b>	Explain that many people want to lose weight very quickly, so they rely on strategies such as fad diets, pills, or fasting. These approaches are unrealistic and unsafe.	<b>36</b>
<b>Fad Diets, Diet Aids, and Fasting</b>	Explain that a fad diet is a popular diet that may help a person lose weight but does so without proper regard for nutrition and other matters of health. Fad diets range from high protein, low carbohydrate diets to diets with special ingredients that are said to help you burn fat. These diets often exclude some important nutrients.	<b>37</b>
<b>Fad Diets, Diet Aids, and Fasting</b>	Explain that diet aids, such as pills and candies, are said to suppress the appetite. However, they are usually ineffective and can be habit-forming. The major ingredient in most diet pills is caffeine, an ingredient which may cause nervousness, sleeplessness, and high blood pressure. Diet aids do not provide long-term weight control. If you want to lose weight and keep it off, you need to change your eating behavior and increase your physical activity rather than rely on medication.	<b>38</b>
<b>Fad Diets, Diet Aids, and Fasting</b>	Explain that when people refrain from eating all foods, they are fasting. Fasting is not a healthy way to lose weight because muscle tissue as well as fat is lost. Long-term fasting may stunt your growth. It may also put a strain on your kidneys and cause hair loss. It has even been linked with irregular menstrual periods in women.	<b>39</b>
<b>Gaining Body Weight Wisely</b>	Explain that being too thin can be as emotionally painful as being too heavy. You are underweight if you weigh at least 10 percent less than appropriate. If you are underweight, remember that teenagers as a rule, need a large numbers of calories for growth. Eventually, your growth rate will become slower and then stop. You may put on weight when you are in your early twenties. In addition, some people are naturally thinner than others, and being thin is not a health problem unless it is excessive. However, since being underweight can be an indication of health problems, underweight people should be checked by a physician.	<b>40</b>
<b>Gaining Body Weight Wisely</b>	Explain that the goal of gaining weight can best be achieved by changing any habits that keep you too thin. Eliminate snacks right before mealtimes because they may spoil your appetite. When you do snack, choose nutrient-dense foods, as shown in Figure 6.5 that are high in calories. Never skip a meal. At mealtimes, take bigger	<b>41</b>

## Chapter 6 / Section 2: NS1-U5C6S2 – Planning a Balanced Diet

	helpings of food than usual. While you are increasing your caloric intake, do not neglect exercise. Exercising will help you gain healthy muscle tissue as well as fat.	
<b>Nutrient- Dense Foods</b>	Explain that there are many nutrient- dense foods including banana-nut bread, bean salad, cheddar cheese, brazil nuts, peanut butter and more.	<b>42</b>
<b>Dieting Myths and Facts</b>	<p>Explain that there are many myths and facts surrounding diets and dieting.</p> <p>MYTH: Eating starchy foods, such as bread and pasta, will make you gain weight.</p> <p>FACT: Starchy foods, or complex-carbohydrate foods, have fewer calories per ounce than fats.</p> <p>MYTH: You can lose a lot of weight just by exercising.</p> <p>FACT: To lose a pound by exercising alone, you would need to run for 4 1/2 hours or do aerobics for more than 6 hours.</p> <p>MYTH: You can lose weight if you don't eat breakfast.</p> <p>FACT: Skipping any meal is likely to make you overeat at the next meal. If you skip breakfast, you will probably eat an extra-large lunch.</p> <p>MYTH: You can lose weight by eating only one food, such as grapefruit, bananas, rice, or celery.</p> <p>FACT: Because one-food diets are monotonous and nutritionally inadequate, dieters return to previous eating patterns and regain weight.</p> <p>MYTH: Drinking caffeine always makes your appetite decrease.</p> <p>FACT: Caffeine can make the level of sugar in your blood drop. This can make you hungry.</p> <p>MYTH: After you lose weight, you can then resume your former eating habits.</p> <p>FACT: Maintaining weight loss means changing eating and exercise patterns for the rest of your life.</p>	<b>43-45</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>46</b>
<b>Review Question</b>	The Review Question is, "Your best friend never eats breakfast. Using what you have learned, how would you convince him that he should change that habit?" Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>47</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>48</b>
<b>Check on Learning Questions</b>	Video link for CPS check on learning questions 3-4. Have students watch this video and then answer the CPS questions.	<b>49</b>

## **Chapter 6 / Section 2: NS1-U5C6S2 – Planning a Balanced Diet**

### III. Supplemental Activities –

#### A. In class Activity:

Supplies required: Handout - Planning a Balanced Diet

When: At the beginning of class and again at the end

- In Class: Prior to starting the section, have cadets take the pre-test on the “Planning a Balanced Diet” handout. During the lesson, cadets should be listening for these statements to check their understanding. Once the lesson is over, cadets can go thru the statements in the post column making necessary changes and aiming for 100% accuracy.

B. Homework Activity: Cadets use these statements to quiz a parent, guardian or sibling and test their awareness of common diet myths.



Tech Tips: There are many on-line activities students can use to practice their knowledge of nutrition and a balanced diet. A few are listed below:

The Blast Off Game

Smash Your Food

Food Hero

Build-A-Meal

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 6 / Section 2: NS1-U5C6S2 – Planning a Balanced Diet**

### Activity 1: In-Class Activity- Planning a Balanced Diet

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Listed below are various statements about diet.

Circle *T* if you believe that the statement is True and *F* if you believe that the statement is False.

Do this in the Pre column prior to the lesson.

<u>Pre</u>			<u>Post</u>
T F	1.	Eating starchy foods, such as bread and pasta will make you gain weight.	T F
T F	2.	You can lose a lot of weight just by exercising.	T F
T F	3.	You can lose weight if you don't eat breakfast.	T F
T F	4.	You can lose weight by eating one food such as grapefruit, bananas, rice or celery.	T F
T F	5.	Drinking caffeine always decreases your appetite.	T F
T F	6.	After you lose weight, you can then resume your former eating habits.	T F
T F	7.	You are underweight if you weigh at least 20% less than appropriate.	T F
T F	8.	Fasting can be a very effective and healthy way to lose weight.	T F
T F	9.	Diet aids, such as pills, can be a habit-forming.	T F
T F	10.	Obesity occurs when a person is at least 20% over their appropriate weight.	T F
T F	11.	Emotional stress can affect a person's eating behavior.	T F
T F	12.	The higher your Basal Metabolic Rate, the slower you burn calories.	T F
T F	13.	To maintain your weight, calories in must equal calories out.	T F
T F	14.	If two people are the same age and gender, their appropriate body weight will be identical.	T F
T F	15.	A person's culture influences their diet.	T F

## Chapter 6 / Section 3: NS1-U5C6S3 – Special Diets and Evaluating Foods

(Section 3 of 3)

### What Students Will Learn to Do:

Estimate your body fat content

### Skills and Knowledge to be Gained:

1. Identify the risks of obesity
2. Explore tendencies that encourage fat accumulation
3. Define current and desired state for healthy lifestyle
4. Identify steps that can lead to a lean body fat content
5. Relate food intake and physical activity to weight control

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Opening Question	Warm Up Questions	Special Diets	Diet and High Blood Pressure	Diets for Diabetics	Diet and Hypoglycemia	Vegetarianism	Nutrition and Pregnancy
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Check On Learning A	Diets for Athletes	Buying Food Wisely	Food Labels	Nutrition Information	Food Additives	Evaluating Foods	Nutrients	Check on Learning B
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Reading a Food Label	Freshness	Price	Advertising and Food Choices	Conclusion	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction:

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, chapter 6. Place a checkmark beside the NS1-U5C6S3 PowerPoint presentation, and these two CPS question deck files: NS1-U5C6S3 - Key Terms and NS1-U5C6S3 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 6 / Section 3: NS1-U5C6S3 – Special Diets and Evaluating Foods

### II. Instructional Flow:

<u>Flow Item</u>	<u>Textbook Content / Student Engagement and Assessment</u>	<u>Slides</u>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn how fat and obesity affect your health and how to control your body weight and percentage of body fat.</p>	<b>1-3</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “List 2-3 ways that advertisers make unhealthy food more appealing to consumers.” Since this is a discussion question, it can be engaged using the RPS function, where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on special diets and evaluating food.</p>	<b>4</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>5</b>
<b>Special Diets</b>	<p>Explain that people’s circumstances may call for special diets. Certain physical conditions, such as diabetes and hypoglycemia, have special nutritional requirements. Lifestyle choices, such as the decision not to eat meat, may also affect how people meet their dietary requirements.</p>	<b>6</b>
<b>Diet and High Blood Pressure</b>	<p>Explain that as blood flows through your body, it exerts a force called blood pressure that pushes against the walls of your blood vessels. High blood pressure, or hypertension, is a condition in which this force becomes too strong. Sodium, found in table salt and many other foods, is thought to be a factor in high blood pressure. People with high blood pressure need to limit their sodium intake. They can do this by using herbs and spices instead of table salt to add flavor to foods. They also need to avoid salty snack foods, such as potato chips. Many processed foods, such as soup mixes and canned vegetables, contain large amounts of sodium. Therefore, people with high blood pressure need to read food labels carefully to avoid high-sodium foods.</p>	<b>7</b>
<b>Diets for Diabetics</b>	<p>Explain that glucose is the principal carbohydrate that circulates in your blood and is used by your cells for energy. A substance called insulin enables glucose to pass from the blood into the body’s cells. Diabetes mellitus is a disorder in which the body does not produce or properly use insulin, resulting in high levels of glucose in the blood. Symptoms may include sudden excessive thirst, an increase in appetite combined with a loss in weight, and frequent urination. Some people also feel fatigued, irritable, and confused. If you have a combination of any of these symptoms, you should see a physician.</p>	<b>8</b>

## Chapter 6 / Section 3: NS1-U5C6S3 – Special Diets and Evaluating Foods

<b>Diets for Diabetics</b>	<p>Explain that diabetes usually can be controlled. Some diabetics may need to take daily insulin injections. They also need to eat balanced meals and exercise on a regular schedule. Frequently people with diabetes carry a snack that they can eat to regulate their blood glucose levels if they are unable to eat a regular meal.</p> <p>Explain that a diabetic diet should help to control blood glucose levels by leaving out foods high in sugar and focusing on complex carbohydrates. The American Diabetes Association also emphasizes the importance of foods high in fiber and low in fat. Obesity is a factor in one type of diabetes, and those diabetics need to control their weight. For more information, go to <a href="http://www.ada.com">www.ada.com</a> (American Diabetes Association).</p>	<b>9</b>
<b>Diet and Hypoglycemia</b>	<p>Explain that if the body produces too much insulin, the level of glucose in the blood may fall dramatically. The result is a condition known as hypoglycemia, or low blood sugar. People with hypoglycemia may experience hunger, weakness, severe headaches, and shakiness as their blood glucose levels fall. Hypoglycemics need to eat several small meals per day instead of three big ones, with foods rich in complex carbohydrates and low in fat. Concentrated sweets, such as candy, should be avoided altogether.</p>	<b>10</b>
<b>Vegetarianism</b>	<p>Explain that a person who does not eat meat is called a vegetarian. Some vegetarians eat no foods that come from animal sources. Others, however, include eggs and dairy products in their diets. Complete proteins contain all the essential amino acids, but incomplete proteins do not. Vegetarians who eat no food from animal sources must make sure that their diets contain all the essential amino acids. Complete proteins can be obtained from a combination of plant foods. For example, beans and rice are a complete protein.</p>	<b>11</b>
<b>Vegetarianism</b>	<p>Explain that vegetarians are less likely than others to suffer from heart disease, a problem that can result from eating too much animal fat. In addition to protein, however, vegetarians must make sure that they are obtaining adequate supplies of the vitamins and minerals they need. Variety is therefore especially important in a vegetarian diet. Protein sources from the Meat and Beans group for vegetarians include eggs (for ovo-vegetarians), beans, nuts, nut butters, peas, and soy products (tofu, tempeh, veggie burgers).</p>	<b>12</b>
<b>Nutrition and Pregnancy</b>	<p>Explain that a woman's diet during pregnancy must provide for her needs as well as the needs of the developing baby. When a mother's diet is inadequate, she may give birth to a premature baby or a baby with a low birth weight. A baby with a low birth weight may be susceptible to disease and may be slow to develop mentally and physically.</p>	<b>13</b>
<b>Nutrition and Pregnancy</b>	<p>Explain that most pregnant women should gain between 25 and 35 pounds (about 11 to 16 kilograms) during her pregnancy. To do this, a pregnant woman needs to consume more calories than before pregnancy (about 300 extra calories per day). A pregnant woman also needs extra amounts of protein and the vitamin folate, since both of these nutrients are essential for the formation of the baby's cells. The minerals calcium, phosphorus, and magnesium are needed for building the baby's teeth and bones. Iron is especially important to the development of the baby. Without it, the baby might not get enough oxygen from its mother's blood. For this reason, extra iron is often prescribed during pregnancy.</p> <p>Explain that pregnant teenagers have higher nutrient needs than any other group in the population. Since pregnant adolescents themselves are still growing, their diets need to supply both mother and her unborn baby with nutrients needed for growth. Young pregnant teenagers—those between the ages of 13 and 16—are encouraged to gain about 35 pounds (16 kilograms).</p>	<b>14</b>

## Chapter 6 / Section 3: NS1-U5C6S3 – Special Diets and Evaluating Foods

<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>15</b>
<b>Diets for Athletes</b>	Explain that athletes should eat a basic, well-balanced diet but with added calories to accommodate a higher level of physical activity. Most of these calories should come from an increase in complex carbohydrates. High-fat and sugar-rich foods should be avoided. During competition, athletes should drink plenty of fluids to replace water lost through perspiration.	<b>16</b>
<b>Diets for Athletes</b>	Explain that you have probably heard of runners practicing 'carbohydrate loading' before a long race. Carbohydrate loading consists of greatly increased carbohydrate intake, accompanied by decreased levels of exercise, in the days immediately before a competition. This practice is an attempt to make extra carbohydrates available to supply energy for the muscles. Carbohydrate loading may benefit highly conditioned athletes who participate in long-lasting sports such as marathon running. For most athletes, however, the best policy is just to eat their normal diet.	<b>17</b>
<b>Buying Food Wisely</b>	Explain that to choose nutrient-dense foods, you need knowledge and practice. When you buy food, do not be swayed by attractive packaging. Instead, use food labels and other information to evaluate the nutritional value of foods.	<b>18</b>
<b>Food Labels</b>	Explain that the U.S. Food and Drug Administration (FDA) requires that food manufacturers list certain information on a food label. Labels must provide the name and address of the manufacturer, the weight of the food, and a list of ingredients in descending order of weight. It must also indicate the number of servings per container, based on a standard serving size for that type of food.	<b>19</b>
<b>Nutrition Information</b>	<p>Explain that food labels must also provide facts about the nutrient content of the product. The nutrition information on food labels is especially important for consumers to read and evaluate. The label indicates the following for each serving:</p> <ul style="list-style-type: none"> <li>• The total number of calories per serving</li> <li>• The number of those calories that come from fat</li> <li>• The weight, in grams or milligrams, of nutrients such as saturated fat, total fat, cholesterol, sugar, dietary fiber, total carbohydrates, protein, and certain minerals</li> <li>• The percentage of the Daily Values for different nutrients that are supplied by the food</li> </ul> <p>Explain that manufacturers are free to volunteer additional information. Any claims relating to nutrition or health, however, must meet FDA standards.</p>	<b>20</b>
<b>Food Additives</b>	Explain that when you have read a food label, have you ever noticed a series of long chemical names in the ingredients list? These are food additives. Additives are chemicals that are added to a food to prevent spoiling, to control and improve color and texture, to replace or add nutrients, or to improve flavor. While some people may be allergic to specific additives, such as artificial colors, food additives are safe for most people.	<b>21</b>
<b>Food Additives</b>	Explain that additives that are used to prevent spoilage or to keep foods from losing their natural color or texture are called preservatives. For example, the preservative calcium propionate prevents mold from growing on baked goods. Other preservatives keep peeled and cut fruits from becoming brown. Many preservatives prevent food poisoning and increase the length of time that a food is safe to eat.	<b>22</b>



## Chapter 6 / Section 3: NS1-U5C6S3 – Special Diets and Evaluating Foods

	Explain that often, when a food is canned or processed in some other way, some of its vitamins and minerals may be lost. When nutrients are added to replace those that have been lost, the food has been enriched. Some breads and cereals are enriched with the vitamins thiamin, riboflavin, niacin, and the mineral iron. If vitamins, minerals, and even proteins are added to a food that does not normally contain them, the food is fortified. Milk, for example, is fortified with vitamin D. The types of foods shown above are frequently enriched or fortified.	
<b>Food Additives</b>	Explain that sometimes manufacturers use additives to improve the texture or taste of foods. A leavening agent makes baked goods rise. An emulsifier is used to keep fats from separating from the other ingredients in a food. Emulsifiers in salad dressing, for example, keep the fat from floating to the top.	<b>23</b>
<b>Evaluating Foods</b>	Explain that wise shoppers check the nutrient content of foods. Price and freshness are other characteristics to consider.	<b>24</b>
<b>Nutrients</b>	Carefully read the label on a packaged food. Check the number of calories and determine whether the food contains large amounts of fat or sugar. Compare similar foods to determine which are more nutritious. If you are choosing breakfast cereals, for example, look at the amount of dietary fiber, vitamins, minerals, and protein in different products.	<b>25</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered thus far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>26</b>
<b>Reading a Food Label</b>	Explain that every time you go into a supermarket, you see thousands of different food products: cereals in brightly colored boxes, snack foods in shiny foil bags, and frozen dinners in packages that can be used in a microwave oven. Attractive and convenient packaging is designed to make you want to purchase the product. In addition, before you even enter a store, advertisements in magazines, in newspapers, and on television try to convince you to buy certain foods.	<b>27</b>
<b>Reading a Food Label</b>	Explain that to judge the nutritional value of a food, do not rely on advertisements or nice looking packages. Instead, read the food label carefully. The U.S. Food and Drug Administration (FDA) requires packaged foods to be labeled with a list of ingredients and nutrition information.	<b>28</b>
<b>Reading a Food Label</b>	Explain that to use food labels to make healthy food choices, use the following steps:  1. Read the ingredients. Be aware of the ingredients that a food contains. <ul style="list-style-type: none"> <li>• Become familiar with terms for different kinds of ingredients. For example, even if the word sugar does not appear on the label, the product may contain sugar; words ending in -ose are generally the names of different sugars.</li> <li>• Notice that ingredients are listed in order by weight from most to least.</li> <li>• If you have specific dietary restrictions, it is especially important to check the ingredients list first. For example, people who have an allergy for a particular food need to make sure that the product does not contain that ingredient.</li> </ul>	<b>29</b>
<b>Reading a Food Label</b>	2. Notice the number of servings per container. Serving sizes are standardized for over 100 different food categories, so you can compare similar food products for the number of servings they provide. For example, if you need enough lasagna to feed four people, a brand that provides four servings in one container may be a better purchase than one that provides only three servings per container.	<b>30</b>

## Chapter 6 / Section 3: NS1-U5C6S3 – Special Diets and Evaluating Foods

<b>Reading a Food Label</b>	<p>3. Note the calories in one serving. Keep in mind that recommended daily caloric intake levels vary depending on a person's age, sex, weight, basal metabolism, and activity level. Active teenagers usually need more calories than do older adults.</p> <ul style="list-style-type: none"> <li>• If the number of calories is high and you are trying to lose weight, you might want to choose a different food.</li> <li>• If you are trying to gain weight, a high-calorie food may be a good choice, as long as it provides useful nutrients.</li> <li>• Check the percentages of valuable nutrients, such as dietary fiber, iron, calcium, and vitamins. Is this food a good source of many nutrients that you need?</li> <li>• Also note the percentage of nutrients that you should limit, such as saturated fat and cholesterol. If a food is high in those nutrients, you may want to avoid it.</li> </ul>	<b>31</b>
<b>Reading a Food Label</b>	<p>4. Look at the percentages of the Daily Values. The food label indicates what percentages of the Daily Values for different nutrients are supplied by that product. For example, if the label says "Vitamin C—20%," that food supplies 20 percent of the vitamin C that the average person should consume each day. Notice that the Daily Values are based on a diet of 2,000 calories per day.</p>	<b>32</b>
<b>Reading a Food Label</b>	<p>5. Read any health-related descriptions or claims. The FDA sets standards for the use of descriptions such as "high fiber" and "low fat." You can use those descriptions for guidance. Also notice any health claims on the package. For example, a label can indicate that high-calcium foods may help prevent osteoporosis.</p>	<b>33</b>
<b>Freshness</b>	<p>Explain that many foods, such as meat and baked goods, have a date on their packages. This product date is an estimate of how long the product is safe for consumption. Reduced-price foods may not be a bargain if the product date has expired.</p>	<b>34</b>
<b>Price</b>	<p>Explain that to find out which of two competing products is the better buy, compare the unit price, or cost per unit of measurement. The unit price is usually expressed in ounces or pounds. Suppose, for example, a 20-ounce loaf of bread and a 16-ounce loaf of bread both cost \$1.50. The 20-ounce loaf has a unit price of about 8 cents per ounce, while the 16-ounce loaf costs about 9 cents per ounce. If both these loaves have approximately the same nutrients, which is the better buy?</p>	<b>35</b>
<b>Advertising and Food Choices</b>	<p>Explain that advertising can have a strong influence on food choices. Often advertisers use special techniques, such as humor and lively music, to make products appealing. A television commercial for frozen waffles, for instance, may show a smiling, healthy-looking family. Yet the label on the waffles may reveal that the product is not particularly nutritious. As a smart food consumer, be aware that advertisements can be misleading.</p>	<b>36</b>
<b>Conclusion</b>	<p>Explain that the science of nourishing the body properly is a continually revolving door of facts, information, and misleading information. Much of the data is conflicting and difficult to sort out, although there is some material that has remained consistent throughout the years. A basic understanding of this information will enable you to stay properly nourished.</p>	<b>37</b>
<b>Conclusion</b>	<p>Explain that to begin building a healthy diet, the Dietary Guidelines of Americans provides the following advice:</p> <ul style="list-style-type: none"> <li>• Eat a variety of foods to obtain the energy, proteins, vitamins, minerals, and fiber you need for good health.</li> </ul>	<b>38</b>

## Chapter 6 / Section 3: NS1-U5C6S3 – Special Diets and Evaluating Foods

	<ul style="list-style-type: none"><li>• Maintain a healthy weight to reduce your chances of having high blood pressure, heart disease, a stroke, certain cancers, and the most common kind of diabetes.</li><li>• Choose a diet low in total fat, saturated fat, and cholesterol. Because fat contains over twice the calories of an equal amount of carbohydrates or protein, a diet low in fat can help you to maintain a healthy weight.</li><li>• Choose a diet with plenty of vegetables, fruit, and grain products that provide the needed vitamins, minerals, fiber, and complex carbohydrates, which can also help you to lower your intake of fat.</li><li>• Use sugars only in moderation. A diet with lots of sugars has too many calories and too few nutrients for most people.</li><li>• Use salt and sodium only in moderation.</li><li>• Avoid drinking alcoholic beverages. Although alcoholic beverages supply calories, they have little or no nutrients. Furthermore, drinking alcohol is the cause of many health problems and accidents.</li></ul>	
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>39</b>
<b>Review Question</b>	The Review Question is, “List 2-3 of your favorite foods that not only taste good, but are nutritious and easy to make.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>40</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>41</b>

## **Chapter 6 / Section 3: NS1-U5C6S3 – Special Diets and Evaluating Foods**

### III. Supplemental Activities -

#### A. In Class Activity:

Supplies Needed: Handouts for At Home Activity

When: At the end of class

- In Class: Present the following scenario to cadets and have them discuss it in small groups and then as a class. This will prepare them for the at home assignment.

***Tim is 56 and has high cholesterol and doesn't want to take medication for this. What questions do you have about this diagnosis? What concerns do you have for his long-term health? How can dietary changes help?***

***Answer: If his LDL is too high, he is at risk of cardiovascular disease including heart attacks and stroke. Tim should eat less fat, especially saturated fat, exercise regularly and maintain a proper weight. He also should eat more fiber.***

B. Homework Activity: Distribute the “You are a Nutritionist” handout. Cadets read through each scenario and give the best advice they can using the content from Unit 5



#### Tech Tip:

Assign the scenarios to small groups of students. Using computer software or mobile device apps, they create a presentation for their scenario that illustrates the situation and explains a solution.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 6 / Section 3: NS1-U5C6S3 – Special Diets and Evaluating Foods**

### Activity 1: Take Home Activity- You Are the Nutritionist

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: You are a nutritionist! Many patients come to you expressing concern over a variety of dietary issues. For each patient below, give them your best advice on how to make changes to their diet and lifestyle that address their nutritional needs and concerns.

1. Diane is 50 years old and has high blood pressure. She is slightly overweight. She wants to get both her blood pressure and her weight under control. What should she do?
2. Thomas is 60 years old and was recently diagnosed with diabetes. His weight is acceptable for his age, gender and body make-up. He has agreed to take insulin. What other lifestyle or diet changes should he be making?
3. Audrey is 23 years old and average weight. She reports having trouble with low blood sugar. What might be the problem? What changes can she make in her diet to feel better?
4. Charles is 18 and has decided he no longer wants to eat meat. What does he need to consider when removing protein from his diet at his age?
5. Rachel is 16 and involved in various after school sports. She is underweight for her age, gender and body type. What concerns do you have for Rachel? What dietary advice do you give her?

## **Chapter 6 / Section 3: NS1-U5C6S3 – Special Diets and Evaluating Foods**

6. Kent is 14 and his parents are concerned about how picky he is about food. He only likes sugary breakfast cereals and fast food. What advice would you give to them? What nutritional needs does Kent have?
  
7. Sue is turning 40 and having a lot of stress in her life. She is afraid of gaining weight. She has been trying diet pills to reduce her appetite. What does she need to do to maintain a healthy weight?
  
8. Randy is 20 and tired of being too thin. He wants to gain weight in a healthy way. He enjoys exercising. Do you have any advice?
  
9. Sarah is 17 and has come to you for help. You notice that she is thin and she seems very concerned about gaining weight. She reports that her menstrual periods have ceased and you notice her hair is thin and her skin is dry. What concerns do you have? What advice do you give her?
  
10. Tammy is 30 and just found out that she is pregnant. She loves to exercise and is concerned about proper nutrition for her baby and herself. What advice can you give her?

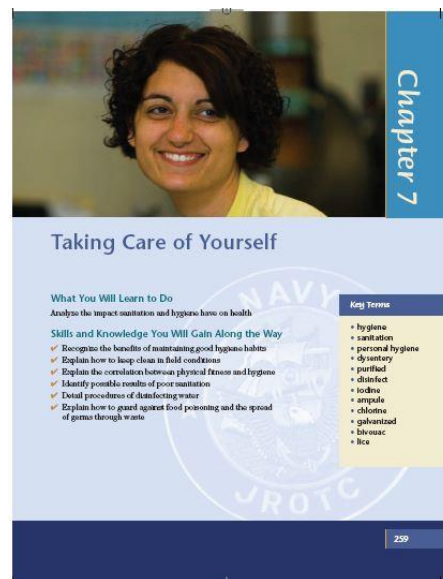
## Unit 5 Chapter 7: NS1-U5C7 – Taking Care of Yourself

### What Students Will Learn to Do:

Analyze the impact sanitation and hygiene have on health

### Skills and Knowledge to be Gained:

1. Recognize the benefits of maintaining good hygiene habits
2. Explain how to keep clean in field conditions
3. Explain the correlation between physical fitness and hygiene
4. Identify possible results of poor sanitation
5. Detail procedures of disinfecting water
6. Explain how to guard against food poisoning and the spread of germs through waste



### Standards Linked in this Chapter:

#### **Common Core English Language Arts 9-10\***

##### Reading and Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says ...
- RI.9-10.2. Determine a central idea of a text and analyze its development over the course of the text...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...
- W.9-10.2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately...
- W.9-10.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- W.9-10.6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products...

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

## **Unit 5 Chapter 7: NS1-U5C7 – Taking Care of Yourself**

### **National Health Education Standards 9-10 (NHES)\*\***

- NHES Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- NHES Standard 8: Students will demonstrate the ability to advocate for personal, family, and community health.

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor's Guide.



## Chapter 7 / Section 1: NS1-U5C7S1 – Taking Care of Yourself

(Section 1 of 1)

### What Students Will Learn to Do:

Analyze the impact sanitation and hygiene have on health

### Skills and Knowledge to be Gained:

1. Recognize the benefits of maintaining good hygiene habits
2. Explain how to keep clean in field conditions
3. Explain the correlation between physical fitness and hygiene
4. Identify possible results of poor sanitation
5. Detail procedures of disinfecting water
6. Explain how to guard against food poisoning and the spread of germs through waste.

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Key terms	Key Term Definitions	Opening Question	Warm Up Questions	Introduction	Personal Hygiene	Field Sanitation- Example	Principles of Hygiene
Stay Physically Fit	Check On Learning A	Get Enough Sleep	Learn to Reduce Stress	Basic Principles of Sanitation	Use Purified Water	Check on Learning B	Guard Against Food Poisoning	Bury Your Waste
Get Enough Sleep	Keep Your Body and Uniform Clean	Other Instructions for Field	Conclusion	Closing Questions	Review Questions	Call for Other Questions		

Key:

Textbook Content	Student Engagement and Assessment
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Outline of Instruction :

## **Chapter 7 / Section 1: NS1-U5C7S1 – Taking Care of Yourself**

### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 5, Chapter 7. Place a checkmark beside the NS1-U5C7S1 PowerPoint presentation, and these two CPS question deck files:  
NS1-U5C7S1 - Key Terms and NS1-U5C7S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

### **II. Instructional Flow:**

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn about the impact sanitation and hygiene have on your health. You will know the benefits of maintaining good hygiene habits and how to keep clean in field conditions. You will be able to explain the correlation between physical fitness and hygiene and identify possible results of poor sanitation. You will also learn detailed procedures for disinfecting water and how to guard against food poisoning and the spread of disease through waste.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-8</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “Discuss why you think there is or is not any correlation between physical fitness and hygiene.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on taking care of yourself.</p>	<b>9</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>10</b>
<b>Introduction</b>	<p>Explain that exercise, rest, good hygiene and nutrition can help you stay healthy and avoid many illnesses and infections. In other words, you can prevent disease and injury by taking good care of yourself. You learned about the importance of nutrition and exercise to your health in the previous chapter. This chapter covers the importance of good hygiene habits. In particular, it discusses hygiene and sanitation when attending JROTC summer camp or camping on your own, with friends, or family.</p> <p>In these cases, you may not have the modern conveniences of clean, running water or</p>	<b>11</b>

## Chapter 7 / Section 1: NS1-U5C7S1 – Taking Care of Yourself

	indoor plumbing, but you must still know how to take care of yourself to help prevent illness and maintain good health.	
	<p>Explain that most likely, there are certain habits that you perform routinely at the start of each day. You are probably so accustomed to doing them that you do not give them a second thought. First, you wake up after resting your body during the night. Then you shower if you did not shower the night before, wash your face, and comb your hair. It is now time for breakfast—some toast and cereal perhaps. And, last but not least, you brush your teeth and then leave for school.</p> <p>Now, stop for a minute and think about the activities that we have just described. They involve rest, nutrition, and cleanliness, three elements that are important to maintaining good health and are a part of personal hygiene.</p>	<b>12</b>
<b>Personal Hygiene</b>	Explain that it is easy for most of us to practice personal hygiene in our homes where there are sinks, showers, toilets, and clean water, all of which help with sanitation. In some situations, however, practicing personal hygiene and maintaining sanitary conditions take more effort and require greater care. For example, if you are camping, you may have to work harder at hygiene and sanitation depending on conditions at your campsite. Also, when you are staying in close quarters with several other people, like at JROTC summer camp, hygiene and sanitation become extremely important. The poor sanitation or hygiene habits of one person can lead to a disease or illness that affects an entire group.	<b>13-14</b>
<b>Personal Hygiene</b>	Explain that personal hygiene is important to maintaining your personal health and establishing your health image to other people. A neat, clean, physically fit person illustrates a healthy image and a positive leadership posture.	<b>15</b>
<b>Field Sanitation - Example</b>	<p>Explain that the following story illustrates the importance of maintaining all aspects of health and sanitation when out in the field.</p> <p>Explain that on Togatabu Island in 1942, the 14th Artillery and the 404th Engineer Battalions were part of a task force preparing to attack Guadalcanal. Fifty-five percent of the engineers and 65 percent of the artillerymen contracted a disease called “Filariasis,” transmitted by mosquitoes. Both units had to be medically evacuated without seeing enemy action because they were not combat ready. The use of insect repellent and insecticides and the elimination of standing water would have prevented the spread of this disease.</p>	<b>16</b>
<b>Field Sanitation - Example</b>	Explain that often in military history, the health of the troops influenced the course of battle more than strategy or tactics. “Historically, in every conflict in which the United States has been involved, only 20 percent of all hospital admissions have been from combat injuries. The other 80 percent have been from diseases and non-battle injuries.” (Field Hygiene and Sanitation, FM 21–10)	<b>17</b>
<b>Principles of Hygiene</b>	Explain that it is not always simple to apply the basic principles of personal hygiene. It takes a conscience effort to follow these principles and to stay healthy.	<b>18</b>

## Chapter 7 / Section 1: NS1-U5C7S1 – Taking Care of Yourself

<b>Principles of Hygiene</b>	Hand Hygiene - Explain that hand washing needs to be second nature. It is important to wash your hands after contact with an animal, after using the toilet, before eating, or before touching a person at risk for infection. A good routine needs to include removing any jewelry, wetting hands with warm water, using an anti-bacterial soap if available, washing hands vigorously for at least 30 seconds, rinsing hands, and drying hands on a clean towel or using a hand drying machine. Hand hygiene is also important in the field.	<b>19-20</b>
<b>Principles of Hygiene</b>	Oral Hygiene - Explain that after each meal or at least twice a day, you need to eliminate food particles and dental plaque from your teeth as well as clean your gums. Visiting the dentist twice a year is also recommended. Use fluoride toothpaste and brush up and down in a light circular motion, in front, behind and across the top of the teeth for at least three minutes. Avoid putting objects and fingers in your mouth as well as sugar and sweets that encourage germ proliferation.	<b>21</b>
<b>Principles of Hygiene</b>	Personal Hygiene - Explain that a dirty body is a hotbed for developing germs. Dust, sweat and other secretions, and warmth are all factors that encourage germs to multiply. A hot shower with effective soap and shampoo should follow any physical activity. Showering daily is necessary to maintain good personal health. Clean clothes should be worn and underwear changed daily; the fabric in clothes is a breeding ground for many germs. Imagine how you would feel if you did not bathe for a week. Now imagine how others would feel about having to be around you during that time. Uncleanliness or disagreeable odors affect the morale of others, so the solution is for everyone to take personal responsibility for their own hygiene.	<b>22</b>
<b>Principles of Hygiene</b>	Nasal Hygiene - Explain that nasal secretions are highly contagious. Runny noses and sneezing are sources of germ dissemination. Frequent nose blowing using a disposable paper tissue clears the nostrils and limits the spread of germs. Repeated blowing of the nose can cause irritation, so use a soft tissue and blow softly.	<b>23</b>
<b>Principles of Hygiene</b>	Food Hygiene - Explain that food poisoning is on the rise. Some of these cases can be linked to the food processing industry and centralized distribution of food. You can reduce your risk of food poisoning by following simple yet effective hygiene practices. High-risk foods include eggs and egg products, poultry (particularly chicken), and food eaten raw. It is estimated that 50 percent of domestic food poisoning cases are due to poor hygiene in the home. Refrigeration is a means of reducing the spread of germs, but not of eliminating germs. Refrigerators need to be cleaned on a regular basis. Food that needs refrigeration needs to be kept at the recommended temperature, Food that does not need to be kept refrigerated should be stored as indicated on the packaging, and the date indications on food packaging should be followed.	<b>24</b>
<b>Principles of Hygiene</b>	Explain that cooking food is an excellent way of keeping germs from spreading. Cooking food at sufficiently high temperature will eliminate many germs. Rigorous hygiene is also required in the kitchen. Always wash hands before handling food. Wash frequently any cloths and towels used in the kitchen. Avoid using wooden chopping blocks, salad bowls and spoons because nicks or cracks can create an ideal place for germs. Kitchen utensils should not be used to prepare different dishes unless they have been cleaned between uses. Tables and worktops should be cleaned with an anti-bacterial product between the preparation of different types of food. You should also watch for the country of origin of the food you eat. Note the expiration dates on food labels and use only the freshest products. Always use the most effective practices in food preparation.	<b>25</b>
<b>Principles of Hygiene</b>	Pet Hygiene- Explain that most people today spend a great deal of time with a pet or pets. Our pets carry a number of germs and also affect allergy sufferers. However, it is easy to apply simple rules of hygiene without affecting the bond between people and	<b>26</b>

## Chapter 7 / Section 1: NS1-U5C7S1 – Taking Care of Yourself

	<p>pets. Animals need to be cleaned regularly. It is also essential to disinfect a pet's scratch or bite with an antiseptic. Clean everything that your pet touches on a regular basis. Floor areas used by an animal should also be cleaned, paying particular attention to allergen traps such as carpets and bedding. Hands should always be washed after touching an animal.</p>	
<b>Stay Physically Fit</b>	<p>Explain that people who are physically fit are less likely to get sick or injured, so participate regularly in a fitness program. Physical fitness training will also help you become adjusted to a field environment. Remember to use caution when exercising in extremely hot or cold weather, particularly if you are going to run long distances.</p>	<b>27</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	<p>Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.</p>	<b>28</b>
<b>Get Enough Sleep</b>	<p>Explain that the average person needs eight hours of sleep a night. Make sure you get enough sleep to enable you to have the energy to effectively complete the required tasks of your day. You may have a more difficult time sleeping when you are away from home, bunking with others, or camping. Follow these suggestions to get as much rest as possible.</p> <ul style="list-style-type: none"> <li>• Sleep as much as you can before going someplace where you may not be able to sleep comfortably or as much as you should</li> <li>• Take catnaps whenever you can but expect to need a few minutes to wake up fully</li> <li>• When in the field, follow your leader's instructions and share tasks with other cadets so everyone gets time to sleep</li> <li>• After going without sleep, catch up as soon as possible</li> <li>• Learn and practice techniques to relax yourself quickly.</li> </ul>	<b>29</b>
<b>Get Enough Sleep</b>	<p>Explain that if you have not gotten enough sleep in the field and are required to remain awake and alert, try these suggestions:</p> <ul style="list-style-type: none"> <li>• Play mental games or talk with other cadets to stay alert during dull watches or critical jobs such as driving at night</li> <li>• Take short stretch breaks or do light exercises in place</li> <li>• Do not trust your memory; write things down and double check your communications and calculations</li> <li>• Watch out for your mind playing tricks (like seeing things that are not there) when you are very tired; check strange observations before acting.</li> </ul>	<b>30</b>
<b>Learn to Reduce Stress</b>	<p>Explain that stress begins in the mind but causes physical reactions in the body. Although stress can be beneficial in small doses by supplying you with bursts of energy to complete a project on time or compete in an important game, stress that continues over long periods of time can weaken your immune system and lead to exhaustion and illness. People under too much stress may not care for themselves properly or be able to complete tasks effectively.</p>	<b>31</b>
<b>Learn to Reduce Stress</b>	<p>Explain that to keep yourself healthy and efficient, you must learn to relax and reduce stress. The following hints may help:</p> <ul style="list-style-type: none"> <li>• Maintain a positive attitude</li> <li>• Do not try to do more than is possible or take on tasks for which you are not prepared</li> <li>• Talk with friends or family when you encounter difficulties</li> <li>• Take time each day to do something that you enjoy, even if it is only for 15 minutes</li> </ul>	<b>32</b>

## Chapter 7 / Section 1: NS1-U5C7S1 – Taking Care of Yourself

	<ul style="list-style-type: none"> <li>• Do not worry about things that are out of your control but concentrate on what you can do</li> <li>• Exercise regularly</li> <li>• Recognize that stress is a normal reaction to many situations, like taking a test, giving a speech, or participating in field training</li> <li>• Take a deep breath, relax, and do not let stress interfere with accomplishing the task at hand.</li> </ul>	
<b>Learn to Reduce Stress</b>	Explain that to help reduce stress in a group or among friends or fellow cadets, give each other moral support. This is especially important if things are tough at home, school, or in the unit. Welcome new replacements into your group and be active in establishing friendships. By building a feeling of esprit de corps, you can minimize stressful feelings of loneliness and isolation. When in the field, attempt to care for other cadets and work together to provide everyone food, water, sleep, shelter, protection from heat, cold, and poor sanitation.	<b>33</b>
<b>Basic Principles of Sanitation</b>	Explain that poor sanitation can contribute to conditions that may result in diarrhea and dysentery. Intestinal diseases are usually spread through contact with bacteria and germs in human waste, by flies and other insects, or through improperly prepared food and water supplies.	<b>34</b>
<b>Use Purified Water</b>	Explain that when you are staying outdoors, in the field, or traveling in foreign countries with questionable water supplies, use only water that is purified. Fill your canteen with treated water at every chance. To treat or disinfect water, bring it to a boil for 5 to 10 minutes. When heated water is not available, disinfect water using one of the following methods:	<b>35</b>
<b>Use Purified Water</b>	<p>Explain the preferred method using Iodine.</p> <ol style="list-style-type: none"> <li>1. Fill a one-quart canteen with the cleanest water available.</li> <li>2. Put one iodine tablet in the water; two in cold or cloudy water. Double these amounts in a two-quart canteen.</li> <li>3. Place the cap on the canteen, wait 5 minutes, then shake. Loosen the cap and tip the canteen over to allow leakage around the canteen threads. Tighten the cap and wait an additional 25 minutes before drinking.</li> </ol>	<b>36</b>
<b>Use Purified Water</b>	<p>Explain the alternate purification method: treating with chlorine:</p> <ol style="list-style-type: none"> <li>1. Fill a one-quart canteen with the cleanest water available.</li> <li>2. Mix one ampule of chlorine with one-half canteen cup of water. Stir the mixture with a clean device until the contents dissolve. Take care not to cut your hands when breaking open the glass ampule.</li> <li>3. Pour one canteen capful of the chlorine solution into your quart of water.</li> <li>4. Replace the cap on your canteen and shake. Slightly loosen the cap and tip the canteen over to allow leakage around the threads. Tighten the cap and wait 30 minutes before drinking.</li> </ol>	<b>37</b>

## Chapter 7 / Section 1: NS1-U5C7S1 – Taking Care of Yourself

<b>Use Purified Water</b>	<p>Explain another alternative method: Tincture of Iodine:</p> <ol style="list-style-type: none"> <li>1. Fill a one-quart canteen with the cleanest water available.</li> <li>2. Add five drops of 2 percent Tincture of Iodine to the water. If the water is cold or cloudy, add 10 drops.</li> <li>3. Mix thoroughly by shaking the canteen. Slightly loosen the cap and tip the canteen over to allow leakage around the threads. Tighten the cap and wait 30 minutes before drinking.</li> <li>4. Very cloudy or cold water may require prolonged contact time. Let it stand several hours or overnight if possible.</li> </ol>	<b>38</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>39</b>
<b>Guard Against Food Poisoning</b>	Wash your hands for at least 30 seconds after using the bathroom or before touching food. Inspect all cans and food packages prior to using them and throw away any cans with leaks, bulges, or holes. Do not eat foods or drink beverages that have been prepared in galvanized containers, which may result in zinc poisoning. When camping or in the field, wash your mess kit in a mess kit laundry or with treated water or disinfectant solution.	<b>40</b>
<b>Bury Your Waste</b>	Explain that on a march, personal disposal bags should be used if available; if not available personal cat holes can be used. Always dispose of your waste immediately to prevent flies from spreading germs from waste to your food and to keep unwanted animals out of your bivouac area. Chemical toilets should be used in bivouac area.	<b>41</b>
<b>Keep Your Body and Uniform Clean</b>	<p>Bathe every day, if possible, or at least once a week. A daily bath or shower helps maintain cleanliness and prevent body odor, common skin diseases, and infection. When you are in the field, however, bathing daily may not be possible. In this case, make sure you take a full shower at least once a week (or at the earliest opportunity) and use a washcloth daily to wash</p> <ul style="list-style-type: none"> <li>• Your face</li> <li>• Your armpits</li> <li>• Your genital area</li> <li>• Your feet</li> <li>• Other areas where you sweat or that become wet, such as between your thighs or, for females, under the breasts.</li> </ul>	<b>42</b>
<b>Keep Your Body and Uniform Clean</b>	Explain that powders, such as talcum powder, help to keep your skin dry when in the field. Apply it to places where you tend to sweat and to your feet and inside your socks each morning, especially if you have had prior foot infections. Change to clean clothing regularly. Protection of your feet is extremely important and requires daily attention.	<b>43</b>
<b>Keep Your Body and Uniform Clean</b>	Explain that good personal hygiene practices reduce infestation of insects such as body lice and mites. Make sure the clothing you wear in the field is loose and does not restrict circulation. Avoid wearing nylon undergarments. Wear cotton, which is more absorbent and allows the skin to dry. Wash your uniform frequently or at least once a week. Use the quartermaster laundry or a stream, lake, or washbasin. Air-dry uniforms, especially underwear and socks.	<b>44</b>

## Chapter 7 / Section 1: NS1-U5C7S1 – Taking Care of Yourself

<b>Other Instructions for Field</b>	<p>Explain that there are other precautions that you can take to ensure your health and well-being while in the field and ensure the health of those around you.</p> <p><b>1. Follow Medical Advice:</b> Take medications, such as anti-malaria pills, that help prevent diseases. Use any medication that is prescribed by medical personnel.</p> <p><b>2. Protect Yourself at Night:</b> Use your bed net when sleeping and ensure that it is in good repair. Always follow label directions and precautions when using DoD approved insect spray.</p> <p><b>3. Wash Your Mess Kit/Eating Utensils:</b> Protect yourself from diarrhea by washing your mess kit/eating utensils. Use a mess kit sanitation center or use treated water or disinfectant solution.</p> <p><b>4. Domestic and Wild Animals or Birds:</b> Do not handle or approach animals in the field. Unless approved by veterinary personnel, do not collect or support with food and shelter any stray or domestic animals in the unit area.</p> <p><b>5. Poisonous Plants:</b> Avoid contact with poisonous plants by properly wearing the uniform and avoid areas where poisonous plants grow. Only eat plants that have been approved by medical personnel.</p>	<b>45-47</b>
<b>Conclusion</b>	Explain that practicing good personal hygiene and sanitation are common sense actions that everyone should perform. They are particularly important in the field where cadets have a responsibility to both themselves and others, and leaders must plan and enforce preventative measures.	<b>48</b>
<b>Conclusion</b>	Explain that correct cleanliness habits, regular exercise, good nutrition, and adequate amounts of rest and relaxation can directly affect a person's well-being. By practicing these preventative measures, you can significantly reduce time lost due to illness and injuries.	<b>49</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>50</b>
<b>Review Question</b>	The Review Question is "List 2-3 results of poor sanitation." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>51</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>52</b>



## **Chapter 7 / Section 1: NS1-U5C7S1 – Taking Care of Yourself**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: none

When: At the end of class

- In Class: Copy and distribute, or project, the Hand Washing poster. Discuss as a class why posters like this are helpful to the public in promoting personal hygiene and what makes a good poster.
- 

#### B. Homework Activity: Cadets will create a public service poster illustrating proper hygiene.

They can choose, or be assigned from the topics listed:

- ❖ Dental Hygiene
- ❖ Bathing
- ❖ Food Storage
- ❖ Food Preparation
- ❖ Sleeping Habits
- ❖ Stress Reduction
- ❖ Field Sanitation
- ❖ Water Purification



Tech Tip: Posters can be created on mobile device apps or made into PSA commercials in a program such as iMovie.

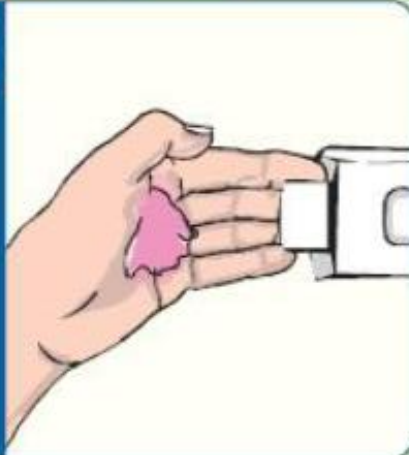
### IV. Evaluation - see CPS database for chapter test questions.

# FIGHT GERMS BY WASHING YOUR HANDS!

**1** Wet your hands



**2** Soap



**3** Lather and scrub - 20 sec



**4** Rinse - 10 sec



**5** Dry your hands



**6** Turn off tap



**DONT FORGET TO WASH:**

- between your fingers
- under your nails
- the tops of your hands

[www.lung.ca](http://www.lung.ca)

THE  LUNG ASSOCIATION™  
L'ASSOCIATION PULMONAIRE

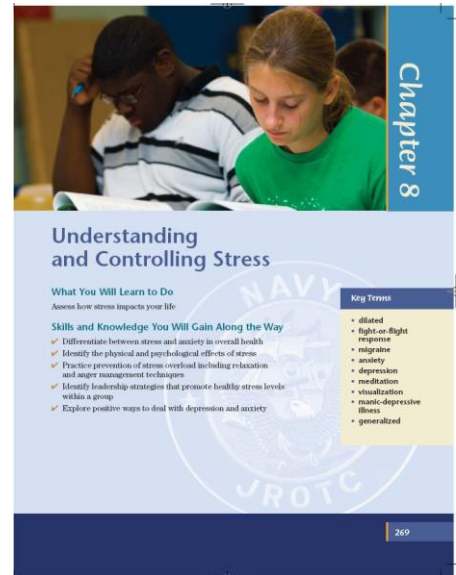
## **Unit 5 Chapter 8: NS1-U5C8 – Understanding and Controlling Stress**

### **What Students Will Learn to Do:**

Assess how stress impacts your life

### **Skills and Knowledge to be Gained:**

1. Differentiate between stress and anxiety in overall health
2. Identify the physical and psychological effects of stress
3. Practice prevention of stress overload including relaxation and anger management techniques
4. Identify leadership strategies that promote healthy stress levels within a group
5. Explore positive ways to deal with depression and anxiety



### **Standards Linked in this Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading and Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says ...

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

#### **National Health Education Standards 9-10 (NHES)\*\***

- NHES Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- NHES Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- NHES Standard 3: Students will demonstrate the ability to access valid information, products, and services to enhance health.
- NHES Standard 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- NHES Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health.
- NHES Standard 8: Students will demonstrate the ability to advocate for personal, family, and community health.

## **Unit 5 Chapter 8: NS1-U5C8 – Understanding and Controlling Stress**

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor's Guide.

## **Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress**

(Section 1 of 1)

### **What Students Will Learn to Do:**

Assess how stress impacts your life

### **Skills and Knowledge to be Gained:**

1. Differentiate between stress and anxiety in overall health
2. Identify the physical and psychological effects of stress
3. Practice prevention of stress overload including relaxation and anger management techniques
4. Identify leadership strategies that promote healthy stress levels within a group
5. Explore positive ways to deal with depression and anxiety

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	KeyTerm Definitions	Opening Question	Warm Up Questions	Introduction	What is Stress	Physical Effects of Stress	Psychological Effects of Stress
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Check On Learning A	Causes of Stress	Stress Strategies	Relaxation Techniques	Letting Off Steam	Check on Learning B	Stress and Leadership	Depression	Anxiety
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Conclusion	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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## **Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress**

### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, Chapter 8. Place a checkmark beside the NS1-U5C8S1 PowerPoint presentation, and these two CPS question deck files:  
NS1-U5C8S1 - Key Terms and NS1-U5C8S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

#### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.  In this lesson, you will assess how stress impacts your life. You will learn the difference between stress and anxiety, the physical and psychological effects of stress, how to prevent stress overload with relaxation and anger management techniques, leadership strategies that promote healthy stress levels within a group and positive ways to deal with depression and anxiety.	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-7</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 of the main reasons that you feel stress.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on understanding and controlling stress.	<b>8</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.  Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.	<b>9</b>
<b>Introduction</b>	Explain that stress in small doses is a normal, healthy part of life; however, stress that continues over long periods of time can lead to exhaustion and possible mental or physical illness. This chapter discusses what causes stress, how it can affect you, and ways that you can manage it. Handling stress in your life and recognizing symptoms of stress in others will make your life more enjoyable and your leadership more effective.	<b>10</b>

## Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress

	Explain that the media often portray the teen years as a carefree time, with few major responsibilities and lots of new and exciting experiences. Many young people know, however, that this is only one side of the coin. You may not have the responsibilities of your parents, but your responsibilities are growing as you grow older. New challenges and experiences, while exciting, can also be a bit scary.	
<b>Introduction</b>	Expectations for the future can be exhilarating, but they can also result in anxiety and pressure to succeed. As teenagers make their way to adulthood, they experience a range of emotions and changes that can make their high school years very stressful.	<b>11</b>
<b>What is Stress</b>	Explain that stress is the way your body reacts and adjusts to the psychological and physical demands of life. It can be brought on by situations that cause feelings such as fear, irritation, endangerment, excitement, and expectation. For example, surprise exams can cause stress. Stress in small amounts is beneficial and is needed for motivation, improvement, and growth. It can give you a burst of energy to complete a project or run a race. It can give the control and strength to get through a difficult time, or the inspiration to write a poem or paint a picture. Stress can be an important factor in your achievement and progress.	<b>12</b>
<b>What is Stress</b>	Explain that times of stress should be followed by times of relaxation to ensure recovery from stress. Experiencing constant stress without a break has a negative effect on people. Stress followed by a period of rest can actually make a person better prepared for the next stressful event. Stress followed by more stress without recovery in between can exhaust a person, making him or her less prepared to handle the next stressful event. Eventually, constant stress can have a negative effect a person psychologically and physically, disrupting normal behavior and resulting in illness.	<b>13</b>
<b>Physical Effects of Stress</b>	<p>Explain that the following ways that stress can physically affect your body:</p> <ol style="list-style-type: none"> <li>1. Nervous System – the body suddenly shifts its energy resources to fighting off the perceived threat.</li> <li>2. Musculoskeletal System – contraction of muscles for extended periods can trigger tension headaches and migraines.</li> <li>3. Respiratory System – Stress can make you breathe harder and cause hyperventilation.</li> <li>4. Cardiovascular System – Increase in heart rate and stronger contraction of the heart muscle.</li> <li>5. Endocrine System – The body sends signals from the hypothalamus, causing the adrenal cortex to produce cortisol (stress hormones).</li> <li>6. Gastrointestinal System – <ul style="list-style-type: none"> <li>• Esophagus – Stress may prompt you to eat much more or much less than you usually do</li> <li>• Stomach – Stress can cause nausea or pain</li> <li>• Bowels – Stress can affect digestion and which nutrients your intestines absorb</li> </ul> </li> </ol>	<b>14-17</b>
<b>Physical Effects of Stress</b>	Explain that while these internal reactions to stress may not be obvious to you, noticeable results of these reactions include increased heart and breathing rates, muscle tension, dilated pupils, cold hands, and dry mouth.	<b>18</b>

## Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress

<b>Physical Effects of Stress</b>	<p>Explain that for modern man, most stressful situations are not life threatening and do not require a physical response, yet being stuck in a traffic jam or pushing hard to finish a report still causes the same physical reactions as those responses needed for fight or flight. Luckily, once modern man deals with the stress, finishes the stressful activity or the source of stress goes away, the body and all of its functions return to normal.</p>	<b>19</b>
<b>Physical Effects of Stress</b>	<p>Explain that on the other hand, if the source of stress continues, the person does not deal with the stress effectively, or the person faces stressful situation after stressful situation, his or her body will not recover its normal state. Eventually, the body's continual reaction to prolonged stress may result in the following physical problems:</p> <ul style="list-style-type: none"> <li>• Insomnia</li> <li>• Diarrhea</li> <li>• Indigestion</li> <li>• Ulcers</li> <li>• Nausea</li> <li>• Backaches</li> <li>• Headaches</li> <li>• Migraines</li> <li>• Uncontrollable tics or twitches</li> <li>• Stuttering</li> <li>• Allergies</li> <li>• Asthma</li> <li>• High blood pressure</li> <li>• Heart disease</li> <li>• Grinding or clenching of teeth, especially when sleeping</li> </ul>	<b>20</b>
<b>Physical Effects of Stress</b>	<p>Explain that of particular note is the connection between continual stress and heart disease. Because most of modern man's stressful situations do not require physical action, the fat pumped into the bloodstream to act as fuel for the muscles is left unused, collecting on artery walls and contributing to heart disease.</p>	<b>21</b>
<b>Psychological Effects of Stress</b>	<p>Explain that generally, the first indications a person may have of stress overload are certain feelings, like irritability or worrying. If the person pays attention to these feelings and takes action to reduce stress, the effects of stress will not continue. However, if the person ignores these initial warning signs and seeks no relief from stress, he or she will experience more psychological effects and probably begin to experience some of the physical effects discussed previously.</p>	<b>22</b>
<b>Psychological Effects of Stress</b>	<p>Explain that psychologically, continual stress may cause the following:</p> <ul style="list-style-type: none"> <li>• Irritability</li> <li>• Excessive worrying</li> <li>• Anxiety</li> <li>• Inability to relax</li> <li>• Forgetfulness</li> <li>• Disorganization</li> <li>• Inability to concentrate</li> <li>• Inability to complete tasks</li> <li>• Lack of energy</li> <li>• Trouble with relationships</li> <li>• Changed eating habits; over- or under eating with corresponding weight gain or loss</li> <li>• Use or increased use of alcohol and other drugs</li> <li>• Lowered self-esteem</li> </ul>	<b>23</b>



## Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress

	<ul style="list-style-type: none"> <li>• Feelings of discouragement</li> <li>• Excessive feelings of guilt or self-blame</li> <li>• Emotional overreaction, like exploding or crying without reason</li> <li>• Waking from sleep with a sense of doom</li> <li>• Disinterest with the world and life</li> <li>• Dissatisfaction with things that were previously satisfying</li> <li>• Tendency to avoid people and activities, even those that were previously enjoyed</li> <li>• Unexplained feelings of helplessness or hopelessness</li> <li>• Depression</li> </ul>	
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>24</b>
<b>Causes of Stress</b>	<p>Explain that causes of stress and levels of stress experienced under certain circumstances vary from person to person depending on their personalities and tolerance for different situations and experiences. For example, an outgoing person may find public speaking easy and enjoyable, while a shy person may find it difficult and frightening. On the other hand, the shy person may be quite content to study alone, while the outgoing person may find studying alone nerve-wracking. Neither of these people is better or worse than the other; they are simply two different people reacting differently to the same situations. Do not compare yourself with others when it comes to stress. What is important is that you understand what causes you stress and learn to manage it before the stress "mismanages" you.</p>	<b>25</b>
<b>Causes of Stress</b>	<p>Explain that personal habits can contribute to stress. Listed below are four negative personal habits. Do any apply to you?</p> <ul style="list-style-type: none"> <li>• Poor time management</li> <li>• Poor diet</li> <li>• Irregular sleep habits</li> <li>• Lack of exercise</li> </ul> <p>Explain that social activities create situations that can be very stressful for young people. Which apply to you?</p> <ul style="list-style-type: none"> <li>• Conflicts with family or friends</li> <li>• Peer pressure to use alcohol, tobacco, or drugs</li> <li>• Peer pressure to engage in a sexual relationship</li> <li>• Pressure to be popular</li> <li>• Lack of money</li> </ul>	<b>26</b>
<b>Causes of Stress</b>	<p>Explain that major life changes affect all people. Have you been effected by any of these major life changes recently?</p> <ul style="list-style-type: none"> <li>• Death in the family</li> <li>• Severe illness in the family</li> <li>• Parents' divorce</li> <li>• Parent remarries</li> <li>• Moving</li> <li>• Changing schools</li> </ul> <p>Explain that the environment can affect you mentally as well as physically and can create stress in your life. Are you currently being exposed to any of the following items?</p>	<b>27</b>

## Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress

	<ul style="list-style-type: none"> <li>• Air and noise pollution</li> <li>• Feeling confined</li> <li>• Overcrowding</li> <li>• Poor lighting</li> <li>• Uncomfortable temperature</li> <li>• Feeling unsafe in your neighborhood, home, or school</li> </ul>	
<b>Causes of Stress</b>	<p>Explain that personal responsibilities are placed on everyone at one time or another and can be very stressful. Are you experiencing any of the following items?</p> <ul style="list-style-type: none"> <li>• Participating in too many activities</li> <li>• Having unrealistic expectations of yourself</li> <li>• Constant deadlines.</li> <li>• Concern about grades</li> <li>• Concern about college and career decisions</li> <li>• Having to work and go to school</li> <li>• Having to care for younger brothers or sisters</li> </ul>	<b>28</b>
<b>Stress Strategies</b>	<p>Explain that there is no way to completely eliminate stress from life. In fact, as previously explained, a stress-free life would not even be desirable, because stress in reasonable amounts aids performance, creativity, and problem solving. Letting stress get out of hand, however, is a common problem in today's hectic world. Fortunately, once you recognize signs of 'stress overload' in yourself and identify its cause, you can either eliminate the source of stress or, if it is not possible to eliminate the stress, learn to manage the stress associated with it.</p>	<b>29</b>
<b>Stress Strategies</b>	<p>Explain that the best way to ensure stress does not get the best of you is to follow lifelong habits that promote mental and physical well-being. Getting plenty of sleep, eating well-balanced meals, and exercising regularly will help you cope better with stressful situations. Maintaining a positive outlook will help you face difficulties with more confidence. In addition to these common-sense approaches, the following can also promote well-being and prevent stress overload.</p> <ul style="list-style-type: none"> <li>• Manage your time with daily, weekly, and/or monthly schedules. In addition to scheduling time for school, study, extracurricular activities, and so on, make sure you allow enough time for sleep, unhurried meals, relaxation, and other things you enjoy.</li> <li>• Take care of your problems as soon as possible; avoiding them will not make them go away. The longer you put off dealing with a problem, the more anxious you will feel about it, and the more stress you will create for yourself.</li> <li>• Keep a journal of the situations you find stressful. For each situation, explain why you find it stressful, how you handled it, and whether or not you believe you could handle it better in the future.</li> <li>• Develop a hobby and/or participate regularly in an activity you enjoy.</li> </ul>	<b>30</b>
<b>Stress Strategies</b>	<ul style="list-style-type: none"> <li>• Take some time every day to do something you find relaxing—whether it is sitting quietly alone and thinking, talking with a good friend on the phone, or laughing at your favorite sitcom.</li> <li>• Talk over problems with people you trust and who you know are good listeners. Keeping all your thoughts and feelings to yourself can be very stressful. Although you may believe you can handle all your problems on your own, everyone needs at least one person in whom to confide.</li> <li>• Accept that throughout life you will encounter stressful situations that you cannot or should not avoid, but also recognize that you have control over how you approach and respond to those situations. For example, while Lucia dreads going to the dentist, she realizes it is important, and instead of</li> </ul>	<b>31</b>

## Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress

	<p>dwelling on how much she hates it, Lucia focuses on the benefits of dental care to her overall health and on how good her teeth will look and feel after the dental appointment. Approaching stressful situations positively and looking to the ultimate outcome of the situation can lower the amount of stress you experience.</p> <ul style="list-style-type: none"> <li>• When you do have a choice, do not participate in activities you find stressful and unrewarding. Often, young people will take part in activities because their friends do, they believe their parents want them to, or they just believe they must do it all. Only you know which activities are enjoyable and worthwhile to you, which bring you negative stress, and how many things you can do before getting overloaded. Be honest with yourself and with those who care about you in making decisions about participating in certain activities. If taking aerobics with your friends makes you feel more uptight than healthy and relaxed, and you would really rather get your exercise going for a walk alone, let your friends know how you feel and then do what is best for you.</li> <li>• Be prepared when you know you will have to face a stressful situation. For example, if you know that you must give a class presentation, plan for it and rehearse it until you feel comfortable with it. By preparing for it, you will be calmer during the time leading up to the presentation and will feel more confident when giving it.</li> <li>• Do not use tobacco, alcohol, or other drugs. Using drugs does not solve any problems and, more often than not, causes new ones.</li> <li>• Do not be overly self-critical; remember that making mistakes is part of the growing process and that learning from them will make you more successful in the future.</li> <li>• If you can, limit the number of changes you make in your life at any one time. For example, if in the same week that you start a new job after school, you also start getting up earlier each morning to jog before school, you are probably putting too much pressure on yourself. To limit your stress level, get used to the new routine of having an after-school job before you add anything else to your schedule.</li> <li>• Learn a relaxation technique like meditation, visualization, or deep breathing.</li> </ul>	
<b>Relaxation Techniques</b>	<p>Try using these relaxation techniques when you notice the warning signs of stress.</p> <p>Deep Breathing - Explain that to relax through deep breathing, follow these steps:</p> <ol style="list-style-type: none"> <li>1. While closing your eyes, take a deep breath in through your nose so that your abdomen expands.</li> <li>2. Slowly exhale through your mouth, letting all the air out of your lungs and allowing your stomach to contract.</li> <li>3. Repeat for 5 to 10 minutes.</li> </ol>	<b>32</b>
<b>Relaxation Techniques</b>	<p>The Worry Box - Explain that relaxing through “the worry box” can be done by following these steps:</p> <ol style="list-style-type: none"> <li>1. Start deep breathing.</li> <li>2. Visualize a box that has a lock and key.</li> <li>3. Imagine yourself putting all your worries and fears in the box, then closing the lid, and locking it with the key.</li> <li>4. Imagine yourself putting the key somewhere out of sight—like under a mattress or on the top shelf of a closet—and, therefore, out of mind.</li> </ol>	<b>33</b>

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<b>Relaxation Techniques</b>	<p>Meditation - Explain that meditation can help you clear your mind and relax. To do so, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Find a quiet place where you can be alone for at least 10 minutes.</li> <li>2. Sit on the floor with your legs crossed. Some people put one or both of their feet up onto their inner thighs when meditating. Keep your back and neck straight. Relax your arms with your hands in your lap or on your knees—palms up or down, whichever feels most comfortable to you.</li> <li>3. Close your eyes and try to empty your mind. Many people do this by concentrating on their breathing or on a single word, image, or sound.</li> </ol>	<b>34</b>
<b>Relaxation Techniques</b>	<p>Quick Calming Response - Explain that to calm and center yourself quickly, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Turn inward and listen to a sound or word that you find relaxing and choose to use when stress overload hits.</li> <li>2. As you repeat the sound or word inside yourself, slowly take deep breaths in and out, visualizing the release of the “tense air” from your body with each exhaled breath.</li> </ol>	<b>35</b>
<b>Relaxation Techniques</b>	<p>Progressive Relaxation - Explain that to try progressive relaxation, do the following:</p> <ol style="list-style-type: none"> <li>1. Sit or lie down in a comfortable position and begin deep breathing.</li> <li>2. As you inhale, tighten the muscles in your head and neck area.</li> <li>3. Relax the tensed muscles as you slowly exhale.</li> <li>4. Continue with all parts of your body, working your way from head to foot.</li> </ol>	<b>36</b>
<b>Letting off Steam</b>	<p>Explain that at times, stressful situations can make you feel frustrated and angry. To keep the stress from getting the better of you and possibly “losing your cool,” try the following:</p> <ul style="list-style-type: none"> <li>• Take several deep breaths, releasing tension with each exhale</li> <li>• Close your eyes and visualize yourself in a calming situation or place</li> <li>• Take a break; if possible, remove yourself from the problem or situation until you feel more relaxed and under control</li> <li>• Analyze the importance of the situation. Does it really matter if someone cuts you off in traffic or bumps into you and does not excuse him or herself? Is it worth feeling angry about or wasting your time and energy on? Is it better just to forget it and move on?</li> <li>• If something is important to you and you can take action, confront the person or situation calmly. If it is not possible to confront the person or problem directly, let off steam, depending upon the situation, by either talking to someone you trust or writing an angry letter, then throwing it away</li> <li>• Work off tension with a physical activity, like screaming into a pillow, taking a walk, or lifting weights</li> </ul>	<b>37</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>38</b>
<b>Stress and Leadership</b>	<p>Explain that as a leader, you should learn to manage your own stress effectively, so that you do not create a negative environment for your followers. Recognize that your behavior can directly affect the stress level of your group of cadets. Stress in groups can be increased to counterproductive and unhealthy levels when leaders</p> <ul style="list-style-type: none"> <li>• Act unpredictably</li> <li>• Constantly find fault with their followers, which eats away at their followers’ self-esteem and results in increased anxiety</li> </ul>	<b>39</b>

## Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress

	<ul style="list-style-type: none"> <li>• Set up win-lose situations in which either they are right and their followers are wrong or vice versa</li> <li>• Demand too much or too little of their followers</li> </ul>	
<b>Stress and Leadership</b>	<p>Explain that leaders can keep a group's stress to healthy levels by</p> <ul style="list-style-type: none"> <li>• Allowing some participation in the decision-making process, which creates a feeling of trust and usefulness in followers, and promotes team spirit and cooperation within the group</li> <li>• Giving credit where it is due and praise when warranted</li> <li>• Offering constructive criticism when necessary</li> <li>• Having a good working knowledge of the tasks the group needs to perform</li> <li>• Monitoring and tracking tasks as they are performed and offering guidance when necessary.</li> </ul>	<b>40</b>
<b>Stress and Leadership</b>	<p>Explain that as a leader, you must also be aware of any indications that cadets are feeling or acting "stressed out." If you realize someone is showing signs of stress, let them know that you have noticed they have not been themselves lately, or ask if everything is okay with them. Your concern will probably encourage them to talk to you about how they are feeling, and just the fact that they are talking about it and you are listening can help to relieve their stress.</p>	<b>41</b>
<b>Depression</b>	<p>Explain that people often say, "Oh, I'm so depressed," when they are having a bad day or because some unhappy event has recently occurred. Sadness and grief are normal reactions to certain events in life. A person who is having a passing blue mood is not truly depressed. For minor low moods, stimulating or enjoyable activities, like running or reading a good book, are often all that is needed to raise a person's spirits.</p>	<b>42</b>
<b>Depression</b>	<p>Explain that major depression, on the other hand, is a serious illness that requires treatment. It affects the whole body and involves thoughts, feelings, bodily functions, and behaviors. Most people usually recover from bad events in life after a reasonable amount of time; depressed people do not. And while some cases of depression can be traced to a specific stressful experience, other cases of depression seem to have no apparent reason for occurring.</p> <p>Explain that an episode of depression can occur once in a person's life or many times. A depressed person's symptoms may last for months, years, or a lifetime. Depression can be so severe that the person cannot function at all. Some people who are chronically depressed are able to function but never feel really well, content, or happy. They may be unaware that they are even depressed because they are so used to feeling that way.</p>	<b>43</b>
<b>Depression</b>	<p>Explain that depending on the individual and the severity of the illness, a depressed person will experience a variety of these symptoms to different degrees. Note that many of these symptoms are similar to symptoms of stress.</p> <ul style="list-style-type: none"> <li>• Constantly feeling sad or "empty"</li> <li>• Feeling hopeless, worthless, and helpless</li> <li>• Unable to make decisions, remember things, or concentrate</li> <li>• Loss of interest in normally pleasurable activities</li> <li>• Irritability</li> <li>• Disinterest in school, at home, and in other activities</li> <li>• Not caring about appearance</li> <li>• Avoiding people; staying alone most of the time</li> <li>• Problems falling asleep and then problems getting up</li> <li>• Loss of appetite</li> </ul>	<b>44-45</b>

## Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress

	<ul style="list-style-type: none"> <li>• Feeling tired and “slowed down” all the time</li> <li>• Chronic aches and pains and digestive problems</li> <li>• Frequent thoughts of death and/or suicide</li> <li>• Suicide attempts</li> </ul>	
<b>Depression</b>	Explain that it is important to remember that depression is a real illness and not caused by personal weakness. Potential for developing some kinds of depression may be inherited, and therefore, biologically related. For instance, manic-depressive illness seems to occur in people whose genetic makeup is different than those who do not become ill; however, not everyone who is genetically predisposed to manic depression will become ill. This suggests that other factors, such as stress, also play a role in the development of the disease.	<b>46</b>
<b>Depression</b>	Explain that as with stress, physically active people who eat well and get plenty of sleep tend to feel less depressed than people with less healthy lifestyles. Therefore, if you are feeling mildly depressed, take a look at your current eating, sleeping, and exercise habits and try to make some changes there. In addition, do things you enjoy, try something different that you have always wanted to do, talk to friends, spend time outside because the color green and the sun are known to boost spirits, and try not to pressure or push yourself for a while.	<b>47</b>
<b>Depression</b>	Explain that likewise, if you know someone who is exhibiting signs of depression, take the time to listen to how they are feeling and offer them your support. Give them the suggestions listed above for lifting their spirits and breaking out of negative habits. Be patient. Often, depressed people are not fun to be around and may even try to push you away, but they really need a friend to understand and encourage them to try to make some changes.	<b>48</b>
<b>Depression</b>	Explain that if after giving these suggestions a try, you think his or her depression is worsening or becoming long-term, encourage your friend to seek help. Likewise, if you yourself are depressed and believe it is worsening and continuing, seek help. Doctors, psychologists, counselors, mental health clinics, hospitals, family services, social agencies, and private clinics are among the many people and places that offer help for all types of emotional disorders, including depression.	<b>49</b>
<b>Anxiety</b>	Explain that anxiety is a feeling that everyone experiences occasionally when dealing with things they fear or worry about. Unlike depression, which makes people feel tired and unenergetic, anxiety makes people feel nervous and energetic, almost as if they cannot sit still. Like stress, anxiety in small amounts and for short durations can be beneficial. It can give you a spurt of energy and sharpen your mind. Too much anxiety, however, can be harmful and lessen your ability to perform. For example, while a little anxiety before giving a speech can heighten your powers of recall, projection, and expression, too much anxiety can make you freeze, forgetting information and stammering through the presentation.	<b>50</b>
<b>Anxiety</b>	Explain that to keep anxiety from getting the best of you, admit to yourself those things you fear and/or worry about. Then, when you know you will have to deal with one of them, make sure you are thoroughly prepared for it: practice for the speech, study for the test, rehearse the dance routine, work out faithfully before the big meet, and so forth. Being unprepared will only fuel your anxiety. When you start to worry or feel afraid, remind yourself that it is a waste of your energy, then visualize yourself doing well instead. Prior to the event or situation, focus on its positive outcomes, use the relaxation techniques discussed previously, and avoid caffeine, which only increases anxiety.	<b>51</b>

## Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress

	Explain that although it is normal to be mildly anxious about something frightening or worrisome, feeling anxious without a specific reason can indicate an anxiety disorder. When a person experiences anxiety over a long period of time that is related to so many worries and fears that the anxiety has become generalized, the person is suffering from free-floating anxiety. Often, the effects of free-floating anxiety are the same as stress overload.	
<b>Anxiety</b>	Explain that when a person experiences anxiety attacks, which are strong, sudden attacks of anxiety for no apparent reason that last only a few minutes, he or she feels panic and extreme stress accompanied by dizziness, faintness, rapid heartbeat, excessive perspiration, and nausea. A person having an anxiety attack is not able to function until the attack passes. Some people have severe anxiety attacks so frequently that they are constantly fearful and unable to cope with many things in life. People suffering from excessive anxiety, whether free floating or anxiety attacks, should seek help from a counselor who can help them reduce or learn to deal with their anxiety.	<b>52</b>
<b>Conclusion</b>	Explain that humans experience a wide range of emotions and not all of them are pleasant. Yet, even certain uncomfortable emotions such as stress and anxiety are beneficial in small doses. Sometimes, though, because of hectic, harried schedules and pressures to do too many things or things we do not necessarily enjoy, stress can get out of hand. When you start feeling and showing warning signs of stress overload, step back and take a look at what is going on in your life. Ask yourself what is causing your symptoms of stress, then take care of it or reduce the stress you associate with it.	<b>53</b>
<b>Conclusion</b>	Explain that meanwhile, to be prepared for the stressful events that will surely pop up throughout your life, maintain a healthy lifestyle so that you are better able to handle whatever life throws your way. Keep negative stress and anxiety at bay by doing things you enjoy, learning ways to relax, and thinking positively.	<b>54</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>55</b>
<b>Review Question</b>	The Review Question is “List 2-3 results of poor sanitation.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>56</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>57</b>

## **Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress**

### III. Supplemental Activities -

#### A. In Class Activity:

Supplies required: Handout “How Does Your Body React to Stress?”

When: At the end of the class period

- In class: Copy and distribute the “How Does Your Body React to Stress?” hand out. Cadets fill out the inventory on their own. Compile information as a class recording the most common stress symptoms.

For example:

Heart rate: 6 of 20 said this was in their top three stress symptoms

#### B. Homework Activity: Cadets use the class data to make a bar graph titled “The Most Common Stress Symptoms”

A variation would be to have some students make a bar graph as to the most common ways to relieve stress.



Tech Tip:

Cadets can use an online bar graph maker such as [Create a Graph](#).

### IV. Evaluation - see CPS database for chapter test questions.



## **Chapter 8 / Section 1: NS1-U5C8S1 – Understanding and Controlling Stress**

### Activity1: In Class Activity – How Does Your Body React to Stress

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

When life gets stressful, we have physical reactions to that stress. This is called the “fight or flight” response. Which of these reactions do you have when you experience stress? Circle the word that best describes how often you have each symptom of stress. Put a star next to your top three reactions to stress.

Symptom of Stress	Frequency of Symptom			
Heart rate increases	Often	Sometimes	Rarely	Never
Breathing becomes shallow	Often	Sometimes	Rarely	Never
Nausea	Often	Sometimes	Rarely	Never
Dizziness	Often	Sometimes	Rarely	Never
Sweaty Palms	Often	Sometimes	Rarely	Never
Dry Mouth	Often	Sometimes	Rarely	Never
Cold Hands	Often	Sometimes	Rarely	Never
Sick to Stomach	Often	Sometimes	Rarely	Never
Hard to Swallow	Often	Sometimes	Rarely	Never
Headache	Often	Sometimes	Rarely	Never
Difficulty Concentrating	Often	Sometimes	Rarely	Never
Sleeplessness	Often	Sometimes	Rarely	Never
Anger	Often	Sometimes	Rarely	Never
Feeling Overwhelmed	Often	Sometimes	Rarely	Never
Food Cravings	Often	Sometimes	Rarely	Never
Uncontrollable Crying	Often	Sometimes	Rarely	Never
Appetite Decreases	Often	Sometimes	Rarely	Never
Pacing the Floor	Often	Sometimes	Rarely	Never
Feeling Hopeless	Often	Sometimes	Rarely	Never

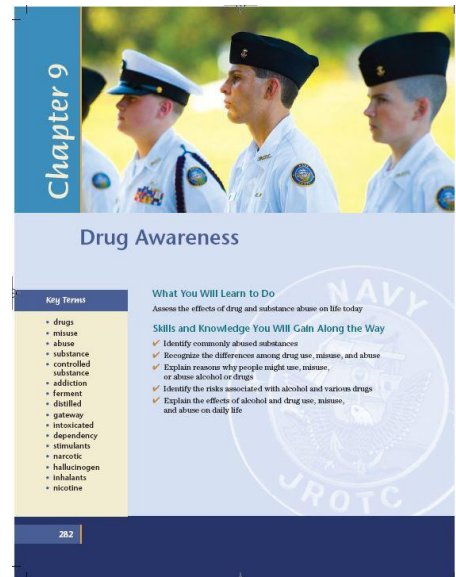
## **Unit 5 Chapter 9: NS1-U5C9 – Drug Awareness**

### **What Students Will Learn to Do:**

Assess the effects of drug and substance abuse on life today

### **Skills and Knowledge to be Gained:**

1. Identify commonly abused substances
2. Recognize the differences among drug use, misuse, and abuse
3. Explain reasons why people might use, misuse, or abuse alcohol or drugs
4. Identify the risks associated with alcohol and various drugs
5. Explain the effects of alcohol and drug use, misuse, and abuse on daily life



### **Standards Linked in this Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading and Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says ...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...
- W.9-10.3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

#### **National Health Education Standards 9-10 (NHES)\*\***

- NHES Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- NHES Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- NHES Standard 3: Students will demonstrate the ability to access valid information, products, and services to enhance health.

## **Unit 5 Chapter 9: NS1-U5C9 – Drug Awareness**

- NHES Standard 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- NHES Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health.
- NHES Standard 8: Students will demonstrate the ability to advocate for personal, family, and community health.

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor's Guide.

## **Chapter 9 / Section 1: NS1-U5C9S1 – Drug Use, Misuse, and Abuse; Alcohol**

(Section 1 of 3)

### **What Students Will Learn to Do:**

Assess the effects of drug and substance abuse on life today

### **Skills and Knowledge to be Gained:**

1. Identify commonly abused substances
2. Recognize the differences between drug use, misuse and abuse
3. Explain reasons why people might use, misuse, or abuse alcohol and/or drugs
4. Identify the risks associated with the use of alcohol and various drugs

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Introduction	Drug Use, Misuse, and Abuse	What Can You Do to Remain Drug-Free?	Why do People Abuse Drugs?
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Alcohol	Alcohol Statistics	Alcohol's Effects on the Body	Check On Learning A	Long-Term Effects	Check on Learning B	Short-Term Effects	Blood Alcohol Concentration (A)	Drinking And Driving
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Blood Alcohol Concentration (B)	Behavioral Effects	Alcoholism	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction :**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 5, Chapter 9. Place a checkmark beside the NS1-U5C9S1 PowerPoint presentation, and these two CPS question deck files:  
NS1-U5C9S1 - Key Terms and NS1-U5C9S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

#### **II. Instructional Flow:**

## Chapter 9 / Section 1: NS1-U5C9S1 – Drug Use, Misuse, and Abuse; Alcohol

<u>Flow Item</u>	<u>Textbook Content / Student Engagement and Assessment</u>	<u>Slides</u>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>This lesson will teach you the effects substance abuse could have on your life and health. You will learn to identify commonly abused substances and to recognize how drug use, misuse, and abuse are different. You will also learn some reasons for substance abuse, the risks and effects of alcohol, drug and other substance abuse on daily life.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-7</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 things you can do that would likely result in your remaining drug –free.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on drug use, misuse, abuse, and alcohol abuse.	<b>8</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>9</b>
<b>Introduction</b>	Explain that data presented by the <i>Teen Get Going</i> website ( <a href="http://www.teengetgoing.com">www.teengetgoing.com</a> ) advocated by the JROTC program notes that teen alcohol and drug trends suggest that 90 percent of teens will “use” alcohol and/or other drugs during adolescence. Fifty percent of teens will abuse alcohol and/or drugs, and 15 percent will become addicted while still in adolescence. This chapter presents the latest information about alcohol and drugs, defines drugs, and explains the difference between drug use, drug misuse, and drug abuse. You will learn several types of drugs that people abuse, the respective side effects and indications of overdose.	<b>10</b>
<b>Drug Use, Misuse, and Abuse</b>	Explain that used under proper conditions, drugs can relieve pain, cure illness, and save lives. When abused, however, drugs can ruin lives and even cause death.	<b>11</b>
<b>Drug Use, Misuse, and Abuse</b>	<p>Think about the word <i>drug</i> for a moment. The word can bring many images to mind, such as over-the-counter pain reliever to stop a headache, a news report about someone who was arrested for cocaine possession, a prescription for antibiotics from your doctor, a drug-related death reported on the front page of the paper, medical research to develop drugs to cure illnesses, the war on drugs, and so on. So exactly what is a <i>drug</i>?</p> <p>Explain that broadly defined, a drug is any substance taken into the body that changes how the body functions, whether mentally or physically. This includes medications used for the prevention and treatment of disease, as well as any controlled substance to which a person can become addicted. Whether or not a drug is legal or illegal is no</p>	<b>12</b>

## Chapter 9 / Section 1: NS1-U5C9S1 – Drug Use, Misuse, and Abuse; Alcohol

	<p>indication of its addictive qualities. For example, nicotine, which is found in tobacco products, and alcohol are both addictive drugs. Simply because a drug has a medical purpose does not mean it is not addictive. Many medications, when misused or abused, can become addictive.</p>	
<b>Drug Use, Misuse, and Abuse</b>	<p>Explain that drug use is taking a legal drug as recommended or prescribed for medical reasons. Drug misuse is taking a legal drug for medical reasons but not as recommended or prescribed. For example, people who double the recommended dosage of a pain reliever because they think it will make their headache go away quicker are misusing a drug. Drug abuse is taking a legal or illegal drug for a nonmedical reason in a way that can injure your health or ability to function.</p>	<b>13</b>
<b>What Can You Do to Remain Drug-Free?</b>	<ul style="list-style-type: none"> <li>• Fill your life with activities and people you enjoy.</li> <li>• Believe in yourself.</li> <li>• Practice saying no before you are actually in a situation where someone offers you drugs, so you will not hesitate to say no when the time comes.</li> <li>• Think through the consequences of abusing drugs. Where will drugs lead you in life? How long will your body remain healthy if you abuse drugs? How can drug abuse affect your future plans?</li> <li>• Remember that drug abuse does not solve problems; it creates them.</li> </ul>	<b>14</b>
<b>Why do People Abuse Drugs?</b>	<p>Explain that some people try drugs out of curiosity or as an act of rebellion. Others cannot resist the peer pressure to try drugs. After people have tried a drug, whether or not they continue to abuse it depends on their individual personalities and situations and on the kind of drug abused.</p> <p>Explain that most drugs that people abuse produce feelings of pleasure and well-being. When people are unhappy, lonely, stressed, or are missing something in their lives such as friends, love, or satisfying work, they may abuse drugs to avoid their problems or fill a void. But when the effects of the drug wear off, they realize the problems and the voids are still there. So they turn to the drug again.</p>	<b>15</b>
<b>Why do People Abuse Drugs?</b>	<p>Explain that this cycle is what leads to addiction. It's a trap that can ruin a person emotionally, socially, economically, legally, and physically. Some drugs are far more addictive than others. For example, a first-time user of crack cocaine has a 1 in 3 chance of becoming an addict. This is why it is important to stop before you ever start taking drugs.</p> <p>Explain that many people take drugs without knowing what effect they have on the mind and body. Knowing ahead of time what a drug can do is often enough to convince a person not to try it, especially if one of the potential dangers of abusing a drug is death.</p>	<b>16</b>
<b>Alcohol</b>	<p>Explain that alcohol, which is legal for those 21 years of age and older, is the most widely consumed and abused drug in the United States. It is socially acceptable in our society for adults to drink in moderation. In excess, however, alcohol is a dangerous drug. Drinking and driving remains the number one cause of death among high school students. Heavy alcohol use kills about 50 high school and college students each year because of alcohol poisoning.</p>	<b>17-18</b>
<b>Alcohol Statistics</b>	<ul style="list-style-type: none"> <li>• Ninety percent of teenage automobile accidents involve alcohol</li> <li>• Drinking and driving accidents are the leading cause of death among 15- to 24-year-olds</li> <li>• Seventy percent of teenage suicide attempts involve alcohol</li> </ul> <p>Explain that alcohol is a natural substance formed when sugar and yeast react and ferment. Some alcohols are distilled; other are simply fermented.</p>	<b>19-20</b>

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<b>Alcohol Statistics</b>	<p>Explain that alcohol is a drug; it is a depressant that is absorbed into the bloodstream and transmitted to virtually all parts of the body. Many people don't realize that alcohol is a drug. Some hold the view that experimentation with or use of alcohol is normal or acceptable behavior. However, the use of alcohol can cause alcohol addiction and often progresses to further drug abuses. Accordingly, some experts attach the term <i>gateway</i> to this substance. The use of drugs such as cocaine and heroin is unusual in those who have not previously used alcohol.</p> <p>Explain that alcohol abuse can cause serious chemical dependencies, harmful physical and psychological effects, and much suffering by family and friends. As awareness of these ill effects reaches new heights, more and more Americans are joining forces every day to fight alcohol abuse.</p>	<b>21</b>
<b>Alcohol Statistics</b>	Explain that when a person drinks alcohol, it follows the same pathway through the digestive system as does food. Unlike food, however, alcohol does not have to be digested by the stomach to be absorbed into the blood. After alcohol reaches the blood, it is circulated throughout the body and affects all parts, including the brain and the rest of the nervous system.	<b>22-23</b>
<b>Alcohol's Effects on the Body</b>	<p>Explain that the effects of ethyl alcohol (ethanol) on the human body can range greatly depending on the:</p> <ul style="list-style-type: none"> <li>• Size of the individual</li> <li>• How empty the stomach is at the time of alcohol consumption</li> <li>• State of health and fatigue</li> <li>• Mental attitude</li> <li>• Speed and amount of consumption.</li> </ul>	<b>24</b>
<b>Alcohol's Effects on the Body</b>	Explain that it is also important to note that the three most common types of alcoholic drinks—beer, liquor, and wine—contain the same amount of alcohol. Although alcohol may make a person feel “high,” alcohol is actually a “downer” drug. Alcohol slows down or depresses the central nervous system, causing slowed reactions, slurred speech, impaired coordination and judgment, and sometimes unconsciousness. Because alcohol affects reaction time, coordination, and judgment, people under its influence are more accident prone and less likely to make wise decisions. For these reasons, drinking and driving are a very dangerous and illegal combination.	<b>25-26</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>27</b>
<b>Long-Term Effects</b>	Explain that the long-term effects of alcohol abuse include alcoholism; cancers of the liver, stomach, colon, larynx, esophagus, and breast; high blood pressure; heart attacks; strokes; stomach ulcers; birth defects; premature aging; and a diminished immunity to disease due to non-function of infection-fighting cells. In men, hormone levels change, causing lower sex drives and enlarged breasts; women's menstrual cycles become irregular, possibly resulting in infertility.	<b>28</b>
<b>Long-Term Effects</b>	Explain that the list of effects goes on to include shrinking of the muscles, including the heart; kidney, bladder, and pancreas damage; brain damage affecting vision and memory; depression; and mental illness. Obviously, long-term damage from alcohol abuse can be irreversible and result in death.	<b>29</b>
<b>Long-Term Effects</b>	Explain that when the body becomes accustomed to or builds up a resistance to a drug, the body has developed tolerance to the drug. Tolerance causes a drinker's body to need increasingly larger amounts of alcohol to achieve the effect that was originally produced.	<b>30</b>

## Chapter 9 / Section 1: NS1-U5C9S1 – Drug Use, Misuse, and Abuse; Alcohol

	Explain that when the body develops a resistance to a drug and requires the drug to function normally, dependence occurs. The drinker's body develops a chemical need for alcohol. Dependence occurs as tolerance builds. Dependence is also called addiction.	
<b>Long-Term Effects</b>	Explain that a dependent person who stops taking a drug will suffer from withdrawal. The signs of alcohol withdrawal include shakiness, sleep problems, irritability, rapid heartbeat, and sweating. The drinker also may see, smell, or feel imaginary objects.	<b>31</b>
<b>Long-Term Effects</b>	Explain that the major psychological symptom of dependence is a strong desire or emotional need to continue using a drug. This need is often associated with specific routines and events. For example, some people drink whenever they face a difficult task or when they feel angry about something.	<b>32</b>
<b>Long-Term Effects</b>	<p>Explain that long-term alcohol abuse destroys nerve cells in the brain. Destroyed nerve cells usually cannot grow again. The loss of many nerve cells causes forgetfulness, an inability to concentrate, and poor judgment. These losses interfere with normal everyday functions.</p> <p>Explain that heavy drinkers often develop alcoholic hepatitis, or inflammation of the liver, caused by the toxic effects of alcohol. Hepatitis causes weakness, fever, yellowing of the skin, and enlargement of the liver. Recovery may take weeks. Sometimes hepatitis can lead to liver failure and even death.</p>	<b>33</b>
<b>Long-Term Effects</b>	Explain that ongoing drinking irritates the tissues lining the mouth, throat, esophagus, and stomach. The irritation can cause the tissues to swell and become inflamed. Repeated irritation increases the risk of cancers of the mouth, tongue, esophagus, and stomach. Alcohol also affects the intestines and can cause recurring diarrhea. Large amounts of alcohol cause the stomach to produce too much stomach acid. The overproduction of acid may lead to indigestion, heartburn, or ulcers.	<b>34</b>
<b>Long-Term Effects</b>	Explain that alcohol interferes with the liver's ability to break down fats. As a result of heavy drinking, the liver begins to fill with fat. The excess fat blocks the flow of blood in the liver, and the fat-filled liver cells die. Cirrhosis of the liver is a disease in which useless scar tissue replaces normal liver tissue. Because there is no blood flow in the scarred area, the liver begins to fail. Heavy drinkers suffering from cirrhosis may have high blood pressure, get infections easily, have swelling of the abdomen, and show a yellowing of the skin and eyes. Cirrhosis is the last stage of liver disease and can result in death.	<b>35-36</b>
<b>Long-Term Effects</b>	Explain that excessive drinking contributes to increased blood pressure and heart rate, and irregular heartbeat. These problems can cause disruption in blood flow and possible heart damage. Also, alcohol causes fat to be deposited in heart muscle. Fatty heart muscle, in turn, causes the heart to pump blood through the body less efficiently. Alcohol abuse leads to heart disease, the leading cause of death in the United States.	<b>37</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>38</b>
<b>Short-Term Effects</b>	<p>Explain that the short-term effects of alcohol include those that happen within minutes, and sometimes within days, of drinking alcohol. Figure 9.1 identifies the short-term effects of alcohol on the body.</p> <p>Explain that when alcohol enters the blood, it causes the blood vessels to widen. More</p>	<b>39</b>



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	blood flows to the skin's surface. The drinker feels warm for a short time as the skin flushes; however, the drinker's body temperature drops as the increased blood flow to the surface allows body heat to escape. People who drink alcohol in cold weather to get warm actually accomplish the opposite.	
<b>Short-Term Effects</b>	Explain that after reaching the brain, alcohol immediately has a depressant effect and slows the speed of some brain activities. People who drink alcohol may describe the change as relaxing. What they actually experience are physical changes such as a loss of sensation and a decrease in sharpness of vision, hearing, and other senses. Alcohol also affects the parts of the brain that control muscle coordination, which is why drinkers may lose their balance or stumble.	<b>40</b>
<b>Short-Term Effects</b>	Explain that if drinking continues, alcohol depresses the part of the brain that controls breathing and heartbeat. Breathing rates, pulse rates, and blood pressure, which initially increased, now decrease. A drinker may lose consciousness, slip into a coma, or die from alcohol poisoning.  Explain that heavy drinkers and many first-time drinkers may suffer blackouts. Blackouts are periods of time that the drinker cannot recall. Other people recall seeing the drinker talking, walking, and in control. The following day, however, the drinker has no memory of some events from the day before.	<b>41</b>
<b>Short-Term Effects</b>	Explain that in the bloodstream, alcohol is carried to the liver. The liver chemically breaks down alcohol into energy and the waste produces carbon dioxide and water. The carbon dioxide is released from the body in the lungs. The water passes out of the body as breath vapor, perspiration, or urine. When people drink alcohol faster than the liver can break it down, they become intoxicated.  Explain that alcohol prevents the release of body chemicals that regulate how much urine the kidneys make. The kidneys produce more urine than usual, and the drinker loses more water than usual. The drinker becomes very thirsty. In extreme cases, a drinker may lose water needed for the body to function properly.	<b>42</b>
<b>Short-Term Effects</b>	Explain that almost half of the fatal crashes and about two-thirds of all crashes involving personal injury in the United States are related to alcohol use. In addition, more than one-third of accidents involving pedestrians who are struck and killed by motor vehicles are caused by drunk drivers.  Explain that driving while intoxicated is illegal in all of the 50 states. Driving while intoxicated means a driver exceeds the level of blood alcohol concentration allowed by law in a state. Drivers who cause motor-vehicle crashes usually undergo blood, urine, breath, or saliva tests to determine their blood alcohol concentration. If their BAC is above the legal limit, drunk drivers can have their driver's license taken away and can be prosecuted.	<b>43</b>
<b>Short-Term Effects</b>	Explain that some drugs can interact to produce effects that are many times greater than the individual drugs would produce. When drugs increase each other's effects when taken together, the interaction is called synergism.  Explain that as previously stated, alcohol is generally a depressant drug. When a person drinks alcohol and takes another depressant, such as sleeping pills, the combination can cause drastic changes in the body. Together the depressants' effects are more than doubled and can cause a dangerous slowing of breathing and heart rates. In extreme cases, synergism of alcohol and other depressants can lead to coma or death.	<b>44</b>

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<b>Short-Term Effects</b>	Explain that taking an excessive amount of a drug that leads to coma or death is called an overdose. Severe intoxication causes the heart and breathing to stop, resulting in death from alcohol overdose. Many drinkers assume that they will pass out before drinking a fatal amount. This is not necessarily true. Alcohol continues to be absorbed into the blood for 30 to 90 minutes after the last drink. The drinker's BAC can increase even if the drinker becomes unconscious. First-time drinkers who participate in a drinking contest may die from alcohol poisoning.	<b>45</b>
<b>Blood Alcohol Concentration</b>	<p>Explain that the amount of ethanol in a person's blood is expressed by a percentage called the blood alcohol concentration (BAC). BAC measures the number of milligrams of ethanol per 100 milliliters of blood. A BAC of 0.1 percent means that one-tenth of 1 percent of the fluid in the blood is ethanol. A BAC of 0.1 percent reduces a person's muscle coordination, perception, and judgment.</p> <p>Explain that a variety of factors can affect a person's BAC, including the following:</p> <ul style="list-style-type: none"> <li>• Gender</li> <li>• Age, weight, and height</li> <li>• Amount of food in the stomach</li> <li>• Concentration of alcohol in beverages consumed</li> <li>• Volume of alcohol consumed</li> <li>• Rate of consumption and absorption.</li> </ul>	<b>46</b>
<b>Blood Alcohol Concentration</b>	Explain that the rate at which a person's liver can break down alcohol is fairly constant. In one hour, the liver can break down the amount of ethanol in a can of beer, a shot of liquor, or a glass of wine. Thus, someone who has three cans of beer in the last 45 minutes of a 3-hour party will become more intoxicated than someone who drinks those three cans of beer over the three-hour period. The effects of BAC on the body are shown in Figure 9.2.	<b>47</b>
<b>Drinking and Driving</b>	<p>Discuss the following "Drinking and Driving" scenario. :</p> <p><i>Janelle attended a party with some of her friends. She planned to get a ride home with Dave but had seen him drink four beers since arriving. Dave was showing signs of intoxication. Janelle wasn't sure he should drive. Unfortunately she didn't know anyone else at the party who could give her a ride, and she knew that her parents had gone out with friends for the evening. Besides, three of her friends were also getting a ride from Dave. She thought she might be over-reacting and thought, "What could happen in the few miles to my house?"</i></p>	<b>48</b>
<b>Drinking and Driving</b>	<p>Do you use the DECIDE Process?</p> <p><b>DEFINE</b> the problem  <b>EXPLORE</b> alternatives  <b>CONSIDER</b> consequences  <b>IDENTIFY</b> values  <b>DECIDE</b> and act  <b>EVALUATE</b> results</p> <p>Explain and use the DECIDE process to decide what you would do if you were in Janelle's position – then explain your decision. What role might peer pressure play in influencing her decision? Suggest a realistic plan that you and your friends could use to avoid a similar situation.</p>	<b>49</b>

## Chapter 9 / Section 1: NS1-U5C9S1 – Drug Use, Misuse, and Abuse; Alcohol

<b>Blood Alcohol Concentration</b>	<p>Explain that provided the person does not continue to drink, the BAC decreases. The intoxicating effects of alcohol slowly diminish. As reflexes and coordination return to normal, a person gradually becomes steadier. Many people refer to this process as “becoming sober” or “sobering up.”</p> <p>Explain that you may have heard that cold showers, exercise, fresh air, or coffee will help a person sober up more quickly. But this is not true. Nothing can speed up the liver’s ability to break down alcohol. Coffee or fresh air may keep a person awake, but they do not eliminate the intoxicating effects of alcohol.</p>	<b>50</b>
<b>Behavioral Effects</b>	<p>Explain that in addition to the physical effects of alcohol, certain behavioral, or learned effects are connected to drinking. A person’s mood and reason for drinking can alter the effects of alcohol. Sometimes the person’s mood and reason for drinking make the effects stronger; sometimes they make the effects weaker. The environment in which alcohol is consumed may influence its effects as well.</p> <p>Explain that at a quiet family dinner, family members may consume wine with no negative effects. The calm nature of the event and the fact that both parents and children expect each other to behave politely creates an environment in which people drink responsibly.</p>	<b>51</b>
<b>Behavioral Effects</b>	<p>Explain that at a party in which “getting drunk” is the main theme, alcohol consumption often leads to negative behaviors. The loss of coordination may be exaggerated for comic effect. People who have been drinking may insist that they are still perfectly able to drive. They may not want to admit that they cannot drink as much as others.</p> <p>Explain that as alcohol takes effect, drinkers begin to lose judgment and self-control. At the same time, alcohol decreases drinkers’ natural fears. When these two effects are combined, the person’s inhibitions are reduced. Inhibitions are the controls that people put on their emotions and behavior in order to behave in socially acceptable ways.</p> <p>Explain that after they lose their inhibitions, drinkers may behave in ways they normally would never consider. For example, a person under the influence of alcohol may express anger in violent or destructive ways. Shy people may behave in outgoing ways, and serious people may act foolishly.</p>	<b>52</b>
<b>Alcoholism</b>	<p>Explain that some drinkers cannot control their drinking. Their major goal in drinking is to get drunk. People who have an addiction to alcohol suffer from the disease of alcoholism. Psychologically, alcoholics consider drinking a regular, essential part of coping with daily life. Physically, an alcoholic’s body requires alcohol to function. An alcoholic’s drinking patterns eventually control every aspect of his or her life.</p> <p>Explain that no one is sure why some drinkers become alcoholics, but anyone who drinks even one drink is at risk of becoming an alcoholic. Because alcoholism tends to run in families, there appears to be some genetic basis for it. On the other hand, the attitudes in the home in which a person grows up may play a role in whether or not a person develops a drinking problem.</p>	<b>53</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>54</b>
<b>Review Question</b>	The Review Question is “ <i>List 2-3 results of poor sanitation.</i> ” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question	<b>55</b>

## Chapter 9 / Section 1: NS1-U5C9S1 – Drug Use, Misuse, and Abuse; Alcohol

	above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>56</b>

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: Alcohol Bubble Map

When: At the end of the lesson

- In Class: Copy and distribute the “Alcohol Bubble Map” handout. Have cadets fill out the thinking map adding bubbles as needed. Once completed, discuss items on the bubble maps such as:

#### Reasons given to drink alcohol:

*Gives confidence*

*Help me fit in*

*It's a special occasion*

*Reduces stress*

*Curiosity*

*Religion*

*Taste*

#### Reasons given to not drink alcohol:

*Allergic*

*Calories*

*Against the Law*

*Cost*

*My parents wouldn't approve*

*Religion*

*Taste*

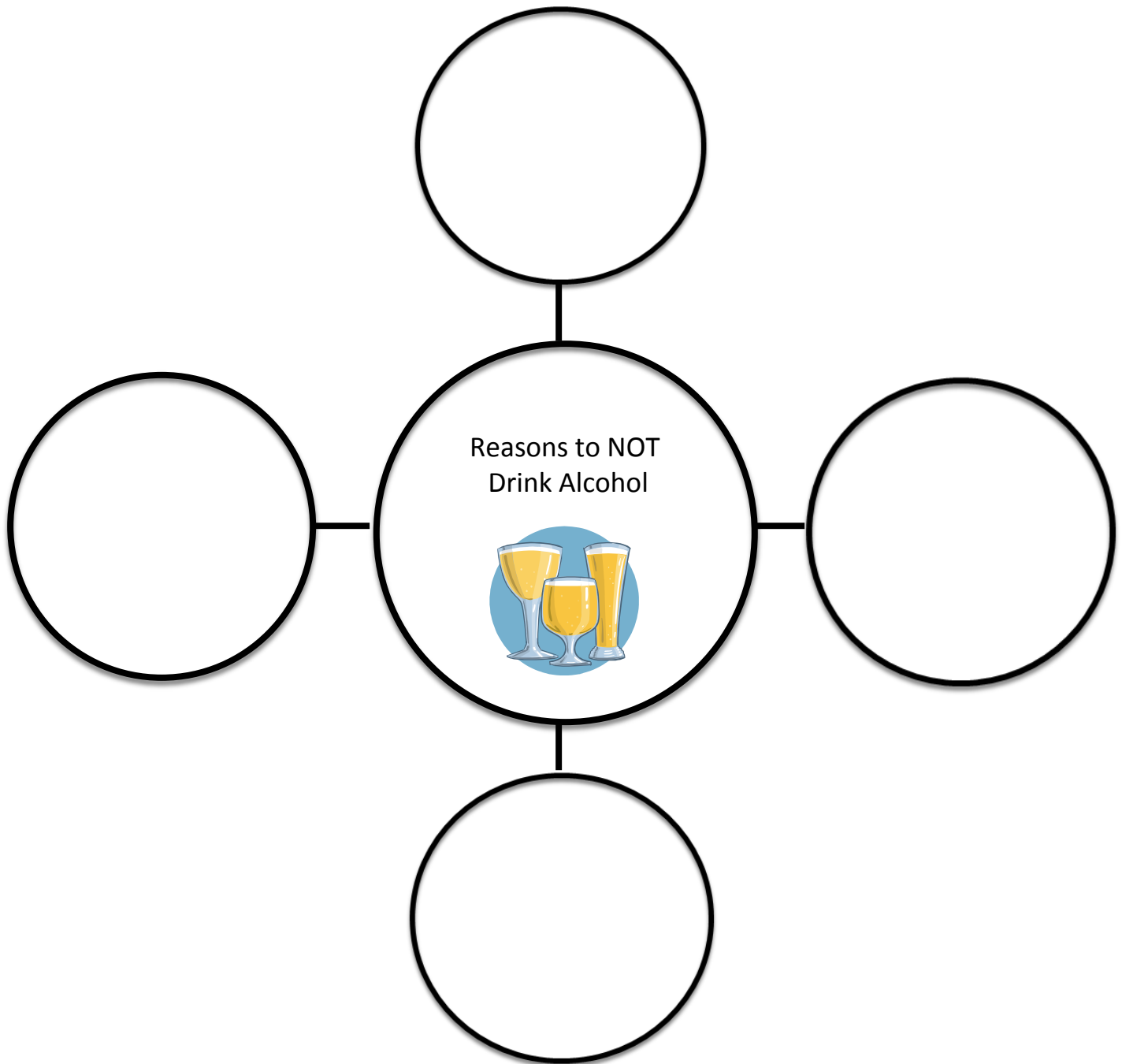
- B. Homework Activity: Using the bubble map activity, cadets write a paragraph with the title: “Why do most teenagers choose NOT to drink alcohol.”

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 9 / Section 1: NS1-U5C9S1 – Drug Use, Misuse, and Abuse; Alcohol**

Activity1: In Class and Take Home Activity – Drugs Part 1 – Alcohol Bubble Map

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_



## Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1

(Section 2 of 3)

### What Students Will Learn to Do:

Assess the effects of drug and substance abuse on life today

### Skills and Knowledge to be Gained:

1. Identify the risks associated with alcohol and various drugs
2. Explain the effects of alcohol and drug use, misuse and abuse on daily life

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Drugs	Marijuana	Check On Learning A	Cocaine, Crack, and Bazuco
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Amphetamines and Methamphetamine	Amphetamines	Methamphetamine	Check on Learning B	Barbiturates, Methaqualones, and Tranquilizers	Barbiturates	Methaqualone	Narcotics
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Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, chapter 9. Place a checkmark beside the NS1-U5C9S2 PowerPoint presentation, and these two CPS question deck files: NS1-U5C9S2 - Key Terms and NS1-U5C9S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

#### II. Instructional Flow:

## Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1

<u>Flow Item</u>	<u>Textbook Content / Student Engagement and Assessment</u>	<u>Slides</u>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>This lesson will teach you the effects substance abuse could have on your life and health. You will learn to identify commonly abused substances and to recognize how drug use, misuse, and abuse are different. You will also learn some reasons why people abuse substances, the risks of alcohol and various drugs, and the effects of substance abuse on daily life.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 things you can do that would likely result in your remaining drug –free.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on drugs.	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>Drugs</b>	<p>Explain that use, misuse, and abuse are terms thrown around quite a bit when talking about drugs. Use is taking a legal drug as prescribed or recommended for medical reasons. Misuse is taking a legal drug for medical reasons but not as recommended or prescribed. Abuse is taking any drug, legal or illegal, for a nonmedical reason in a way that can injure your health or ability to function. Taking drugs is a serious matter; there is no such thing as recreational drug use. Abusing drugs is not a sport or a hobby and always involves an unnecessary risk to your health.</p> <p>Explain that a drug is any chemical substance that changes the function of the mind or the body. Aspirin is a drug; allergy medication is a drug; marijuana is a drug; beer is a drug; the nicotine in cigarettes is a drug. A drug itself, is neither good nor bad. It is what a person does with a drug that defines substance abuse.</p>	<b>8</b>
<b>Drugs</b>	Explain that when people talk about drugs, you often hear that someone is a drug addict or that a drug can or cannot cause dependence. Addiction and drug dependence mean basically the same thing. However, the term <i>addict</i> tends to make people think of a desperate individual living in the back alleys of a big city. To the contrary, anyone from any background in any place can be addicted or drug dependent. People who are drug dependent cannot refuse the drug they have been abusing.	<b>9</b>

## Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1

<b>Drugs</b>	<p>Explain that a person has a physical dependence on a drug when, after being deprived of the drug for any length of time, he or she experiences symptoms such as nausea, vomiting, anxiety, watery eyes and nose, and an overwhelming desire to use the drug. Such symptoms are typical of withdrawal sickness. Withdrawal happens because the body's chemistry has been changed, causing the user to be unable to function comfortably without the drug.</p> <p>Explain that most people who are physically dependent are also psychologically dependent. Some have psychological dependence without the physical dependence, which can be an equally strong dependence. With this type of dependence, the user feels a powerful motivation to continue abusing a drug for the temporary pleasure or relief of discomfort provided by the drug. Because the mind and the body work together very closely, it is often difficult to separate physical from psychological dependence. The mental craving for a drug may be so powerful that it seems to be a physical need.</p>	<b>10</b>
<b>Marijuana (Pot, Grass, Weed, Dope, Reefer)</b>	<p>Explain that marijuana (Acapulco Gold, Ganga, Grass, Mary Jane, Pot, Weed, Reefer, Stick, Smoke) comes from the dried flowers, leaves, and small stems of the cannabis plant. It is smoked in cigarettes, known as joints, and also in pipes. Marijuana use is illegal in the United States. It is used as a prescriptive drug to reduce swelling of the eyes caused by glaucoma and to counteract the intense nausea brought on by certain cancer treatments. The legalization of marijuana, especially for these medical purposes, has been a controversial subject in our country for years.</p> <p>Explain that the tetrahydrocannabinol (THC) produced by cannabis is the main psychoactive substance that produces marijuana's mind-altering effects. THC is quickly absorbed into the lungs and then travels through the bloodstream to affect the brain.</p>	<b>11</b>
<b>Marijuana (Pot, Grass, Weed, Dope, Reefer)</b>	<p>Explain that marijuana distorts the senses, including hearing, taste, touch, and smell, alters the sense of time and place, and affects emotions. THC affects sleep patterns and a small amount can remain in body fat for as long as a month. Marijuana causes users to crave food and to enjoy eating, which is unusual for a drug. It also tends to dull sexual urges and pleasure.</p> <p>Explain that there are several hundred other chemicals in marijuana varying between different types of cannabis plants and between plants grown during different seasons. The active chemicals in marijuana affect the brain, altering hearing, taste, touch, smell, and a sense of time and space. The effects of marijuana vary from person to person depending on how much they smoke and also vary because the chemicals in different marijuana plants vary. People may experience anything from a mild euphoria to uncontrollable laughter to hallucinations.</p>	<b>12</b>
<b>Marijuana (Pot, Grass, Weed, Dope, Reefer)</b>	<p>Explain that marijuana can also contain dangerous substances such as pesticides and molds and is sometimes mixed with PCP to make the user believe it is more potent.</p> <p>Explain that because marijuana is widely abused today and has been around for thousands of years, many people believe that its use poses no harm. However, research studies prove this to the contrary. Marijuana use is dangerous to the body.</p>	<b>13</b>
<b>Marijuana (Pot, Grass, Weed, Dope, Reefer)</b>	<p>Explain that the effects of marijuana use include the following:</p> <ul style="list-style-type: none"> <li>• Short-term memory loss and shortened attention span, both of which interfere with the ability to learn. Heavy, long-term use is often called "burn out" because the user's thinking is slow and confused.</li> <li>• Increased heart rate and irregular heartbeat.</li> <li>• Weakening of the immune system.</li> </ul>	<b>14</b>



## Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1

	<ul style="list-style-type: none"> <li>• Reduced hormone levels resulting in lower sperm counts in males and irregular menstrual cycles in females.</li> <li>• Development of “amotivational syndrome,” which results in apathy and loss of ambition and drive.</li> <li>• Impaired judgment, unsteadiness, lack of coordination, and slowed responses, which make driving a dangerous activity.</li> <li>• Lung damage and increased risk of lung cancer. This risk is higher than that of smoking tobacco cigarettes because marijuana is inhaled more deeply and then held in the lungs for a longer period of time. Marijuana cigarettes also lack filters which cut down on harmful chemical effects.</li> <li>• Possible depression and moodiness. Some users feel tired and unhappy the morning after smoking marijuana and may respond by smoking a joint to feel better. This cycle may lead to psychological dependency.</li> <li>• Possible intense fear and anxiety, called a “pot panic” and even paranoia and psychosis. This may occur if the marijuana contains higher levels of THC.</li> <li>• Development of a tolerance to marijuana resulting in the need for greater amounts in order to feel any effects. This may also contribute to psychological dependence.</li> </ul>	
<b>Marijuana (Pot, Grass, Weed, Dope, Reefer)</b>	Explain that some users feel tired and unhappy the morning after smoking marijuana and may smoke again to feel better. This cycle may lead to psychological dependency.. In extreme cases, marijuana abuse can result in paranoia and psychosis. Similar to alcohol, marijuana abuse can affect driving ability.	<b>15</b>
<b>Marijuana (Pot, Grass, Weed, Dope, Reefer)</b>	Explain that because of all the effects marijuana has on the mind, the body, and the ability to learn, its use may be particularly harmful to young people. Since you are still maturing physically, sexually, and mentally, marijuana’s effects may prevent you from becoming a healthy, normal adult.	<b>16</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students’ understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>17</b>
<b>Cocaine, Crack, and Bazuco</b>	<p>Explain that cocaine hydrochloride (Cocaine, Coke, Peruvian Marching Powder, C, Snow, Flake, Rock, White, Blow, Nose Candy) comes from the leaves of the coca bush and is an illegal drug that looks like white crystalline powder. It is often diluted with other ingredients and then inhaled through the nose, injected, or smoked.</p> <p>Explain that cocaine is a stimulant that affects the nervous system, providing short bursts of euphoria, a feeling of excitement, increased blood pressure and pulse rate, and alertness. People often use it to increase mental activity and to offset drowsiness, fatigue, or as an appetite suppressant. However, the intense high of cocaine is followed by an intense low. Repeated abuse of cocaine can result in a strong physical and psychological dependency. The body will ignore all other drives, including hunger, in its drive for cocaine.</p> <p>Explain that regular use can lead to hallucinations of touch, taste, sound, or smell. Tolerance develops rapidly with repeated use. As the effects of cocaine wear off, the user feels exhausted, depressed, and sometimes paranoid, an effect similar to the crashing of amphetamines. Cocaine is considered to be one of the most potentially addictive drugs.</p>	<b>18</b>
<b>Cocaine, Crack, and Bazuco</b>	Explain that cocaine stimulates the central nervous system. Immediate effects include dilated pupils and elevated blood pressure, heart rate, respiratory rate, and body temperature. Occasional use results in a stuffy nose, while chronic use decays the mucous membranes of the nose. Injecting cocaine, or any drug, with a shared needle	<b>19-20</b>

## Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1

	<p>may spread AIDS, hepatitis, and other diseases. Cocaine produces both psychological and physical dependency.</p> <p>Explain that dealers cut cocaine with other substances, usually table sugar, mannitol, lactose, dextrose, and other drugs (PCP, lidocaine, amphetamines). Strychnine, a poison, has been found in cocaine; talc, which damages the lungs, is also often used. Occasional use of cocaine can lead to heavy, uncontrollable use, with the dependence becoming so strong that users will not quit even when cocaine severely damages their lives. When users do quit, they may not experience strong physical withdrawal symptoms, but they become depressed and irritable, are tired but unable to sleep, and constantly crave the drug.</p>	
<b>Cocaine, Crack, and Bazuco</b>	<p>Explain that crack (Crack, Freebase Rocks, Rock) looks like brown pellets or crystalline rocks that resemble lumpy soap and is often packaged in small vials. It is smoked. Bazuco is a drug similar to crack. Both of these drugs are illegal.</p> <p>Explain that crack is street cocaine commonly processed with boiling water and baking soda, which produces a very pure form of cocaine. The effects and the risk of addiction to crack are so great, however, that it is like a completely different drug. It is many, many times more dangerous than cocaine hydrochloride. Its effects are felt within 20 seconds. Cocaine in this form creates a very intense high and a fast, strong addiction. The user also experiences an incredible low after the high has worn off, often throwing him or her into a deep depression. To offset this depression, the user then smokes more crack, which starts the compulsive cycle that leads to a severe dependency. The only person who benefits from this vicious cycle is the drug dealer who now has a desperate customer in constant need of his or her product.</p>	<b>21</b>
<b>Cocaine, Crack, and Bazuco</b>	<p>Explain that the physical side effects of crack include dilated pupils, increased pulse rate, elevated blood pressure, insomnia, loss of appetite, hallucinations of touch, paranoia, and seizures. A major concern with crack is that dependency is almost immediate. The first experience is often very pleasurable. The extreme low afterward is a strong motivator to immediately use the drug again, this time to relieve bad feelings. Users of crack are addicted before they know it, turning their lives upside down.</p>	<b>22</b>
<b>Cocaine, Crack, and Bazuco</b>	<p>Explain that bazuco, another form of cocaine, is equally if not more dangerous and addictive than crack. Its use originated in Colombia and other South American countries and has now made its way to the United States. It is made from the intermediate step between the coca leaf and the cocaine hydrochloride, called cocaine sulfate. It is mixed with a number of other substances, among them marijuana, methaqualone, and acetone. Its effects are similar to those of crack, as are its dangers and its quick addiction.</p> <p>Explain that the use of any type of cocaine can cause death by disrupting the brain's control of the heart and of respiration.</p>	<b>23</b>
<b>Amphetamines and Methamphetamine (Speed)</b>	<p>Explain that amphetamines (Speed, Bennies, Glass, Uppers, Ups, Black Beauties, Pep Pills, Copilots, Bumblebees, White Crosses, Benzedrine, Dexedrine, Footballs, Biphetamine) look like capsules, pills, or tablets. Methamphetamines (Crank, Crystal, Meth, Crystal Meth, Methedrine, Ice) can be in the form of a white powder, pills, or a rock that resembles blue paraffin. Forms of both drugs are used medically to treat obesity, narcolepsy, and hyperactivity in children.</p>	<b>24</b>
<b>Amphetamines</b>	<p>Explain that similar to cocaine, amphetamines are stimulants. They stimulate the nervous system, increasing physical activity, energy, mental alertness, and self-confidence, and producing euphoria. Medically, amphetamines are used to treat obesity, narcolepsy, and hyperactivity in children. For example, the amphetamine</p>	<b>25</b>

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	Ritalin is used to stimulate the brain center that helps hyperactive children sit still and be more attentive.	
<b>Amphetamines</b>	Explain that as a drug of abuse, amphetamines are often referred to as “speed.” Many people abuse amphetamines to increase energy and alertness, and in some cases to combat fatigue brought on by use of alcohol, marijuana, or depressants. After an injection of amphetamines, the user experiences an intense, short-lived euphoria. An addict may inject the drug several times a day for several days, feeling little need for food or sleep. Mental depression and overwhelming fatigue follow abuse, which may cause the abuser to turn to amphetamines once again for relief.	<b>26</b>
<b>Amphetamines</b>	Explain that in addition to fatigue and depression, the other side effects of amphetamine abuse include extreme anxiety, temporary mental illness, and malnutrition. High doses can cause hallucinations, increased body temperature, high blood pressure, convulsions, kidney failure, lack of oxygen, bleeding of the brain, and death. Withdrawal symptoms include irritability, depression, disorientation, long periods of sleep, and not caring about anything.	<b>27</b>
<b>Methamphetamine</b>	Explain that methamphetamine is a nervous system stimulant similar to amphetamines. It is used medically in much the same way as amphetamines. This drug is abused to produce heightened awareness, alertness, and self-confidence. A smokable form of methamphetamine is “ice.” Like crack, ‘meth’ produces an intense high without the use of needles and is extremely addictive. Abuse of methamphetamine may result in bizarre behavior, sleeplessness, depression, high blood pressure, increased body temperature, convulsions, heart problems, seizures, and strokes.	<b>28</b>
<b>Methamphetamine</b>	Explain that methcathinone, also called “cat” and “star,” is a designer drug similar to methamphetamine. It can cause paranoia, slurred speech, tremors, extreme weight loss, and sleeplessness.	<b>29</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students’ understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>30</b>
<b>Barbiturates, Methaqualones, and Tranquilizers</b>	Explain that barbiturates look like red, yellow, blue, or red and blue capsules. Methaqualones look like tablets and Tranquilizers look like tablets or capsules.	<b>31</b>
<b>Barbiturates</b>	Explain that barbiturates are a group of depressant drugs that include phenobarbital (goofballs), pentobarbital (yellow jackets), amobarbital (blue devils), and secobarbital (red devils). They lower body temperature and blood pressure, slow breathing and heart rate, and as such, have many medical uses. For example, doctors prescribe phenobarbital to reduce the frequency of convulsions in epileptics. Barbiturates are also used medically as an anesthetic and to treat insomnia. The effects of barbiturates vary from person to person and even change within the same person from one use to the next.	<b>32</b>
<b>Barbiturates</b>	Explain that when abused, the symptoms they produce are similar to those of alcohol. Small amounts can produce calmness and relaxed muscles, but larger doses cause slurred speech and staggering walk. Like alcohol, they distort perception and slow reaction time, which can result in serious accidents, including car crashes. Very large doses can cause respiratory depression, coma, and death.	<b>33</b>
<b>Barbiturates</b>	Explain that signs of barbiturate abuse include fatigue, blurred vision, confused or slurred speech, lack of coordination and balance, a reduction of mental and physical activity, and decreased breathing. Abusers will often act like they are drunk, but there	<b>34</b>

## Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1

	will be no smell of alcohol. Long-term abuse may result in double vision, depression, and forgetfulness.	
<b>Barbiturates</b>	Explain that signs of an overdose of barbiturates include dilated pupils, a rapid pulse, shallow breathing, and clammy skin. An overdose can cause coma and death. Because barbiturates cause confusion and forgetfulness, accidental death occurs when a person who has taken barbiturates, becomes confused, forgets, and takes more barbiturates. Accidental poisoning occurs when barbiturates are combined with alcohol. Withdrawal symptoms include anxiety, insomnia, tremors, delirium, and convulsions.	<b>35</b>
<b>Methaqualone</b>	Explain that methaqualone production has been banned in the United States since 1984 due to its widespread misuse and minimal medical value. Abusers take it to produce a feeling of elation. However, its side effects are headaches, nosebleeds, dizziness, loss of coordination, and leg and arm pain. Tolerance and psychological dependence can develop when used regularly. Using methaqualone with alcohol is known as “luding out” and can cause death.	<b>36</b>
<b>Narcotics</b>	Explain that most narcotics are opiates which come from the seed pods of opium poppies. Many narcotics are used medically to relieve pain and treat insomnia. The abuse of narcotics initially produces a feeling of euphoria that is often followed by drowsiness, nausea, and vomiting. Users also may experience constricted pupils, watery eyes, and itching. An overdose may produce slow and shallow breathing, clammy skin, convulsions, coma, and death. Tolerance develops rapidly and dependence is likely. The use of contaminated syringes to inject certain kinds of narcotics may result in diseases such as AIDS and hepatitis. Narcotics include opium, codeine, morphine, and heroin. Other types of opiates include Percocet, Percodan, Tussionex, Fentanyl, Darvon, Talwin, and Lomofil and come as tablets, capsules, or liquids.	<b>37</b>
<b>Narcotics</b>	<p>Explain that opium (Paregoric, Dover’s Powder, Parepectolin) can look like dark brown chunks or a powder. It comes from a specific type of poppy, generally grown in the Middle East. Opium is one of the weaker narcotics, but it has side effects that make it undesirable as a medication, including slowed heart rate, breathing, and mental abilities, and loss of appetite.</p> <p>Explain that codeine comes in different drugs such as Empirin, Tylenol, and certain cough medicines. It is either a dark liquid varying in thickness or comes in capsules or tablets. Similar to opium, codeine is one of the weakest narcotics. Doctors prescribe it for coughs and pain relief.</p> <p>Explain that morphine (Pectoral Syrup) is an opium derivative, and comes in the form of white crystals, hypodermic tablets, and injectable solutions. Morphine is a very strong painkiller, but because it is also very addictive, it is used in medicine only for severe cases, such as in the later stages of terminal cancer when patients are in extreme pain. Unfortunately, as a drug of abuse, morphine usually results in addiction. Withdrawal from it has painful and severe effects, and getting an addict off the drug generally requires the help of a professional.</p>	<b>38</b>
<b>Narcotics</b>	Explain that heroin (Smack, Horse, Junk, Harry, H, Brown, Black Tar, Antifreeze) looks like a white to dark brown powder or a tar-like substance. Methadone Hydrochloride (Dolophine, Methadose, Methadone) comes in the form of a liquid solution.	<b>39</b>

## **Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1**

<b>Narcotics</b>	Explain that heroin is a concentrated form of morphine and is so addictive that it is illegal in the United States even for medical use. Unfortunately, it is the most abused narcotic in this country, and its use is on the rise as of the late 1990s. Users of heroin often start by sniffing or smoking the drug in powdered form. Because tolerance develops quickly, they often turn to “mainlining,” the practice of injecting a heroin solution into the veins to intensify the drug’s effects.	<b>40</b>
<b>Narcotics</b>	Explain that people addicted to heroin often die young, some from overdoses caused by unreliable drugs, others because they cannot distinguish between dangerous doses.	<b>41</b>
<b>Narcotics</b>	Explain that signs of an overdose include shallow and slow breathing, clammy skin, and convulsions. An overdose can result in coma and death. When addicted, a person must have more of the drug to keep from experiencing withdrawal symptoms, which are severe and can include panic, shaking, chills, sweating, cramps, and nausea.	<b>42</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>43</b>
<b>Review Question</b>	The Review Question is “List 2-3 reasons that using marijuana might be especially dangerous for young people.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>44</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>45</b>

## **Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1**

### III. Supplemental Activities -

#### A. In Class Activity:

Supplies required: Handout - Scenarios

When: Any time during the period the instructor feels it is appropriate.

- In Class: Print and Distribute the Handout Scenarios and pick one of the 15 scenarios. As a class answer the following questions.
  - What is the problem?
  - What are options?
  - What facts do you know?
  - What facts don't you know?
  - What is the outcome for each option?
  - What decision will you make?
  - How will you implement this decision?

B. Homework Activity: Students choose 3 of the remaining scenarios and answer the same questions for the chosen scenarios



Tech Tip:

The learn genetics [website](#) has a variety of resources for studying the brain, drug use and addiction.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1**

### Activity 1: In Class Activity - Scenarios

1. It's a school night and your parents have gone out and left your older brother and you at home, alone. Your brother has some friends over and they are hanging out in his room. You go into his room and they are smoking pot, and he asks you if you want to smoke with them. What do you do?
2. You do not do drugs, but it is well known that one of your best friends smokes pot from time to time. Your friend has even been caught in the past with the marijuana. Your friend asks if they can stash their pot in your locker at school because nobody would ever check your things. What do you do?
3. You're a star on your school basketball team and you twisted your knee during the last game. You haven't told the coach yet, in hopes that you will play in the upcoming tournament. Your teammate offers you a painkiller. The painkillers were prescribed for an injury he'd sustained earlier in the season. What do you do?
4. You and a friend scored some pretty believable fake ID's. You decide to head toward the college bars to test them out. To your surprise they work and you spend the whole night drinking and flirting with a good-looking stranger. You're invited back to their place. What do you do?
5. You are cramming for finals and you have to do well in order to avoid academic probation. A friend told you about a pill he was able to get from someone. The pill helps him stay really focused and he's able to study for a longer period of time. Even though you know they aren't his pills to begin with, he offers you a couple. What do you do?
6. A soccer teammate and you are getting ready for a game. You see the star forward on the team pop a couple of pills. You ask what they are for and are told they make you run faster. They offer you a couple. What do you do?
7. Your parents aren't big drinkers but you do have alcohol in the house. They are away one evening and you decide to mix yourself a drink. It tastes pretty good, so you have another. Before you know it, the bottle is almost empty and you know your parents will notice the missing alcohol. What do you do?

## **Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1**

8. You are a senior in High School and you have received a scholarship for college in the fall. It's graduation weekend and your friends come to pick you up to celebrate. There are alcohol and drugs in the car. What do you do?
9. Your best friend just started dating a new girl. You know this girl is into drugs and alcohol. You have even seen her passed out at parties before. You notice your friend starting to drink more frequently. There is a definite distance in your friendship. What do you do?
10. It's the weekend and Sally's parents are out of town – guaranteed. She's having a party. Then you get to the party and see everyone is dancing and playing drinking games. As the night continues, one of the partygoers offers everyone cocaine to keep the party going. What do you do?
11. It's the last days of summer and school starts in a week. You've gotten permission from your parents to take their car go with a friend to a concert in the city. You arrive at the venue and find a parking spot a few blocks away. Your friend grabs some weed out of a bag, and says how much fun the concert is going to be. He lights up a joint and passes it to you. What do you do?
12. It's finally Friday, and some friends have invited you to a bonfire. You tell your parents you need a ride to your friend's house to study. After they drop you off, your friend's brother picks you two up and you all head to the bonfire. He is drinking a beer when you get in the car. Your friend grabs a beer and cracks it open, then offers one to you. What do you do?
13. It's a boring Saturday night until some kids you know call to invite you to see a movie. The last time you went out with them you all smoked pot and had a good time. There is nothing else going on tonight. What do you do?
14. You enter the locker room at school to change before track tryouts. Several seniors are smoking cigarettes and hitting a bottle of vodka next to the open window. You see the captain of the track team in the group and he calls you over. What do you do?
15. During lunch, a kid at your table tries to give you a pill she took from her mom's medicine cabinet. She tells you that it's safe because a doctor prescribed it and that it will help you concentrate on a test you're taking that afternoon. Is it safe? Why or why not?



## **Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1**

Activity1: Take Home Activity – Scenarios part 2

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Using the scenarios in the handout from class, choose 3 and answer the questions for each one.

**1. Scenario #** \_\_\_\_\_

- A. What is the problem?
- B. What are your options?
- C. What facts do you know?
- D. What facts don't you know?
- E. What other factors do you need to consider?
- F. What is the outcome for each option?
- G. What decision will you make?
- H. How will you implement this decision?

**2. Scenario #** \_\_\_\_\_

- A. What is the problem?
- B. What are your options?
- C. What facts do you know?
- D. What facts don't you know?

## **Chapter 9 / Section 2: NS1-U5C9S2 – Drugs – Part 1**

- E. What other factors do you need to consider?
- F. What is the outcome for each option?
- G. What decision will you make?
- H. How will you implement this decision?

### **3. Scenario # \_\_\_\_\_**

- A. What is the problem?
- B. What are your options?
- C. What facts do you know?
- D. What facts don't you know?
- E. What other factors do you need to consider?
- F. What is the outcome for each option?
- G. What decision will you make?
- H. How will you implement this decision?

## Chapter 9 / Section 3: NS1-U5C9S3 – Drugs – Part 2

(Section 3 of 3)

### What Students Will Learn to Do:

Assess the effects of drug and substance abuse on life today

### Skills and Knowledge to be Gained:

1. Identify the risks associated with alcohol and various drugs
2. Explain the effects of alcohol and drug use, misuse and abuse on daily life

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Hallucinogens	Lysergic Acid Diethylamide	Phencyclidine Hydrochloride (PCP)	Psilocybin
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Check On Learning A	Inhalants	Ecstasy	Rohypnol	Steroids	Tobacco	Check on Learning B	Nicotine and Addiction	Chemicals in Smokeless Tobacco
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Conclusion	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, chapter 9. Place a checkmark beside the NS1-U5C9S3 PowerPoint presentation, and these two CPS question deck files:  
NS1-U5C9S3 - Key Terms and NS1-U5C9S3 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 9 / Section 3: NS1-U5C9S3 – Drugs – Part 2

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>This lesson will teach you the possible effects of substance abuse on your life and health. You will learn to identify commonly abused substances and to recognize how drug use, misuse, and abuse are different. You will also learn some reasons why people abuse substances, the risks of alcohol and various drugs, and the effects of substance abuse on daily life.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 reasons why you think some teenagers want to smoke cigarettes.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on drugs.	<b>6</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>7</b>
<b>Hallucinogens</b>	Explain that hallucinogens alter the physical senses, producing visions, sounds, and smells that are not real, and distorting the concepts of time and space in the user’s mind. Because these drugs confuse fact and fantasy, a user may become irrational and resort to violence or suicide to avoid an imagined situation or attacker. Hallucinogens are not physically addictive, but users often become psychologically dependent on these drugs.	<b>8</b>
<b>Lysergic Acid Diethylamide (Acid)</b>	<p>Explain that lysergic acid diethylamide can come as brightly colored tablets, imprinted blotter paper, thin squares of gelatin, or as a clear liquid.</p> <p>Explain that a “trip” from an average dose of LSD can last as long as eight to 10 hours. LSD’s effects are unpredictable, tolerance to it develops quickly, and its use frequently results in psychological dependence.</p>	<b>9</b>
<b>Lysergic Acid Diethylamide (Acid)</b>	Explain that LSD is a powerful hallucinogen that scrambles and confuses the senses. A tiny drop taken with sugar or food can cause a person to trip or experience false visions, smells, and sounds for hours. Sensations may be confused and feelings may change rapidly. Music may appear as colors and colors as flavors or odors. Some people say these experiences are exciting while others say they are a nightmare. Those having a ‘bad trip’ may take dangerous or irrational actions to escape from this	<b>10-11</b>

## Chapter 9 / Section 3: NS1-U5C9S3 – Drugs – Part 2

	imaginary situation. In addition, LSD can cause nausea, vomiting, and misinterpretations of time and distance. Some people experience flashbacks of LSD's effects days, weeks, and years after the original trip. An overdose of LSD can result in psychosis, accidental death, and suicide.	
<b>Phencyclidine Hydrochloride (PCP)</b>	Explain that phencyclidine hydrochloride can be in the form of a liquid, capsules, white crystalline powder, or pills. Of the various types of hallucinogens, only PCP has a medical use as a tranquilizer for animals. Explain that PCP interrupts the functions of the neocortex, which is the section of the brain that controls the intellect and keeps instincts in check.	<b>12</b>
<b>Phencyclidine Hydrochloride (PCP)</b>	Explain that PCP stays in the system for a long time. Chronic users report persistent memory problems and speech difficulties as well as psychological and behavioral changes. Some of these effects may last six months to a year following prolonged daily use. Mood disorders such as depression and anxiety also occur, and users may exhibit paranoid and violent behavior. In fact, many deaths attributed to PCP do not occur from the drug itself, but from accidents, like falling from high places, drowning, or automobile accidents, all of which can be related to the behavior PCP produces. Large doses of PCP can cause convulsions and coma, heart and lung failure, or ruptured blood vessels in the brain. Treatment for an overdose is very difficult and requires hospitalization.	<b>13</b>
<b>Phencyclidine Hydrochloride (PCP)</b>	Explain that PCP, used as a tranquilizer for animals, can cause frightening hallucinations when used by humans. Abuse can result in seizures, coma, and death or in violent, unpredictable behavior. Some abusers have committed murder and suicide.	<b>14</b>
<b>Psilocybin (Mushrooms, Shrooms) and Mescaline (Mesc, Buttons, Cactus)</b>	Explain that two other hallucinogens are psilocybin, produced from a type of mushroom, and mescaline, produced from a type of cactus. Similar to other hallucinogens, use of these drugs can cause hallucinations, perception problems, nausea, vomiting, and, in extreme cases, mental illness, suicide, or accidental death. Mescaline effects, while compared to a mild LSD trip, are often accompanied by sweating and severe abdominal cramps. Eating mushrooms poses another danger. Many mushrooms are similar in appearance and may be toxic enough to cause death.	<b>15-16</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>17</b>
<b>Inhalants (Air Blast)</b>	Explain that inhalants are toxic chemicals and include glue, Freon, nail polish, spray paint, and gasoline that are huffed (sprayed into a cloth and held over the mouth and nose) or bagged (sniffed from a bag, bottle, or can) to achieve a brief, mild euphoria. These products contain labels warning against inhaling their fumes because of the hazards involved. Some inhalants used medically are also abused and include amyl nitrate, which relieves heart pain, and nitrous oxide, which relieves anxiety.	<b>18</b>
<b>Inhalants (Air Blast)</b>	Explain that risks involved with inhaling these chemicals include nausea; dizziness; vomiting; headaches; unconsciousness; pneumonia; permanent brain and nerve damage; bleeding of the brain; eventual liver, brain, and kidney cancer; and death due to heart failure and suffocation. Effects of inhalants are unpredictable and depend on the chemical or chemicals inhaled and the amount taken into the body. Brain damage and death may result after only one use depending on the inhalants involved.	<b>19</b>
<b>Ecstasy (XTC, Love Drug)</b>	Explain that ecstasy is a "designer drug" that closely resembles cocaine. Ecstasy produces a euphoria that lasts several hours, heightens pleasure, and in high doses, may even produce hallucinations. Ecstasy is taken orally and may cause mood swings, overly friendly behavior, insomnia, anxiety, and nausea. In extreme cases, abuse may result in seizures and death.	<b>20</b>

## Chapter 9 / Section 3: NS1-U5C9S3 – Drugs – Part 2

<b>Rohypnol (Roofies, Forget Pill, Date-Rape Pill)</b>	<p>Explain that rohypnol is used legally as a medical sedative in Europe and Latin America. As a drug of abuse, it is called roofies, the forget pill. It is also called the <i>date-rape pill</i>. At first, it produces an alcoholic type of high, but then heavy sedation and short-term memory loss that lasts up to eight hours. It earned its reputation as the date-rape pill when it was being slipped into the drinks of unsuspecting females. The victims, in a state of sedation brought on by the drug, were sexually abused and left unable to remember exactly what happened to them. In addition to the drawback just discussed, dangers of abusing rohypnol include impaired motor skills and slow respiration.</p>	<b>21-22</b>
<b>Steroids</b>	<p>Explain that although anabolic steroids are available only by prescription in the United States, many steroid supplements are available over the counter and are marketed under several names. Steroids and steroid supplements are often taken to increase performance in sports. Some people take them to develop muscles. Abusers of steroids take many times the recommended dosages in an effort to “bulk up”. Steroid abuse has been increasing in recent years, especially among middle-school students. Steroid use has been associated with chemical dependence and withdrawal syndrome. Athletes who turn to steroids risk withdrawal syndrome and permanent damage to their bodies.</p>	<b>23</b>
<b>Tobacco</b>	<p>Explain that many people hold the view that experimentation with or use of tobacco is normal or acceptable behavior. However, the use of tobacco often progresses to further drug abuses. Accordingly, some experts attach the term “gateway” to this substance. Use of drugs such as cocaine and heroin is unusual in those who have not previously used tobacco.</p> <p>Explain that the hazards of tobacco include cancer and other diseases. Tobacco can also have ill effects on others. As awareness of these ill effects reaches new heights, more and more Americans are joining forces to fight tobacco abuse.</p> <p>Explain that in addition to smoking cigarettes, pipes, or cigars, people who use tobacco products can also do so orally in the forms of chewing tobacco (by placing a wad between the cheek and teeth and sucking on it) and snuff (by placing a pinch between the lower lip and teeth).</p>	<b>24</b>
<b>Tobacco</b>	<p>Explain that three major components make up tobacco, each having its unique ill effects. One such component, tar, causes a variety of cancers and contributes to emphysema and other respiratory problems. For this reason, people often choose to smoke low-tar cigarettes. However, even low-tar cigarettes can be unsafe because smokers often smoke more while using these brands. Carbon monoxide, also found in tobacco smoke, restricts the oxygen-carrying capacity of the blood, and can often cause insufficient heart operation. Nicotine, the substance in tobacco believed to cause dependency, is absorbed into the bloodstream, reaching the heart and brain within a few seconds of the onset of smoking.</p>	<b>25-26</b>
<b>Tobacco</b>	<p>Explain that some of the diseases associated with long-term tobacco smoking include chronic bronchitis, emphysema, coronary heart disease, and lung cancer. Lung cancer is the leading cause of death among women today. Cigarette smoking is a major independent risk factor for heart attacks (sometimes fatal) in both men and women. Pipe and cigar smokers are more prone to dying from cancer of the mouth and throat than nonsmokers. Smoking also reduces the effectiveness of prescription and over-the-counter medications.</p> <p>Explain that although chewing tobacco and snuff are not smoked, they increase the risk of disease and damage to the delicate lining of the mouth and throat. As a result, individuals who use these products are more likely than nonusers to develop mouth cancer, throat cancer, and gum disease. Chewing tobacco and snuff can also</p>	<b>27</b>

## Chapter 9 / Section 3: NS1-U5C9S3 – Drugs – Part 2

	contribute to heart disease and strokes. The harmful effects of one can of snuff are equal to that of about 60 cigarettes.	
<b>Tobacco</b>	Explain that despite the labels required by federal law warning individuals about the hazardous effects of using tobacco products, use continues.	<b>28</b>
<b>Tobacco</b>	Explain that recent research has indicated that nonsmokers who breathe in second-hand smoke (smoke that escapes from the burning end of a cigarette as well as the smoke exhaled by the smoker) can have an increased risk of lung cancer, heart disease, and respiratory disorders. Inhaling second-hand smoke makes the heart beat faster, the blood pressure go up, and the level of carbon monoxide in the blood increase. Smoke from an idling cigarette contains even more tar and nicotine than inhaled smoke, as well as more cadmium, a substance which has been related to hypertension, chronic bronchitis, and emphysema.	<b>29</b>
<b>Tobacco</b>	<p>Explain that as the public becomes more aware of the dangers of inhaling second-hand smoke, the legislation protecting the rights of nonsmokers continues to increase. Smoking is being banned more and more in both public and private places.</p> <p>Explain that with each puff on a cigarette, cigar, or pipe, a smoker inhales over 4,000 different chemicals. Of these 4,000 chemicals, at least 1,000 are known to be dangerous. Table 9.1 lists some of the harmful chemicals found in cigarette smoke. Among all the dangerous substances, nicotine, tar, and carbon monoxide can be identified as the most deadly substances found in tobacco smoke.</p>	<b>30-32</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>33</b>
<b>Nicotine and Addiction</b>	Explain that the drug in tobacco that may act as a stimulant and cause addiction is nicotine. A stimulant is a drug that speeds up the activities of the central nervous system, the heart, and other organs. In its pure form, nicotine is one of the strongest poisons known. Taken in large amounts, nicotine can kill people by paralyzing their breathing muscles. Smokers usually take in small amounts of nicotine. However, over several years the effects of much smaller amounts on the body are numerous and severe.	<b>34</b>
<b>Nicotine and Addiction</b>	Explain that when tobacco is smoked, nicotine enters the lungs and is immediately absorbed into the bloodstream. Seconds later, the nicotine reaches the brain. Chemical changes begin to take place. Nicotine causes the heart to beat faster, the skin temperature to drop, and the blood pressure to rise. Nicotine constricts blood vessels, diminishing the blood flow to hands and feet. Beginning smokers usually feel the effects of nicotine poisoning with their first inhalation. These effects include rapid pulse, clammy skin, nausea, dizziness, and tingling in the hands and feet. Nicotine and cigarettes have many adverse effects on the body, as shown in Figure 9.3.	<b>35-36</b>
<b>Nicotine and Addiction</b>	<p>Explain that the degree of reaction varies from person to person, depending on the person's tolerance to nicotine. The effects of nicotine poisoning stop as soon as tolerance to nicotine develops. Tolerance can develop in new smokers after the second or third cigarette. The smoker begins to experience a "lift," a physical reaction to the chemicals in nicotine. As tolerance builds, however, the user may need more and more tobacco to produce the same feeling. The Surgeon General, the country's highest medical authority, has called nicotine an addicting drug, just as with heroin and cocaine.</p> <p>Explain that in a short time, tobacco users develop an addiction to nicotine. A tobacco</p>	<b>37</b>

## Chapter 9 / Section 3: NS1-U5C9S3 – Drugs – Part 2

	addict who goes without tobacco for a short time may experience nicotine withdrawal. Nicotine withdrawal is a reaction to the lack of nicotine in the body, which causes symptoms such as headache, irritability, restlessness, increased coughing, nausea, vomiting, a general feeling of illness, and intense cravings for tobacco. Withdrawal effects may begin as soon as two hours after the last cigarette. Physical craving for a cigarette reaches a peak in the first 24 hours.	
<b>Nicotine and Addiction</b>	Explain that tobacco users also suffer psychological withdrawal symptoms when they stop smoking. They feel emotionally and mentally uncomfortable without tobacco. By using tobacco at certain times—when under stress, for example—tobacco users actually condition themselves to rely on tobacco whenever a stressful situation arises. When tobacco users go without tobacco, they may feel unable to handle stress. Many tobacco users begin to depend on tobacco at particular times of the day, such as when they awaken or after they finish a meal. Others begin to depend on tobacco in social or work situations, such as parties or meetings.	<b>38</b>
<b>Nicotine and Addiction</b>	Explain that the dark, sticky mixture of chemicals known as tar that is formed when tobacco burns. Smokers can see evidence of this substance on their fingers and teeth, which turn brown when tar sticks to them. The tar also sticks to the cells of the respiratory system, where it damages the delicate cells that line the respiratory tract. The cells have tiny hair-like structures, or cilia. The cilia beat back and forth and sweep dust and other foreign particles away from the lungs. If the cilia are damaged, foreign particles can enter the lungs, leading to disease.	<b>39</b>
<b>Nicotine and Addiction</b>	Explain that the tar in tobacco smoke contains hundreds of chemical carcinogens, or cancer causing agents. Cancer of the lungs, throat, and mouth are caused by the inhalation of tar in tobacco smoke  Explain that carbon monoxide is a poisonous, colorless, odorless gas that is found in cigarette smoke. You may be familiar with the dangers of carbon monoxide. Deaths that result from leaving a car engine running in a closed area are caused by carbon monoxide poisoning.	<b>40</b>
<b>Nicotine and Addiction</b>	Explain that carbon monoxide has a greater attraction for the oxygen-carrying molecules (hemoglobin) in the red blood cells than oxygen does. When carbon monoxide is inhaled, it takes the place of, or displaces, large amounts of oxygen from hemoglobin. The more carbon monoxide present in the blood, the less oxygen in the blood. Carbon monoxide also makes it difficult for the oxygen that is left in the blood to get to the muscles and organs. When a person smokes, the heart works harder but accomplishes less. Because their blood contains too little oxygen to function properly, smokers often experience shortness of breath when they are active.	<b>41</b>
<b>Chemicals in Smokeless Tobacco</b>	Explain that most tobacco users smoke cigarettes, cigars, or pipes. Yet there has been an increase, especially among teenage boys, in the use of smokeless tobacco. Smokeless tobacco is tobacco that is chewed or sniffed through the nose. Some people who use smokeless tobacco think that the products are safe because no smoke is produced or inhaled. What they may not realize is that smokeless tobacco contains many of the same harmful chemicals found in tobacco smoke, including the highly addictive drug nicotine.	<b>42</b>
<b>Chemicals in Smokeless Tobacco</b>	Explain that there are two different kinds of smokeless tobacco products. Chewing tobacco consists of poor-quality tobacco leaves mixed with molasses or honey and placed between the cheek and gums. Snuff is finely ground tobacco that may be held between the lower lip and teeth or sniffed through the nose. One can of snuff delivers as much nicotine as 60 cigarettes. The nicotine in chewing tobacco enters the bloodstream through the membranes of the mouth. The nicotine in snuff gets into the body through the membranes of either the mouth or the nose. After it has entered the	<b>43</b>



## **Chapter 9 / Section 3: NS1-U5C9S3 – Drugs – Part 2**

	body, nicotine from smokeless tobacco has the same effect as nicotine from cigarettes.	
<b>Conclusion</b>	Explain that when drugs are properly used, they can cure illness and save lives. When abused, however, drugs and alcohol can destroy lives and cause death. It is important to understand that, although people often abuse drugs and alcohol to find happiness and fulfillment, these substances only create more problems and unhappiness. To keep from falling into the trap of drug and alcohol abuse, stay smart, strong, and active. Say no. Recognize the different drugs that are abused in our society and what affect they have on people’s health and lives. Understand the dangers of alcohol abuse, not only to the drinker but to family and friends. You can set an example of an informed, drug-free individual.	<b>44</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>45</b>
<b>Review Question</b>	The Review Question is, “List 2-3 reasons that using marijuana might be especially dangerous for young people.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>46</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>47</b>

## **Chapter 9 / Section 3: NS1-U5C9S3 – Drugs – Part 2**

### A. In Class Activity:

Supplies required: None

When: Any time during class the instructor feels it is appropriate.

In Class: As a class, discuss using an acrostic.

You may use the following as an example:

**C**rystalline rock

**R**eally high highs and really low lows

**A**ccelerated heart rate and high blood pressure

**C**alled “candy” and “cookies” on the street

**K**ing of freebasing where users liquefy the powder and inhale the vapors

### Ask cadets to find the following:

Name of the drug being described. (*Crack*)

The form of the drug. (*Crystallized rocks*)

How drug is typically ingested. (*Liquefied and inhaled*)

Effects of drug. (*Long or short term*)

Organs of the body that could be affected. (*Heart*)

B. At Home Activity: Cadets choose a drug from the unit and make their own acrostic. Cadets should include those same items in their finished work. They can use street name or scientific name for their project.

IV. Evaluation - see CPS database for chapter test questions.

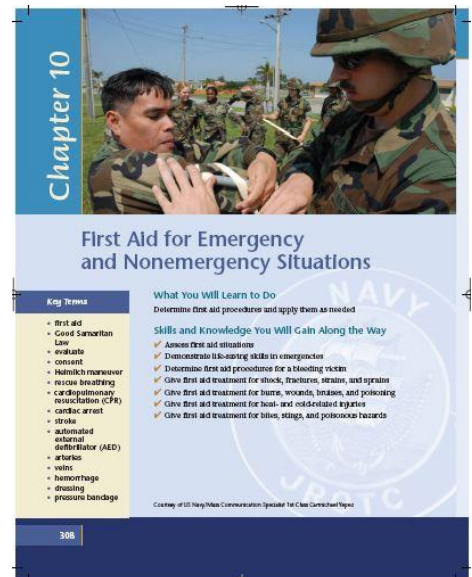
## Unit 5 Chapter 10: NS1-U5C10 – First Aid

### What Students Will Learn to Do:

Determine first aid procedures and apply them as needed

### Skills and Knowledge to be Gained:

1. Assess first aid situations
2. Demonstrate life-saving skills in emergencies
3. Determine first aid procedures for a bleeding victim
4. Give first aid treatment for shock, fractures, strains, and sprains
5. Give first aid treatment for burns, wounds, bruises, and poisoning
6. Give first aid treatment for heat- and cold-related injuries
7. Give first aid treatment for bites, stings, and poisonous hazards



### Standards Linked in this Chapter:

#### **Common Core English Language Arts 9-10\***

##### Reading and Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says ...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...
- W.9-10.3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.
- W.9-10.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- W.9-10.6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
- W.9-10.8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...
- SL.9-10.2. Integrate multiple sources of information presented in diverse media or formats...
- SL.9-10.4. Present information, findings, and supporting evidence clearly, concisely, and logically...

## **Unit 5 Chapter 10: NS1-U5C10 – First Aid**

### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

### **National Health Education Standards 9-10 (NHES)\*\***

- NHES Standard 3: Students will demonstrate the ability to access valid information, products, and services to enhance health.
- NHES Standard 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- NHES Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health.
- NHES Standard 8: Students will demonstrate the ability to advocate for personal, family, and community health.

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor's Guide.

## Chapter 10 / Section 1: NS1-U5C10S1 – First Aid and Life Saving

(Section 1 of 6)

### What Students Will Learn to Do:

Determine first aid procedures and apply them as needed

### Skills and Knowledge to be Gained:

1. Assess first aid situations
2. Demonstrate life-saving skills in emergency situations

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Introduction	The Need for First Aid/Your Response	First Aid Kit	Evaluating the Victim
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Check On Learning A	Life-Saving Steps (A)	Check on Learning B	Life-Saving Steps (B)	Calling 911	When to Call 911	The First Life-Saving Steps	Clearing the Airway of a Conscious Victim	Restoring the Breathing
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Administering Breathing to Young Children and Infants	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, chapter 10. Place a checkmark beside the NS1-U5C10S1 PowerPoint presentation, and these two CPS question deck files: NS1-U5C10S1 - Key Terms and NS1-U5C10S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 10 / Section 1: NS1-U5C10S1 – First Aid and Life Saving

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn first aid procedures and how to apply them. You will learn what kinds of situations call for first aid, life-saving emergency skills, and first aid treatment for a wide variety of injuries, including shock, fractures, strains and sprains, burns, wounds, bruises, poisoning, heat- and cold-related injuries, bites, stings, and poisons.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 reasons you think people might hesitate to give first aid to strangers in an emergency.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on first aid.	<b>7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>Introduction</b>	Explain that many people encounter at least one situation requiring the use of first aid at some point in their life. Whether a friend falls when rollerblading and breaks an arm or your younger brother cuts himself on broken glass and requires stitches, someone should administer first aid until the injured person receives proper medical attention. That someone could be you if you acquire basic first aid knowledge of what to do and what not to do in different emergency situations. Remember that first aid may mean for an accident victim the difference between life and death, permanent and temporary disability, or long and short-term recovery.	<b>9</b>
<b>Introduction</b>	Explain that in addition to the first aid taught in this chapter, consider taking a first aid class from a qualified instructor. Many schools, hospitals, and fire departments offer first aid classes that provide demonstrations and hands-on experience with medical models of victims. Hands-on training is especially important before actually performing mouth-to- mouth resuscitation and cardiopulmonary resuscitation (CPR), both of which can be hazardous to a victim if performed improperly.	<b>10-11</b>
<b>The Need for First Aid/Your Response</b>	Explain that first aid is the immediate care administered to an injured or ill individual in order to keep the victim alive or to stop further damage and until qualified medical treatment can be administered. First aid means caring for people involved in accidents, catastrophes, and natural disasters such as hurricanes, tornadoes, and	<b>12-13</b>

## Chapter 10 / Section 1: NS1-U5C10S1 – First Aid and Life Saving

	earthquakes. First aid includes dealing with the situation, the person, and the injury, as well as encouraging the victim and showing a willingness to help.	
<b>The Need for First Aid/Your Response</b>	Explain that the Good Samaritan Law is designed to protect the rescuer and encourage people to assist others in distress by granting the rescuer immunity against lawsuits. This law protects people from lawsuits as long as the rescuer is acting in good faith, without compensation and administers first aid correctly and without malicious misconduct or gross negligence.	<b>14</b>
<b>First Aid Kit</b>	Explain that administering first aid is easier with a first aid kit. It is a good idea to keep a first aid kit in your house. It is also wise to keep a first aid kit in your car and to take one along on camping trips and hikes. A well-stocked first aid kit contains an assortment of bandages, Band-Aids, tape, aspirin or aspirin substitutes, antiseptic cream and cleanser, safety pins, scissors, tweezers, cotton, and tissues. To protect against infectious diseases, include rubber gloves and face shields in the kit. Rubber gloves will keep you from coming into contact with blood and body fluids, and face shields will allow you to give mouth-to-mouth resuscitation and CPR without making direct contact with the victim.	<b>15-17</b>
<b>Evaluating the Victim</b>	Explain that when you encounter an injured person, you must evaluate that person to determine what kind of first aid, if any, is needed. This preliminary check of the person follows a series of steps designed to first pinpoint and correct the most serious health risks and then continue with less life-threatening problems. These steps are explained in more detail later in this lesson. Basically, check for breathing and heartbeat first; severe bleeding second; signs of shock third; and finally for broken bones, burns, and head injuries. Depending on what problems your evaluation of an accident victim reveals, perform the life-saving steps in a sequence that parallels this evaluation sequence:  <ol style="list-style-type: none"> <li>1. Open the airway</li> <li>2. Assess breathing</li> <li>3. Assess circulation</li> <li>4. Assess disability.</li> </ol>	<b>18-19</b>
<b>Evaluating the Victim</b>	Explain that when evaluating a conscious victim, ask the victim if you can assist in any way and get consent to provide first aid. Then, get as much information as possible about the situation and about how the victim feels. If the victim is unconscious and others witnessed the accident, get as much information from the witnesses as possible. Check the victim for medical alert identification. Many people with heart disease, epilepsy, diabetes, and allergies to medications wear medical alert identification bracelets or necklaces that can give you a clue as to their medical condition.	<b>20</b>
<b>Evaluating the Victim</b>	Have someone at the scene dial 911 and call for emergency medical services (EMS). If you are alone and the victim's condition is life-threatening, first administer first aid and then call 911. When calling 911, calmly state your name and exact location, the telephone number from which you are calling, details of what has happened, and the condition of the victim or victims. A dispatcher will route your call to the appropriate service. This could be the EMS, police department, fire department, or a combination of these services.	<b>21</b>
<b>Evaluating the Victim</b>	Explain that other important rules to follow at the scene of an accident include the following:  <ul style="list-style-type: none"> <li>• Remain calm but act quickly. This will reassure the victim and help him or her to remain calm as well.</li> </ul>	<b>22</b>

## Chapter 10 / Section 1: NS1-U5C10S1 – First Aid and Life Saving

	<ul style="list-style-type: none"> <li>• Do not move an injured person. If the person has a neck or spine injury or broken bones, moving him or her could worsen the condition. Only move a victim if there is potential danger in remaining at the accident location. If you must move the victim for this reason, pull him or her in a straight line from the shoulders, keeping the head and body in line. Support the head and pull the victim as short a distance as possible.</li> <li>• If there is more than one injured person at an accident scene, evaluate them quickly and then help the most seriously injured first. For example, you would help the person with severe bleeding before you would help the person with a broken arm.</li> </ul>	
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>23</b>
<b>Life-Saving Steps</b>	<p>Explain that the following steps identify evaluation procedures and specify treatment if necessary.</p> <ol style="list-style-type: none"> <li>1. Check to see if the victim is conscious.               <ol style="list-style-type: none"> <li>a. Ask in a loud but calm voice, "Are you okay?"</li> <li>b. Gently tap the victim on the shoulder.</li> <li>c. Watch for response. If the victim does not respond, go to Step 2.</li> <li>d. If the victim is conscious, ask where he or she feels different than usual or where the victim feels pain. Go to Step 3.</li> <li>e. If the victim is conscious but is choking and cannot talk, stop the evaluation and begin treatment for clearing the airway of a conscious victim.</li> </ol> </li> </ol>	<b>24</b>
<b>Life-Saving Steps</b>	<ol style="list-style-type: none"> <li>2. Check for breathing and heartbeat.               <ol style="list-style-type: none"> <li>a. Look for the rise and fall of the victim's chest.</li> <li>b. Listen for breathing by placing your ear about one inch from the victim's mouth and nose.</li> <li>c. Feel for breathing by placing your hand or cheek about one inch from the victim's mouth and nose.</li> <li>d. At the same time, check for a pulse in the victim's neck.</li> <li>e. If there is a pulse but no breathing, stop the evaluation and begin treatment to restore the breathing.</li> <li>f. If there is no pulse, stop the evaluation and begin CPR.</li> </ol> </li> </ol>	<b>25</b>
<b>Life-Saving Steps</b>	<ol style="list-style-type: none"> <li>3. Check for bleeding.               <ol style="list-style-type: none"> <li>a. Look for spurts of blood and blood-soaked clothing.</li> <li>b. Look for entry and exit wounds.</li> <li>c. If bleeding is present, stop the evaluation and begin treatment for stopping the bleeding.</li> </ol> </li> </ol>	<b>26</b>
<b>Life-Saving Steps</b>	<ol style="list-style-type: none"> <li>4. Check for the following signs of shock:               <ol style="list-style-type: none"> <li>a. Sweaty, but cool skin</li> <li>b. Pallor, pale facial appearance</li> <li>c. Restlessness or nervousness</li> <li>d. Thirst</li> <li>e. Loss of blood</li> <li>f. Confusion</li> <li>g. Faster than normal breathing rate</li> </ol> </li> </ol>	<b>27</b>



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	<p>h. Blotchy or bluish skin i. Vomiting or nausea.</p> <p>Explain that if any of these signs are present, discontinue the evaluation and treat for shock.</p>	
<b>Life-Saving Steps</b>	<p>5. Check for fractures (broken bones).</p> <p>a. Check for the following signs of neck or back injury:</p> <ul style="list-style-type: none"> <li>• Pain or tenderness of neck or back area</li> <li>• Wounds of neck or back area</li> <li>• Paralysis.</li> </ul> <p>b. Ask the victim if he or she can move.</p> <p>c. Touch the victim's arms and legs and ask if the victim can feel your touch.</p> <p>d. If you suspect a neck or back injury, immobilize the victim by doing the following:</p> <ul style="list-style-type: none"> <li>• Tell the victim not to move.</li> <li>• If you suspect a back injury, place padding under the natural arch of the lower back.</li> <li>• If you suspect a neck injury, place padding under the victim's neck and place objects such as rocks or shoes on both sides of the head.</li> </ul> <p>e. Check the victim's arms or legs for fractures or broken bones. Signs are as follows:</p> <ul style="list-style-type: none"> <li>• Swelling</li> <li>• Discoloration</li> <li>• Unusual angle or position of arm or leg</li> <li>• Bones sticking through the skin.</li> </ul> <p>Explain that if you suspect a fracture, stop the evaluation and begin treatment for fractures.</p>	<b>28-30</b>
<b>Life-Saving Steps</b>	<p>6. Check for burns. If you find burns, cover them with a clean dry cloth.</p>	<b>31</b>
<b>Life-Saving Steps</b>	<p>7. Check for head injury. Some possible signs of head injury are as follows:</p> <p>a. Pupils of eyes unequal size</p> <p>b. Fluid from ear(s), nose, or mouth, or wounds to the head or face</p> <p>c. Slurred speech</p> <p>d. Confusion</p> <p>e. Sleepiness</p> <p>f. Loss of memory or consciousness</p> <p>g. Staggering when walking</p> <p>h. Headache</p> <p>i. Dizziness</p> <p>j. Vomiting</p> <p>k. Paralysis</p> <p>l. Convulsions or twitching.</p>	<b>32</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	<p>Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.</p>	<b>33</b>
<b>Life-Saving Steps</b>	<p>Call or send someone to call for an ambulance. Calling your emergency number is often the most important action you can take in an emergency. It is often critical to get professional medical help on the scene as soon as possible. In many communities, you can dial 911 for help in any type of emergency; otherwise, dial your local police or</p>	<b>34</b>

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	sheriff for medical emergencies, or dial 0, the operator.	
<b>Calling 911</b>	<p>Explain to be prepared to follow these steps:</p> <ol style="list-style-type: none"> <li>1. Speak slowly and clearly.</li> <li>2. Identify yourself and the phone number from which you are calling.</li> <li>3. Give the exact location of the accident. Give the town, street name, and number. If you are calling at night, describe the building.</li> <li>4. Describe what has happened. Give essential details about the victim(s), the situation, and any treatments you have given.</li> <li>5. Ask for advice. Let the person on the other end ask you questions and tell you what to do until help arrives. Take notes, if necessary.</li> <li>6. Don't hang up first. The person on the other end may have more questions or advice for you. They might want you to stay on the phone with them until help arrives. Whatever the case, let the other person hang up first.</li> </ol>	<b>35</b>
<b>When to Call 911</b>	<p>Call for an ambulance if the victim:</p> <ul style="list-style-type: none"> <li>• Is or becomes unconscious</li> <li>• Has trouble breathing</li> <li>• Has persistent chest pain or pressure</li> <li>• Is bleeding severely</li> <li>• Has persistent pain or pressure in the abdomen</li> <li>• Is vomiting</li> <li>• Has seizures, slurred speech, or persistent severe headache</li> <li>• Appears to have been poisoned</li> <li>• Has injuries to the head, neck, or back</li> <li>• Has possible broken bones.</li> </ul> <p>Also call if there is:</p> <ul style="list-style-type: none"> <li>• A fire or explosion</li> <li>• A downed electrical wire</li> <li>• Swiftly moving or rapidly rising water</li> <li>• Poisonous gas present</li> <li>• A vehicle collision.</li> </ul>	<b>36</b>
<b>The First Life-Saving Steps</b>	<p>Explain that in emergency situations, the people involved may find it difficult to remain calm and think clearly. In the midst of this confusion, one simple trick you can use to remind yourself of the first and most important problems to check for and steps to take are the letters ABC.</p> <ul style="list-style-type: none"> <li>• A stands for airway. Is the victim's airway blocked? If so, clear the airway.</li> <li>• B stands for breathing. Is the victim breathing? If not, restore breathing.</li> <li>• C stands for circulation. Is the victim's heart beating? If not, restore the heartbeat.</li> </ul>	<b>37</b>
<b>Clearing the Airway of a Conscious Victim</b>	<p>Explain that choking occurs when a person inhales something into the airway leading to the lungs, blocking the airway off and preventing breathing. In many choking cases, people inhale particles of food while eating. In an accident, injured people may choke on dirt, broken teeth, or dentures.</p> <p>Explain that a person whose airway is completely blocked off cannot make any sound because no air is getting to the vocal cords. If a person can speak or cough, some air is getting through to the vocal cords and lungs, and you should let the person try to clear the airway on his or her own. If the person is unable to make sound and indicates</p>	<b>38-39</b>

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	choking by grabbing the throat, the best method to clear the person's airway is the Heimlich maneuver. After performing the Heimlich maneuver, be sure the victim seeks professional medical help.	
<b>Clearing the Airway of a Conscious Victim</b>	<p>Explain that to perform the Heimlich maneuver on a choking victim, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Stand behind the victim and wrap your arms around the victim's waist.</li> <li>2. Make a fist with one hand and place the thumb side of the fist against the victim's abdomen slightly above the navel and well below the breastbone. Grasp the fist with the other hand.</li> <li>3. Give six to ten quick backward and upward thrusts; repeat this until the airway is clear.</li> </ol>	<b>40</b>
<b>Clearing the Airway of a Conscious Victim</b>	<p>Explain that for an exceptionally overweight person or pregnant woman, use the same procedure, except place the fist in the middle of the breastbone.</p> <p>Explain that if you are the victim of an airway obstruction and no one is around to help, lean forward over a railing, sink, or the back of a chair, as shown in Figure 10.2, and thrust yourself down until you dislodge the obstruction.</p> <p>Note: Don't slap the victim's back. This could make matters worse.</p>	<b>41</b>
<b>Clearing the Airway of an Unconscious Victim</b>	<p>Explain that if a person is unconscious and you know that individual has an obstructed airway, perform the following maneuver with the victim lying on his or her back.</p> <ol style="list-style-type: none"> <li>1. Kneel astride the victim's thighs. Place the heel of one hand against the victim's abdomen, slightly above the navel, but well below the victim's breastbone, with your fingers pointing toward the victim's head.</li> </ol>	<b>42</b>
<b>Clearing the Airway of an Unconscious Victim</b>	<ol style="list-style-type: none"> <li>2. Place your other hand on top of your first hand and press into the abdomen with a quick forward and upward thrust. Repeat this six to 10 times.</li> </ol>	<b>43</b>
<b>Clearing the Airway of an Unconscious Victim</b>	<ol style="list-style-type: none"> <li>3. Open the victim's mouth and sweep out any foreign matter using a hooked finger. Be careful not to push anything down the throat.</li> </ol>	<b>44</b>
<b>Clearing the Airway of an Unconscious Victim</b>	<p>Explain that for an obese individual or a woman in the advanced stages of pregnancy, use the following procedure:</p> <ol style="list-style-type: none"> <li>1. Kneel to the side of the victim's body. Locate the lower edge of the victim's ribs and run the fingers up along the rib cage to the notch where the ribs meet the breastbone.</li> <li>2. Place the heel of the hand two finger widths above the notch and place the other hand over the first, interlocking the fingers.</li> </ol>	<b>45</b>
<b>Clearing the Airway of an Unconscious Victim</b>	<ol style="list-style-type: none"> <li>3. Position your shoulders over your hands and, with the elbows locked, press down 1 1/2 to 2 inches, 6 to 10 times.</li> <li>4. Open the victim's mouth and sweep out any foreign matter using a hooked finger. Be careful not to push anything down the throat.</li> </ol>	<b>46</b>
<b>Restoring the Breathing</b>	<p>Explain that if you discover a victim who is not breathing, it is necessary to start breathing for the victim by forcing oxygen into his or her lungs as soon as possible. This process, called rescue breathing or mouth-to-mouth resuscitation, can prevent brain damage and death. Applying this first aid step will most likely start the victim breathing independently; if not, continue it until you are replaced by a qualified person or medical help arrives. When you are giving mouth-to-mouth resuscitation to</p>	<b>47</b>

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	a victim, you are a life-support system!	
<b>Restoring the Breathing</b>	<p>Explain that the following steps describe how to give mouth-to-mouth resuscitation to adults. Procedures that are different for infants and small children are italicized.</p> <ol style="list-style-type: none"> <li>1. Roll the victim gently over if he or she is not already facing up. Open the mouth and check to see if it is clear. Using a hooked finger, sweep out anything you find in the mouth, being careful not to push anything down the throat.</li> <li>2. Tilt the victim's head back sharply by pressing down on the forehead and lifting on the jaw. This straightens out the passageway to the victim's lungs. <i>For infants and small children, do not tilt the head back. Instead, place a finger under the chin and lift it slightly.</i></li> </ol>	<b>48-49</b>
<b>Restoring the Breathing</b>	<ol style="list-style-type: none"> <li>3. Keeping the victim's head tilted sharply back, pinch the nose closed, cover the victim's mouth completely with your mouth, and give the victim two full breaths, as shown in Figure 10.5. <i>For infants and small children, do not pinch the nose closed. Instead, cover both the mouth and nose with your mouth and give small, slow, gentle breaths.</i> Each breath should last 1 to 1½ seconds. Pause between breaths to let the air come out of the victim and to breathe in yourself.</li> </ol>	<b>50</b>
<b>Restoring the Breathing</b>	<ol style="list-style-type: none"> <li>4. If the victim's chest does not rise when you breathe into his or her lungs, reposition the head slightly farther back and repeat the breaths. If the victim's chest still does not rise, perform abdominal thrusts to clear the airway as described in the previous section, "Clearing the Airway of an Unconscious Victim"; then repeat the breaths.</li> </ol>	<b>51</b>
<b>Restoring the Breathing</b>	<ol style="list-style-type: none"> <li>5. After the two breaths, listen and feel for breathing by placing your cheek close to the victim's mouth. At the same time, check the victim's pulse by placing two fingers in the groove of the neck next to the Adam's apple.</li> </ol>	<b>52</b>
<b>Restoring the Breathing</b>	<ol style="list-style-type: none"> <li>6. If there is no pulse, start CPR immediately as described in the next section.</li> <li>7. If there is a pulse but no breathing, continue mouth-to-mouth resuscitation at the rate of one breath every five seconds or 12 times a minute. <i>For infants and small children, give one slow breath every three seconds.</i></li> </ol>	<b>53</b>
<b>Restoring the Breathing</b>	<ol style="list-style-type: none"> <li>8. If the victim starts to breathe, stop mouth-to-mouth resuscitation and let the victim breathe on his or her own. Check for other injuries, treat as required, and observe the victim closely until medical help arrives.</li> </ol>	<b>54</b>
<b>Administering Rescue Breathing to Young Children and Infants</b>	<ol style="list-style-type: none"> <li>1. Roll the victim gently over if he/she is not already facing up. Using a hooked finger, sweep out anything in the mouth, being careful not to push anything down the throat.</li> <li>2. Instead of tilting the head back, place a finger under the chin and lift it slightly. This straightens the passageway to the victim's lungs.</li> <li>3. Keeping the victim's head back, instead of pinching the nose closed, cover both mouth and nose with your mouth and give small, slow, gentle breaths, each lasting 1 to 1½ seconds. Pause between breaths to let the air come out of the victim and to breathe in yourself.</li> </ol>	<b>55</b>

## **Chapter 10 / Section 1: NS1-U5C10S1 – First Aid and Life Saving**

<b>Administering Rescue Breathing to Young Children and Infants</b>	<ol style="list-style-type: none"><li>4. A - If the victim's chest does not rise when you breathe into the lungs, reposition the head slightly and further back and repeat the breaths. B - If the victim's chest still does not rise after the above step, perform abdominal thrusts to clear the airway, then repeat breaths.</li><li>5. After the two breaths, listen and feel for breathing by placing your cheek close to the victim's mouth. At the same time, check the victim's pulse by placing two fingers in the groove of the neck on the carotid artery, next to the Adam's apple.</li><li>6. If there is no pulse, start CPR immediately.</li><li>7. If there is a pulse but no breathing, continue rescue breathing at the rate of one slow breath every three seconds.</li><li>8. If the victim starts breathing, stop the rescue breathing and let victim breathe on his/her own. Check for and treat other injuries. Observe the victim closely until medical help arrives</li></ol>	<b>56-57</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>58</b>
<b>Review Question</b>	The Review Question is "Name the differences in procedures for rescue breathing with children vs. adults." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>59</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>60</b>

## **Chapter 10 / Section 1: NS1-U5C10S1 – First Aid and Life Saving**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies Needed: Handout

When: At the end of class

- In Class: Divide cadets into small groups and distribute the - First Aid and Life-Saving handout. Using the lifesaving steps learned in class, ask them to work through the scenario as a group and answer the questions. Once everyone has finished, discuss as a class.

B. At Home Activity: Cadets create a flow chart of the life-saving steps. They should include yes/no branches within their flowchart and include all 7 steps



Tech Tip:

There are many flow chart apps and software available online and for mobile devices. Cadets can use these to create their flowchart and included hyperlinks, graphics, etc.

Lucid chart

Gliffy

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 10 / Section 1: NS1-U5C10S1 – First Aid and Life Saving**

### Activity 1: In-Class Activity- First Aid and Life-Saving Handout

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

1. You are at the park jogging and you encounter a man who has collapsed. What is the first thing you do? Be specific.
  
2. You discover the man is conscious. What is your next step?
  
3. You tell onlookers to call 911. What information do they need to relay to the 911 operator?
  
4. The jogger fell close to the some railroad tracks. Why is this important to note?
  
5. The jogger's head is badly cut. What do you look for?
  
6. You see that the jogger is pale, confused and sick to his stomach. What might be happening?
  
7. While you wait for the ambulance, what other things do you check for so that you have a comprehensive report for the first responders?

## Chapter 10 / Section 2: NS1-U5C10S2 – CPR and Emergency First Aid

(Section 2 of 6)

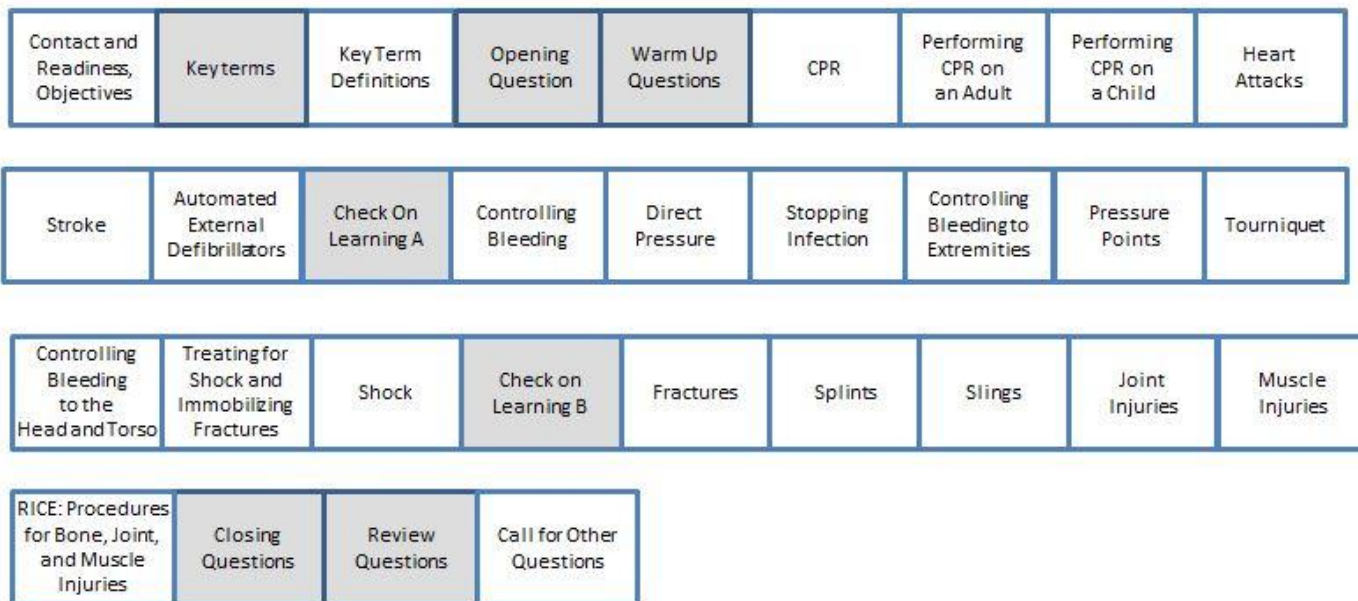
### What Students Will Learn to Do:

Determine first aid procedures and apply the procedures as needed

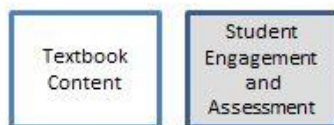
### Skills and Knowledge to be Gained:

1. Demonstrate life-saving skills in emergency situations
2. Determine first aid procedures for a bleeding victim
3. Give first aid treatment for shock, fractures, strains, and sprains

### LESSON FLOW OUTLINE



Key:



### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, chapter 10. Place a checkmark beside the NS1-U5C10S2 PowerPoint presentation, and these two CPS question deck files: NS1-U5C10S2 - Key Terms and NS1-U5C10S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.



## Chapter 10 / Section 2: NS1-U5C10S2 – CPR and Emergency First Aid

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn first aid procedures and how to apply them. You will learn what kinds of situations call for first aid, life-saving emergency skills, and first aid treatment for a wide variety of injuries, including shock, fractures, strains and sprains, burns, wounds, bruises, poisoning, heat- and cold-related injuries, bites, stings, and poisons.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-10</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “Click on the image to read the following article. Then, answer and discuss the two CPS questions.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on CPR and emergency first aid.	<b>11</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>12</b>
<b>Cardiopulmonary Resuscitation (CPR)</b>	<p>Explain that as in mouth-to-mouth resuscitation, when you perform cardiopulmonary resuscitation (CPR), you are a life-support system for the victim. CPR is a first aid procedure performed to restore breathing and heartbeat. It is a combination of mouth-to-mouth resuscitation and a procedure known as closed chest heart massage. Mouth-to-mouth resuscitation supplies oxygen to the lungs. The closed chest heart massage manually pumps blood through the victim’s body, circulating it to the heart and brain. These actions help keep the heart and brain alive until the heartbeat is restored or medical help arrives.</p> <p>Explain that CPR can be performed by a single rescuer or by more than one rescuer. CPR can be tiring and is easier to administer if two rescuers are available. The CPR procedures discussed in this lesson are for a single rescuer. Before beginning CPR, you should turn the victim face up, clear the airway, give two full breaths as described in mouth-to-mouth resuscitation, and check for a pulse. Only proceed if there is no pulse, and therefore, no heartbeat present.</p>	<b>13-14</b>
<b>Performing CPR on an Adult</b>	Explain that to perform CPR on an adult, follow these steps:	<b>15</b>

## Chapter 10 / Section 2: NS1-U5C10S2 – CPR and Emergency First Aid

	<ol style="list-style-type: none"> <li>1. With the middle and index fingers of the hand nearest the victim's legs, locate the lower edge of the rib cage on the side of the victim's chest closest to you.</li> <li>2. Slide your fingers up the edge of the rib cage to the notch at the lower end of the breastbone. Place your middle finger in the notch and the index finger next to it on the lower end of the breastbone.</li> <li>3. Place the heel of the hand nearest the victim's head on the breastbone next to the index finger of the hand used to find the notch.</li> </ol>	
<b>Performing CPR on an Adult</b>	<ol style="list-style-type: none"> <li>4. Place the heel of the hand used to find the notch directly on top of the heel of the other hand. Allow only the heel of your hand to touch the victim's chest; keep your fingers lifted off of the victim's chest. If you place your hands correctly, they will be positioned slightly above the lowest part of the breastbone. This is known as the xiphoid process. Avoid pressing on the xiphoid process because it breaks easily.</li> <li>5. Position your shoulders over your hands, with elbows locked and arms straight.</li> <li>6. Press down on the breastbone 1 1/2 to 2 inches at a very quick, continuous rate. This squeezes the victim's heart against the spine and forces blood through the body.</li> </ol>	<b>16</b>
<b>Performing CPR on an Adult</b>	<ol style="list-style-type: none"> <li>7. While compressing, count aloud "one and two and three and four . . ." until you get to 15. It should take you about ten seconds to do 15 compressions. Push down as you say the number and release the pressure as you say "and." Compress up and down smoothly without removing your hands from the chest.</li> <li>8. After the 15th compression, give the victim two full breaths. Be sure to pinch the nose closed and tilt the victim's head back to straighten the airway. Then return to the chest compression.</li> <li>9. When you complete four cycles of 15 chest compressions and two breaths, check for a pulse again. If there is no pulse, continue CPR.</li> </ol>	<b>17</b>
<b>Performing CPR on a Child</b>	<p>Explain that to perform CPR on a child, follow these steps:</p> <ol style="list-style-type: none"> <li>1. As with an adult, find the notched center of the child's ribcage with the hand closest to the child's legs. Measure two finger widths above the notch using the other hand, and then place the heel of the hand used to find the notch on the child's breastbone above the two fingers.</li> <li>2. Place the hand that you used to measure two finger widths gently on the child's forehead and leave it there throughout the rest of the procedure.</li> <li>3. Using the heel of your hand and keeping your fingers off of the child's chest, give five compressions 1 to 1 1/2 inches deep, followed by one breath as described in the italicized text in Step 3 of mouth-to-mouth resuscitation. Repeat this sequence 12 times a minute until breathing and heartbeat resume.</li> </ol>	<b>18</b>
<b>Heart Attacks</b>	<p>Explain that a heart attack occurs when the blood supply to part of the heart muscle is severely reduced or stopped. This happens when one of the coronary arteries (the arteries that supply blood to the heart muscle) is blocked by an obstruction or a spasm. Common signs and symptoms of a heart attack include the following:</p> <ul style="list-style-type: none"> <li>• Uncomfortable pressure, fullness, squeezing, or pain in the center of the chest that lasts more than a few minutes or that goes away and comes back</li> <li>• Pain spreading to the shoulders, neck, or arms</li> <li>• Chest discomfort with lightheadedness, fainting, sweating, nausea, or shortness of breath.</li> </ul>	<b>19-20</b>

## Chapter 10 / Section 2: NS1-U5C10S2 – CPR and Emergency First Aid

<b>Heart Attacks</b>	Explain that when a person's heart stops beating, the victims is said to be in cardiac arrest. CPR can keep the individual alive. If a person suffers a heart attack, call emergency medical services (EMS). Monitor the ABCs and give CPR as necessary.	<b>21</b>
<b>Stroke</b>	Explain that a stroke occurs when blood vessels that deliver oxygen-rich blood to the brain rupture or when a blood clot forms and blocks the flow of blood in the brain.	<b>22</b>
<b>Stroke</b>	Common signs and symptoms of a stroke include the following: <ul style="list-style-type: none"> <li>• Paralysis on one side of the body</li> <li>• Blurred or decreased vision; pupils of unequal size</li> <li>• Problems speaking, slurred speech</li> <li>• Difficulty breathing</li> <li>• Mental confusion</li> <li>• Dizziness or loss of balance</li> <li>• Sudden, severe, or unexplained headache</li> <li>• Loss of consciousness.</li> </ul>	<b>23</b>
<b>Stroke</b>	Explain that if a person has a stroke, call EMS. Lay the victim down on one side and cover with blanket. Monitor the ABCs and give CPR as necessary.	<b>24</b>
<b>Automated External Defibrillators (AED)</b>	Explain that recently there has been a breakthrough in how emergency medical technicians (EMTs) treat victims of sudden cardiac arrest. The automated external defibrillator (AED) is a device that uses a computer chip to analyze the heart rhythm and determines whether a shock is needed. This device allows victims suffering from sudden cardiac arrest a greatly improved chance of survival. Because of the ease of operation, people can be trained in AED use in a few hours, and some say the techniques are easier to learn than CPR. Many AEDs offer voice prompts, which provide operators with clear and concise instructions. Most AEDs have only three buttons: On/Off, Analyze, and Shock. Many airlines have installed AEDs on all their planes, and several cities are locating them in areas where there are large concentrations of people, such as malls, arenas, and stadiums.	<b>25-26</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>27</b>
<b>Controlling Bleeding</b>	Explain that in an accident situation, you may encounter injured persons bleeding from wounds such as scrapes, cuts, or punctures as well as tears or gashes in the skin. The deeper a wound, the more serious it becomes. Minor wounds to the outer layer of skin do not bleed heavily but still require cleaning to avoid infection. Deeper wounds in which arteries and veins are cut can be life threatening. These kinds of wounds may involve great loss of blood, and blood may often pulse or spurt out of the wound. Severe bleeding, or hemorrhage, can result in shock or death if not treated promptly. It is essential to stop the loss of blood in these cases. If a victim loses too much blood, even CPR will not keep the person alive because there will not be enough blood to deliver oxygen from the lungs to the body.	<b>28-29</b>
<b>Direct Pressure</b>	Explain that in most cases, applying continuous, direct pressure to a wound is the best way to control bleeding. To apply direct pressure, place a dressing over the wound and apply pressure to the dressing. A dressing should be: <ul style="list-style-type: none"> <li>• As sterile as possible (If a sterile dressing is not available, use a clean cloth—a washcloth, towel, or handkerchief)</li> <li>• Larger than the wound</li> <li>• Thick, soft, and compressible so pressure is evenly distributed over the</li> </ul>	<b>30</b>

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	<p>wound</p> <ul style="list-style-type: none"> <li>• Lint free.</li> </ul> <p>Explain that if a clean cloth or gauze is not available, use clothing, your bare hands, or your fingers—whatever is the cleanest. Continue applying pressure and the bleeding should begin to slow or stop within 30 minutes.</p>	
<b>Stopping Infection</b>	Explain that even the slightest wound requires immediate cleansing. The best way to clean wounds is to wash them with soap and water. At home, use water from the faucet. On a hike, use water from a canteen or the clear running water of a stream. If available, use an antiseptic cleanser instead of soap. Wait until the skin around the wound dries and then put on a bandage. If available, apply an antiseptic cream to the wound before bandaging it.	<b>31</b>
<b>Stopping Infection</b>	Explain that for a minor wound, cleaning and bandaging it is probably all that is required. Deep wounds, wounds made by animal or human bites, and wounds contaminated by dirt, rust, or other items require medical treatment. Clean and bandage these wounds, and get medical assistance as soon as possible. If a wound contains glass or other objects stuck into the flesh, do not remove them unless they wash out of the wound easily.	<b>32</b>
<b>Controlling Bleeding to Extremities</b>	Explain that in most cases, direct pressure is the best way to stop bleeding of wounds to the extremities (arms and legs). As you apply direct pressure, keep the injured limb elevated above the heart to slow the flow of blood out of the body. After initially applying direct pressure, you may want to apply a pressure bandage by wrapping a bandage snugly around the limb, using overlapping turns with a roll of gauze. Do not tie the pressure bandage so tightly that it restricts blood flow to the lower part of the limb. If fingertips or toes appear bluish or if there is no pulse below the dressing, immediately loosen the material used to secure the dressing. After you apply a pressure bandage, only qualified medical personnel should remove it.	<b>33</b>
<b>Pressure Points</b>	<p>Explain that in the case of severe bleeding that does not slow or stop, finger pressure may be applied to the pressure point on the injured limb between the wound and the heart. Pressure points, shown in Figure 10.8, are locations on the body where arteries are close to the surface. By applying pressure at these points, you slow or stop the flow of blood through the artery.</p> <p>Explain that as with mouth-to-mouth resuscitation and CPR, it is better to have first aid training on pressure points before actually using this technique to stop bleeding. If done incorrectly, you may damage healthy tissue fed by the artery you are constricting.</p>	<b>34-35</b>
<b>Tourniquet</b>	<p>Explain that if heavy blood loss continues, as from amputation, it may be necessary to use a tourniquet.</p> <p>Caution: Because a tourniquet is a constricting band that stops the flow of blood below it, it can kill the limb to which it is applied; therefore, only use a tourniquet if no other method works to stop the bleeding and you believe the injured person's life is in danger.</p>	<b>36</b>
<b>Tourniquet</b>	<p>Explain that to apply a tourniquet, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Fold a cloth until it is approximately two inches wide and long enough to go around the injured limb).</li> <li>2. Tie the material in a loop and position it two to four inches above the wound, but not over a joint.</li> <li>3. Pass a rigid object, such as a stick, under the tourniquet loop and twist it</li> </ol>	<b>37</b>

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	<p>until the bleeding stops.</p> <p>4. Tie off the end of the stick with another piece of cloth or string to prevent it from unwinding.</p> <p>5. Mark the victim's forehead with a "T" to alert medical personnel that you have applied a tourniquet.</p>	
<b>Controlling Bleeding to the Head and Torso</b>	<p>Explain that there are different way to control head and torso bleeding. This section details how to use the methods.</p> <p>Explain that for wounds to the scalp, use a pressure dressing. If brain tissue is exposed, tie the dressing loosely over the wound. Do not press the brain tissue back into the open wound.</p>	<b>38</b>
<b>Controlling Bleeding to the Head and Torso</b>	<p>Explain that one can control bleeding from facial wounds by using a pressure bandage. Position the victim to prevent him or her from breathing blood. Victims who have sustained a severe blow to the head should be kept under close observation as they may have brain damage and could require rescue breathing.</p>	<b>39</b>
<b>Controlling Bleeding to the Head and Torso</b>	<p>Explain that a chest injury may result in an open chest wound, which could lead to air leaking from a lung and the collapse of a lung. If conscious, have the victim breathe out and apply some material such as plastic wrap or foil to the wound. Bind a pressure bandage tightly to the wound to prevent leakage of air and slow down loss of blood. Have the victim sit up, if possible, or lay the person on the injured side.</p>	<b>40</b>
<b>Controlling Bleeding to the Head and Torso</b>	<p>Explain that when an open abdominal wound has exposed visceral (internal) organs, cover the abdomen loosely with dressings. Do not force the organs back into the body cavity and do not give victims with abdominal wounds any food or water.</p>	<b>41</b>
<b>Treating for Shock and Immobilizing Fractures</b>	<p>Explain that whenever you treat someone for a severe injury, you must also treat for shock—even if the injured person shows no signs of shock. Shock can follow all major injuries and by treating for shock, you lessen its severity. If left untreated, shock can become life threatening. There are cases of people who died from shock even though their injuries would not have killed them. Therefore, knowing how to deal with shock is a very important part of first aid.</p> <p>Explain that after treating for shock, care must be taken of broken bones or suspected broken bones. If there is a question of whether or not a bone is broken, treat it as if it were broken. Follow the first aid procedures for splinting a fracture carefully because more damage can occur if a fracture is handled improperly.</p>	<b>42</b>
<b>Shock</b>	<p>Explain that shock from an injury is different from electric shock. Although shock can be brought on by electric shock as well as blood loss, burns, psychological trauma, heart attack, and other injuries involving pain. Shock disrupts circulation. In an attempt to correct damage from an injury and to protect its blood supply. The body routes blood away from outer tissues to organs inside the body. This may keep adequate blood and oxygen from reaching the brain. In severe cases, the injured person can lose consciousness and blood supply is lost to vital organs like the heart, causing death. Shock usually occurs within the first hour after a severe injury. How severe shock becomes depends upon several factors including the type of injury, how much blood is lost, and characteristics of the injured person's nervous system. Increased pain, rough handling, delayed treatment, and emotional reactions such as fear and panic can worsen shock.</p>	<b>43</b>
<b>Shock</b>	<p>Explain that when a victim is in shock, the skin is pale or bluish and cold to the touch. For a victim with dark skin, check the color of the mucous membranes on the inside of the mouth or under the eyelids, or check under the nail beds. The skin may be clammy from perspiration. Other signs that may develop in the early stages of shock include</p>	<b>44</b>

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	<p>the following:</p> <ul style="list-style-type: none"> <li>• Restlessness or nervousness</li> <li>• Thirst</li> <li>• Bleeding</li> <li>• Confusion or loss of awareness</li> <li>• Breathing rapidly</li> <li>• Nausea and/or vomiting</li> <li>• Blotchy or bluish skin around the mouth and lips</li> <li>• Fainting.</li> </ul>	
<b>Shock</b>	<p>Explain that procedures for treating shock include improving circulation of the blood, ensuring an adequate supply of oxygen, and maintaining normal body temperature. To treat a victim for shock, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Position the victim on his or her back, unless a sitting position allows easier breathing. If the victim is vomiting, position that person on the side to let fluid drain from the mouth.</li> <li>2. Elevate the victim's feet higher than the heart, unless the victim has an abdominal or chest wound or an un-splinted leg fracture.</li> <li>3. Loosen clothing that may bind around the neck and waist.</li> <li>4. Keep the victim from becoming cold or overheating.</li> <li>5. Reassure the victim and do not give him or her any food or drink; however, if you know that help is not going to arrive for over an hour, give the victim small amounts of fluids at room temperature every 15 minutes. Add an eighth of a teaspoon of salt, if available, to each half glass of fluid. This will help the victim retain more fluids in his or her system.</li> </ol>	<b>45-46</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>47</b>
<b>Fractures</b>	<p>Explain that bone fractures resulting from falls are common injuries. A closed or simple fracture is a break in the bone that does not penetrate the skin. An open or compound fracture occurs if the sharp edges of a splintered bone have cut through the skin.</p> <p>Explain that in the case of an open fracture, it is obvious that a bone is broken. In the case of a closed fracture, indications of a broken bone include swelling, discoloration, and unusual positioning of the limb in question.</p>	<b>48-49</b>
<b>Fractures</b>	<p>Explain that when treating fractures, what you do is important, and what you don't do is equally as important.</p> <ul style="list-style-type: none"> <li>• Do call for medical assistance immediately</li> <li>• Do keep the victim from moving</li> <li>• Do treat for shock while waiting for medical assistance</li> <li>• Don't try to set the bone</li> <li>• Don't put the victim in a car to rush him or her to a hospital as that is the easiest way of turning a closed fracture into an open one</li> <li>• Don't give stimulants if there is severe bleeding.</li> </ul>	<b>50</b>
<b>Splints</b>	Explain that the most important action to take when dealing with a fracture is to immobilize the injured bone to prevent further damage. The best way to immobilize bones is with a splint. For open fractures, control the bleeding before splinting. Keep the exposed bone moist by covering it with a moist, sterile dressing.	<b>51</b>

## Chapter 10 / Section 2: NS1-U5C10S2 – CPR and Emergency First Aid

<b>Splints</b>	<p>The rules of splinting are as follows:</p> <ol style="list-style-type: none"> <li>1. Pad all splinting material. Make splints from sticks, boards, cardboard, rolled newspaper, or any other unbendable material.</li> <li>2. Splint the broken leg or arm in the position in which you found it. Do not try to straighten or reposition the fracture. In most cases, support an arm from above and below and a leg from the sides.</li> <li>3. Use splinting material that is long enough to immobilize the joint above and below the break. For example, immobilize the ankle and the knee for a fracture in the vicinity of the calf.</li> <li>4. Tie the splints above and below the suspected fracture. Make two ties above and two below the break. Never make a tie directly over the break.</li> <li>5. Tie all knots on the outside of the splints.</li> <li>6. Check that circulation is not restricted by splints tied too tightly.</li> </ol>	<b>52</b>
<b>Splints</b>	<p>Explain that if no splinting material is available, immobilize a leg fracture by placing padding between the injured leg and the uninjured leg and tying them together. Using the uninjured leg as the splint, draw two ties above and two below the suspected break.</p>	<b>53</b>
<b>Slings</b>	<p>Explain that for arm fractures in which the entire arm is not splinted, use a sling to support the weight of the arm. If necessary, pin the victim's shirttail up to serve as a field expedient sling.</p>	<b>54</b>
<b>Joint Injuries</b>	<p>Explain that joint injuries occur when excess stress or strain is placed on the joint. This can happen during normal activities such as walking or running and is common in sports activities. Dislocations and sprains are the most common joint injuries.</p>	<b>55</b>
<b>Joint Injuries</b>	<p>Explain that a dislocation occurs when a joint comes apart and stays apart with the bone ends no longer in contact. The shoulders, elbows, fingers, hips, kneecaps, and ankles are the joints most frequently affected. Dislocations have signs and symptoms similar to those of a fracture including severe pain, swelling, and the inability of the victim to move the injured joint. The most common symptom of a dislocation is deformity; its appearance will be different from that of a comparable uninjured joint. The procedures for treating a dislocation include the following:</p> <ol style="list-style-type: none"> <li>1. Do not try to set the joint. Immobilize and support the injured joint as if treating for a fracture.</li> <li>2. Use the RICE procedures (discussed later in this lesson).</li> <li>3. Seek medical attention.</li> </ol>	<b>56</b>
<b>Joint Injuries</b>	<p>Explain that a sprain is an injury to a joint in which the ligaments and other tissues are damaged by violent stretching or twisting. Attempts to move or use the joint increase the pain. The skin surrounding the joint may be discolored due to bleeding from torn tissues. It is often difficult to distinguish between a severe sprain and a fracture, as their signs and symptoms are similar. If you are not sure whether an injury is a sprain or a fracture, treat it like a fracture. It is better to immobilize a sprain than to take the chance of a victim sustaining further damage from an un-splinted, closed fracture. Treatment for a sprain consists of Rest, Ice, Compression, and Elevation (RICE). Seek medical attention.</p>	<b>57</b>
<b>Muscle Injuries</b>	<p>Explain that muscle injuries are as common as joint injuries. These can be very painful and need treatment as soon as possible after the injury occurs. The most common muscle injury is a strain.</p>	<b>58</b>

## Chapter 10 / Section 2: NS1-U5C10S2 – CPR and Emergency First Aid

<b>Muscle Injuries</b>	Explain that a muscle strain, or muscle pull, occurs when a muscle is stretched beyond its normal range of motion, resulting in the muscle tearing. Signs and symptoms include sharp pain, extreme tenderness when the area is touched, slight swelling, and difficulty moving or using the affected part. When treating for strain use RICE.	<b>59</b>
<b>RICE: Procedures for Bone, Joint, and Muscle Injuries</b>	<p>Explain that as discussed earlier in this lesson, RICE is the acronym for the first aid procedures—rest, ice, compression, and elevation—for bone, joint, and muscle injuries. What is done in the first 48–72 hours following such an injury can greatly affect the recovery.</p> <ol style="list-style-type: none"> <li>1. Rest. Injuries heal faster if rested. Rest means the victim stays off the injured part.</li> <li>2. Ice. An ice pack should be applied to the injured area for 20–30 minutes every two to three hours during the first 24–48 hours. When the skin becomes numb, remove the ice pack.</li> <li>3. Compression. Compression of the injured area may squeeze some fluid and debris from the injury site. Compression limits the ability of the skin and of other tissues to expand. Applying compression may be the most important step in preventing swelling. The victim should wear an elastic bandage continuously for 18–24 hours.</li> <li>4. Elevation. Gravity has an important effect on swelling. The force of gravity pulls blood and other tissue to the lower parts of the body. After fluids get to your hands or feet, they have nowhere else to go. Therefore, those parts of the body tend to swell the most. Elevating the injured areas, in combination with ice and compression, limits circulation to that area. This, in turn, helps limit internal bleeding and minimize swelling. Whenever possible, elevate the injured part above the level of the heart for the first 24 hours after an injury.</li> </ol>	<b>60-61</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>62</b>
<b>Review Question</b>	The Review Question is “Describe why some people might think learning to use an AED is easier than learning CPR.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>63</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>64</b>



## **Chapter 10 / Section 2: NS1-U5C10S2 – CPR and Emergency First Aid**

### III. Supplemental Activities -

#### A. In Class Activity:

Supplies needed: Internet Connection

When: After slide 18

- In Class: After slide #18 in the PowerPoint presentation, go to the [Heart Rescue Now](http://www.heartrescuenow.com/) site and do the save a life simulator. There is a mall and gym version to choose from. ( <http://www.heartrescuenow.com/> )

B. At Home Activity: Cadets create an Emergency first aid brochure using one of the following topics:

- |                        |                     |
|------------------------|---------------------|
| • CPR Adult            | • CPR Child         |
| • Controlling Bleeding | • Treating Shock    |
| • Treating Bleeding    | • Heimlich Maneuver |

Each brochure should answer the 5 W's (Who, What, When, Where) and include a "How To" for the reader.



#### Tech Tip:

Instead of a brochure, cadets get into small groups and record PSA's on the topics listed above using a video camera, smart phone or other mobile device. The class could then vote on which one wins certain categories such as "Best Actor/Actress", "Most Informative", etc. CPS – (Student Response System) can be used for the voting.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 10 / Section 3: NS1-U5C10S3 – Burns**

(Section 3 of 6)

### **What Students Will Learn to Do:**

Determine first aid procedures and apply them as needed

### **Skills and Knowledge to be Gained:**

1. Give first aid treatment for burns, wounds, bruises and poisoning

### **LESSON FLOW OUTLINE**

Contact and Readiness, Objectives	Keyterms	KeyTerm Definitions	Opening Question	Warm Up Questions	First Aid for Burns	Degrees of Burns	Treatment of Heat Burns	Don'ts When Treating Burns
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Prevention of Heat Burns	Check On Learning A	Treatment of Electrical Burns	Prevention of Electrical Burns	Check on Learning B	Treating Chemical Burns	Treating Chemical Burns to the Skin	Prevention of Chemical Burns	Closing Questions
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Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### **Outline of Instruction :**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 5, Chapter 10. Place a checkmark beside the NS1-U5C10S3 PowerPoint presentation, and these two CPS question deck files:  
NS1-U5C10S3 - Key Terms and NS1-U5C10S3 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 10 / Section 3: NS1-U5C10S3 – Burns

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn first aid procedures and how to apply them. You will learn what kinds of situations call for first aid, life-saving emergency skills, and first aid treatment for a wide variety of injuries, including shock, fractures, strains and sprains, burns, wounds, bruises, poisoning, heat- and cold-related injuries, bites, stings, and poisons.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-7</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 items commonly found in a home that could cause chemical burns to your skin.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on burns.	<b>8</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>9</b>
<b>First Aid for Burns</b>	<p>Explain that burns come from sources such as heat, electricity, and chemicals. In situations where people are injured by these sources, your first aid knowledge should include how to treat them. This lesson covers different types of burns, how to treat them, and ways to prevent them.</p> <p>Explain that there are several types and degrees of burns that require different treatments. Heat, electricity, and chemicals can produce different burn injuries with their severity depending upon the burn’s depth, size, and location. Burns can be painful and may result in shock and infection. They can be very serious if they are spread over a large area of the body, there are other injuries involved, or the victim is very young or elderly.</p>	<b>10</b>
<b>Degrees of Burns</b>	Explain that there are different categories of degrees (first, second, or third) for burns caused by sources of heat and based on the depth of the burn. The deeper the burn, the more severe and the higher the degree the burn is. All electrical burns are third degree.	<b>11</b>
<b>Degrees of Burns</b>	Explain that there are several characteristics of first-degree burns.	<b>12</b>

## Chapter 10 / Section 3: NS1-U5C10S3 – Burns

	<ul style="list-style-type: none"> <li>• Least severe</li> <li>• Injury to only the top layer of skin</li> <li>• Reddening of the skin</li> <li>• Mild swelling</li> <li>• Pain due to irritated nerve endings</li> <li>• Quick and complete healing if properly treated</li> <li>• Caused by brief contact with hot objects, brief exposure to hot water or steam, and overexposure to sun (light sunburn) or wind.</li> </ul>	
<b>Degrees of Burns</b>	<p>Explain that there are several characteristics of second-degree burns:</p> <ul style="list-style-type: none"> <li>• Involve deeper layers of skin</li> <li>• Cause skin to turn red and/or mottled</li> <li>• Appear moist and oozing from the loss of fluid through damaged skin layers</li> <li>• Produce blisters and swelling</li> <li>• Is usually the most painful type of burn because nerve endings are still intact even though tissue damage is severe</li> <li>• May cause shock due to extensive loss of fluid from the burned skin, especially if burns cover a large area</li> <li>• Should heal within two weeks with little or no scarring if properly treated</li> <li>• Caused by a deep sunburn, prolonged contact with hot objects, scalding, and flash burns from flammable liquids suddenly bursting into flame.</li> </ul>	<b>13</b>
<b>Degrees of Burns</b>	<p>Explain that the specific characteristics of third-degree burns are as follows:</p> <ul style="list-style-type: none"> <li>• Deepest and most severe type of burn</li> <li>• May look white or charred (may appear to be a second-degree burn at first)</li> <li>• Results in deep tissue destruction, reaching all layers of the skin and sometimes even structures below the skin</li> <li>• Often cause little or no pain because nerve endings are destroyed</li> <li>• Often cause shock</li> <li>• Will be covered by scar tissue after healed</li> <li>• Caused by immersion in extremely hot water, prolonged contact with flames, and electric shock.</li> </ul>	<b>14</b>
<b>Treatment of Heat Burns</b>	<p>Treat heat burns based on their degree. Therefore, before treating a burn, determine its degree and treat accordingly. When deciding the degree of a burn, in addition to the previous descriptions, it may help to know the source of the burn and/or how hot the source was, as well as how long the victim was exposed to the source. If a victim appears to have a combination of burns of different degrees, determine the degree of the most burned part. This is usually found in the middle of the burned area. Immediately treat for that degree. If you are not sure about the degree of a burn, treat it as a third-degree burn.</p> <p>Keep in mind that the goal of burn treatment is to relieve the victim's pain, prevent him or her from going into shock, and prevent infection of the burned area.</p>	<b>15</b>
<b>Treatment of Heat Burns</b>	<p>Explain that to treat first-degree burns, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Loosen tight clothing and remove jewelry from the burned area before it swells. Have the victim put his or her jewelry in a safe place after removal.</li> <li>2. Cool the burned part with water by either holding it under cold, running water, pouring cold water over it, immersing it in cold water, or applying cold wet compresses to it. Cooling the burn with water helps remove heat from the skin, relieves pain and swelling, and cleans the injury. Continue this cooling treatment for between five and 15 minutes until the pain subsides.</li> </ol>	<b>16</b>

## Chapter 10 / Section 3: NS1-U5C10S3 – Burns

	<ol style="list-style-type: none"> <li>3. Gently pat the burned area dry with a clean cloth.</li> <li>4. Cover the injury with a sterile bandage or clean cloth to keep air off of it, thereby reducing pain, and to provide protection against infection. Keep the bandage loose to keep pressure off of the injury.</li> <li>5. After a first-degree burn is completely cooled, especially a sunburn, use a lotion or moisturizer to relieve pain and prevent drying of the skin.</li> </ol>	
<b>Treatment of Heat Burns</b>	<p>Explain that to treat second-degree burns, follow these steps:</p> <ol style="list-style-type: none"> <li>1. For second-degree burns, follow steps one through four for treating first-degree burns. If you use running water to cool the injured part, ensure the water is not so forceful that blisters on the burned skin are broken.</li> <li>2. Elevate the burned part.</li> <li>3. Ensure the victim drinks plenty of liquids to avoid dehydration.</li> <li>4. Seek medical treatment for second-degree burns to the face, hands, feet, or genitals or that are more than two to three inches in diameter.</li> </ol> <p>Note: For extensive second-degree burns, monitor the victim for signs of shock and treat accordingly until he or she receives medical treatment. See the previous section, “Treating for Shock and Immobilizing Fractures,” for signs and treatment of shock. For second-degree burns to the face, especially if accompanied by smoke inhalation, the victim may have respiratory burns that can lead to swelling and blockage of his or her airway. Monitor the victim’s breathing and treat accordingly until he or she receives medical treatment.</p>	<b>17</b>
<b>Treatment of Heat Burns</b>	<p>Explain that to treat third-degree burns, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Remove the victim from the source of heat if he or she is still in contact with it. (See the following section for removing a victim from a source of electricity.)</li> <li>2. Call for emergency medical services (EMS). All third-degree burns require medical treatment regardless of their size. Until the victim receives treatment, follow Steps 3 through 9.</li> <li>3. Ensure that the victim is breathing. If not, begin mouth-to-mouth resuscitation.</li> <li>4. Remove any clothing that is still smoldering to stop further burning. If the victim is wearing jewelry that is near or on a burned area, remove it if it comes off easily. Place the jewelry in the victim’s pocket or purse if available. If not, reassure the victim that you will give his or her jewelry to emergency medical personnel when they arrive.</li> <li>5. If necessary, expose the burned area by cutting and gently lifting away any clothing. If any cloth sticks to the burn, leave it in place.</li> </ol> <p>Note: If you are in a chemically contaminated area, do not expose the burned area; simply apply a dressing over the victim’s clothing.</p> <ol style="list-style-type: none"> <li>6. Cover the burned area loosely with cool moist compresses, sterile bandages, or clean cloth. Note: Unlike treatment for first- and second-degree burns, do not cool a third-degree burn with water because this can increase the risk of shock.</li> <li>7. Elevate the burned part.</li> <li>8. Treat the victim for shock. Pay special attention to the victim’s body temperature, which can change rapidly due to the skin being burned.</li> <li>9. Monitor breathing of victims with burns to the face and burns resulting from fire accompanied by smoke inhalation. Treat accordingly.</li> </ol>	<b>18-19</b>
<b>Don’ts When Treating Burns</b>	<p>Explain that it is important to know what to do when treating burns, but it is equally as important to know what not to do. The following list details actions that should never</p>	<b>20-22</b>

## Chapter 10 / Section 3: NS1-U5C10S3 – Burns

	<p>be done when treating burns.</p> <ul style="list-style-type: none"> <li>• Do not put butter, oil, or grease on a burn; these ointments can keep heat in the burn and cause more damage, as well as increase the chance of infection.</li> <li>• Do not use cotton or cottony bandages on burns as they may stick to the injury.</li> <li>• Do not put ice or ice water on a burn; this can result in frostbite and cause more damage to the skin.</li> <li>• Do not break any blisters that have formed; blisters help protect against infection.</li> <li>• Do not put pressure on a burn.</li> <li>• Do not try to remove stuck clothing, debris, or loosened skin from a burn.</li> <li>• Do not try to clean a wound with soap, alcohol, or any other antiseptic product; only water should be used and only on first- and second-degree burns.</li> <li>• Do not let a victim walk on burned feet even if he or she tells you it does not hurt; third-degree burns can cause little pain because nerve endings are destroyed, but damage is severe and pressure from walking will only increase it.</li> </ul>	
<b>Prevention of Heat Burns</b>	<p>Explain that there are many things you can do to prevent heat burns, including the following:</p> <ul style="list-style-type: none"> <li>• Use caution when handling matches and starting a fire, particularly with a flammable liquid.</li> <li>• If you have young brothers and sisters, store matches out of their reach.</li> <li>• Use caution around hot liquids, steam, and heating and cooking equipment.</li> <li>• Ensure hot tap water is not scalding</li> <li>• Ensure hot tap water is not scalding before stepping into a tub or shower or putting your hands under a running faucet.</li> <li>• Ensure your home has a fire extinguisher and smoke alarms.</li> <li>• Never use water on an electrical fire; use a chemical fire extinguisher.</li> <li>• If anyone in your household smokes, remind them not to smoke in bed.</li> <li>• Keep a box of baking soda in the kitchen to smother grease fires.</li> <li>• Turn pot handles on the stove so they are not sticking out where someone may bump them in passing.</li> <li>• For electric cookware, do not let cords hang off the counter, where they can be caught and pull the cookware off as well.</li> <li>• If a pilot light goes out on a gas appliance, make sure all burners and the stove are turned off and ventilate the area before relighting it or before using electrical switches, which make tiny sparks.</li> <li>• Do not leave flammable items (such as newspapers or dishcloths) near the fireplace or on or near the stove.</li> <li>• Turn off space heaters before going to sleep or leaving the house.</li> <li>• Know what actions to take if a fire starts in your home and practice them with family members.</li> </ul>	<b>23-24</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	<p>Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.</p>	<b>25</b>
<b>Treatment of Electrical Burns</b>	<p>Explain that although an electrical shock will often produce only a minor mark on the skin, the injury can be a serious, deep-tissue burn, so treat all electrical burns as third degree. The current from an electrical shock passing through a victim's body can also result in unconsciousness and may slow or stop his or her breathing and/or heartbeat;</p>	<b>26</b>

## Chapter 10 / Section 3: NS1-U5C10S3 – Burns

	therefore, treat electrical shock as a potentially life-threatening injury.	
<b>Treatment of Electrical Burns</b>	Explain that if you believe a person has been electrocuted, assess the situation first, before touching the victim. He or she may still be in contact with the electrical current, and if you touch him or her, you could become a victim of electrical shock as well.	<b>27</b>
<b>Treatment of Electrical Burns</b>	<p>Follow these steps to avoid a double accident and provide first aid treatment:</p> <p>1. If the victim is still in contact with the source of electricity, stop the current. Stop the electrical current by unplugging a cord, removing a fuse from the fuse box, or turning off the circuit breaker. Remember that in many cases, just turning off a wall or appliance switch does not stop the electrical flow. Even though you have shut off the electrical current, to be completely safe, move the victim away from the electrical source before continuing. Proceed to step 3.</p> <p>If you cannot turn off the electricity or you are outside and the shock is due to a downed power line, either call the power company yourself if you have a phone near you, or if there are other people around, have someone else call the power company. Meanwhile, since it may take you less time to separate the victim from the current than to wait for the power to be cut off, proceed to step 2. Or, if you are alone and/or there is no phone readily available in this situation, proceed to step 2.</p>	<b>28</b>
<b>Treatment of Electrical Burns</b>	2. Separate the victim from the source of electrical current (see Figure 10.15). Push the victim off of or away from the source of electricity—or push the source of electricity off of or away from the victim—using a dry non-conducting material (wood, plastic, cardboard) like a broom, stick, or chair. If available, also stand on something dry and non-conducting, like newspaper or a rubber mat, as you disengage the victim.	<b>29</b>
<b>Treatment of Electrical Burns</b>	<p>If pushing does not work, use a dry rope or dry clothing to lift or drag the victim off of or away from the source of electricity. This method works better if there are two rescuers: one to lift the victim off and the other to push the electrical source away.</p> <p>Special Precaution: If the ground is wet, do not attempt to move a victim in contact with an electrical current. Water conducts electricity, and you, too can be electrocuted. In this case, the current must be stopped before you can administer first aid.</p>	<b>30</b>
<b>Treatment of Electrical Burns</b>	<p>3. Check the victim's breathing and pulse. Be prepared to administer mouth-to-mouth resuscitation or cardiopulmonary resuscitation (CPR) if the victim's breathing is shallow or nonexistent or if the pulse is dangerously slow or nonexistent.</p> <p>4. After you are sure the victim is breathing, take the time to call EMS if you or someone else has not already done so.</p>	<b>31</b>
<b>Treatment of Electrical Burns</b>	<p>5. Check the victim for two burn sites—one where the electricity entered the body and one where it exited the body. Treat the burns by following steps 4 through 9 for treating third-degree burns, including treating for shock and monitoring breathing.</p> <p>Note: About 1,000 people die each year in the United States from electrical shock.</p>	<b>32</b>
<b>Prevention of Electrical Burns</b>	<p>Explain that electrical burns can be prevented if you know what to do. How to prevent electrical burns:</p> <ul style="list-style-type: none"> <li>• Do not use electrical appliances in the tub, while showering, or in or near swimming pools.</li> </ul>	<b>33-37</b>

## Chapter 10 / Section 3: NS1-U5C10S3 – Burns

	<ul style="list-style-type: none"> <li>• Do not use electrical equipment outdoors if it is raining or the ground is wet.</li> <li>• Ensure electrical equipment you use outdoors is made for outdoor use, with three-way ground plugs and heavier wiring.</li> <li>• Ensure outdoor electrical outlets have weatherproof covers.</li> <li>• If you have very young brothers or sisters, ensure there are child safety plugs in all electrical outlets.</li> <li>• Do not overload an outlet by plugging in several appliances in a “piggyback” fashion (see Figure 10.16).</li> <li>• Do not use electrical appliances or equipment that have exposed wiring or frayed cords or that overheat or create sparks.</li> <li>• Do not climb trees that have wires running through or near them.</li> <li>• Look for overhead wires before using long tools like tree trimmers, pool skimmers, or ladders.</li> <li>• Stay inside during electrical storms; keep away from windows; do not use appliances or the phone, because lightning can travel through wires; and do not take a shower or bath, because lightning can also travel through pipes.</li> <li>• If you are caught outside during an electrical storm, avoid trees, poles, and metal objects; find low ground and crouch down.</li> </ul>	
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students’ understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>38</b>
<b>Treating Chemical Burns</b>	Explain that chemical burns occur when the skin or eyes come in contact with liquid or dry chemicals that are caustic or irritating. You may have products around your house, such as rust and paint removers and drain and cement cleaners, that contain acids designed to eat away certain materials; and bases (also called alkalis) which are used to cut through grease. If used carelessly or improperly, these products may also do the same to your clothes and skin.	<b>39-40</b>
<b>Treating Chemical Burns</b>	Explain that the seriousness of a chemical burn depends on the: <ul style="list-style-type: none"> <li>• Length of time the chemical is in contact with the skin or eyes</li> <li>• Concentration of the chemical; the more concentrated, the more damaging</li> <li>• Temperature of the product containing the chemical; the higher the temperature, the quicker the damage.</li> </ul>	<b>41</b>
<b>Treating Chemical Burns to the Skin</b>	Explain that to treat chemical burns to the skin, follow these steps: <ol style="list-style-type: none"> <li>1. Depending on the extent of chemical coverage on the victim or in the area, consider wearing gloves and/or safety goggles, if available, to protect yourself from chemical injuries while assisting the victim.</li> <li>2. Remove any contaminated jewelry or clothing from the victim, including shoes and socks where chemicals can collect.</li> </ol>	<b>42</b>
<b>Treating Chemical Burns to the Skin</b>	<ol style="list-style-type: none"> <li>3. Remove the chemical from the skin.</li> </ol> <p>For liquid chemicals, flush them from the contaminated skin with large amounts of cool running water for at least 15 minutes. For dry chemicals, brush them off the skin using a clean, dry cloth. Take care to keep the chemicals from blowing into your eyes or the victim’s eyes and avoid brushing the chemicals onto your own skin. Then, if large amounts of water are available, flush the contaminated area for at least 15 minutes. If large amounts of water are not available, do not apply any water to the contaminated area because small amounts of water can react with dry chemicals causing more burning.</p> <p>Note: If the victim says he or she feels the burning has intensified after you have finished flushing the contaminated area, flush for several more minutes, or longer, as necessary.</p>	<b>43</b>



## Chapter 10 / Section 3: NS1-U5C10S3 – Burns

<b>Treating Chemical Burns to the Skin</b>	<p>4. Cover the burned area loosely with dry, clean bandages or cloths.</p> <p>5. Minor chemical burns generally heal without further treatment; however, call EMS for:</p> <ul style="list-style-type: none"> <li>• Any chemical burn to the face, hands, feet, genitals, or joints</li> <li>• Second-degree chemical burns over two to three inches in diameter</li> <li>• All third-degree chemical burns</li> <li>• If there is a systemic reaction to the chemical burn and/or chemical exposure.</li> </ul> <p>Note: For extensive or severe chemical burns, monitor the victim for signs of shock and treat accordingly until he or she receives medical treatment. For a victim with chemical burns to the face or who may have inhaled chemicals, monitor his or her breathing in case of possible respiratory burns and swelling. Treat accordingly until medical help arrives.</p>	<b>44-45</b>
<b>Treating Chemical Burns to the Eyes</b>	<p>Explain that to treat chemical burns to the eyes, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Position the victim's head so that the injured eye is lower than the uninjured eye. This will prevent the chemical from getting into the uninjured eye (see Figure 10.17). If both eyes are injured, proceed to Step 2.</li> <li>2. If there is only one injured eye, hold the eyelids of the injured eye open and flush with water from the inner corner of the eye (closest to the nose) to the outer corner (closest to the ear). Flush for at least 15 minutes. If both eyes are injured, flush both at the same time.</li> </ol>	<b>46</b>
<b>Treating Chemical Burns to the Eyes</b>	<ol style="list-style-type: none"> <li>3. To keep the victim from moving his or her injured eye(s), have the victim close both eyes, then cover them with cloth pads or gauze taped loosely into place. Because eyes move together, both eyes must be closed and covered to keep the injured eye still.</li> <li>4. Call EMS or transport the victim to the emergency room.</li> </ol>	<b>47</b>
<b>Treating Chemical Burns to the Eyes</b>	<p>Explain that follow the don'ts listed earlier in this lesson in "Don'ts When Treating Burns." In addition, do not put any other chemicals on a chemical burn in an attempt to neutralize the chemical causing the burn—for example, putting an acid on an alkali and vice versa.</p>	<b>48</b>
<b>Prevention of Chemical Burns</b>	<p>Explain that chemical burns can be prevented, if you know what to do. To help prevent chemical burns:</p> <ul style="list-style-type: none"> <li>• Before using any chemical product, read the label—including precautions or warnings and then follow the instructions for use.</li> <li>• If you have younger brothers or sisters, ensure chemical products are stored out of their reach.</li> <li>• Use chemical products in a well-ventilated area.</li> <li>• Do not mix different chemical products; they may react with each other, causing hazardous conditions. For example, mixing bleach and ammonia results in dangerous fumes.</li> <li>• To avoid confusion and accidental misuse of chemical products, leave them in their original containers with their labels intact.</li> </ul>	<b>49-50</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	<p>Have students respond to questions 7 and 8 covering the final segment of the lesson with follow-up reinforcement and discussion as appropriate.</p>	<b>51</b>
<b>Review Question</b>	<p>The Review Question is "Describe the process you would follow if you encounter a person who appears to have been electrocuted." Question is designed to provide an</p>	<b>52</b>

## Chapter 10 / Section 3: NS1-U5C10S3 – Burns

	opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>53</b>

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: White Board or MOBI

When: This should be done at the end of Chapter 10 section 2

- In Class: On a whiteboard or interactive white board, list the following words: Thermal, Caustic, Acids, Bases, Electrocutation, Current, Flame, Contact, Scald, UV Rays, Electrical, and Chemical. Ask Cadets to classify these types of burns into a chart.

Solution:

<u>Thermal</u>	<u>Chemical</u>	<u>Electrical</u>
<b>Flame</b>	<b>Caustic</b>	<b>Current</b>
<b>Contact</b>	<b>Acids</b>	<b>Electrocutation</b>
<b>Scald</b>	<b>Bases</b>	
<b>UV Rays</b>		

B. At Home Activity: Copy and distribute the handout “Burns Classification Activity” for cadet completion.

### IV. Evaluation - see CPS database for chapter test questions.

## Chapter 10 / Section 3: NS1-U5C10S3 – Burns

Activity 1: Take Home – Burns Classification Activity

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Read each activity, then check the type of burn, circle the probable degree of the burn and determine a course of action.

<b>Scenario</b>	<b>Probable Degree</b>	<b>Flame</b>	<b>Contact</b>	<b>Scald</b>	<b>UV Rays</b>	<b>Chem.</b>	<b>Elec.</b>	<b>What first aid or action should be taken?</b>
A boy stays outside for several hours while playing baseball. His face and arms are burned.	1 2 3							
Some battery acid splashes on a mechanic while he is working on a car. His leg is burned by the acid.	1 2 3							
A pot of hot coffee spills when a child pulls up on the table. The child's shoulder is burned by the hot coffee.	1 2 3							
While she is ironing clothes, a young woman accidentally touches her hand with the iron. Her hand is burned.	1 2 3							

**Chapter 10 / Section 3: NS1-U5C10S3 – Burns**

<b><u>Scenario</u></b>	<b><u>Probable Degree</u></b>	<b><u>Flame</u></b>	<b><u>Contact</u></b>	<b><u>Scald</u></b>	<b><u>UV Rays</u></b>	<b><u>Chem.</u></b>	<b><u>Elec.</u></b>	<b><u>What first aid or action should be taken?</u></b>
While using an electric grass cutter, a man accidentally steps in water. He is shocked and falls down, still holding the cutter.	1 2 3							
A young man's shirt sleeve catches fire while he is cooking. His arm and hand are burned.	1 2 3							
A small child inserted a metal key into an outlet. You find him laying in the hallway, unresponsive.	1 2 3							
During a science experiment, your lab partner has a chemical splashed in her eye.	1 2 3							

## Chapter 10 / Section 4: NS1-U5C10S4 – First Aid for Poison, Wounds and Bruises

(Section 4 of 6)

### What Students Will Learn to Do:

Determine first aid procedures and apply them as needed

### Skills and Knowledge to be Gained:

1. Give first aid treatment for burns, wounds, bruises and poisoning

### Outline of Instruction :

#### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Key terms	Key Term Definitions	Opening Question	Warm Up Questions	First Aid for Poisons, Wounds, and Bruises	Poisons	Inhaled Poisons	Check On Learning A
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Symptoms of Inhaled Poisons	Treatment for Inhaled Poisons	Oral Poisoning	Treatment for Oral Poisons	Check on Learning B	Wounds	Treatment of Wounds	Bruises	Closing Questions
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Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, chapter 10. Place a checkmark beside the NS1-U5C10S4 PowerPoint presentation, and these two CPS question deck files:  
NS1-U5C10S4 - Key Terms and NS1-U5C10S4 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 10 / Section 4: NS1-U5C10S4 – First Aid for Poisons, Wounds and Bruises

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn first aid procedures and how to apply them. You will learn what kinds of situations call for first aid, life-saving emergency skills, and first aid treatment for a wide variety of injuries, including shock, fractures, strains and sprains, burns, wounds, bruises, poisoning, heat- and cold-related injuries, bites, stings, and poisons.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “What should you do first if you are alone and see smoke coming from a house which you know there are probably people inside?” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on first aid for poisons and wounds.</p>	<b>7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>First Aid for Poisons, Wounds, and Bruises</b>	Explain that whenever there are small children left alone in the kitchen, accidents can happen, especially when cleaning products are left out in the open. The first part of this section introduces the treatment and prevention of injury from poisons. As an addition to your first aid abilities, the lesson ends with a discussion of different types of wounds and their treatment, as well as the treatment of bruises.	<b>9</b>
<b>Poisons</b>	Explain that as consumers, we buy more than a quarter of a million different household products, including materials used in and around the house for medication, cleaning, cosmetic purposes, exterminating insects, and killing weeds. These items are valuable in the house and for yard maintenance, but misuse, especially when products are used in inappropriate applications or quantities, can cause illness, injury, and even death.	<b>10</b>
<b>Poisons</b>	Explain that each year more than 6,000 people die and an estimated 300,000 suffer disabling illnesses as a result of unintentional poisoning by solid and liquid substances. Poisonings can happen to anyone, at any time, in any situation. However, poisonings at home can be prevented.	<b>11</b>
<b>Poisons</b>	Although child-resistant packaging has greatly reduced the number of fatalities among children less than five years of age, parents, grandparents, and other caregivers must	<b>12</b>

## Chapter 10 / Section 4: NS1-U5C10S4 – First Aid for Poisons, Wounds and Bruises

	<p>still be cautious. Following label directions for all products, including medication dosages and the proper storage of potentially toxic products, are important precautions to follow.</p> <ul style="list-style-type: none"> <li>• Poisonings from solids and liquids such as drugs, medicines, poisonous houseplants, and commonly recognized poisons caused 6,300 deaths in the home in 1998 alone.</li> <li>• An additional 500 deaths in the home in 1998 were due to poisonings from gases and vapors such as carbon monoxide.</li> <li>• These deaths are not all among children. Another age group at risk is the group of adults age 25 through 44. Many adults are unintentionally poisoned when they do not follow label directions on medications or household chemicals.</li> </ul>	
<b>Poisons</b>	<p>Explain that poisoning is the effect of one or more harmful substances on the body. Poisons can be inhaled or ingested. Fortunately, most poisonings happen with products of low toxicity or with amounts so small, severe poisoning rarely occurs. However, the potential for severe or fatal poisoning is present.</p>	<b>13</b>
<b>Inhaled Poisons</b>	<p>Explain that inhaled poisoning occurs when a person breathes a poisonous substance into his or her lungs. Inhaled poisons include the following:</p> <ul style="list-style-type: none"> <li>• Smoke</li> <li>• Gas used in outdoor cooking equipment and appliances in homes and recreational vehicles</li> <li>• Hazardous fumes from household products such as paint and paint thinners, gasoline, solvents, and glues, as well as from chemicals used in industrial processes</li> <li>• Carbon monoxide, which is always produced by wood, coal, and charcoal fires and by gasoline engines, can also be produced by gas, oil, and kerosene appliances such as furnaces, space heaters, water heaters, and stoves.</li> </ul>	<b>14</b>
<b>Inhaled Poisons</b>	<p>Explain that carbon monoxide in particular, is a very dangerous poisonous substance. It is odorless, colorless, and tasteless, making it difficult to detect. When a person inhales carbon monoxide, it replaces oxygen in the blood resulting in oxygen starvation throughout the body. Exposure to low amounts of carbon monoxide can cause flulike symptoms. Continued exposure can cause permanent brain, nerve, and heart damage. Exposure to very high concentrations can kill a person in a few minutes.</p>	<b>15-16</b>
<b>Inhaled Poisons</b>	<p>Explain that running a car engine in a closed garage, using a charcoal grill indoors, and burning a fire in a fireplace with a blocked chimney can all result in carbon monoxide poisoning. In addition, carbon monoxide forms when there is a lack of oxygen resulting in incomplete fuel combustion. Therefore, operating fuel-burning equipment without an adequate supply of oxygen (proper ventilation) can result in carbon monoxide poisoning. Hundreds of people in the United States suffer carbon monoxide injuries each year from using portable heaters, lanterns, and camping stoves inside tents, campers, and vehicles.</p>	<b>17</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	<p>Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.</p>	<b>18</b>
<b>Symptoms of Inhaled Poisons</b>	<p>Explain that symptoms of inhaled poisoning may not show up immediately. If you suspect inhalation poisoning, keep the victim under observation. If you know the victim has inhaled a poisonous chemical, get medical help whether or not symptoms are present. Symptoms will vary depending on the type and amount of poison inhaled but can include any of the following:</p>	<b>19-20</b>

## Chapter 10 / Section 4: NS1-U5C10S4 – First Aid for Poisons, Wounds and Bruises

	<ul style="list-style-type: none"> <li>• Dizziness</li> <li>• Weakness</li> <li>• Drowsiness</li> <li>• Headache</li> <li>• Mental confusion</li> <li>• Breathing difficulties</li> <li>• Heartbeat irregularities</li> <li>• Unusual breath odor</li> <li>• Discoloration of the lips and mucous membranes</li> <li>• Nausea</li> <li>• Vomiting</li> <li>• Rashes or burns on the skin</li> <li>• Unconsciousness.</li> </ul>	
<b>Treatment for Inhaled Poisons</b>	<p>Explain that before rushing in to rescue a victim from an environment filled with smoke, gas or fumes, quickly assess the situation so that you do not end up a victim as well. If the poisonous substance is overwhelming and the danger to you is too great, do not attempt to rescue the victim unless you have been trained for rescue in this type of situation. Immediately call EMS and stay clear of danger.</p>	<b>21</b>
<b>Treatment for Inhaled Poisons</b>	<p>Explain that however, if after assessing the situation you believe you can safely remove the victim from the poisonous environment, do so by following these steps.</p> <ol style="list-style-type: none"> <li>1. If you are alone, call for help first before attempting the rescue. This will notify others of the situation; a precaution that will ensure help is on its way in case you are also overcome by the poison.</li> <li>2. Take several deep breaths of fresh air, then take a final deep breath and hold it as you go in. If available, a damp cloth held over your nose and mouth is a good safety precaution.</li> </ol>	<b>22</b>
<b>Treatment for Inhaled Poisons</b>	<p>Note: Do not use light switches, light a match, or use any other equipment or appliance that produces flames or sparks while you are in a gas or fume-filled area.</p> <ol style="list-style-type: none"> <li>3. If you can see fumes or smoke, keep your head out of them. For example, fumes from car exhaust are heavy and settle near the floor, so keep your head above them; but in the case of smoke, which rises, keep your head below it.</li> </ol>	<b>23</b>
<b>Treatment for Inhaled Poisons</b>	<ol style="list-style-type: none"> <li>4. Move the victim out into the fresh air. If for some reason this is not possible, open doors and windows to ventilate the area, returning out into the fresh air as necessary to ensure your safety. Do not administer first aid until you and the victim are out of the hazardous environment or the area is ventilated.</li> </ol> <p>Explain that check the victim's airway, breathing, and circulation (ABCs) and perform mouth-to-mouth resuscitation and CPR as necessary. After you are sure the victim is breathing, call the EMS if you or someone else has not already done so. Even if the victim seems fine after he or she is in fresh air, call for medical help as symptoms may show up later. While you are waiting for medical help, treat the victim for any burns he or she may have suffered and monitor for shock.</p>	<b>24</b>



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<b>Oral Poisoning</b>	Explain that oral poisoning occurs when a harmful substance, such as a common household cleaning product, is swallowed. First aid for oral poisoning depends on the substance swallowed.	<b>25</b>
<b>Oral Poisoning</b>	<p>Explain that symptoms and signs will vary depending on the type and amount of poison inhaled but can include any of the following:</p> <ul style="list-style-type: none"> <li>• Abdominal pain and cramping</li> <li>• Nausea or vomiting</li> <li>• Diarrhea</li> <li>• Burns, odor, and stains around and in mouth</li> <li>• Drowsiness or unconsciousness</li> <li>• Poison containers nearby.</li> </ul>	<b>26</b>
<b>Treatment for Oral Poisons</b>	<p>Explain the procedures for treating oral poisoning:</p> <ol style="list-style-type: none"> <li>1. Determine critical information: <ul style="list-style-type: none"> <li>• Age and size of victim</li> <li>• What was swallowed</li> <li>• How much was swallowed</li> <li>• When it was swallowed.</li> </ul> </li> <li>2. If a corrosive or caustic substance was swallowed, immediately dilute it by having the victim drink at least one or two eight-ounce glasses of water or milk.</li> </ol>	<b>27</b>
<b>Treatment for Oral Poisons</b>	<ol style="list-style-type: none"> <li>3. For a responsive victim, call a poison control center immediately. More than 70 percent of poisonings can be treated through instructions taken over the telephone from a poison control center. For an unresponsive victim, or if the poison control center number is unknown, call EMS and monitor the ABCs.</li> <li>4. Place the victim on his or her left side to position the end of the stomach where it enters the small intestine straight up. Gravity will delay advancement of the poison into the small intestine, where absorption into the victim's circulatory system is faster.</li> </ol>	<b>28</b>
<b>Treatment for Oral Poisons</b>	<ol style="list-style-type: none"> <li>5. Induce vomiting only if a poison control center or physician advises it. Inducing must be done within 30 minutes of swallowing.</li> <li>6. Save poison containers, plants, and so on to help medical personnel identify the poison.</li> </ol>	<b>29</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>30</b>
<b>Wounds</b>	<p>Explain that wounds are soft tissue injuries that break the skin. Generally, they can be classified as follows:</p> <ul style="list-style-type: none"> <li>• Scrapes (abrasions) are caused by sliding contact between the skin and a rough surface. They are generally shallow injuries with little bleeding.</li> <li>• Cuts (incisions) are straight, even wounds made with sharp objects like knives or razor blades.</li> <li>• Tears (lacerations) are caused by objects with sharp, irregular edges or by exerted force that leaves jagged, torn tissue.</li> </ul>	<b>31</b>

## Chapter 10 / Section 4: NS1-U5C10S4 – First Aid for Poisons, Wounds and Bruises

	<ul style="list-style-type: none"> <li>• Punctures are caused by pointed objects such as pins and nails that make small holes in tissue, often with little bleeding.</li> </ul>	
<b>Wounds</b>	<p>Explain that all wounds can be minor or serious depending upon their size, depth, location, and source. Minor wounds involve only the outer skin layer. They stop bleeding in a few minutes on their own or with gentle pressure and can be treated with just first aid. Serious wounds require first aid followed by medical treatment. Consider a wound serious if the following characteristics are evident:</p> <ul style="list-style-type: none"> <li>• The skin is cut or torn all the way through so that it gapes open</li> <li>• Fat, muscle, or tendons are visible</li> <li>• Bleeding is heavy and does not slow or stop after applying pressure for 15 to 20 minutes</li> <li>• Soil or other debris cannot be washed from the wound</li> <li>• There is loss of function such as the inability to move a cut finger</li> <li>• It is on the face; even a small wound may leave a scar</li> <li>• It is on the bottom of the foot</li> <li>• Its source is a rusty or dirty object, or an animal or human bite.</li> </ul>	<b>32</b>
<b>Wounds</b>	<p>Explain that some extremely serious injuries that generally contain a combination of the four kinds of wounds and always require immediate medical attention are amputations, avulsions, and crushing injuries. They are generally the result of motor vehicle or industrial machinery accidents or explosions.</p>	<b>33</b>
<b>Wounds</b>	<p>Explain an amputation is the complete removal of an extremity, such as a finger or leg.</p> <p>Explain an avulsion is tissue torn from or pulled away from and hanging off of the body. This type of injury may also result from an animal bite.</p> <p>Explain crushing injuries occur when parts of the body are caught between heavy objects or when the body is thrown against a heavy object. Crushing injuries also include bone fractures as well as possible injuries to internal organs and internal bleeding.</p>	<b>34</b>
<b>Treatment of Wounds</b>	<p>Clean a minor wound by flushing it with cool water and washing it with mild soap. Dry the wound thoroughly with a clean cloth, apply a thin layer of antibiotic ointment to keep the wound moist and protect against infection, and cover it with a bandage to keep it clean. Change the bandage whenever it gets wet or dirty. Consider leaving the bandage off at night when sleeping as exposure to air also helps the healing process. Contact a doctor if the wound does not appear to be healing after several days or if the wound shows signs of infection such as redness, draining, or swelling.</p>	<b>35</b>
<b>Treatment of Wounds</b>	<p>Explain that for any wound caused by a rusty or dirty object or an animal bite, ask if the victim has had a tetanus shot within the past 10 years. If not, suggest that he or she get a tetanus shot to guard against tetanus infection.</p>	<b>36</b>
<b>Treatment of Wounds</b>	<p>Explain that for extremely serious injuries such as amputations, avulsions, or crushing injuries, call EMS, control the bleeding, monitor breathing, treat for shock, and provide comfort to the victim until medical help arrives. Remember that tourniquets should only be used in extreme, life-threatening situations, and pressure points should only be used if you are trained to do so.</p>	<b>37</b>

## Chapter 10 / Section 4: NS1-U5C10S4 – First Aid for Poisons, Wounds and Bruises

<b>Bruises</b>	Explain that bruises are injuries that discolor but do not break the skin tissue. They can be caused by a fall, a blow, or bumping into something. Though sometimes very ugly and lasting for several weeks, they are usually not very serious. Wrap ice or an ice pack in a clean towel and apply it to the bruise. To reduce swelling, elevate the bruised part for 20 to 30 minutes if the injury is mild or for a few hours if it is severe. Seek medical attention if swelling increases unusually, pain increases, the bruise site appears deformed, or there is an inability to move a body part associated with the bruise.	<b>38-39</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>40</b>
<b>Review Question</b>	The Review Question is “Describe how you would provide different treatment if your oral poison victim was responsive as opposed to nonresponsive.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>41</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>42</b>

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: handouts for discussion

When: This activity should take place after slide 17

- In Class: Copy and distribute Carbon Monoxide Danger Handout and have cadets study the information. As a class, discuss the potential hazards that exist in homes and the facts about Carbon Monoxide poisoning.

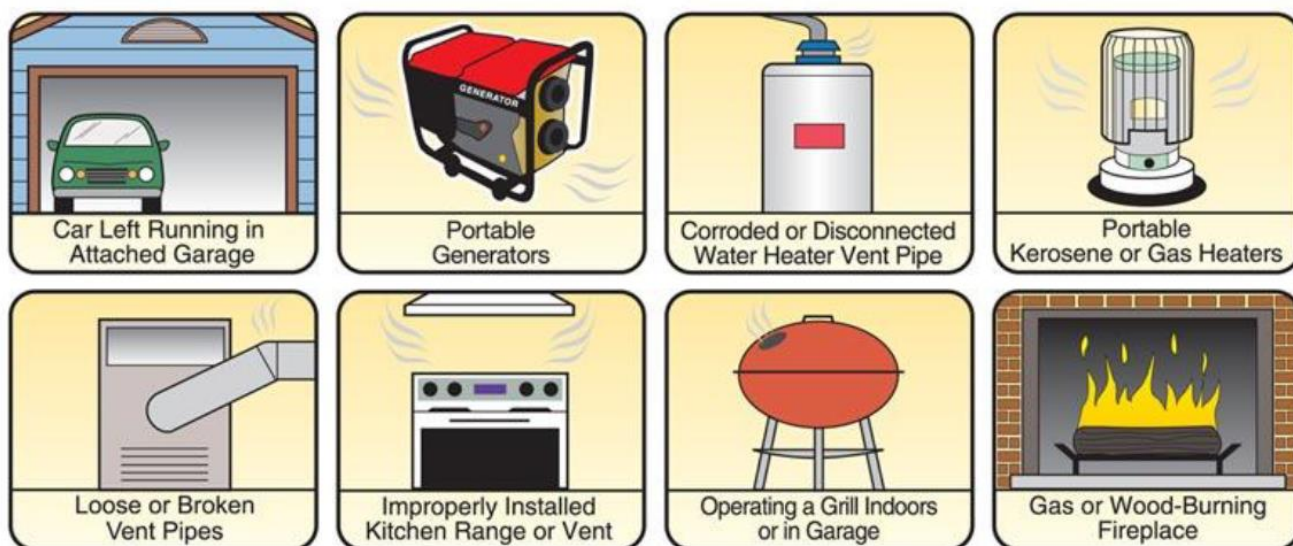
B. At Home Activity: Cadets take home the CO safety checklist and discuss the checklist with a parent or guardian.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 10 / Section 4: NS1-U5C10S4 – First Aid for Poisons, Wounds and Bruises**

### Activity 1 – In Class Activity- Carbon Monoxide Danger

#### **Potential CO Dangers in Your Home**



#### **FACTS**

- CO is produced anytime a fuel is burned. Potential sources include gas or oil furnaces, water heaters, space heaters, clothes dryers, barbecue grills, fireplaces, wood-burning stoves, gas ovens, generators, and car exhaust fumes.
- CO poisoning is the leading cause of accidental poisoning deaths in America. (Centers for Disease Control)
- Every year more than 10,000 people die or seek medical attention due to CO poisoning from home-related products. (Consumer Product Safety Commission)
- More than two-thirds of Americans use gas, wood, kerosene or another fuel as their home's major heat source.
- 65% of CO poisoning deaths from consumer products are due to heating systems.
- Only 27% of homes in America have carbon monoxide alarms, according to the Hardware/Homecenter Research Industry.
- An idling vehicle in an attached garage, even with the garage door opened, can produce concentrated amounts of CO that can enter your home through the garage door or nearby windows.
- CO poisoning deaths from portable generators have doubled for the past two years, and many of these deaths occurred in the winter months and during power outages.
- A poorly maintained gas stove can give off twice the amount of CO than one in good working order.

## **Chapter 10 / Section 4: NS1-U5C10S4 – First Aid for Poisons, Wounds and Bruises**

### **PREVENTION**

- Install at least one battery-powered CO alarm or AC-powered unit with battery backup on each level of your home and near sleeping areas.
- Do not use charcoal or gas grills inside or operate outdoors near a window where CO fumes could seep in through a window.
- Check all carbon monoxide alarms in your home. Do they use the most accurate sensing technology? Do they need new batteries?
- Replace CO alarms every five to seven years in order to benefit from the latest technology upgrades.
- Have a licensed professional inspect heating systems and other fuel-burning appliances annually.
- Install fuel-burning appliances properly and operate according to the manufacturer's instructions.
- Keep chimneys clear of animal nests, leaves and residue to ensure proper venting. Have all fireplaces cleaned and inspected annually.
- Do not block or seal shut the exhaust flues or ducts used by water heaters, ranges and clothes dryers.
- Do not leave your car running in an attached garage or carport.
- Do not use ovens or stoves to heat your home.

## **Chapter 10 / Section 4: NS1-U5C10S4 – First Aid for Poisons, Wounds and Bruises**

### Activity 1: Take Home Activity – Carbon Monoxide Home Checklist

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Discuss and fill out the checklist with a parent or guardian. Bring back to class for discussion.

- |       |     |       |    |     |  |
|-------|-----|-------|----|-----|--|
| _____ | Yes | _____ | No | 1.  | Have you installed at least one battery –powered CO alarm or AC-powered unit with battery backup on each level of your home and near sleeping areas? |
| _____ | Yes | _____ | No | 2.  | Does a licensed professional inspect the heating systems and other fuel-burning appliances in your home annually?                                    |
| _____ | Yes | _____ | No | 3.  | Have you made sure that fuel-burning appliances are installed properly?  |
| _____ | Yes | _____ | No | 4.  | Do you keep chimney clear of animal nests, leaves and residue to help ensure proper ventilation?   |
| _____ | Yes | _____ | No | 5.  | Have you made sure not to block or seal shut the exhaust flues or ducts used by water heaters, ranges and clothes dryers?                            |
| _____ | Yes | _____ | No | 6.  | Are you careful not to leave your car running in an attached garage or carport?  |
| _____ | Yes | _____ | No | 7.  | Are you careful not to use stoves or ovens to heat your home?  |
| _____ | Yes | _____ | No | 8.  | Are you careful to not use charcoal or gas grills inside or outdoors near a window where CO fumes could seep into your home?                         |
| _____ | Yes | _____ | No | 9.  | Do you test all carbon monoxide alarms in your home monthly? Do they use the most accurate sensing technology?                                       |
| _____ | Yes | _____ | No | 10. | Do you replace all CO alarms every seven years in order to benefit from the latest technology upgrades?  |
| _____ | Yes | _____ | No | 11. | Are you careful not to use generators and grills inside during a power outage?   |

## Chapter 10 / Section 5: NS1-U5C10S5 – Heat and Cold Weather Injuries

(Section 5 of 6)

### What Students Will Learn to Do:

Determine first aid procedures and apply them as needed

### Skills and Knowledge to be Gained:

1. Give first aid treatment for heat- and cold-related injuries

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Heat Injuries	Causes of Heat Injuries	Factorsto Consider	Types of Heat Injuries
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Heat Cramps	Heat Exhaustion	Heatstroke	Prevention of Heat Injury	Check On Learning A	Cold Weather Injuries	Factorsto Consider	Types of Cold Injuries	Frostbite
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Check on Learning B	Immersion Foot/Trench Foot	Hypothermia	Snow Blindness	Dehydration	Prevention of Cold Injuries	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 5, chapter 10. Place a checkmark beside the NS1-U5C10S5 PowerPoint presentation, and these two CPS question deck files: NS1-U5C10S5 - Key Terms and NS1-U5C10S5 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 10 / Section 5: NS1-U5C10S5 – Heat and Cold Weather Injuries

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn first aid procedures and how to apply them. You will learn what kinds of situations call for first aid, life-saving emergency skills, and first aid treatment for a wide variety of injuries, including shock, fractures, strains and sprains, burns, wounds, bruises, poisoning, heat- and cold-related injuries, bites, stings, and poisons.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-8</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 factors that you think may affect the loss of body heat in cold weather.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on head and cold weather injuries.	<b>9</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>10</b>
<b>Heat Injuries</b>	Explain that participating in any vigorous outdoor exercise or activity on an extremely hot day can lead to serious injuries if you are not prepared. Knowing how to recognize the signs and symptoms of heat related injuries can help you prevent a life-threatening accident.	<b>11</b>
<b>Causes of Heat Injuries</b>	<p>Explain that for your body to work properly, its temperature must be normal, which is around 98° Fahrenheit. You risk health problems, and even death, if your body gets too cold or too hot.</p> <p>Explain that heat injuries can occur when people are exposed to high temperatures and high humidity. When it is hot, your body cools itself by perspiring; sweat evaporates to carry heat away from your body. However, you risk heat injuries when you lose large amounts of water, salt, or both through perspiration and you do not replace the lost fluid. This results in dehydration. You also risk injury in high humidity when sweat does not evaporate as rapidly as needed to keep the body cool, causing heat to build up. The body will then perspire even more in an attempt to cool itself, losing dangerous amounts of fluids in the process.</p>	<b>12-13</b>



## Chapter 10 / Section 5: NS1-U5C10S5 – Heat and Cold Weather Injuries

<b>Factors to Consider</b>	Explain that when perspiring, the body can lose more than a quart of water per hour. Therefore, because the body depends on water to cool itself, you should drink plenty of water when working or playing in hot weather. Salt helps the body to retain water and is also lost through perspiration. In most cases, you do not need to consume extra salt because you obtain adequate amounts through a balanced diet. In fact, consuming salt during hot weather activities may pull water away from muscles and other tissues where it is needed and into your digestive tract.	<b>14-15</b>
<b>Factors to Consider</b>	Explain that in addition to water intake and diet, consider the type of clothing you wear in hot weather. Wear clothes that fit loosely but also protect the body from sunburn. Wear natural fabrics, like cotton, through which perspiration evaporates better. Some activities require extra clothing or equipment, such as football or hiking with full camping gear. Soldiers may have problems acclimating to hot weather because of the type and amount of clothing and equipment they must wear. In each case, protective gear and equipment may reduce ventilation needed to cool the body. Ensure clothing or uniforms fit well but are not tight, and remove extra pieces of clothing and equipment as soon as they are no longer needed.	<b>16-17</b>
<b>Types of Heat Injuries</b>	Explain that overheating of the body progresses through stages. At first, a person may suffer heat cramps. If the person ignores the symptoms and continues exercising, working, or playing in the heat, he or she may experience heat exhaustion. If heat exhaustion is left untreated, heatstroke may follow and can be fatal.	<b>18</b>
<b>Heat Cramps</b>	Explain that heat cramps are muscular pains and spasms caused by the loss of salt from the body through heavy perspiring. Other symptoms may include stomach cramps, wet skin, and extreme thirst. To treat heat cramps: <ol style="list-style-type: none"> <li>1. Move the victim to a shady area, or improvise shade.</li> <li>2. Loosen the victim's clothing.</li> <li>3. Slowly give the victim large amounts of cool water.</li> <li>4. Monitor the victim and give more water as needed.</li> <li>5. Seek medical aid if cramps continue.</li> </ol>	<b>19</b>
<b>Heat Exhaustion</b>	Explain that when people work or exercise heavily in high temperatures or in a hot, humid place, the body loses fluids through heavy sweating. Heat exhaustion occurs when fluids are not adequately replaced or when sweat does not evaporate because of high humidity. Heat Exhaustion also occurs if the victim is wearing too many layers of clothing, causing the body to sweat even more. When the body loses a great amount of fluid, less blood flows to vital organs, resulting in a form of shock. The symptoms of heat exhaustion are as follows: <ul style="list-style-type: none"> <li>• Heavy sweating</li> <li>• Weakness or faintness</li> <li>• Dizziness or drowsiness</li> <li>• Cool, pale, moist skin</li> <li>• Headaches</li> <li>• Loss of appetite</li> <li>• Heat cramps</li> <li>• Nausea with or without vomiting</li> <li>• Confusion</li> <li>• Chills</li> <li>• Rapid breathing and pulse</li> <li>• Body temperature above normal but below 102°F.</li> </ul>	<b>20</b>

## Chapter 10 / Section 5: NS1-U5C10S5 – Heat and Cold Weather Injuries

<b>Heat Exhaustion</b>	<p>Treat heat exhaustion as follows:</p> <ol style="list-style-type: none"> <li>1. Move the victim to a cool, shady area, or improvise shade.</li> <li>2. Loosen the victim's clothing.</li> <li>3. Pour water on or apply cold, wet cloth to the skin. Fan the victim if it is a hot day.</li> <li>4. Have the victim slowly drink at least one quart of water.</li> <li>5. Elevate the victim's legs.</li> <li>6. Monitor the victim until symptoms are gone. If symptoms continue, seek medical aid.</li> <li>7. If possible, keep the victim from participating in heavy activity for the rest of the day.</li> </ol>	<b>21</b>
<b>Heatstroke</b>	<p>Explain that heatstroke, also known as sunstroke, is a medical emergency that can be fatal if not treated as soon as possible. The victim's cooling mechanism stops working when the body perspires so much that no fluids remain to produce sweat. Because the body can no longer sweat and sweating is its defense against overheating, body temperature rises and skin becomes red and flushed. If body temperature rises high enough, brain damage and death can occur. When you encounter a heatstroke victim, you must cool the victim as fast as possible.</p> <p>Explain the symptoms of heatstroke are as follows:</p> <ul style="list-style-type: none"> <li>• No sweating</li> <li>• Hot, dry, red skin</li> <li>• Headache, dizziness, nausea, and vomiting</li> <li>• Fast, weak pulse and shallow respiration</li> <li>• Seizures and mental confusion</li> <li>• Unconsciousness or sudden collapse</li> <li>• Very high body temperature.</li> </ul>	<b>22-23</b>
<b>Heatstroke</b>	<p>Treat victims of heatstroke as follows:</p> <ol style="list-style-type: none"> <li>1. Move the victim to a cool, shady area, or improvise shade.</li> <li>2. Loosen the victim's clothing. Remove any outer garments and protective clothing.</li> <li>3. Pour water on the victim or immerse in water, and fan the victim so sweat can evaporate. If you cannot immerse the victim, massage the arms and legs with cool water.</li> <li>4. If the victim is conscious, have him or her slowly drink at least one quart of water.</li> <li>5. Seek medical aid and transport the victim to a medical facility as soon as possible. Perform any necessary life-saving measures.</li> </ol>	<b>24</b>
<b>Prevention of Heat Injury</b>	<p>Explain that you can prevent heat injuries by taking just a few simple precautions and exercising a little common sense. If possible, limit your exposure to high temperatures and avoid working or exercising outside in hot, humid weather. During work or training periods, or in extremely hot climates, drink at least one quart of water every hour. Also, remember to dress for the hot weather and the activity being performed.</p>	<b>25</b>
<b>Prevention of Heat Injury</b>	<p>Explain that prevention of heat injuries is both an individual and leadership responsibility. Leaders should identify people who have a high risk of injury—basic trainees, overweight individuals, and individuals who have symptoms of fatigue or a previous history of heat injury. If possible, leaders should schedule heavy or strenuous activities during cooler morning or evening hours.</p>	<b>26</b>

## Chapter 10 / Section 5: NS1-U5C10S5 – Heat and Cold Weather Injuries

<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>27</b>
<b>Cold Weather Injuries</b>	Explain that it is common to think that people are susceptible to cold weather injuries only in areas where snow and frost are present. If you are not prepared, prolonged exposure to low temperatures, wind or moisture, whether it be on a ski slope or in a stranded car, can result in cold-related injuries such as frostbite and hypothermia, regardless of where you live.	<b>28</b>
<b>Factors to Consider</b>	Explain that when thinking about cold weather injuries, there are several factors you need to consider. These factors include weather, stress, clothing, physical makeup, psychological factors, and more. This section discusses these factors	<b>29</b>
<b>Factors to Consider</b>	Explain that low temperature, high humidity, precipitation, and high wind may affect the loss of body heat. Wind chill (the temperature of both the wind speed and air temperature combined) speeds up the loss of body heat and may aggravate cold injuries. By studying the wind chill chart shown in Figure 10.19, you can determine the chilling effect that wind speed has on temperature.	<b>30-32</b>
<b>Factors to Consider</b>	Explain that when in a stressful situation, people are more likely to experience fear, fatigue, dehydration, and lack of nutrition. These factors increase the possibility of cold injury.	<b>33</b>
<b>Factors to Consider</b>	Explain that when outside during cold weather, you should wear several layers of loose-fitting clothing and dress as lightly as the weather permits. This reduces the danger of excessive perspiration followed by a chill. It is better if the body is slightly cold and producing heat rather than overly warm and sweltering toward dehydration. Wet clothing adds to the possibility of cold injury.	<b>34</b>
<b>Factors to Consider</b>	Explain that physical fatigue leads to inactivity, personal neglect, carelessness, and less heat production. These, in turn, increase the risk of cold injury. Individuals who have had a cold injury before have a higher risk of being injured again.	<b>35</b>
<b>Factors to Consider</b>	Explain that mental fatigue and fear lessen the body's ability to rewarm itself and thus increase the possibility of cold injury. Depressed or unresponsive individuals are also at a higher risk of cold injury because they are less active and tend to be careless about protecting themselves.	<b>36</b>
<b>Factors to Consider</b>	Explain that individuals are also at risk of cold injury if they are <ul style="list-style-type: none"> <li>• In contact with the ground for an extended period</li> <li>• Immobile for long periods of time, such as while riding in a crowded vehicle</li> <li>• Standing in water</li> <li>• Out in the cold for days without being warmed</li> <li>• Deprived of an adequate diet and rest</li> <li>• Careless about personal hygiene</li> </ul>	<b>37</b>
<b>Types of Cold Injuries</b>	Explain that people exposed to severe cold can suffer from the following conditions: frostbite, immersion foot/trench foot, hypothermia, snow blindness, and dehydration.	<b>38</b>
<b>Frostbite</b>	Explain that frostbite is the most common injury resulting from exposure to the cold. Ice crystals form in body tissues exposed to temperatures below freezing. The crystals restrict blood flow to the injured parts and are like daggers that puncture cell membranes as they grow larger. Body parts most easily frostbitten are the cheeks, nose, ears, chin, forehead, wrists, hands, and feet. People suffering from frostbite may not realize it because the injured part may be numb from the cold.	<b>39</b>

## Chapter 10 / Section 5: NS1-U5C10S5 – Heat and Cold Weather Injuries

<b>Frostbite</b>	<p>Explain that there are different degrees of frostbite depending on the extent of tissue damage. A superficial cold injury can usually be characterized by numbness and tingling or “pins and needles” sensations. It involves the skin and the tissue just beneath the skin. Deep frostbite, on the other hand, involves freezing of the subcutaneous tissue and possibly even muscle and bone. With a deep cold injury, victims are often unaware of a problem until the affected part feels like a stump or block of wood. Severe frostbite may result in infection or gangrene and may require surgical removal of the injured part.</p>	<b>40-41</b>
<b>Frostbite</b>	<p>Explain that signs of superficial frostbite, as shown in Figure 10.20, include the following</p> <ul style="list-style-type: none"> <li>• Redness of the skin on light-skinned individuals; grayish coloring of the skin on dark-skinned individuals</li> <li>• Blisters appearing in 24 to 36 hours</li> <li>• Sloughing of the skin.</li> </ul> <p>Explain that signs of deep frostbite include the following:</p> <ul style="list-style-type: none"> <li>• Signs of superficial frostbite</li> <li>• Painless or numb unthawed skin that is pale-yellowish and waxy looking</li> <li>• Frozen, swollen tissue that is similar to wood to the touch</li> <li>• Blisters in 12 to 36 hours.</li> </ul>	<b>42</b>
<b>Frostbite</b>	<p>Treat superficial frostbite as follows:</p> <ol style="list-style-type: none"> <li>1. Move the victim out of the cold and wind.</li> <li>2. Keep the victim warm; rewarm the affected parts gently and slowly. Explain to the victim that he or she will experience pain when warmth restores feeling to the injured part. <ul style="list-style-type: none"> <li>• Cover cheeks, ears, and nose with the victim’s and/or your hands</li> <li>• Put the victim’s fingertips under his or her armpits</li> <li>• Place the victim’s feet under the clothing of another person next to that person’s belly.</li> </ul> </li> <li>3. Insulate injured parts by covering them with a blanket or dry clothing.</li> <li>4. Loosen tight clothing and remove wet clothing.</li> <li>5. Encourage the victim to exercise carefully, avoiding further injury.</li> <li>6. Seek medical treatment.</li> </ol> <p>Explain that deep frostbite is very serious and requires extra care to reduce or avoid losing all or parts of the fingers, toes, hands, or feet. If possible, transport the victim to a hospital or contact emergency medical services immediately. It is preferable that deep frostbite injuries be rewarmed under medical supervision. If this is not possible, rewarm the injured parts, protect them from refreezing, and seek medical help as soon as possible.</p>	<b>43-44</b>
<b>Frostbite</b>	<p>Explain that although there are many things you can do to help a frostbite victim, there are also several things you should not do.</p> <ul style="list-style-type: none"> <li>• Do not attempt to thaw the affected part if you believe you cannot keep it warm until the victim receives medical treatment. It is extremely dangerous for an injured part to refreeze after warming. It is less dangerous to leave the part frozen than to warm it and have it refreeze.</li> <li>• Avoid having the victim walk on frostbitten feet, especially if they thaw. If the victim must walk, it is less dangerous while his or her feet are frozen.</li> <li>• Do not rub the injured part with snow or apply cold water packs.</li> <li>• Do not warm the injured part by massage; ice crystals in the tissues will</li> </ul>	<b>45</b>

## Chapter 10 / Section 5: NS1-U5C10S5 – Heat and Cold Weather Injuries

	<p>damage more cells when rubbed.</p> <ul style="list-style-type: none"> <li>• Do not expose the injured part to open fire; the frozen part may burn because of lack of feeling.</li> <li>• Do not have the victim move the injured part to increase circulation.</li> <li>• Do not break any blisters.</li> <li>• Do not use ointments or other medications.</li> <li>• Do not let the victim use alcohol or tobacco. Alcohol reduces the body's resistance to cold, and tobacco decreases blood circulation.</li> </ul>	
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>46</b>
<b>Immersion Foot/Trench Foot</b>	Explain that immersion foot and trench foot result from long exposure of the feet to wet conditions at temperatures between approximately 32° and 50°F. Keeping your feet in damp or wet socks and shoes or tightly laced boots for long periods of time may affect circulation and contribute to injury. Inactivity also increases the risk of immersion foot/trench foot. This injury can be very serious, leading to loss of toes or parts of the feet.	<b>47</b>
<b>Immersion Foot/Trench Foot</b>	Explain that symptoms of immersion foot/trench foot in the primary stage include affected parts that are cold, numb, and painless. These parts may then begin to feel hot with burning and shooting pains. In the advanced stage of immersion foot/trench foot, the pulse decreases and the skin becomes pale with a bluish cast. Redness, blistering, swelling, heat, hemorrhages, and gangrene may follow.	<b>48</b>
<b>Immersion Foot/Trench Foot</b>	<p>Treat immersion foot/trench foot as follows:</p> <ol style="list-style-type: none"> <li>1. Gradually rewarm the affected foot by exposure to warm air. Explain to the victim that he or she may experience pain and burning when you rewarm the foot. <ul style="list-style-type: none"> <li>• Do not massage or moisten skin</li> <li>• Do not apply ice</li> <li>• Do not expose injured parts to open fire or other sources of heat; warm the affected area by covering with loose, dry clothing or other coverings instead.</li> </ul> </li> <li>2. Protect the affected foot from trauma or infection.</li> <li>3. Elevate the foot to relieve swelling.</li> <li>4. Dry the foot thoroughly; avoid walking.</li> <li>5. Seek medical treatment.</li> </ol>	<b>49</b>
<b>Hypothermia</b>	<p>Explain that hypothermia is a general cooling of the body to a temperature below 95°F caused by continued exposure to low or rapidly dropping temperatures, cold moisture or wind, snow, or ice. Hypothermia takes place when the body loses heat faster than it can produce it. Inadequate insulation, fatigue, poor physical condition, dehydration, faulty blood circulation, alcohol, trauma, and immersion in cold water can bring on this condition. People at high risk of hypothermia include infants, older adults, people with limited mobility due to illness or other medical conditions, very thin people, and people with heart and lung problems.</p> <p>Explain that remember, cold weather affects the body slowly and almost without notice. Even when well protected by clothing, a person may suffer cold injuries if exposed to low temperatures for long periods of time. As the body cools, it goes through several stages of discomfort and problems.</p>	<b>50</b>

## Chapter 10 / Section 5: NS1-U5C10S5 – Heat and Cold Weather Injuries

<b>Hypothermia</b>	<p>Explain that the signs of hypothermia include the following:</p> <ul style="list-style-type: none"> <li>• Shivering or trembling, which will eventually stop as body temperature drops (indicates mild hypothermia)</li> <li>• Cold skin</li> <li>• Weakness</li> <li>• Dizziness</li> <li>• Drowsiness and mental slowness or confusion</li> <li>• Uncoordinated movements and slurred speech</li> <li>• Low body temperature; in severe hypothermia, 90°F or below</li> <li>• Stiff or rigid muscles</li> <li>• Decreasing pulse and breathing rate</li> <li>• Unconsciousness</li> <li>• Shock, coma, and death—all of which may result as body temperature drops and the body freezes.</li> </ul>	<b>51</b>
<b>Hypothermia</b>	<p>Explain that except in the most severe cases, the treatment for hypothermia is directed toward rewarming the body evenly and without delay. Treat mild hypothermia as follows:</p> <ol style="list-style-type: none"> <li>1. Rewarm the victim slowly. <ul style="list-style-type: none"> <li>• If possible, move the victim inside, remove any wet clothing, and cover him or her with blankets. Avoid warming the victim quickly with hot baths, electric blankets, or heat lamps.</li> <li>• If you cannot move the victim inside, remove any wet clothing and rewarm him or her beside a campfire or using the body heat from another person.</li> </ul> </li> <li>2. Keep the victim dry and protected with clothing, blankets, towels, a sleeping bag, or even newspapers.</li> <li>3. Keep the victim awake.</li> <li>4. Do not raise the victim's feet or legs because blood in the extremities is colder than in the rest of the body and may further chill the body's core.</li> <li>5. Give the victim warm liquids gradually. Do not give the victim alcohol. Do not force liquids on an unconscious victim.</li> <li>6. Be prepared to start basic life-support measures.</li> <li>7. Seek medical treatment immediately.</li> </ol>	<b>52</b>
<b>Hypothermia</b>	<p>Explain that treating a person with severe hypothermia is extremely dangerous because of the possibility of shock and disturbances of the heartbeat while rewarming. If possible, as you begin to rewarm the victim, transport him or her to a hospital or contact EMS immediately. If this is not possible, treat the victim gently because the heart is weak when the body is cold. Stabilize the victim's body temperature by keeping him or her from losing more body heat and continue to keep the victim warm until you can get him or her medical treatment.</p>	<b>53</b>
<b>Snow Blindness</b>	<p>Explain that snow blindness is the effect the glare from an ice field, or snowfield, has on the eyes. It is more likely to occur in hazy, cloudy weather because people tend to protect their eyes when the sun is shining and believe protection is unnecessary on cloudy days. If a person waits until he or she feels discomfort or pain to use protective eyewear, a deep burn of the eyes may have already occurred.</p>	<b>54</b>
<b>Snow Blindness</b>	<p>Explain that there are several signs of snow blindness:</p> <ul style="list-style-type: none"> <li>• A sensation of grit in the eyes</li> <li>• Pain in and over the eyes made worse with eye movement</li> <li>• Watery and red eyes</li> </ul>	<b>55</b>

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	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Increased pain with exposure to light.</li> </ul> <p>Treat snow blindness as follows:</p> <ol style="list-style-type: none"> <li>1. Cover the eyes with a dark cloth to discourage painful eye movement.</li> <li>2. Try to give the eyes complete rest without exposure to light. If this is not possible, protect the eyes with dark bandages or very dark glasses.</li> <li>3. Seek medical treatment. In most cases, once exposure to sunlight stops, the eyes heal within a few days without permanent damage.</li> </ol>	
<b>Dehydration</b>	<p>Explain that dehydration from cold weather occurs when the body loses too much fluid, salt, and minerals. As mentioned in the previous lesson, you can lose large amounts of fluid and salt through sweating. This loss creates an imbalance of fluids, and dehydration occurs when fluids are not replaced.</p> <p>Explain that dehydration can occur in both hot and cold climates. In cold weather, sweat evaporates quickly and heavy layers of clothing absorb it, making dehydration more difficult to detect because the signs of sweating are less noticeable. Therefore, the danger of dehydration during strenuous cold weather activities can become a serious problem. The symptoms of cold weather dehydration are similar to those of heat exhaustion. Treat dehydration as follows:</p> <ol style="list-style-type: none"> <li>1. Move the victim out of the wind and cold, and keep him or her warm.</li> <li>2. Loosen the victim's clothes to promote circulation.</li> <li>3. Ensure the victim receives proper fluid replacement, rest, and prompt medical treatment.</li> </ol>	<b>56</b>
<b>Prevention of Cold Injuries</b>	<p>Explain that you can prevent many cold weather injuries by taking proper care and precautions when participating in cold weather activities. Be sure to receive adequate nutrition, hot meals, and warm fluids. Get enough rest. Practice good hygiene. Wear the right clothing and protective gear. Do not forget to protect your eyes, ears, and face. Wear layers of clothing so you can remove outer layers if you begin to perspire. Avoid tight clothes that interfere with circulation. Replace or remove any clothing that gets wet as soon as possible.</p>	<b>57</b>
<b>Prevention of Cold Injuries</b>	<p>Explain that you may not feel cold injuries because of cold's numbing effect, so try to go out in cold weather with a partner. You can check each other for signs of injury. Exercise and keep active to maintain steady circulation and improve resistance to the cold. Many cold weather injuries can be avoided by planning ahead, staying alert, and using common sense.</p>	<b>58</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	<p>Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.</p>	<b>59</b>
<b>Review Question</b>	<p>The Review Question is "How would you treat hypothermia?" Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.</p>	<b>60</b>
<b>Call for Other Questions</b>	<p>Provide the opportunity for students to ask final questions regarding the content covered.</p>	<b>61</b>

## **Chapter 10 / Section 5: NS1-U5C10S5 – Heat and Cold Weather Injuries**

### III. Supplemental Activities -

A. In class Activity: Discuss the Korey Stringer incident as a class. See attached handout.

Supplies required: Handout

When: These activities follow section 5 PowerPoints

- Have the Cadets read the story on their own and answer the questions at the bottom of the handout. Then, divide into small groups of 3-4 and have them discuss their answers.

B. Take Home Activity: Copy and Distribute the handout “Survival Plan”. Have cadets create a survival plan for themselves or others with them based on the occurrence of one of the following emergency situations:

- You are in your stalled car with blizzard conditions
- You are boating on Lake Superior and your boat capsizes
- You are ice fishing and fall through the ice
- You are going mountain biking in July in the desert
- You are walking your dog on a hot summer day
- You are practicing soccer in the summer

In the survival plan, cadets should consider the following:

- What should you think about prior to going to the activity?
- What would you carry with you?
- How can you preserve body heat or cool the body down?
- How can you avoid this situation becoming an emergency or life-threatening situation?



Tech Tip:

A video on Korey Stringer’s death can be found at: <http://espn.go.com/video/clip?id=9554531>

### IV. Evaluation - see CPS database for chapter test questions.



## **Chapter 10 / Section 5: NS1-U5C10S5 – Heat and Cold Weather Injuries**

Activity– In class Activity - The Korey Stringer Tragedy Handout

Korey Stringer was an offensive tackle for the Minnesota Vikings and starting his 7th season with the team. He was a 27 year old, healthy man standing 6 feet tall and weighing 335 pounds.

On August 1, 2001, Korey reported to training camp. He could not complete the first practice in the morning and was carted off the field. He did not practice Monday afternoon, but vowed to return to camp on Tuesday. He participated in the Tuesday morning practice sessions that lasted two and half hours. The players were all in full pads. The temperature on the practice field that day was 90 degrees with high humidity. The combination of humidity and temperatures made it feel like 100 degrees (heat index). Stringer vomited three times during practice and then walked to an air conditioned shelter. There he became dizzy and weak and began to breathe heavily. The ambulance was called and, upon arrival at the hospital, his body temperature was 108 degrees. He was unconscious and died a few hours later.

Answer the following questions:

What do you think happened to Korey Stringer?

What action could Korey have taken to prevent this situation?

What action could the team have taken to prevent this situation?

What should have been available for first aid in this situation?

What do you think the survival plan should be to prevent a tragedy such as this?

## **Chapter 10 / Section 5: NS1-U5C10S5 – Heat and Cold Weather Injuries**

### Activity 1: Take Home Activity – Survival Plan

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Create a survival plan for yourself and/or others with you based on the occurrence of one of the following emergency situations:

- You are in your stalled car with blizzard conditions
- You are boating on Lake Superior and your boat capsizes
- You are ice fishing and fall through the ice
- You are going mountain biking in July in the desert
- You are walking your dog on a hot summer day
- You are practicing soccer in the summer

In your survival plan, consider the following:

- What should you think about prior to going to the activity?
- What would you carry with you?
- How can you preserve body heat or cool the body down?
- How can you avoid this situation becoming an emergency or life-threatening situation?

## **Chapter 10 / Section 6: NS1-U5C10S6 – Bites, Stings, Poisonous Hazards**

(Section 6 of 6)

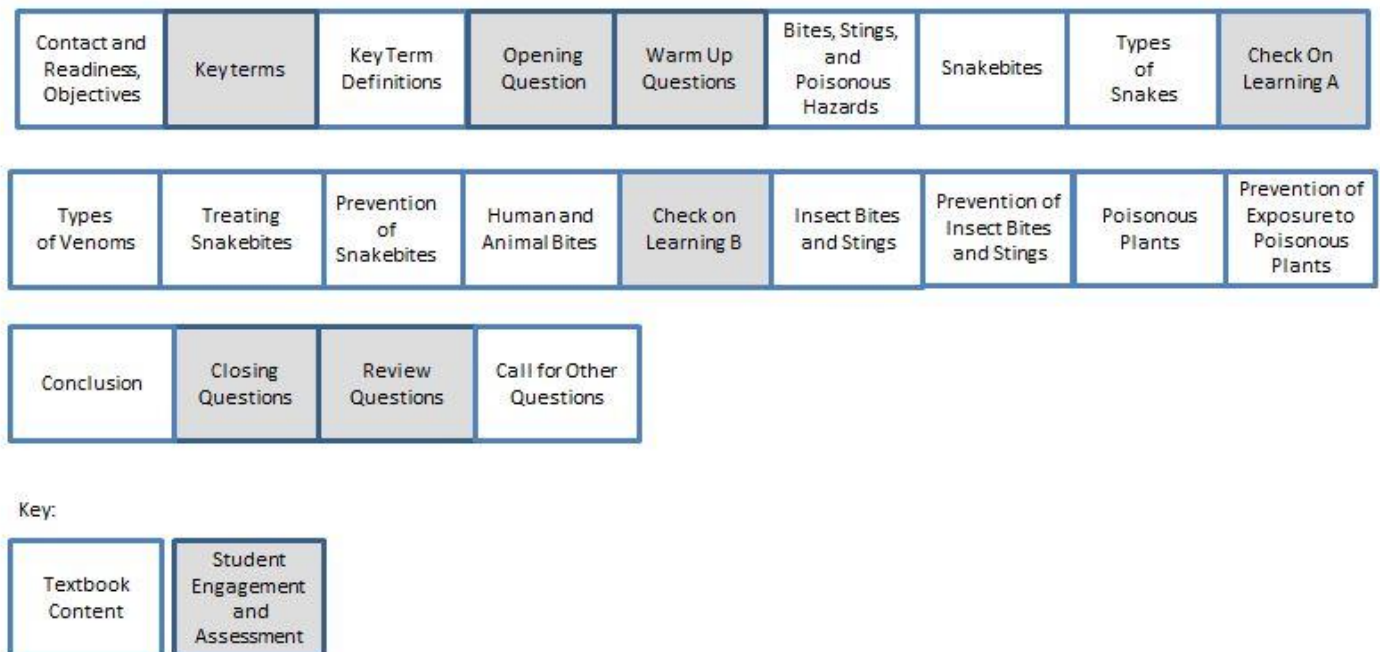
### **What Students Will Learn to Do:**

Determine first aid procedures and apply them as needed

### **Skills and Knowledge to be Gained:**

1. Give first aid treatment for bites, stings, poisonous hazards

### **LESSON FLOW OUTLINE**



### **Outline of Instruction :**

#### **I. Preparation:**

- Open CPS database, and expand folders until you see Unit 5, Chapter 10. Place a checkmark beside the NS1-U5C10S6 PowerPoint presentation, and these two CPS question deck files: NS1-U5C10S6 - Key Terms and NS1-U5C10S6 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 10 / Section 6: NS1-U5C10S6 – Bites, Stings, Poisonous Hazards

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn first aid procedures and how to apply them. You will learn what kinds of situations call for first aid, life-saving emergency skills, and first aid treatment for a wide variety of injuries, including shock, fractures, strains and sprains, burns, wounds, bruises, poisoning, heat- and cold-related injuries, bites, stings, and poisons.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 poisonous snakes found in the United States.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on bites, stings, and poisonous hazards.	<b>7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>Bites, Stings, and Poisonous Hazards</b>	Explain that with so many outdoor activities to participate in, such as hiking, camping, bicycle riding, skate boarding, and skiing, it is common to come across emergencies involving bites, stings, and poisonous hazards. It is estimated that one of every two Americans will be bitten at some time by an animal. Dogs are responsible for about 80 percent of all animal-bite injuries. Additionally, bee, wasp, and other types of insect stings can be not only painful but also fatal if the person is allergic to the bite. Depending on where you live, the type of first aid you need to know for snakebites and plants will vary. Knowing what to do when in the outdoors can mean the difference between life and death.	<b>9-10</b>
<b>Snakebites</b>	Explain that if you spend much of your time outdoors, it may be common for you to come across snakes; however, your chances of snakebites are remote if you remain alert and careful. There are both poisonous and nonpoisonous snakes, so the severity of a snakebite depends on whether the snake is poisonous or not. Beyond that, the severity of snakebites depends on the type of snake, the location of the bite, and the amount and type of venom injected.	<b>11</b>
<b>Types of Snakes</b>	Explain that there are approximately 130 different varieties of nonpoisonous snakes in the United States. They have oval-shaped heads and round pupils. Unlike pit vipers, nonpoisonous snakes do not have sensory pits with which to sense the body heat of	<b>12</b>

## Chapter 10 / Section 6: NS1-U5C10S6 – Bites, Stings, Poisonous Hazards

	their prey.	
<b>Types of Snakes</b>	Explain that poisonous snakes exist throughout the world, primarily in tropical to moderate climates. In the United States, there are four kinds of native poisonous snakes. Three of these four—the rattlesnake, copperhead, and cottonmouth (water moccasin)—are pit vipers.	<b>13</b>
<b>Types of Snakes</b>	Explain that pit vipers in other parts of the world include the bushmaster and fer-de-lance in Central and South America, the tropical rattlesnake in Central America, and the Malayan pit viper in eastern Asia. These snakes are shown in Figure 10.21.	<b>14</b>
<b>Types of Snakes</b>	Explain that pit vipers have slit like pupils, flat, triangular-shaped heads, small, deep, heat-sensing pits between their nostrils and eyes, and in most cases, hemotoxic venom. When a pit viper bites, it injects its venom from sacs through long, hollow fangs. The bite produces a severe burning pain, along with discoloration and swelling around the fang marks. The hemotoxin destroys blood cells, which causes the discoloration of the skin. Blisters and numbness in the affected area follow this reaction. Pit viper bites attack the circulatory system, possibly causing weakness, rapid pulse, and shortness of breath, as well as nausea, vomiting, and shock.	<b>15-17</b>
<b>Types of Snakes</b>	Explain that corals, cobras, kraits, and mambas, belong to the cobra family (see Figure 10.22). The coral snake is the only of these snakes native to the United States. Rings of red, yellow, and black color encircle its body. Although other nonpoisonous snakes have the same colors, only the coral snake has a red ring next to a yellow ring. The cobra, found in Africa and Asia, forms a hood with its neck when on the defensive. The krait, found in India and Southeast Asia, is brightly banded and the mamba in Africa is either almost black or green.	<b>18-20</b>
<b>Types of Snakes</b>	Explain that these snakes look very different, but all four inject their neurotoxic venom through short, grooved fangs. The bite leaves a characteristic bite pattern, shown in Figure 10.23. There is minimal pain and swelling compared to the bite of a pit viper, but because their powerful venom affects the central nervous system, it can cause blurred vision, drooping eyelids, slurred speech, drowsiness, and increased salivation and sweating. Nausea, vomiting, shock, respiratory difficulty, paralysis, convulsions, and coma develop if the bite is not treated promptly.	<b>21</b>
<b>Types of Snakes</b>	Explain that sea snakes are found in warm water areas of the Pacific and Indian Oceans. Sea snakes have small heads, thick bodies, and tails flattened along the sides. Their fangs are only one-quarter inch long, but their venom is very poisonous.	<b>22</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>23</b>
<b>Types of Venoms</b>	Explain that basically, venoms are categorized as neurotoxins that affect the nervous system and can cause death by paralysis, hemotoxins that digest tissue including blood cells, or cardiotoxins that affect the heart directly.	<b>24</b>
<b>Treating Snakebites</b>	Explain that snakebites are rarely fatal if treated within an hour or two of injury, but they can cause pain and illness and may severely damage a bitten hand or foot. Although snakes do not always inject venom, all snakes may carry tetanus (lockjaw). Anyone bitten by a snake, whether poisonous or nonpoisonous, should receive immediate medical attention.	<b>25</b>
<b>Treating Snakebites</b>	Explain that one of the most important parts of treating snakebites is identifying the type of snake causing the injury. The type of antivenin used in medical treatment of snakebites varies depending upon the type of venom injected. If you can identify the	<b>26</b>

## Chapter 10 / Section 6: NS1-U5C10S6 – Bites, Stings, Poisonous Hazards

	<p>type of snake causing the injury, let EMS know when you call for help or phone the information ahead to the hospital if you plan to transport the victim yourself. If you cannot identify the snake, try to kill it without risk to yourself or delaying first aid. Then show the snake to emergency medical personnel or take it to the hospital along with the victim for identification.</p>	
<b>Treating Snakebites</b>	<p>Explain that to treat snakebites, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Get the victim away from the snake.</li> <li>2. Reassure and keep the victim quiet and still. This will keep circulation to a minimum and keep the venom from spreading.</li> <li>3. Immobilize the affected part in a position below the level of the heart.</li> <li>4. Remove rings, bracelets, watches, and other jewelry from any affected limb. In case of swelling, this will make the victim more comfortable and will keep the affected limb from losing blood flow.</li> <li>5. Wash the bite thoroughly with soap and water. Do not apply any ointments.</li> <li>6. Place an icepack or freeze pack, if available, over the area of the bite. Do not place ice directly on the skin or wrap the limb with ice. You are only trying to cool the bite area, not freeze it.</li> <li>7. For bites to the arms, legs, hands, or feet, apply constricting bands two to four inches away from the bite (see Figure 10.24). For an arm or leg bite, place one band above and one below the bite. For a hand or foot bite, place one band above the wrist or ankle. To ensure a band is not too tight, you should be able to insert a finger between the band and the skin.</li> <li>8. If swelling from the bite reaches the band, tie another band a few inches farther away from the bite and the old band; then remove the old band.</li> <li>9. Do not give the victim any food, alcohol, tobacco, medication, or drinks with caffeine.</li> <li>10. Seek medical aid immediately.</li> </ol>	<b>27-29</b>
<b>Prevention of Snakebites</b>	<p>Explain that most snakes are shy and passive. Unless they are injured or disturbed, snakes tend to avoid contact with humans. You can prevent snakebites by using caution and common sense. If you are working outside clearing dense undergrowth, wear gloves, long sleeves, long pants, and boots for protection. When hiking in the wilderness, wear boots and long pants. Try to walk in open areas or stay on established paths. Look where you are stepping or placing a hand if climbing or pushing away tree limbs. Check before sitting on a rock or fallen tree. If possible, stay away from brush, rocks, and undergrowth. If you must handle a snake, even a freshly killed snake, use a long tool or stick.</p>	<b>30</b>
<b>Human and Animal Bites</b>	<p>Explain that mouths of people and animals are full of bacteria. Human and animal bites that break the skin will spread germs and may result in serious infection and disease. A person bitten by a diseased animal may come down with tetanus, rabies, and various types of fevers. If you think an animal is carrying a disease, notify the proper authorities to have it captured.</p>	<b>31</b>
<b>Human and Animal Bites</b>	<p>Explain that to treat a victim of an animal bite, follow these steps:</p> <ol style="list-style-type: none"> <li>1. If bleeding is severe, control it first, before continuing with other first aid. Refer to the section on Controlling Bleeding for procedures to control bleeding.</li> <li>2. Cleanse the wound thoroughly with soap or a detergent solution and water. Continue to cleanse and flush the wound with water for five minutes.</li> </ol>	<b>32</b>

## Chapter 10 / Section 6: NS1-U5C10S6 – Bites, Stings, Poisonous Hazards

	<p>3. If there is minor bleeding, cover the wound with gauze or a clean cloth, press firmly on the wound, and if possible, raise the injury above the level of the victim's heart.</p> <p>4. When minor bleeding stops, cover the wound with a sterile dressing and secure the dressing in place.</p> <p>5. Immobilize an injured arm or leg.</p> <p>6. Seek medical assistance as soon as possible.</p>	
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>33</b>
<b>Insect Bites and Stings</b>	Explain that in the outdoors, you may come in contact with various types of biting and stinging insects, including bees, mosquitoes, ticks, fleas, and spiders. Most of these insect bites and stings result in minor reactions, such as itching, redness, swelling, and irritation. However, scorpions and certain spiders can inject powerful poisons when they bite. Some people may have an allergic reaction to an insect bite or sting, particularly made by bees or wasps. In these cases, seek medical treatment immediately.	<b>34-35</b>
<b>Insect Bites and Stings</b>	Explain that the black widow, brown recluse, tarantulas, and scorpions, shown in Figure 10.25, are a few of the more harmful insects you may encounter. Venom from the black widow is neurotoxic. It may cause stomach and muscle cramps, breathing difficulties, nausea, sweating, vomiting, and convulsions. Tarantula venom is basically neurotoxic and may produce symptoms similar to those of a black widow bite, but in some cases can affect the heart and may digest tissue, producing a severe local wound. The brown recluse spider can produce severe tissue damage around the bite, possibly leading to gangrene. Although stings from certain types of scorpions are painful but not dangerous, some can cause nausea, fever, stomach cramps, and possibly convulsions and shock.	<b>36-37</b>
<b>Insect Bites and Stings</b>	Explain that in most cases, bee and wasp stings produce minimal swelling, pain, redness, itching, and burning at the site of the sting. Multiple stings may cause headaches, fever, muscle cramps, and drowsiness.	<b>38</b>
<b>Insect Bites and Stings</b>	<p>Explain that take the following basic first aid measures regardless of what caused the bite or sting:</p> <p>1. Remove any stinger left in the skin by scraping the skin's surface with a fingernail or knife. Do not squeeze the stinger because it may inject more venom.</p>	<b>39</b>
<b>Insect Bites and Stings</b>	<p>2. For tick bites, remove the tick with your fingers if it will come off the skin easily. Do not pull the tick off if it will not come easily; this may leave the head of the tick in the skin which can cause infection. DO NOT cover the tick with Vaseline or thick oil to make it let go, instead use tweezers or tick removal pliers to grasp the tick as close to the head as possible and slowly pull it out, taking care not to break off the head in the wound.</p> <p>3. Wash the area of the bite/sting with soap and water. Apply an antiseptic, if available, to minimize the chances for infection.</p>	<b>40-41</b>
<b>Insect Bites and Stings</b>	<p>4. Use an icepack or cold compresses on the site of the bite/sting to help reduce swelling. Do not apply the ice directly to the skin.</p> <p>5. Apply calamine lotion or a baking soda and water paste to the bite to relieve pain and itching.</p>	<b>42</b>

## Chapter 10 / Section 6: NS1-U5C10S6 – Bites, Stings, Poisonous Hazards

	<p>6. Treat more serious allergic reactions as you would snakebites.</p> <ul style="list-style-type: none"> <li>• Apply constricting bands above and below the site</li> <li>• Be prepared to perform basic life-support measures</li> <li>• To positively identify the insect, attempt to capture it without putting yourself at risk</li> <li>• Seek medical aid right away.</li> </ul>	
<b>Insect Bites and Stings</b>	<p>7. If signs of infection such as pus, red streaks leading away from the bite, swollen glands, or fever occur within hours or several days after an insect bite, immediately seek medical attention.</p>	<b>43</b>
<b>Prevention of Insect Bites and Stings</b>	<p>Wear insect repellent when biting insects are present outside. Reapply repellent every few hours when participating in activities that cause heavy perspiration. Wear appropriate protective clothing when hiking or camping in the wilderness or working in a yard, garden, or other woodsy or overgrown area.</p>	<b>44</b>
<b>Poisonous Plants</b>	<p>Explain that most plants are harmless, but a few can cause allergic reactions on contact. For example, plants of the poison ivy group, including poison oak and poison sumac, produce an oily substance that irritates the skin of many people. Reactions to this substance include a rash characterized by redness, blisters, swelling, and intense burning and itching, as well as headaches and fever. Although the rash usually begins within a few hours after contact, it may appear 24 to 48 hours later.</p>	<b>45-46</b>
<b>Poisonous Plants</b>	<p>Explain that in general, treat someone who has come in contact with a poisonous plant as follows:</p> <ol style="list-style-type: none"> <li>1. Remove contaminated clothing. Set it aside to be washed.</li> <li>2. Wash all exposed areas of the skin thoroughly with soap and water, then apply rubbing alcohol.</li> <li>3. Apply calamine or other soothing skin lotion to relieve itching and burning. Avoid covering the rash with a dressing.</li> <li>4. Seek medical treatment if a severe rash occurs, if the rash is on the face or mouth and may interfere with breathing, or if there is a known history of allergic reactions.</li> </ol>	<b>47</b>
<b>Prevention of Exposure to Poisonous Plants</b>	<p>Explain that you should become familiar with what poison ivy and other poisonous plants look like so you can recognize and avoid contact with a poisonous plant. The following are other precautions you should take to limit your exposure to poisonous plants:</p> <ul style="list-style-type: none"> <li>• Dress appropriately when participating in outdoor activities</li> <li>• Avoid areas where you aware that poisonous plants grow</li> <li>• Do not eat plants or parts of plants that you do not recognize</li> <li>• Do not put grass, twigs, stems, or leaves in your mouth.</li> </ul>	<b>48-49</b>
<b>Conclusion</b>	<p>Explain that first aid is the help you give an injured person until qualified medical personnel arrive and can give treatment. The type of first aid an individual requires depends on his or her injuries. You determine those injuries by carefully and quickly evaluating the person. In doing so, you follow a sequence that deals with the most life-threatening problems first, that is, breathing and heartbeat, then bleeding, then other injuries which may include shock, broken bones, burns, and head injuries.</p> <p>Explain to remember that while it is important to administer first aid as quickly as possible in most cases, some rescue situations require careful assessment before you jump in to save someone. You don't want to become a victim yourself. Remaining calm, thinking logically and clearly, and knowing what steps to take will help you</p>	<b>50</b>



## **Chapter 10 / Section 6: NS1-U5C10S6 – Bites, Stings, Poisonous Hazards**

	<p>successfully perform first aid.</p> <p>Explain that being able to adjust to new environments and protect yourself from harmful conditions is very important when you participate in outdoor activities. Extreme temperatures and humidity, animal, snake, and insect bites, and poisonous plants can harm you if you don't take precautions. Be aware of potential hazards, know how to treat nature-related injuries, and exercise common sense. If you do, you can cope successfully with the environment and enjoy your time in the great outdoors.</p>	
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>51</b>
<b>Review Question</b>	The Review Question is "List 2-3 symptoms of an allergic reaction to an insect bite or sting." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>52</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>53</b>

## **Chapter 10 / Section 6: NS1-U5C10S6 – Bites, Stings, Poisonous Hazards**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies require:

When: These activities should take place at the conclusion of the first aid unit.

- At the conclusion of the first aid unit, show cadets a variety of first aid posters. Listed below are a few sites for examples. Discuss the important features of the pictures and easy to follow steps.

Snake Bites –

[http://www.crescentbaybsa.info/wp-content/uploads/2013/08/Snake\\_Bite\\_Poster.png](http://www.crescentbaybsa.info/wp-content/uploads/2013/08/Snake_Bite_Poster.png)

Poisonous Plants -

<http://www.cdc.gov/niosh/docs/2010-118/pdfs/2010-118.pdf>

Burns -

[http://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0005/162635/ACI\\_SBIS\\_Minor\\_Burn\\_Mx\\_2012.pdf](http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0005/162635/ACI_SBIS_Minor_Burn_Mx_2012.pdf)

CPR -

[http://www.redcross.org/images/MEDIA\\_CustomProductCatalog/m4240176\\_ConsciousChokingPoster\\_EN.pdf](http://www.redcross.org/images/MEDIA_CustomProductCatalog/m4240176_ConsciousChokingPoster_EN.pdf)

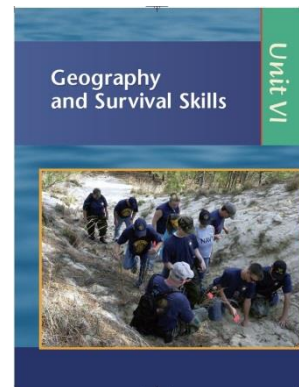
B. At Home Activity: After reviewing the first aid posters in class, have the cadets complete a first aid poster, using one of the topics discussed in Chapter 10. Explain they need to use both text and illustrations/pictures.

### IV. Evaluation - see CPS database for chapter test questions.

## UNIT 6: GEOGRAPHY AND SURVIVAL SKILLS

Unit Overview**Unit Objective:**

In this unit, you will learn the fundamentals of geography, how to use a map, and how to be aware of the environment surrounding you. In addition, you will learn how to survive should you become stranded in a variety of environments.

**Unit Organization:**

Chapter Number	Chapter Name	Instructional Section / PowerPoint
1	Geography, Map Skills, and Environmental Awareness	NS1-U6C1S1 – Components of a Globe
		NS1-U6C1S2 – The Introduction to Maps
		NS1-U6C1S3 – Contours and Landforms
		NS1-U6C1S4 – Distance and Direction
		NS1-U6C1S5 – G-M Angle
		NS1-U6C1S6 – Orienteering
2	Fundamentals of Survival	NS1-U6C2S1 – Fundamentals of Survival

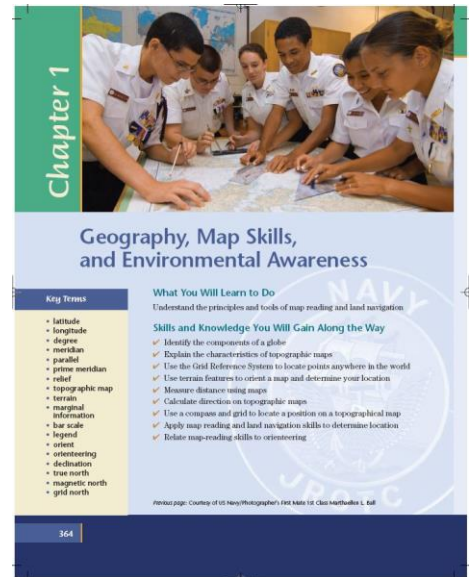
## **Unit 6 Chapter 1: NS1-U6C1 – Geography, Maps, and Environmental Awareness**

### **What Students Will Learn to Do:**

Understand the principles and tools of map reading and land navigation

### **Skills and Knowledge to be Gained:**

1. Identify the components of a globe
2. Explain the characteristics of topographic maps
3. Use the Grid Reference System to locate points anywhere in the world
4. Use terrain features to orient a map and determine your location
5. Measure distance using maps
6. Calculate direction on topographic maps
7. Use a compass and grid to locate a position on a topographical map
8. Apply map reading and land navigation skills to determine location
9. Relate map-reading skills to orienteering



### **Standards Linked in this Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading and Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says ...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...
- W.9-10.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

##### Speaking and Listening

- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions...
- SL.9-10.2. Integrate multiple sources of information presented in diverse media or formats...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...
- L.9-10.6. Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level...

## **Unit 6 Chapter 1: NS1-U6C1 – Geography, Maps, and Environmental Awareness**

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

## Chapter 1 / Section 1: NS1-U6C1S1 – Components of a Globe

(Section 1 of 6)

### What Students Will Learn to Do:

Understand the principles and tools of map reading and land navigation

### Skills and Knowledge to be Gained:

1. Identify the components of a globe

#### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Introduction	A Globe Defined	The Continents (A)	Check On Learning A
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The Continents (B)	Check on Learning B	Oceans	Poles	Longitude and Latitude	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 6, chapter 1. Place a checkmark beside the NS1-U6C1S1 PowerPoint presentation, and these two CPS question deck files:  
NS1-U6C1S1 - Key Terms and NS1-U6C1S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 1: NS1-U6C1S1 – Components of a Globe

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn fundamentals of geography, including the components of a globe. You will also learn how to read maps and use them to locate any point in the world, to determine your own location, and to practice orientation skills.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “List 2-3 things that you already know about Asia.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the components of a globe.</p>	<b>7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>Introduction</b>	<p>Explain that for you to be a better citizen, it is important that you know about the world around you. How often while watching a news program, have you heard the name of a country and wondered where the country was located? Or, while enjoying a movie filmed in a beautiful location have you thought that you would like to visit there someday? An understanding of the globe can help you readily identify a location and provide you with a visual or mental picture the location.</p> <p>Explain that an overview of the globe will give you a basic understanding of the world in which you live. This overview will include the seven continents, four oceans, two poles, as well as longitude and latitude lines.</p>	<b>9</b>
<b>A Globe Defined</b>	Explain that a globe is a sphere-shaped model of the earth. It is a representation of the shape of the earth as it really is - round or like a ball. Looking at photos of the earth taken from space, you will only see half of the earth, or one hemisphere. A globe shows the whole earth. It shows the water and land formations on the earth’s surface and helps you to understand natural events such as day and night and the seasons.	<b>10</b>
<b>The Continents</b>	Explain that continents are the seven large landmasses on the planet. It is believed that over 225 million years ago, only one continent existed. It is believed that the existing continent slowly broke apart, shifted, and drifted over millions of years until it assumed the shapes and positions of the seven continents we know and recognize	<b>11-13</b>

## Chapter 1 / Section 1: NS1-U6C1S1 – Components of a Globe

	today. The seven continents (shown in Figure 1.1) from largest to smallest are Asia, Africa, North America, South America, Antarctica, Europe, and Australia.	
<b>The Continents</b>	Explain that Asia is the largest continent in both size and population. It covers almost a third of the world's land area (16.9 million square miles) and has about three-fifths of its people (3.7 billion). It is composed of 49 independent countries. Asia extends from Africa and Europe in the west to the Pacific Ocean in the east. The northernmost part of the continent lies within the frozen Arctic. In the south, Asia reaches into the steaming tropics near the equator.	<b>14</b>
<b>The Continents</b>	Explain that Asia has some of the world's longest rivers, largest deserts, and thickest forests and jungles. The highest and lowest places on the earth are in Asia. The highest, Mount Everest rises 29,028 feet above sea level and is along the Nepal-Tibet border. In contrast the Dead Sea shore, located between Israel and Jordan, is the world's lowest land mass, lying about 1,310 feet below sea level.	<b>15-16</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>17</b>
<b>The Continents</b>	Explain that Africa is the second largest continent in area and population. Africa covers about one-fifth of the world's land area (11.6 million square miles) and is home to one-eighth of its people (824 million). The continent is an immense plateau, broken by a few mountain ranges and bordered in some areas by a narrow coastal plain. It is a land of striking contrasts and great natural wonders. Tropical rain forests inhabit western and central Africa. The world's largest desert, the Sahara, stretches across northern Africa. The Sahara occupies an area almost as large as the entire United States. Africa also has the world's longest river, the Nile, which flows more than 4,000 miles through northeastern Africa. Much of the rest of the continent is grassland located in eastern and southern Africa.	<b>18-19</b>
<b>The Continents</b>	Explain that North America is the third largest continent in area (9.3 million square miles) making up about one-sixth of the world's land area. It extends from the Arctic Ocean in the north to South America at its southern tip. It ranks fourth among the continents in population. (Asia, Africa, and Europe are larger in population.) The continent is roughly triangular in shape with the Arctic, Atlantic, and Pacific Oceans bordering its three sides. At its northern end, North America stretches more than 5,400 miles from Alaska's Aleutian Islands to the Canadian province of Newfoundland. At the southern point of the continent, there are areas of Panama that are only about 30 miles wide.	<b>20</b>
<b>The Continents</b>	<p>Explain that South America is the fourth largest continent in area (6.8 million square miles). Only Asia, Africa, and North America are larger. It ranks fifth among the continents in population (346.9 million). Asia, Europe, Africa, and North America all have more people. South America covers about 12 percent of the world's land area and has about 6 percent of the total world population.</p> <p>Explain that South America has nearly every type of landscape and climate, even though it is only 600 miles from Antarctica. The world's largest tropical rain forest grows in the Amazon River Basin. This basin occupies about two-fifths of the continent. By contrast, the Atacama Desert in northern Chile is one of the driest regions in the world. Also to be found are snowy peaks and active volcanoes rising along the crest of the lofty Andes Mountains of western South America. Rolling grasslands are striking features that stretch endlessly through much of Argentina and Venezuela. South America's varied landscape also includes spectacular waterfalls, huge lakes, and rocky, windswept islands.</p>	<b>21</b>



## Chapter 1 / Section 1: NS1-U6C1S1 – Components of a Globe

<b>The Continents</b>	Explain that South America is almost totally surrounded by water. The Caribbean Sea lies to the north and the Atlantic Ocean borders South America on the northeast and east. To the south, the Drake Passage separates South America from Antarctica. The Pacific Ocean is located on the west coast. South America borders land only at the Isthmus of Panama. This narrow strip of land links Central America with Colombia, in the northwestern part of South America.	<b>22</b>
<b>The Continents</b>	<p>Explain that Antarctica is an ice-covered continent located in the South Pole—the earth’s most southerly region. Its nearly barren land forms the coldest and iciest region in the world. It is slightly colder than the region around the North Pole because the North Pole is located in the Arctic Ocean. The South Pole lies near the center of the Antarctic continent, on a high windy plateau of ice and snow. Antarctica’s deepest ice is more than 10 times the height of the Sears Tower, one of the world’s tallest buildings.</p> <p>Explain that Antarctica covers about 5.4 million square miles, making it larger in area than either Europe or Australia. But it would be the smallest continent if it did not have its icecap. This icy layer, which averages 7,100 feet thick, increases Antarctica’s surface area and also makes Antarctica the highest continent in terms of average elevation.</p>	<b>23</b>
<b>The Continents</b>	Explain that turbulent waters of the Atlantic, Indian, and Pacific Oceans isolate Antarctica from the other continents. The world’s lowest temperatures have been recorded in Antarctica. Ice and snow cover 98 percent of the continent. Underneath the ice, Antarctica has mountains, lowlands, and valleys—much like the landforms of other countries.	<b>24</b>
<b>The Continents</b>	Explain that Europe is one of the smallest of the world’s seven continents in area but one of the largest in population. It covers an area of about 4 million square miles and has a population of 707.8 million people. Only Asia and Africa are more populated. About one-eighth of the world’s people live in Europe. Europe extends from the Arctic Ocean in the north to the Mediterranean Sea in the south and from the Atlantic Ocean in the west to the Ural Mountains in the east. Because Europe and Asia occupy the same landmass, they are sometimes collectively called Eurasia.	<b>25</b>
<b>The Continents</b>	Explain that Australia is the only country that is also a continent. As a country, Australia is the sixth largest in the world. As a continent, however, it ranks smallest in size. It is a stable landmass that lies between the Indian and Pacific Oceans. The northern third of Australia lies in the tropics and is warm the year round. The rest of the continent has warm summers and cool winters. About a third of the country is desert. Since it lies south of the equator, its seasons are the opposite of those in the Northern Hemisphere.	<b>26</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>27</b>
<b>Oceans</b>	Did you know that the ocean is one continuous body of water interrupted by landmasses? It has been assigned four different names based on where it is divided by these landmasses: Pacific Ocean, Atlantic Ocean, Indian Ocean, and Arctic Ocean.	<b>28-29</b>
<b>Oceans</b>	Explain that the Pacific Ocean is the largest and deepest of the four oceans and covers a third of the globe, over 64 million square miles or 165.8 billion square kilometers. Its average depth is 12,900 feet. It is so large that all seven continents could fit in it and there would still be room for one more continent the size of Asia. It separates North and South America from Asia and Australia.	<b>30</b>

## Chapter 1 / Section 1: NS1-U6C1S1 – Components of a Globe

<b>Oceans</b>	Explain that the Atlantic Ocean is the second largest body of water on the globe, covering 33 million square miles or 867.7 billion square kilometers. It is continually widening and has an average depth of 11,700 feet. The Atlantic Ocean is bordered by Europe and Africa on the east and by North America and South America on the west.	<b>31</b>
<b>Oceans</b>	Explain that the Indian Ocean is the third largest ocean and covers an area of about 28.3 million square miles or 73.3 billion square kilometers. At 12,600 feet deep, it is deeper than the Atlantic Ocean but smaller in size. It is the only ocean that is bordered by land on the north rather than water. On the eastern border is Indonesia and Australia. Africa is to the west and Antarctica is to the south.	<b>32</b>
<b>Oceans</b>	Explain that the Arctic Ocean is the smallest and shallowest of the four oceans. It is about 5 million square miles or 13 million square kilometers and averages about 4,000 feet deep. It is located at the top of the globe and is bordered primarily by northern Asia, Europe, and North America.	<b>33</b>
<b>Oceans</b>	Explain that these four oceans are salt water and cover more than 70 percent of the earth's surface. They contain the highest mountain range, deepest valley, and some of the most unusual creatures on earth.	<b>34</b>
<b>Poles</b>	Explain that the points on the globe representing the northernmost and southernmost points of the earth are the North Pole and South Pole. These poles are located on each end of the earth's imaginary axis. The areas around them are sometimes referred to as polar regions because they are around the North and South Poles. The North Pole is located in the Arctic and the South Pole is located in Antarctica. They are the coldest places on earth—frozen deserts covered in ice all year long. The North Pole is the farthest point north. When looking down at a globe of the earth, it is shown at the top. When you look down on a globe of the North Pole, the landmasses of North America, Europe, Asia, and even parts of Africa can be seen. The South Pole is the farthest point south. A map centered on the South Pole features the continent of Antarctica surrounded by ocean. Because it is over land instead of water, the Antarctic region is much colder than the Arctic. The closest continents visible from this vantage point are South America, Africa, and Australia.	<b>35</b>
<b>Longitude and Latitude</b>	Explain that lines of latitude and longitude are imaginary lines that form a grid covering the whole globe. This grid, as shown in Figure 1.2, helps geographers find the location of places anywhere in the world. Lines of latitude run east to west around the globe. Lines of longitude run north to south, meeting at the poles. Taken together, latitude and longitude lines form a grid. Every place on earth has a unique position on this grid. Mogadishu, Somalia is located at 2°N latitude and 45°E longitude. New Orleans, Louisiana, is at 30°N and 90°W.	<b>36</b>
<b>Longitude and Latitude</b>	Explain that Ancient Greeks came up with a system to divide the globe into 360 segments, called degrees. The imaginary vertical lines used to divide these parts are the longitude lines or meridians. They run from the North Pole to the South Pole and are equal in length. The imaginary horizontal lines on the globe are the latitude or parallel lines. These lines are parallel to each other and form complete circles around the globe. The horizontal lines of latitude and the vertical lines of longitude are further broken down into degrees, minutes, and seconds so that any point on earth can be located using the two lines that meet at that point on a globe.	<b>37</b>
<b>Longitude and Latitude</b>	Explain that the longitudinal Prime Meridian and the latitudinal Equator were established as base reference points.	<b>38</b>

## Chapter 1 / Section 1: NS1-U6C1S1 – Components of a Globe

<b>Longitude and Latitude</b>	Explain that in 1884, the prime meridian, or the longitude line numbered '0' degrees, was established at an international conference. The Prime Meridian is the starting point for measuring distances to the east and west around the globe. The prime meridian at '0' degrees and the 180th meridian or longitude line on the opposite side bisect the globe into eastern and western halves. Longitude lines east of the Prime Meridian are numbered 1 degree to 180 degrees east (E). This part of the earth is the Eastern Hemisphere. Longitude lines west of the prime meridian also numbered 1 degree to 180 degrees west (W) represent the Western Hemisphere. The Prime Meridian passes through the Royal Naval Observatory in Greenwich, a section of London, England.	<b>39</b>
<b>Longitude and Latitude</b>	Explain that the equator, or '0' degrees latitude, is an imaginary line that circles the globe at its widest point halfway between the North Pole and South Pole. The equator is the longest latitude line or parallel. Latitude is measured from 0 degrees to 90 degrees from the equator to the North Pole. This part of the earth from the equator to the North Pole is known as the Northern Hemisphere (Figure 1.3). Latitude is also measured from 0 degrees to 90 degrees from the equator to the South Pole. This part of the earth from the equator to the South Pole is known as the Southern Hemisphere. When any latitude line is given, it must be stated in north latitude or south latitude.	<b>40-41</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Ask students to respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>42</b>
<b>Review Question</b>	The Review Question is "Describe the conditions on the continent of Antarctica, and how it might support life." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>43</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>44</b>

## **Chapter 1 / Section 1: NS1-U6C1S1 – Components of a Globe**

### III. Supplemental Activities -

#### A. In Class Activity:

Supplies required: Handouts

When: The pre-test is given before the lesson begins. Answers can be checked during or after the lesson. The At Home activity is done at the completion of the lesson.

Cadets are given the pre-test and complete it to the best of their ability. During or after the lesson, answers should be checked and corrected.

B. At Home Activity: Cadets will choose 2 continents and use the 'double bubble' thinking map to compare and contrast the continents. They will then write a paragraph explaining how the 2 continents are alike and different.



Tech Tip: There are various online games to practice continents and latitude and longitude. Here are two examples: [Map Skills](#), [Continents](#)

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 1 / Section 1: NS1-U6C1S1 – Components of a Globe**

### Activity 1: In-Class Activity - Components of a Globe Pre-test

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

1. Name the 7 Continents.

- A.
- B.
- C.
- D.
- E.
- F.
- G.

2. Name the 4 Oceans.

- A.
- B.
- C.
- D.

3. The largest continent in land area is \_\_\_\_\_.

4. The continent with the largest desert is \_\_\_\_\_.

5. The United States is on the \_\_\_\_\_ continent.

6. The continent that has the largest tropical rain forest and is completely surrounded by water is \_\_\_\_\_.

7. The continent that is covered in ice is \_\_\_\_\_.

8. The smallest continent is \_\_\_\_\_.

9. The continent that is also a country is \_\_\_\_\_.

10. The four oceans cover \_\_\_\_\_% of the Earth's surface.

## **Chapter 1 / Section 1: NS1-U6C1S1 – Components of a Globe**

11. To locate exact places on the earth, one must look at

- a. the intersecting lines of latitude and longitude
- b. the lines of latitude only
- c. the lines of longitude only
- d. a neighboring area to describe the location

12. Lines of latitude and longitude are measured in

- a. only north and south
- b. degrees of a circle
- c. only east and west
- d. degrees of a compass

13. Latitude lines on a globe run from

- a. north to south
- b. east to west
- c. north to east
- d. south to west

14. \_\_\_\_\_ lines on a globe run from east to west.

- a. North Pole
- b. South Pole
- c. Latitude
- d. Longitude

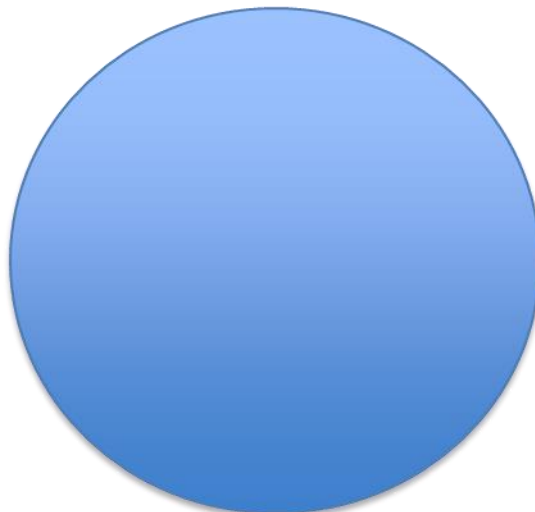
15. **Draw and label the following on the globe:**

North Pole

South Pole

Prime Meridian

Equator



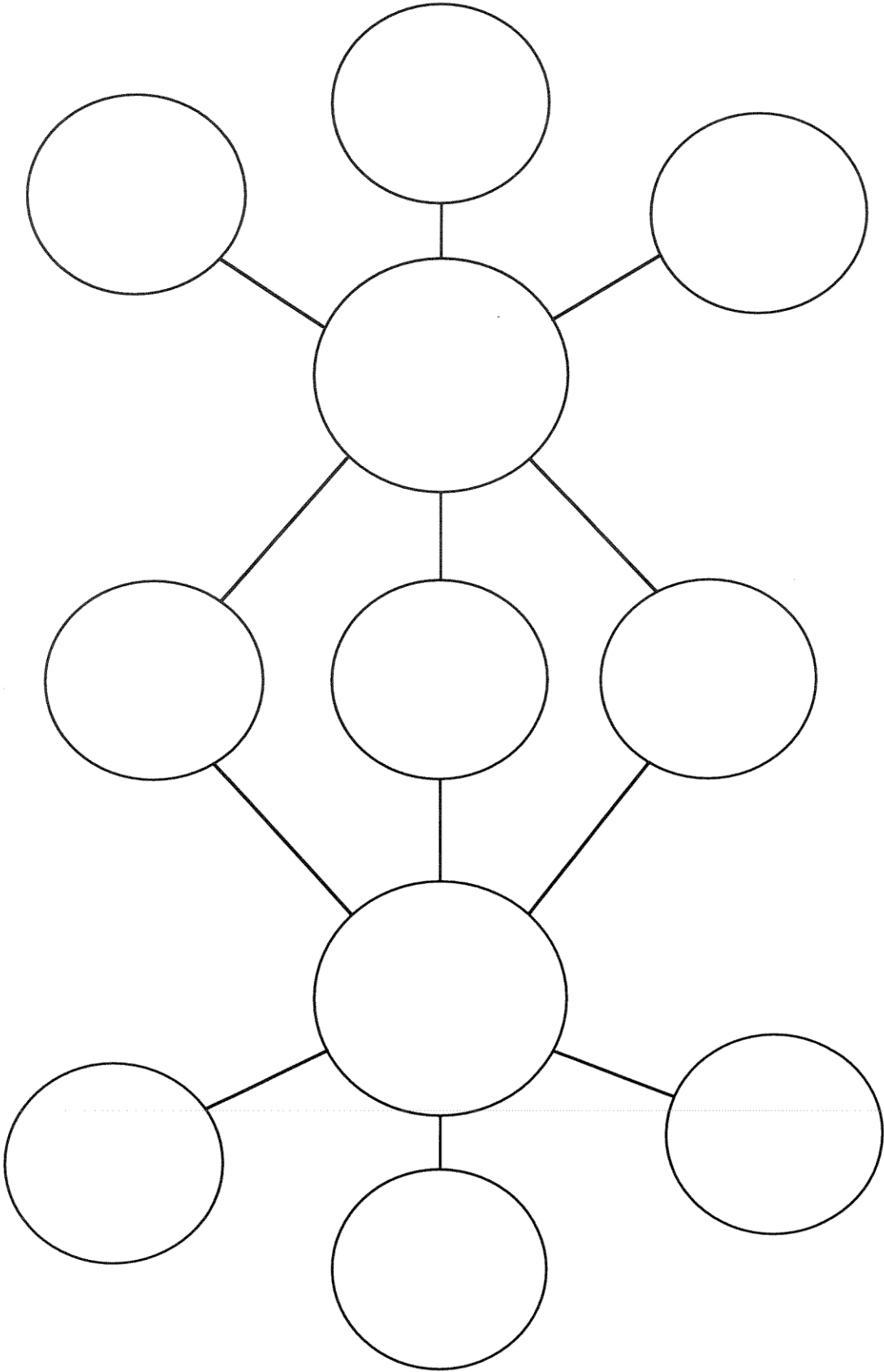
**Chapter 1 / Section 1: NS1-U6C1S1 – Components of a Globe**

**Activity 1: Take Home Activity – Double Bubble Map**

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

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**Double Bubble Map for Comparing (similarities) and Contrasting (differences)**



## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps

(Section 2 of 6)

### What Students Will Learn to Do:

Understand the principles and tools of map reading and land navigation

### Skills and Knowledge to be Gained:

1. Explain the characteristics of topographic maps
2. Use the Grid Reference System to locate points anywhere in the world

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Key terms	Key Term Definitions	Opening Question	Warm Up Questions	Introduction to Maps	Definition of a Map and Map Reading	Map Symbols (A)
Map Colors (A)	Orienting a Map	Care of Maps	Global Positioning System	Longitude and Latitude	Check On Learning A	Topographic Maps	Marginal Information
Map Symbols (B)	Map Colors (B)	Check on Learning B	Grid Reference System	Lines of Latitude and Longitude	UTM Grid System	Military Grid Reference System	Locating a Point Using the MGRS
Using a Coordinate Scale	Grid Reference Box	Closing Questions	Review Questions	Call for Other Questions			

Key:

Textbook Content	Student Engagement and Assessment
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## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps

### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 6, chapter 1. Place a checkmark beside the NS1-U6C1S2 PowerPoint presentation, and these two CPS question deck files: NS1-U6C1S2 - Key Terms and NS1-U6C1S2 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

#### II. Instructional Flow:

<u>Flow Item</u>	<u>Textbook Content / Student Engagement and Assessment</u>	<u>Slides</u>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn fundamentals of geography, including the components of a globe. You will also learn how to read maps and use them to locate any point in the world, to determine your own location, and to practice orientation skills.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-11</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 professions that use maps as a critical tool in their job.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the introduction to maps.	<b>12</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>13</b>

## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps

<b>Introduction to Maps</b>	<p>Explain that knowing how to read and understand maps are valuable skills that can strengthen your awareness of the world around you. Your effective use of maps requires a basic understanding of maps, as well as of their scales, symbols, and colors. This section introduces you to this information and explains how to orient a map by matching man-made or natural features with map symbols.</p> <p>Explain that maps are in common use throughout the world today. For instance, when a family takes a vacation, a map is used to guide the driver from one city to another. The airline pilot and the sea captain use special charts or maps to navigate. Rarely do experienced navigators become lost because they apply their map reading abilities to read, understand, and use maps effectively.</p>	<b>14</b>
<b>Definition of a Map and Map Reading</b>	<p>Explain that a map is a line drawing of a portion of the earth's surface, drawn to scale as seen from above. Obviously, any attempt to plot each feature to its exact shape and scale would result in a map too big to read. Therefore, maps are drawn "to scale" with each set measurement on the scale representing a set amount of the earth's surface. In general, maps provide information about the existence and location of man-made and natural features; show distance, elevation, and different types of landforms; and depict man-made and natural features by the use of symbols, lines, colors, and forms or shapes.</p>	<b>15</b>
<b>Definition of a Map and Map Reading</b>	<p>Explain that there are many different types of maps. However, the most common types are:</p> <ul style="list-style-type: none"> <li>• City or state road maps</li> <li>• Geographic maps and atlases</li> <li>• Topographic maps.</li> </ul>	<b>16</b>
<b>Definition of a Map and Map Reading</b>	<p>Explain that you can compare a map to any piece of equipment. Before you use it, you must first read the instructions. Most mapmakers place the instructions on a map (known as the marginal information) around the outer edge of a map. Not all maps are the same, so it is necessary to read the marginal information carefully every time you use a different map (see Figure 1.5). The following discussion describes and illustrates the most commonly used elements of marginal information that are found on road maps.</p> <ul style="list-style-type: none"> <li>• Sheet or Map Name. Whenever possible, a map is named after the most prominent cultural or geographic feature in that area (for example, Orlando or the Official Transportation Map for the State of Florida). Although the most prominent feature on the map may be a state or other large geographical region (for example the Mid-Atlantic States), the map sheet normally contains numerous inserts of smaller sections in order to show them in more detail. These inserts can be found around the margin or on the reverse side of the map sheet.</li> <li>• Bar Scales. Bar scales are special rulers used to measure ground distance on a map. Although these scales may vary with each road map, the most common units of measurement are miles and kilometers. Figure 1.6 shows an example of a scale used on the Official Transportation Map for the State of Florida.</li> <li>• Printing Note. This note indicates the agency responsible for printing the map. The printing date determines when the map was printed, not when the information was obtained.</li> </ul>	<b>17</b>

## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps

<b>Definition of a Map and Map Reading</b>	Explain that the legend is part of the mapmaker's dictionary. It is a shorthand method of illustrating and identifying mapped features using symbols to show some of the more prominent features on the map. These symbols are not the same on every road map.	<b>18</b>
<b>Map Symbols</b>	<p>Explain that because all features on a map cannot represent their true position and shape, mapmakers must use symbols to represent these features. These symbols are made to look as closely as possible to the actual features themselves as they are seen from above. The legend indicates the meanings of the symbols that are used on a map. A few of the commonly used symbols include:</p> <ul style="list-style-type: none"> <li>• Route markers have a shield or other shape containing the number of the road.</li> <li>• Mileage markers show distance between towns or road junctions</li> <li>• Interstate highways are shown in red/white/blue symbols, except business routes which are green</li> <li>• East/west routes have even numbers(I-70)</li> <li>• North/south routes have odd numbers (I-25)</li> <li>• Traffic control markers show unusual traffic conditions</li> <li>• Boundaries are shown as broken or intermittent lines</li> </ul>	<b>19</b>
<b>Map Symbols</b>	Explain that information for cities or street names are listed alphabetically wherever space permits on the map, including on the reverse side of the map. This information is also printed adjacent to its corresponding feature and could be the name of cities on state and regional maps and the names of streets on city maps. Beside each city or street listing is a letter/number code (for example, D-9). Along the outer edge of the margin are letters ranging from "A" to "P" (or beyond) and numbers ranging from "1" to "15" (or beyond). Note that the letter "I" is usually omitted so as not to be mistaken for the number "1."	<b>20</b>
<b>Map Colors</b>	<p>Explain that colors on a road map provide contrast to map features, making them easier to identify. Map symbols are usually printed in different colors with each color identifying a class of features. However, colors may vary from one map to another. When used differently, mapmakers indicate these colors and their uses in the marginal information.</p> <p>Explain that the following describes the basic colors used on most road maps and the features they represent. Occasionally, mapmakers may use other colors to indicate special information.</p> <ul style="list-style-type: none"> <li>• Black - Indicates the majority of man-made features: buildings or roads.</li> <li>• Blue - Identifies water features: lakes, swamps, or rivers.</li> <li>• Brown - Identifies elevation and relief features: mountain ranges.</li> <li>• Green - Identifies vegetation: woods, grassland, brush, orchards, or vineyards.</li> <li>• Red - Classifies man-made features: populated areas, main roads, special features, or boundaries on older maps.</li> </ul>	<b>21</b>
<b>Orienting a Map</b>	Explain that finding your way requires the ability to read and interpret a map, compare it to the features on the ground, and move to the desired location. One method of comparing your map to the ground is to orient the map so its symbols fit the location of the features as they appear on the ground. A properly oriented map can also indicate direction. After you have it correctly oriented to the ground, the top of the map will usually point toward the north.	<b>22-23</b>

## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps

<b>Care of Maps</b>	<p>Explain that because you may have to keep a map for a long time, exercise care when using it. Three important considerations in the care of maps are:</p> <ul style="list-style-type: none"> <li>• Properly refold it after each use</li> <li>• Use a pencil if it becomes necessary to mark on it so that you can easily erase any marks</li> <li>• Avoid spilling liquids on it.</li> </ul>	<b>24</b>
<b>Global Positioning System</b>	<p>Explain that the Global Positioning System (GPS) is a high-tech, worldwide radio-navigation system formed from a network of 24 satellites and their ground stations. GPS provides more precise and efficient methods of surveying and mapmaking. Today, GPS makes it possible to accomplish the same work in a fraction of the time. Mapping is the science of using GPS to pinpoint locations and then create maps of any location in the world, including both natural and man-made features.</p>	<b>25</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	<p>Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.</p>	<b>26</b>
<b>Topographic Maps</b>	<p>Explain that compared to road maps, topographic maps show more detail of an area's natural features. Because of its detail, especially of terrain features, elevation, and relief, the military prefers this type of map.</p>	<b>27</b>
<b>Topographic Maps</b>	<p>Explain that after you have mastered the basics of map reading in this chapter, you will have the opportunity to demonstrate your knowledge of these skills during outdoor practical exercises. Whether you are practicing basic land navigation techniques, participating in orienteering, or performing land navigation at summer camp, knowing how to use topographic maps can help you in the following ways:</p> <ul style="list-style-type: none"> <li>• Finding your way if you become separated from a group</li> <li>• Successfully, and safely, navigating a group, especially during cross-country movements</li> <li>• Determining distances from one location to another</li> <li>• Pinpointing locations in a given area</li> <li>• Determining the type of terrain in which you or your unit must operate</li> <li>• Planning trips or operations.</li> </ul>	<b>28</b>
<b>Topographic Maps</b>	<p>Explain that a hiker poised at the start of an unfamiliar mountain trail needs a special kind of map tucked into his or her backpack known as a topographic or contour map. This kind of map shows the changes in elevation that lie ahead and how quickly these changes take place. Does the trail climb steeply for the next mile, or is the grade a slow and steady rise? Will there be serious climbing involved, or can the hiker cover the distance at an easy, arm-swinging pace? How far can the hiker expect to travel in a single afternoon? A good topographic map can be used to answer all these questions and help ensure the success and safety of a hike.</p>	<b>29</b>
<b>Topographic Maps</b>	<p>The lines on a topographic map are called contour lines. A contour line connects all points where elevation is equal. If you were to hike along one of the contour lines shown on this topographic map, you would always be at the same height above sea level. Notice that the contour lines are labeled with numbers that tell the elevation in feet along that contour line.</p>	<b>30</b>
<b>Topographic Maps</b>	<p>When a series of contour lines is close together, it means the elevation of the land is rapidly changing. In other words, the terrain is steep. On the other hand, contour lines spread wide apart indicate the elevation is slowly changing, the land is relatively flat and shows a gentle slope. A contour interval is the distance between lines.</p>	<b>31</b>

## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps

<b>Marginal Information</b>	<p>Explain that the marginal information for topographic maps varies significantly from that of road maps. One major difference is that the marginal information on topographic maps is more standardized than that on other maps. However, all topographic maps are not the same. Consequently, you must examine this information carefully before using each map.</p>	<b>32</b>
<b>Marginal Information</b>	<p>Explain that the topographic map shown in Figure 1.9 is only an extract of how one actually appears. There are three major differences. The mapped area and bar scales are drawn to scale, but the extract represents only a small portion of the actual map. As you can see, this map has a detailed legend, which can be seen in more detail in Figure 1.10. The marginal information for this topographical map is as follows:</p> <ol style="list-style-type: none"> <li>1. Sheet Name. You can locate the sheet name at the center of the top margin and in the lower left area of the map margin. As with road maps, mapmakers generally title a map after its prominent cultural or geographic feature.</li> <li>2. Sheet Number. You can find the sheet number located in either the upper right or the lower left corners. Use it as a reference number for the map sheet.</li> <li>3. Adjoining Map Sheets Diagram. Locate the adjoining (or adjacent) map sheets diagram in the right corner of the lower margin. This diagram contains nine squares; the center square is the map sheet at which you are looking. The remaining squares show the sheet numbers for those maps at the same scale that surround the area covered by the center square.</li> <li>4. Special Notes. Special notes are statements of general information that relate to the mapped area; for example, the map is red-light readable (located in the lower right corner) or a lane is generally considered as being a minimum of 2.5 meters (located in the lower left corner).</li> <li>5. Declination Diagram. Another item of information located in the lower right margin is the declination diagram. All you need to know at this time is that it indicates the direction and relationship of true, magnetic, and grid north.</li> <li>6. Scales. Locate the graphic (bar) scales in the center of the lower margin of the map. Compare the differences between these scales and those found on road maps.</li> </ol>	<b>33-34</b>
<b>Marginal Information</b>	<ol style="list-style-type: none"> <li>7. Contour Interval Note. The contour interval note also appears in the center of the lower margin. It represents the vertical distance between adjacent contour lines on the map.</li> <li>8. Unit Imprint. You can find the unit imprint below the left corner of the mapped area. It identifies the agency that prepared and printed the map.</li> <li>9. Legend. The legend appears below the unit imprint. It states the effective date of the road and other data and illustrates the symbols used on the map. Figure 1.3.3 shows another example of a legend.</li> <li>10. Grid Reference Box. Some topographical maps also include a grid reference box. The grid reference box contains information for identifying the grid zone and the 100,000 meter square representing the area. It also provides instructions for giving grid references on the map. The next two sections present information on grid referencing systems and the usefulness of the grid reference box.</li> </ol>	<b>35</b>

## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps

<b>Map Symbols</b>	Explain that map symbols on topographic maps are generally more detailed than those on other maps. For example, these maps include unimproved roads and trails, different gauges of railroad tracks, power lines, mines or quarries, bench marks, and spot elevations. However, the symbols are not always the same on every map. Always refer to the legend to avoid errors when reading a map.	<b>36</b>
<b>Map Colors</b>	Explain that the five colors (black, blue, brown, green, and red) used for road maps and the features they represent are also used on topographic maps. In addition, topographic maps use two colors that are usually not found on other maps. These two colors are white, which identifies an area void of vegetation, and reddish-brown, which identifies man-made and relief features and elevation such as contour lines on red-light readable maps. These can be seen in Figure 1.11.	<b>37</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>38</b>
<b>Grid Reference System</b>	Explain that to keep from getting lost, you must know how to find your location. Street addresses may not always be available to you. Learning to use the grid referencing system in conjunction with maps will help you to quickly and accurately pinpoint your location.	<b>39</b>
<b>Lines of Latitude and Longitude</b>	Explain that by drawing a set of east-west rings around the globe (parallel to the equator), and a set of north-south rings crossing the equator at right angles and converging at the poles, mapmakers can form a network of reference lines from which you can locate any point on the earth's surface (see Figure 1.12).	<b>40-41</b>
<b>UTM Grid System</b>	Explain that the U.S. military superimposed its grid reference system on the Universal Transverse Mercator Grid System, or UTM grid system. To better understand the military's grid reference system, you should have a basic knowledge of the UTM grid system.	<b>42</b>
<b>UTM Grid System</b>	<p>Explain that the UTM grid system divides the surface of the earth into 60 north-south grid zones (each six degrees wide) like the one in Figure 1.13. Mapmakers number these zones from west to east, 1 through 60, starting at the 180 degree meridian. The grid zone in Figure 1.13 represents grid zone number 3.</p> <p>Explain that figure 1.14 is this same grid zone, but now further divided into 20 north-south segments. Each grid segment has a letter for identification. Mapmakers use the letters "C" through "X" (omitting the letters "I" and "O") to identify these 20 grid segments. They do not use "I" and "O" because these letters can easily be mistaken for the numbers "1" and "0". Nineteen of these grid segments are eight degrees high and the one row at the extreme north is 12 degrees high. This combination of zone number and row letter constitutes the grid zone designation.</p>	<b>43</b>
<b>UTM Grid System</b>	Explain that if you were to cut out 60 shapes identical to those in Figures 1.13 or 1.14, your globe would not be complete at either end. Each of these 60 grid zones lies between the 84 degrees north and the 80 degrees south lines of latitude. The polar regions would be missing. Therefore, to complete your globe, extend these grid lines to 90 degrees in both directions: 90 degrees north latitude is the North Pole and 90 degrees south latitude is the South Pole. Mapmakers use the remaining four letters, "A," "B," "Y," and "Z," to identify the polar regions as shown in Figure 1.15.	<b>44</b>
<b>Military Grid Reference System</b>	Explain that superimposed on each grid zone segment are 100,000 meter squares. Each 100,000 meter square is assigned two identification letters (see Figure 1.16). The first letter is the column designation and the second letter is the row designation.	<b>45</b>

## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps

<b>Military Grid Reference System</b>	<p>Explain that each 100,000 meter square is then divided by parallel lines (or grid lines) that are 1,000 meters or 10,000 meters apart (depending on the scale of the map). These parallel lines come together at right angles to form 1,000 meter or 10,000 meter squares (called grid squares)—see Figure 1.17. These grid lines and grid squares are the lines that you see on a standard military topographic map. Mapmakers number grid lines along the outside edge of each topographic map for easy reference. Using the two 100,000 meter square identification letters in conjunction with these numbers, you can identify each grid square accurately, without any two grid squares having the same grid number (or grid coordinate).</p>	<b>46</b>
<b>Locating a Point Using the Military Grid Reference System</b>	<p>Explain that whenever you read a grid coordinate, you always read right first, then up. This is one of the cardinal rules in map reading. Based on this rule, you can determine locations on a map using grid coordinates. The number of digits in a grid coordinate represents the degree of precision to which you can locate and measure a point on a map—the more digits, the more precise the measurement. For example, a four-digit grid coordinate locates a point to within 1,000 meters, a six-digit grid coordinate to within 100 meters, and an eight-digit grid coordinate to within ten meters.</p>	<b>47</b>
<b>Locating a Point Using the Military Grid Reference System</b>	<p>Explain that you write grid coordinates as one continuous alphanumeric symbol without spaces, parentheses, dashes, or decimal points. Further, grid coordinates must always contain an even number of digits, both letters and numbers. To determine grid coordinates without using a protractor, the reader simply refers to the grid lines numbered along the margin of any map. The following example shows how to form a four-digit grid coordinate.</p>	<b>48</b>
<b>Locating a Point Using the Military Grid Reference System</b>	<p>Suppose you want to locate Spot Elevation 450 in Figure 1.18 to the nearest 1,000 meters. Use the following steps to find this specific location:</p> <ol style="list-style-type: none"> <li>1. Identify the 100,000 meter square identification letters for the map you are using. You can find this identification in the Grid Reference Box located at the bottom center of the lower margin of a topographic map. For this example, continue to use the “YF” identifier from Figure 1.16.</li> </ol> <p>Note: The next two steps would normally be to break down the 100,000 meter square into 10 equal 10,000 meter grid squares, then to further break down one of those into 10 equal 1,000 meter grid squares. However, you can omit these steps because this example already has 1,000 meter grid squares.</p> <ol style="list-style-type: none"> <li>2. Identify the 1,000 meter grid square in which the spot elevation is located. To do this, remember the first cardinal rule of map reading: read right, then up. When reading a map right and up, each north-south grid line increases in value from west to east, and each east-west grid line increases in value from south to north.</li> <li>3. Read right. You will see that the last north-south grid line before reaching the grid square containing Spot Elevation 450 is 11.</li> <li>4. Read up. Note that the last east-west grid line before reaching the grid square containing Spot Elevation 450 is 43.</li> <li>5. Combine these steps by writing the 100,000 meter square identifier (YF) and the coordinates of the 1,000 meter grid square (11 and 43) as one continuous symbol. Thus, you would write this grid coordinate as YF1143. You have now correctly located a point on the map (Spot Elevation 450) to the nearest 1,000 meters and written a four-digit coordinate.</li> </ol>	<b>49-51</b>

## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps

<b>Locating a Point Using the Military Grid Reference System</b>	<p>Suppose you now want to again locate Spot Elevation 450, but this time to within 100 meters. First, read right. Spot Elevation 450 is approximately six-tenths into the grid square. The right reading then is the value of the last north-south grid line before reaching this grid square, or 11, plus a 6 for the six-tenths. This value is read as 116.</p> <p>Explain that by reading up, you can see that Spot Elevation 450 is approximately four-tenths of the way up into the grid square. Therefore, the up reading is the value of the last east-west grid line before reaching this grid square, or 43, and a 4 for the four-tenths. This value is read as 434.</p> <p>Explain that combining both of these numbers and the 100,000 meter square identifier labels the location as YF116434 for Spot Evaluation 450. You have now used one method to locate a point to the nearest 100 meters by using a six-digit grid coordinate.</p>	<b>52-53</b>
<b>Using a Coordinate Scale</b>	<p>Explain that another way to locate a point to within 100 meters is to make use of a coordinate scale. This process includes laying the scale on top of the map in a specific pattern, looking for the intersection of your target area and using numbers found on the scale.</p> <p>Note: When you have to round off numbers using a coordinate scale for a six-digit coordinate, apply the following rule: round down for numbers that are four or less; round up for numbers that are five and above.</p>	<b>54</b>
<b>Grid Reference Box</b>	<p>Explain that the grid reference box found on topographic map sheets contains step-by-step instructions for using the grid and military grid reference systems. Mapmakers divide the grid reference box into two parts (see Figure 1.22).</p> <p>Explain that the left portion identifies the grid zone designation and the 100,000 meter square identifier. If the map sheet falls in more than one 100,000 meter square, the number of the grid line that separates these squares and the 100,000 meter square identifications are given. The right portion briefly explains how to find and write a six-digit coordinate.</p>	<b>55</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>56</b>
<b>Review Question</b>	The Review Question is “Explain how coordinates of longitude and latitude can define a location.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>57</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>58</b>



## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps

### III. Supplemental Activities -

#### A. In Class Activity:

Supplies Needed: Handout of Map

When: At the end of the lesson

- Using the Map Handout, Have the Cadets Identify points by their latitude and longitude.

#### **Answer:**

<u>Geographic Point</u>	<u>Latitude</u>	<u>Longitude</u>
RS TXQL 1049	9° 39' S	75° 12' E
RS TZRA 1141	8° 09' S	73° 48' E
LF KAUA	8° 23' S	74° 50' E
RS TTRA 1435	8° 20' S	75° 04' E

B. At Home Activity: Using the same Map you used in class, identify the geographic location described by the following latitude and longitude.

#### **Answer:**

<u>Latitude</u>	<u>Longitude</u>	<u>Geographic Location</u>
9° 18' S	75° 53' E	Bird Head
8° 58' S	73° 59' E	Radio Station TBAL 1329
8° 53' S	74° 53' E	KOA Point
8° 18' S	76° 13' E	Pearl Beach

### IV. Evaluation - see CPS database for chapter test questions.

## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps

### Activity 1: In-Class Activity- Introduction to Maps

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Using the map on the back page, Identify the following points by their latitude and longitude:

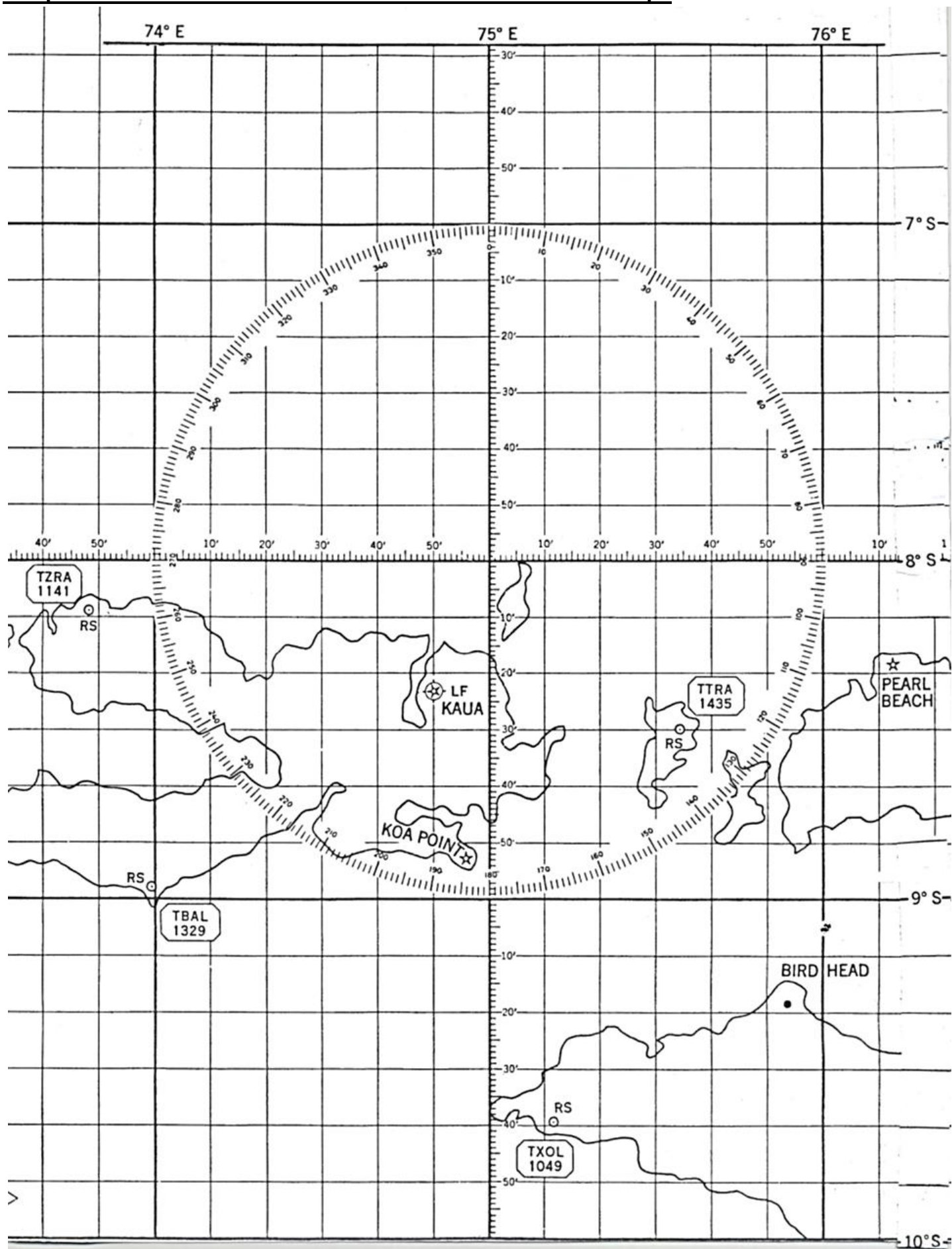
<u>Geographic Point</u>	<u>Latitude</u>	<u>Longitude</u>
RS TXQL 1049	_____	_____
RS TZRA 1141	_____	_____
LF KAUA	_____	_____
RS TTRA 1435	_____	_____

### Activity 2: Take Home Activity – Introduction to Maps

Using the same Map you used in class, identify the geographic location described by the following latitude and longitude.

<u>Latitude</u>	<u>Longitude</u>	<u>Geographic Location</u>
9° 18' S	75° 53' E	_____
8° 58' S	73° 59' E	_____
8° 53' S	74° 53' E	_____
8° 18' S	76° 13' E	_____

## Chapter 1 / Section 2: NS1-U6C1S2 – Introduction to Maps



## Chapter 1 / Section 3: NS1-U6C1S3 – Contours and Landforms

(Section 3 of 6)

### What Students Will Learn to Do:

Understand the principles and tools of map reading and land navigation

### Skills and Knowledge to be Gained:

1. Use terrain features to orient a map and determine your location

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Key terms	Key Term Definitions	Opening Question	Warm Up Questions	Contours and Landforms	Methods of Showing Relief	Check On Learning A
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Contour Intervals	Landforms	Terrain Features	Major Terrain Features	Check on Learning B	Minor Terrain Features	Supplementary Terrain Features	Types of Slopes
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Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 6, chapter 1. Place a checkmark beside the NS1-U6C1S3 PowerPoint presentation, and these two CPS question deck files: NS1-U6C1S3 - Key Terms and NS1-U6C1S3 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 3: NS1-U6C1S3 – Contours and Landforms

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn fundamentals of geography, including the components of a globe. You will also learn how to read maps and use them to locate any point in the world, to determine your own location, and to practice orientation skills.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-8</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 situations in which it might be helpful to use a topographic map vs. a road map.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the contours and landforms	<b>9</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>10</b>
<b>Contours and Landforms</b>	<p>Explain that the next step to improving your map reading skills is to understand elevation and relief. This understanding includes your ability to recognize the different types of land formations.</p> <p>Explain that this section introduces these two basic elements of map reading. It explains the concepts of contour lines and intervals. Mapmakers use them to show elevation and relief on a map as they would appear on the ground. It also explains and illustrates the 10 types of natural and manmade terrain features along with their corresponding contour lines.</p>	<b>11</b>
<b>Methods of Showing Relief</b>	Explain that knowing what the terrain looks like along your route before you start a trip may save you time and trouble in reaching your destination. Elevation is the height, or vertical distance, of a point on the earth’s surface above or below mean sea level. Maps show elevation in feet, meters, or yards. Relief is the shape of landforms on the earth’s surface.	<b>12</b>
<b>Methods of Showing Relief</b>	Explain that layer tinting shows relief by color. Mapmakers use a different color for each band of elevation. Each band represents a separate elevation range. Each range is defined in the legend. However, this method does not allow you to determine the exact elevation of a specific point—only its range.	<b>13</b>

## Chapter 1 / Section 3: NS1-U6C1S3 – Contours and Landforms

<b>Methods of Showing Relief</b>	Explain that form lines do not have a standard elevation and they give only a general idea of relief. Mapmakers show form lines as dashed lines on a map without elevation numbers.	<b>14</b>
<b>Methods of Showing Relief</b>	Explain that shaded relief shows relief by a shadow effect on one side of terrain features. Mapmakers achieve the shadow effect by using tones and colors to darken one side of features (such as hills or ridges). This method is sometimes used with contour lines to emphasize those features.	<b>15</b>
<b>Methods of Showing Relief</b>	Explain that hachures show relief using short broken lines. Mapmakers use them to show large, rocky outcrop areas and, on small-scale maps, to show mountain ranges, plateaus, and mountain peaks. As in the above methods, however, they do not represent exact elevations.	<b>16</b>
<b>Methods of Showing Relief</b>	<p>Explain that contour lines show relief and elevation on a standard topographic map. A contour line represents an imaginary line on the ground. All points on a contour line are at the same elevation. Contour lines never cross one another. Standard colors for contour lines are brown, red, or black. The following are three types of contour lines.</p> <ul style="list-style-type: none"> <li>• Index. Starting at zero elevation, or mean sea level, every fifth contour line is always an index contour line, regardless of the contour interval. Mapmakers show index contour lines as a heavily drawn line with its elevation given somewhere along it, except where the contour interval is too small to print the elevation.</li> <li>• Intermediate. The contour lines that fall between the index lines are the intermediate contour lines. These lines are more finely drawn and they do not show the elevation number. On U.S. maps, there will always be four intermediate contour lines between indexed lines.</li> <li>• Supplementary. These contour lines resemble dashes. They show sudden changes in elevation of at least one-half the contour interval for that map. If the map uses supplementary contour lines, do not count them as regular contour lines.</li> </ul>	<b>17-20</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>21</b>
<b>Contour Intervals</b>	Explain that printed below the bar scales in the middle of each map is the contour interval. This interval is the difference in height, or elevation, between one contour line and the one next to it.	<b>22</b>
<b>Contour Intervals</b>	<p>Explain that you can estimate or determine the elevation of a point on a map by following these steps:</p> <ol style="list-style-type: none"> <li>1. Determine the contour interval and the unit of measurement (feet, meters, or yards) from the marginal information.</li> <li>2. Find the numbered index contour line nearest your point.</li> <li>3. Count the number of intermediate contour lines to your point. If you are increasing elevation, add the contour interval to the nearest index contour line. If you are decreasing elevation, subtract the contour interval from the nearest index contour line.</li> </ol>	<b>23</b>

## Chapter 1 / Section 3: NS1-U6C1S3 – Contours and Landforms

<b>Contour Intervals</b>	For example, the point you want to locate is on the second intermediate contour line above the 300 meter index contour line (see Point A on Figure 1.24). Note the contour interval for this example is 20 meters. Since your point is closer to the 300 meter index contour line, start there and for each one of the intermediate contour lines that you cross or arrive at to reach your point, add 20 meters to the value of the 300-meter index line. Thus, the elevation of Point A is 340 meters. Notice that your elevation has increased.	<b>24</b>
<b>Contour Intervals</b>	<p>However, let's say that your point (Point B) is now located on the intermediate contour line immediately below the 400 meter index contour line. Below means downhill, or at a lower elevation. Therefore, for the one intermediate contour line that you arrive at to reach this point, subtract 20 meters from the value of the 400 meter index line. The elevation of Point B is 380 meters.</p> <p>To determine the elevation of the top of an unmarked hill, add one-half the contour interval to the elevation of the last (highest) contour line around the hill. In our example, the last contour line before the hilltop is an intermediate contour line at an elevation of 440 meters. Add one-half the contour interval, or 10 meters, to the value of this intermediate contour line. The elevation of the hilltop is 450 meters.</p>	<b>25</b>
<b>Contour Intervals</b>	<p>Explain that to estimate the elevation to the bottom of a depression, subtract one-half the contour interval from the value of the lowest contour line before the depression. In Figure 1.25 (with the contour interval still at 20 meters), the lowest contour line before the depression is 240 meters, which is also the elevation at the edge of the depression. Because 10 meters is one-half the contour interval, the bottom of this depression is 230 meters. The tick marks on the contour line forming a depression always point to lower elevations.</p> <p>Explain that in addition to contour lines, mapmakers use bench marks and spot elevations to indicate points of known elevation on a map. Bench marks (abbreviated BM) are the more accurate of the two. Mapmakers show a bench mark with a black "X" (such as BMx214) with the center of its elevation given in feet, meters, or yards above sea level. Mapmakers show spot elevations with a brown "X" to mark road junctions, hilltops, or other prominent terrain features.</p>	<b>26</b>
<b>Landforms</b>	<p>Explain that in addition to the map symbols introduced earlier in this chapter, mapmakers use symbols to represent natural land formations of the earth's surface. They position them on a map so that the center of the symbol remains in its true location. These symbols closely resemble the actual features when viewed from above.</p> <p>Explain that no matter where you live, there are hills, valleys, streams, or other landforms in your area. The relief of an area is the illustration of these shapes as depicted on a map. For example, the relief of Denver would be different from that of Salt Lake City.</p>	<b>27</b>
<b>Terrain Features</b>	<p>Explain that the 10 natural or man-made terrain features fall into three categories: major features, minor features, and supplementary features. There are five major features, two minor features, and three supplementary features.</p> <p>Explain that the five major terrain features are hill, saddle, valley, ridge, and depression.</p>	<b>28</b>
<b>Major Terrain Features</b>	Explain that a hill is an area of high ground (see Figure 1.27). When you are located on a hilltop, the ground slopes down in all directions. Maps will show a hill with a regular closed contour line, or a series of concentric closed contour lines. The inside of the smallest closed circle is the hilltop. The more contour lines, the higher the hill.	<b>29</b>

## Chapter 1 / Section 3: NS1-U6C1S3 – Contours and Landforms

<b>Major Terrain Features</b>	Explain that a saddle is a dip or low point between two areas of higher ground (see Figure 1.28). It is not necessarily the lower ground between two hilltops; it may simply be a dip or break along a level ridge or crest. If you were in a saddle, there would be high ground in two opposite directions and lower ground in the other two directions. Maps will show a saddle with the contour lines forming an hourglass or a figure-eight-shaped feature.	<b>30</b>
<b>Major Terrain Features</b>	Explain that a valley is a stretched-out groove in the land, usually formed by streams or rivers (see Figure 1.29). A valley begins with high ground on three sides, and usually has a course of running water through it, which always flows from higher to lower ground. If you were standing in a valley, there would be high ground in two opposite directions and a gradual slope in the other two directions. Contour lines forming a valley are either “U-shaped” or “V-shaped.” To determine the direction water is flowing, look at the contour lines. The closed end of the “U” or “V” always points upstream or toward the high ground.	<b>31</b>
<b>Major Terrain Features</b>	Explain that a ridge is a sloping line of high ground (see Figure 1.30). If you were standing in the center of a ridge, you would normally have low ground in three directions and high ground in one direction.  Explain that if you cross a ridge at right angles, you climb steeply to the crest, and then descend steeply to the base. When you move along the path of the ridge, depending on your location, there may be either a barely noticeable slope or a very obvious incline. Contour lines forming a ridge tend to be “U-shaped” or “V-shaped.” Notice that the closed end of the contour line points away from high ground.	<b>32</b>
<b>Major Terrain Features</b>	Explain that a depression is a low point in the ground, or a sinkhole, surrounded by higher ground in all directions (see Figure 1.31). Maps will show depressions by closed contour lines that have tick marks pointing toward the low ground. The closer the contour lines, the deeper the depression.	<b>33</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>34</b>
<b>Minor Terrain Features</b>	Explain that along with the terrain features mentioned in the previous sections, there are three minor terrain features. These are draw, spur, and cliff.	<b>35</b>
<b>Minor Terrain Features</b>	Explain that a draw is a less developed stream course than a valley (see Figure 1.32). There is no level ground. If you were standing in a draw, the ground would slope up in three directions and down in the other. A draw is sometimes considered to be the initial formation of a valley. Maps will show a draw as a series of successive “U-shaped” or “V-shaped” contour lines that point uphill or upstream.	<b>36</b>
<b>Minor Terrain Features</b>	Explain that a spur is a short, continuous sloping line of high ground, normally jutting out from the side of a ridge (see Figure 1.33). It is often formed by two parallel streams cutting draws down the side of a ridge. The ground will slope down in three directions and up in one. Maps will show a spur as a series of successive “U-shaped” or “V-shaped” contour lines that point in a downhill direction.	<b>37</b>
<b>Minor Terrain Features</b>	Explain that a cliff is a vertical or near vertical slope that is an abrupt change of the land formation (see Figure 1.34). Maps show the contour lines for cliffs as being very close together, and in some cases, touching each other.  Note: Although, as a general rule, a regular contour line is never broken, there are two exceptions when illustrating a cliff or a very steep slope. A contour line may be broken or may converge. Also, a contour line may be broken for the purpose of printing the elevation number.	<b>38</b>



## Chapter 1 / Section 3: NS1-U6C1S3 – Contours and Landforms

<b>Supplementary Terrain Features</b>	Explain that in the final category, the two supplementary terrain features are cut, and fill.	<b>39</b>
<b>Supplementary Terrain Features</b>	Explain that cuts and fills are man-made features resulting from the cutting through of high areas and the filling in of low areas to form a level bed for a road or railroad track (see Figure 1.35). Maps will show cuts when they are at least 10 feet high. Mapmakers draw the contour lines along the length of the cut. They also use tick marks to extend from the cut line to the roadbed, if the map scale permits this level of detail.	<b>40</b>
<b>Supplementary Terrain Features</b>	Explain that as with cuts, maps will show fills when they are at least 10 feet high. Mapmakers draw the contour lines along the fill line for the length of the filled area and use tick marks to point toward the lower ground.	<b>41</b>
<b>Supplementary Terrain Features</b>	Explain that your hand can help you visualize eight of the terrain features mentioned above (see Figure 1.36). You can demonstrate all but cuts and fills.	<b>42</b>
<b>Types of Slopes</b>	Explain that the rate of the rise or fall of the ground is known as its slope. You can determine slope by studying the contour lines on a map—the closer the contour lines, the steeper the slope; the farther apart the contour lines, the gentler the slope. The four types of slopes are gentle, steep, concave, and convex. Figure 1.37 gives an example of each slope.	<b>43-44</b>
<b>Types of Slopes</b>	Explain that maps show the contour lines for concave slopes as being closely spaced at the top of the feature and widely spaced at the bottom. Contour lines for convex slopes are just the opposite.	<b>45</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>46</b>
<b>Review Question</b>	The Review Question is “Demonstrate how you can use your hand to visualize eight of the terrain features review in this lesson.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>47</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>48</b>

## Chapter 1 / Section 3: NS1-U6C1S3 – Contours and Landforms

### III. Supplemental Activities -

#### A. In class Activity:

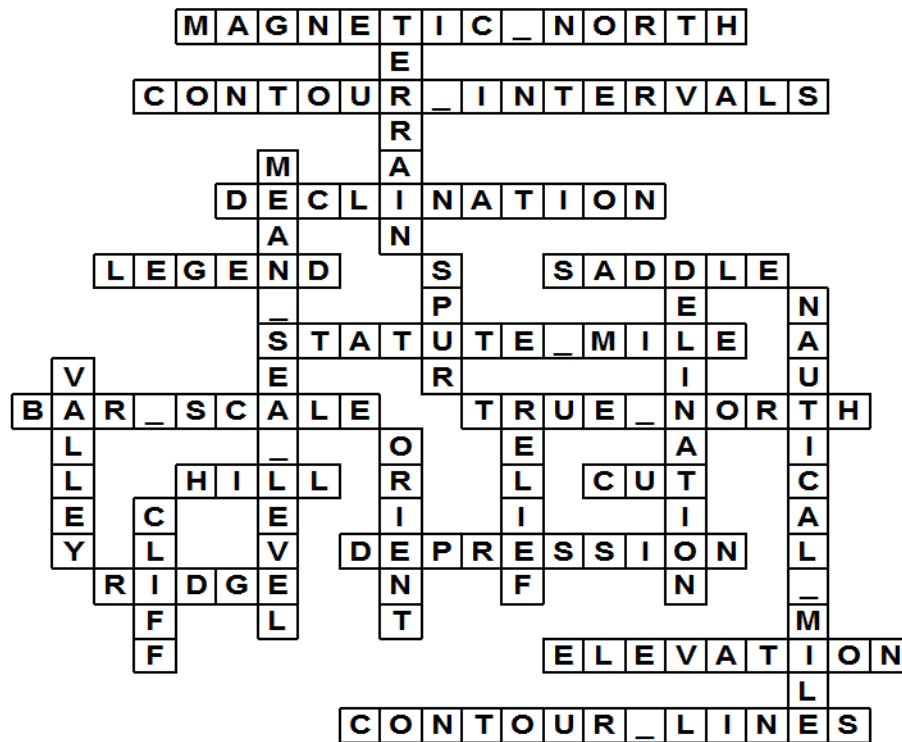
Supplies required: Handout

When: Any time during or at the end of class

- Have the cadet complete the crossword puzzle on map terms

Solution:

### Map Terms



B. Take Home Activity: On the handout provided, have the cadets draw a picture that illustrates what the land form looks like on a topographic map.

### IV. Evaluation - see CPS database for chapter test questions.

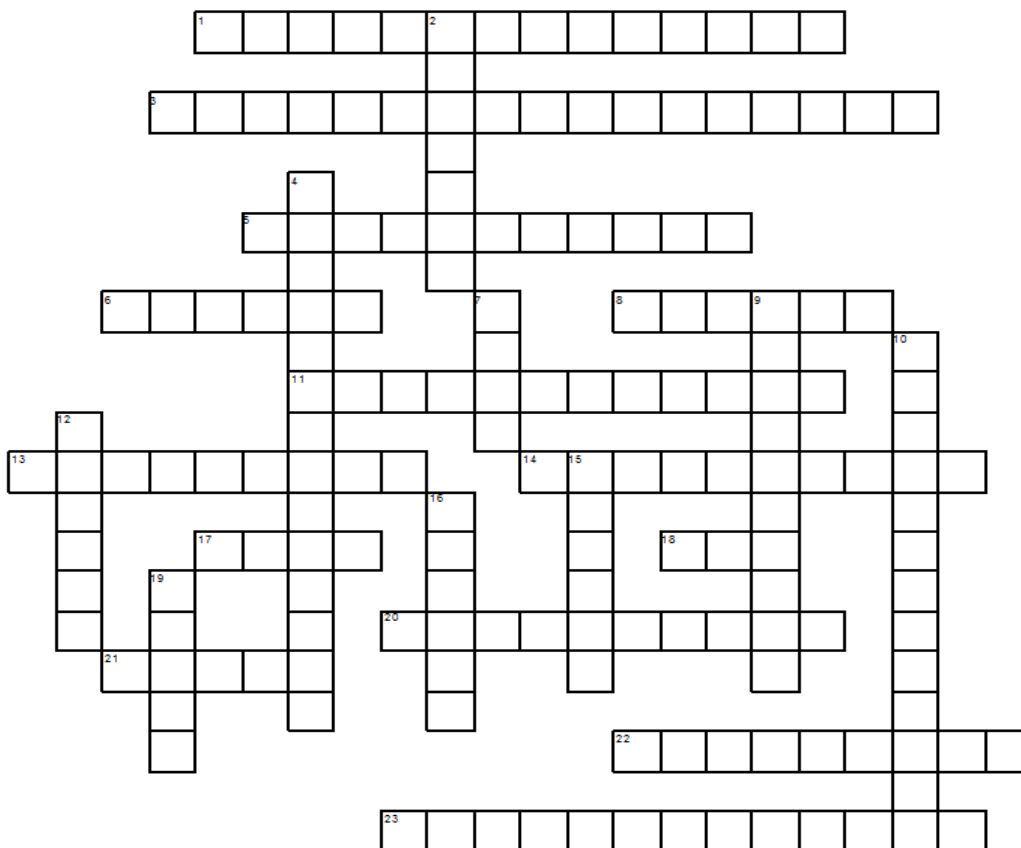
## Chapter 1 / Section 3: NS1-U6C1S3 – Contours and Landforms

### Activity 1: In-Class Activity – Contours and Landforms

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Fill in the correct word or words using the definitions below. Multiple words are separated by a dash.

## Map Terms



www.CrosswordWeaver.com

#### ACROSS

- 1 The direction to the north magnetic pole; as indicated by the north-seeking needle of a magnetic instrument
- 3 gain or loss of elevation between contour lines
- 5 An angular difference between true north and either magnetic or grid north
- 6 An explanatory description on a chart, map or other illustration
- 8 A low point between two areas of higher ground
- 11 A unit of measurement that is approximately 5,280 feet.
- 13 A ruler used to measure actual ground distances by converting distances on a map
- 14 A line from any position on the earth's surface to the geographic north Pole; symbolized by a line with a star at the apex
- 17 An area of high ground
- 18 A man-made feature resulting from the removal of high ground, usually to form a level area for roads or railroad tracks
- 20 A low point in the ground, or a sinkhole, surrounded by higher ground
- 21 A sloping line of high ground

- 22 The height, or vertical distance, of a point on the Earth's surface above or below mean sea level
- 23 show relief and elevation and never cross. They connect points of equal elevation on a map

#### DOWN

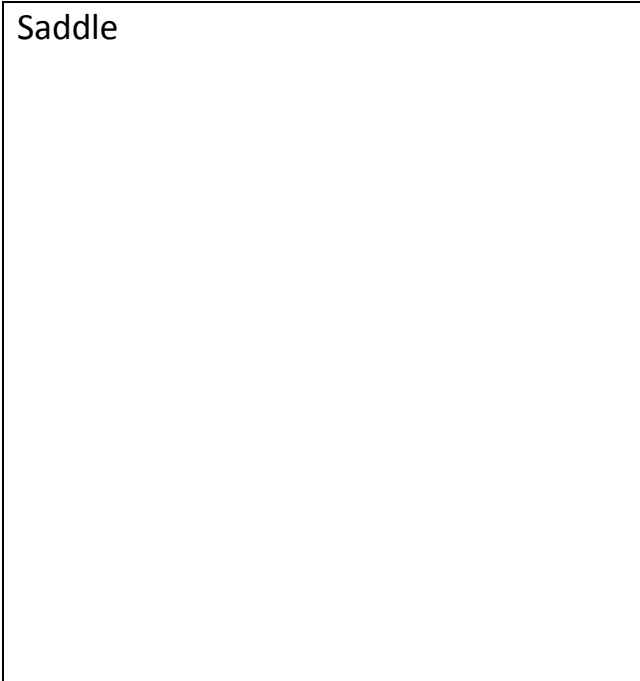

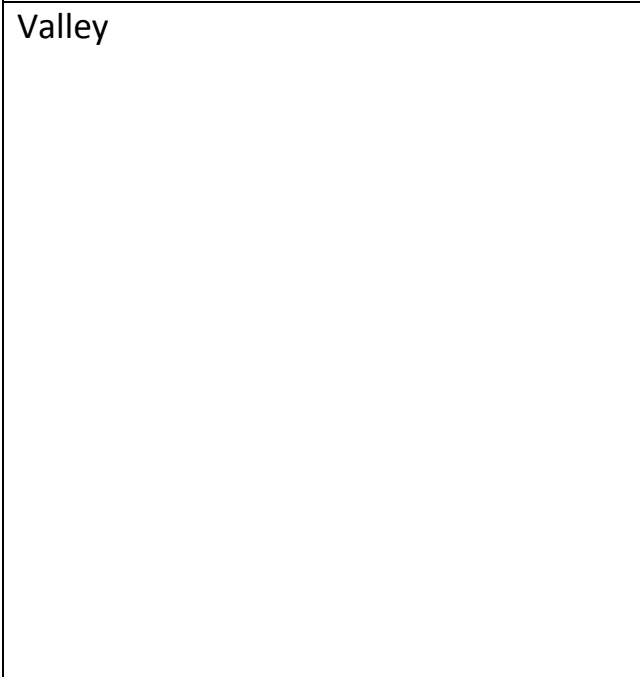
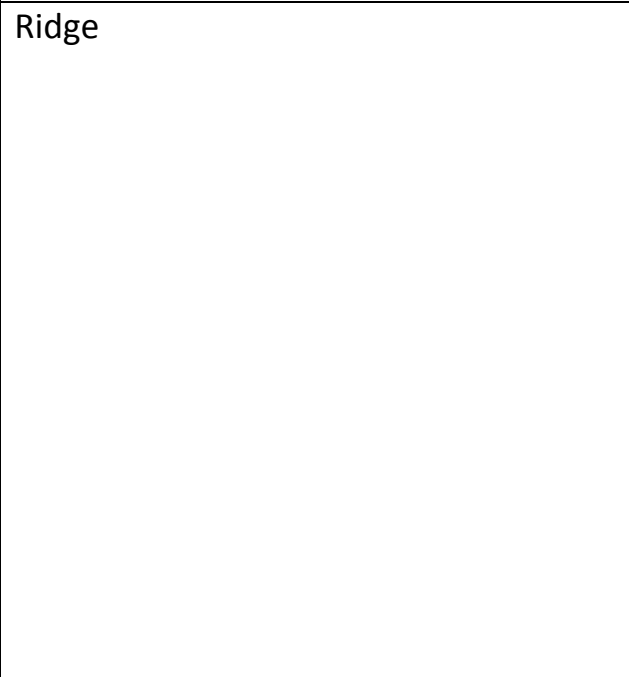
- 2 A region or tract of land; the character (or topography) of a tract of land
- 4 The position of the level of the surface of the sea midway between high and low water
- 7 A sloping line of high ground projecting out from the side of a ridge
- 9 An angular difference between true north and either magnetic or grid north
- 10 A unit of measurement that is approximately 6,080 feet, which is one minute of latitude and longer than a statute mile
- 12 A stretched-out groove in the land
- 15 The shape of land formations on the earth's surface
- 16 To align or position oneself (or a map) in relationship to one's surroundings
- 19 A vertical or near vertical slope that is an abrupt change of the land formation

## Chapter 1 / Section 3: NS1-U6C1S3 – Contours and Landforms

Activity1: Take Home Activity - Contours and Landforms

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: In the square provided, draw a picture that illustrates what the land form looks like on a topographic map.

<p>Saddle</p> 	<p>Hill</p> 
<p>Valley</p> 	<p>Ridge</p> 

## Chapter 1 / Section 4: NS1-U6C1S4 – Distance and Direction

(Section 4 of 6)

### What Students Will Learn to Do:

Understand the principles and tools of map reading and land navigation

### Skills and Knowledge to be Gained:

1. Measure distance using maps
2. Calculate direction on topographic maps

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Determining Distance	Measuring Straight Line Distance	Measuring Curved Lines	Check On Learning A
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Calculating Distance to a Point off the Map	Other Methods of Determining Distance	Pace Count	Estimation	Determining Direction	Azimuths	Check on Learning B	Types of Compasses	Magnetic Lensatic Compass
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Silva Compass	Measuring a Magnetic Azimuth	Using Protractors	Measuring a Grid Azimuth	Plotting a Grid Azimuth	Closing Questions	Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 6, chapter 1. Place a checkmark beside the NS1-U6C1S4 PowerPoint presentation, and these two CPS question deck files: NS1-U6C1S4 - Key Terms and NS1-U6C1S4 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

## Chapter 1 / Section 4: NS1-U6C1S4 – Distance and Direction

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn fundamentals of geography, including the components of a globe. You will also learn how to read maps and use them to locate any point in the world, to determine your own location, and to practice orientation skills.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-7</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “How might terrain variations affect your ability to judge distance and direction?” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on distance and direction.	<b>8</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>9</b>
<b>Determining Distance</b>	<p>Explain that navigating from one point to another with the use of a map and compass involves the ability to apply simple map-reading skills.</p> <p>Mapmakers express a map scale as a representative fraction (RF), which gives the ratio of map distance to ground distance.</p>	<b>10</b>
<b>Determining Distance</b>	Mapmakers divide the graphic (bar) scale into two parts: an extension scale and a primary scale. Use the primary scale, located to the right of the zero, to measure full units; use the extension scale, located to the left of the zero, to measure tenths of a unit. Read the extension scale right to left from the zero and the primary scale left to right from the zero.	<b>11</b>

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<b>Determining Distance</b>	Explain that most road maps indicate distance in miles along primary roads between towns, road junctions, or dots. However, this is not the case with topographic maps. When using a topographic map, you must determine the distance between two points because it is not given. To accomplish this, you must first measure the map distance, then convert that measurement to actual ground distance. Using the bar scale is the best way to perform this task.	<b>12</b>
<b>Measuring Straight Line Distance</b>	Explain that to determine a straight-line distance between two points on a map, lay a straight-edged piece of paper on the map so that the edge of the paper touches both points and extends past them. Make a mark on the edge of the paper at the center of mass for each point.	<b>13</b>
<b>Measuring Straight Line Distance</b>	Explain that to convert the map distance to ground distance, move the paper down to the graphic bar scale, and align the right mark (b) with a printed number on the primary scale so that the left mark (a) is in the extension scale.	<b>14</b>
<b>Measuring Straight Line Distance</b>	<p>Now, to determine the distance between those two points to the nearest 10 meters, look at the extension scale. Because mapmakers number the extension scale with zero at the right and increasing to the left, always read this scale from right to left. Notice that each alternating shaded and clear rectangle is equal to 100 meters. To determine the distance from the zero to mark (a):</p> <ol style="list-style-type: none"> <li>1. Count the number of whole shaded and clear 100 meter rectangles. In our example, there are nine of them, representing 900 meters.</li> <li>2. Mentally divide the distance inside the rectangle containing mark (a) into tenths (or 10-meter intervals)—see Figure 1.41. Since mark (a) is approximately half the distance of that rectangle, or five-tenths, you would add another 50 meters to the total in the first step.</li> <li>3. Complete your calculations by adding the distance of 3,000 meters (determined using the primary scale) to the 950 meters (determined using the extension scale). The total distance between points (a) and (b) is 3,950 meters.</li> </ol>	<b>15</b>
<b>Measuring Curved Lines</b>	Explain that to measure a distance along a winding road, stream, or any other curved line, you must first decide on which side of the feature to take your measurement. Never measure from side to side or down the middle. Start by making a mark on the straight-edged paper at the beginning point's center of mass. Move the edge of this paper along the curve, making marks at short straight distances on both the paper and the map as you proceed.	<b>16</b>
<b>Measuring Curved Lines</b>	Explain that for accurate results, after placing a mark on both the paper and map, proceed to the next straight portion of this distance by pivoting the paper until the edge of the paper and area you are measuring are aligned. Use your pencil to hold the straight-edged paper in place while pivoting. Continue in this manner until you reach the center of mass at the ending point; then place the paper on the desired bar scale and read the distance between the beginning and ending marks.	<b>17</b>
<b>Measuring Curved Lines</b>	Explain that in the next example, you measure the road distance between two points once again, by marking the beginning point (c) on the straight-edged paper (see Figure 1.6.2). Next, place marks on both the straight edge piece of paper and the map for each straight portion of road between points (c) and (d). Pivot the straight-edged paper as you make the marks on the paper and map until you reach point.	<b>18</b>

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<b>Measuring Curved Lines</b>	Place the straight-edged paper on the correct bar scale. Using only the beginning and ending marks (ignoring the ones in between), calculate the total distance. You can now use the same method as in the previous example. Notice in Figure 1.43 that point (d) falls on the 4,000 meter mark on the primary scale and point (c) is closest to the 550 meter reading on the extension scale. Thus, the road distance between points (c) and (d) is 4,550 meters.	<b>19</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>20</b>
<b>Calculating Distance to a Point off the Map</b>	Explain that to determine distance to a point off the map, measure the distance (straight-line or curved-line) from the start point to the edge of the map. Check to see if the marginal information gives the road distance from the edge of the map to the point you want. Oftentimes, maps will give distances to towns, highways, or junctions off the map. Then, add the distance measured on the map to the distance given in the marginal information. Ensure that the unit of measure is the same. When measuring distance in statute or nautical miles, round it off to the nearest one-tenth of a mile.	<b>21</b>
<b>Calculating Distance to a Point off the Map</b>	Note: Distance measured on a map does not take into consideration the topography of the land. All distances measured by using the map and graphic scales are flat distances. Therefore, the distance measured on a map will increase when actually measured on the ground. You must take this into consideration when navigating across country.	<b>22</b>
<b>Other Methods of Determining Distance</b>	Explain that when navigating, you may encounter circumstances where you are unable to determine distance using your map or where you are without a map. It is therefore essential to learn alternative methods by which you can accurately pace out or estimate distances on the ground.	<b>23</b>
<b>Pace Count</b>	Explain that one method used to measure ground distance is the pace count. A pace is equal to one natural step, about 30 inches long. To accurately use a pace count, you must know how many paces it takes you to walk 100 meters. To determine this, you must walk an accurately measured course and count the number of paces (steps) it takes. The pace course must be on terrain similar to that over which you will be walking. You cannot pace walk a course on flat terrain and correlate that pace count on hilly terrain.	<b>24</b>
<b>Pace Count</b>	<p>Additionally, you may have to adjust your pace count because of the following conditions:</p> <ul style="list-style-type: none"> <li>• Slopes. Your pace will lengthen on a down-slope and shorten on an upgrade.</li> <li>• Winds. A head wind shortens the pace and a tail wind increases it.</li> <li>• Surfaces. Sand, gravel, mud, snow, and similar surfaces tend to shorten your pace.</li> <li>• Elements. Snow, rain, or ice may cause you to reduce the length of your pace.</li> <li>• Clothing. Excess clothing and shoes with poor traction can also affect the pace length.</li> <li>• Visibility. Poor visibility, such as fog, rain, or darkness, can shorten your pace.</li> </ul>	<b>25</b>



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<b>Pace Count</b>	<p>Explain that there are several methods to keep track of the distance you travel when using a pace count. Some of the most common methods are:</p> <ul style="list-style-type: none"> <li>• Put a pebble in your pocket every time you have walked 100 meters according to your pace count</li> <li>• Tie knots in a string (one for every 100 meters)</li> <li>• Put marks in a notebook (one for every 100 meters).</li> </ul> <p>Never try to remember the count; always use one of these methods, or design your own.</p>	<b>26</b>
<b>Estimation</b>	<p>Explain that another method is to use estimation. To effectively use this method, you must be able to visualize a distance of 100 meters on the ground. For distances up to 500 meters, determine the number of 100 meter increments between the two objects you wish to measure. Beyond 500 meters, select a point halfway to the objects and determine the number of 100 meter increments to the halfway point, then double it to find the distance to the objects</p>	<b>27</b>
<b>Determining Direction</b>	<p>Explain that after you have determined this distance, it is just one part of the information needed to reach one's destination. To reach this destination, however, one still needs to know what direction to travel.</p> <p>Explain that directions play an important role in everyday life. People oftentimes express them as right, left, straight ahead, and so forth; but then the question arises, "to the right of what?" To answer that question, this section first defines different types of azimuths and three different types of north. It then explains how to determine grid and magnetic azimuths using a protractor and compass.</p>	<b>28</b>
<b>Determining Direction</b>	<p>Explain that direction is typically expressed as a unit of angular measure. The most common unit of measure is the degree. There are 360 degrees in a circle. Each degree is subdivided into 60 minutes and each minute into 60 seconds.</p> <p>Explain that to express direction as a unit of angular measure, there must be a starting point (or zero measurement) and a point of reference. These two points designate the base direction or reference line.</p>	<b>29</b>
<b>Determining Direction</b>	<p>Explain that there are three base directions—true north, magnetic north, and grid north—but you will only be using magnetic and grid north in this section.</p> <ul style="list-style-type: none"> <li>• True north is a line from any point on the earth's surface to the north pole. All lines of longitude are true north lines. Mapmakers normally represent true north in the marginal information with a star.</li> <li>• Magnetic north is the direction to the north magnetic pole, as shown by the north seeking needle of a compass or other magnetic instrument. Mapmakers usually illustrate magnetic north in the marginal information by a line ending with a half arrow-head.</li> <li>• Grid north is the north that mapmakers establish with the vertical grid lines on a map. They usually illustrate it by placing the letters "GN" on a vertical line in the marginal information.</li> </ul>	<b>30</b>
<b>Azimuths</b>	<p>Explain that an azimuth is defined as a horizontal angle measured clockwise from a base direction. The azimuth is the most common military method to express direction. When using an azimuth, the point from which the azimuth originates is the center of an imaginary circle.</p>	<b>31</b>

## Chapter 1 / Section 4: NS1-U6C1S4 – Distance and Direction

<b>Azimuths</b>	<p>Explain that there are three distinct ways to express an azimuth: back azimuth, magnetic azimuth, and grid azimuth.</p> <p>Explain that a back azimuth is the opposite direction of an azimuth. It is just like doing an “about face.” To obtain a back azimuth from an azimuth, add 180 degrees if the azimuth is 180 degrees or less; or subtract 180 degrees if the azimuth is 180 degrees or more. The back azimuth of 180 degrees may be stated as 0 degrees or as 360 degrees.</p> <p>Explain that a magnetic azimuth is a direction expressed as the angular difference between magnetic north and the direction line (see Figure 1.50). You can determine a magnetic azimuth using a compass or other magnetic instrument (such as surveying equipment).</p>	<b>32</b>
<b>Azimuths</b>	Explain that a grid azimuth is the angle measured between grid north and a straight line plotted between two points on a map. You would use a protractor to measure this angle.	<b>33</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student’s understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>34</b>
<b>Types of Compasses</b>	Explain that you determine a magnetic azimuth with the use of a compass. Two of the most common types of compasses are the magnetic lensatic compass and the Silva compass.	<b>35</b>
<b>Magnetic Lensatic Compass</b>	<p>Explain that the magnetic lensatic compass, used by the military, is the most common and simplest instrument for measuring direction. It has three major parts: cover, base, and lens.</p> <p>Explain that the cover protects the floating dial. It contains the sighting wire (front sight) and two luminous sighting slots or dots used for night navigation. The base contains several movable parts, including the floating dial, the bezel ring, and the thumb loop.</p> <p>Explain that the floating dial is mounted on a pivot so it can rotate freely when you hold the compass level. Printed on the dial in luminous figures are an arrow and the letters E and W or E, W, and S.</p>	<b>36</b>
<b>Magnetic Lensatic Compass</b>	<p>Explain that the arrow always points to magnetic north and the letters fall at East (90 degrees), South (180 degrees), and/or West (270 degrees). There are two scales. The outer denotes mils and the inner scale (normally in red) denotes degrees. Encasing the floating dial is a glass containing a fixed black index line.</p> <p>Explain that you use the lens to read the dial. The rear sight also serves as a lock and clamps the dial when closed. You must open the rear sight more than 45 degrees to allow the dial to float freely. There is also a rear-sight slot used for sighting on objects. Use this with the front sight sighting wire.</p>	<b>37</b>
<b>Silva Compass</b>	<p>Explain that the Silva Polaris (Type 7) precision compass is also one of the most accurate compasses available today. The Silva compass is easy to use, especially with its hand-contoured base plate.</p> <p>Explain that the floating needle is mounted on a pivot so that it can rotate freely when you hold the compass level. It settles within four seconds, always pointing to magnetic north</p>	<b>38</b>

## Chapter 1 / Section 4: NS1-U6C1S4 – Distance and Direction

<b>Silva Compass</b>	<p>Printed distinctly on the rotating dial are the letters N and S, to represent 0/360 degrees and 180 degrees, respectively. The dial is graduated at two degree intervals, marked at 20 degree intervals, and contains the letters E (at 90 degrees) and W (at 270 degrees).</p> <p>Explain that the base plate contains two rulers (one measured in inches and the other in millimeters). It also has a 40-degree east and west declination scale inside the area of the floating dial.</p>	<b>39</b>
<b>Measuring a Magnetic Azimuth</b>	<p>This method is the fastest and easiest way to measure a magnetic azimuth.</p> <p>Note: Ensure that you are away from power lines, vehicles, or other metal objects when using a compass because these objects will affect its accuracy.</p>	<b>40</b>
<b>Measuring a Magnetic Azimuth</b>	<p>Explain that these six steps are for the magnetic lensatic compass.</p> <ol style="list-style-type: none"> <li>1. Open the compass to its fullest so that the cover forms a straightedge with the base.</li> <li>2. Move the lens (rear sight) to the rearmost position, allowing the dial to float freely.</li> <li>3. Place your thumb through the thumb loop, form a steady base with your third and fourth fingers, and extend your index finger along the side of the compass. Place the thumb of the other hand between the lens (rear sight) and the bezel ring. Extend the index finger along the remaining side of the compass, and the remaining fingers around the fingers of the other hand.</li> <li>4. Pull your elbows firmly into your sides. This action places the compass between your chin and waist.</li> <li>5. To measure an azimuth, simply turn your entire body toward the object, pointing the compass cover (zero or index mark) directly at the object.</li> <li>6. After you are pointing at the object, look down and read the azimuth from beneath the fixed black index line. Figure 1.54 shows a magnetic azimuth of 320 degrees.</li> </ol>	<b>41-42</b>
<b>Measuring a Magnetic Azimuth</b>	<p>Explain that for the Silva compass, modify step 3 to hold it either completely in one hand (with the curved end toward the back of the palm) or with both hands.</p>	<b>43</b>
<b>Using Protractors</b>	<p>Explain that you determine a grid azimuth with the use of a protractor. There are several types of protractors: full circle, half circle, square, or rectangular. All of them divide the circle into units of angular measure, and each has a scale around the outer edge and an index mark. The index is the center of the protractor circle from which you measure all directions.</p>	<b>44</b>
<b>Using Protractors</b>	<p>Explain that on the military protractor, you read the inner of two scales because it is graduated into degrees—from 0 to 360 degrees. Each tick mark on the degree scale represents one degree. The base line of this protractor is a line from 0 degrees to 180 degrees. Where the base line intersects the horizontal line, between 90 degrees and 270 degrees, is the index or center of the protractor.</p> <p>Explain that when using the protractor, the base line is always oriented parallel to a north-south grid line. The 0- or 360-degree mark is toward the top or north on the map, and the 90-degree mark is to the right.</p>	<b>45-46</b>

## Chapter 1 / Section 4: NS1-U6C1S4 – Distance and Direction

<b>Measuring a Grid Azimuth</b>	<p>Explain that the following steps explain how to measure a grid azimuth using a map and protractor.</p> <ol style="list-style-type: none"> <li>1. Draw a line connecting the two points (Points A and B on Figure 1.55).</li> <li>2. Place the index of the protractor at the point where the drawn line crosses a vertical (north-south) grid line.</li> <li>3. Keep the index at that point and align the 0–180 degree line of the protractor on the vertical grid line.</li> <li>4. Read the value of the angle from the scale. This value is the grid azimuth from point A to point B, or 68 degrees in our example.</li> </ol> <p>Note: Distance has no effect on azimuths.</p>	<b>47-50</b>
<b>Plotting a Grid Azimuth</b>	<p>Explain that use the following steps to plot an azimuth from a known point on a map. For this example, you will not have to convert the azimuth from magnetic to grid.</p> <ol style="list-style-type: none"> <li>1. Place the protractor on the map with the index mark at the center of mass of the known point and the 0–180 degree base line parallel to a north-south grid line. (Use BM 145 on State Route 103.)</li> <li>2. Make a mark on the map at the desired azimuth. (Use an azimuth of 210 degrees.)</li> <li>3. Remove the protractor and draw a line connecting the known point and the mark on the map.</li> <li>4. This is the grid direction line or grid azimuth.</li> </ol>	<b>51-52</b>
<b>Plotting a Grid Azimuth</b>	<p>Proceed With Caution! - Explain that when measuring azimuths on a map, remember that you are measuring from a starting point to an ending point. If you make a mistake and you take the reading from the ending point, the grid azimuth will be opposite, thus causing you to go in the wrong direction.</p>	<b>53</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	<p>Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.</p>	<b>54</b>
<b>Review Question</b>	<p>The Review Question is “Discuss 2-3 ways you might determine distance in the field, if you didn’t have any tools readily available.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.</p>	<b>55</b>
<b>Call for Other Questions</b>	<p>Provide the opportunity for students to ask final questions regarding the content covered.</p>	<b>56</b>

## Chapter 1 / Section 4: NS1-U6C1S4 – Distance and Direction

### III. Supplemental Activities -

#### A. In class Activity:

Supplies needed: Compass or Protractor for each student or group of students

When: At the end of class

- Using a compass or protractor, have the Cadets calculate the direction of travel for each leg of the course from start to finish. (Note: If there are not enough compasses or protractors have the students work with a partner or in a small group)

- Solution:

Start (Δ) to Control 1	202°M	Control 4>Control 5	194°M
Control 1>Control 2	323°M	Control 5>Control 6	108°M
Control 2>Control 3	198°M	Control 6>Control 7	043°M
Control 3>Control 4	314°M	Control 7>Finish	084°M

B. At Home Activity: Have the Cadets mark off a distance of 100 meters. (Your school track will likely have a 100 meter distance marked on the track). Have them walk from start to finish using a natural stride, count the number of steps and divide by 100 to determine your pace in feet. Do this three times. Add the three results together and divide by three. Explain that this is their pace on flat terrain and that their pace will differ with the terrain you are traveling. You can use your pace to determine distance you have traveled.

### IV. Evaluation - see CPS database for chapter test questions.

## Chapter 1 / Section 4: NS1-U6C1S4 – Distance and Direction

### Activity 1: In-Class Activity 1 – Distance and Direction

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Using a compass or protractor, calculate the direction of travel for each leg of this course from start to finish.

Start (Δ) to Control 1 \_\_\_\_\_

Control 1>Control 2 \_\_\_\_\_

Control 2>Control 3 \_\_\_\_\_

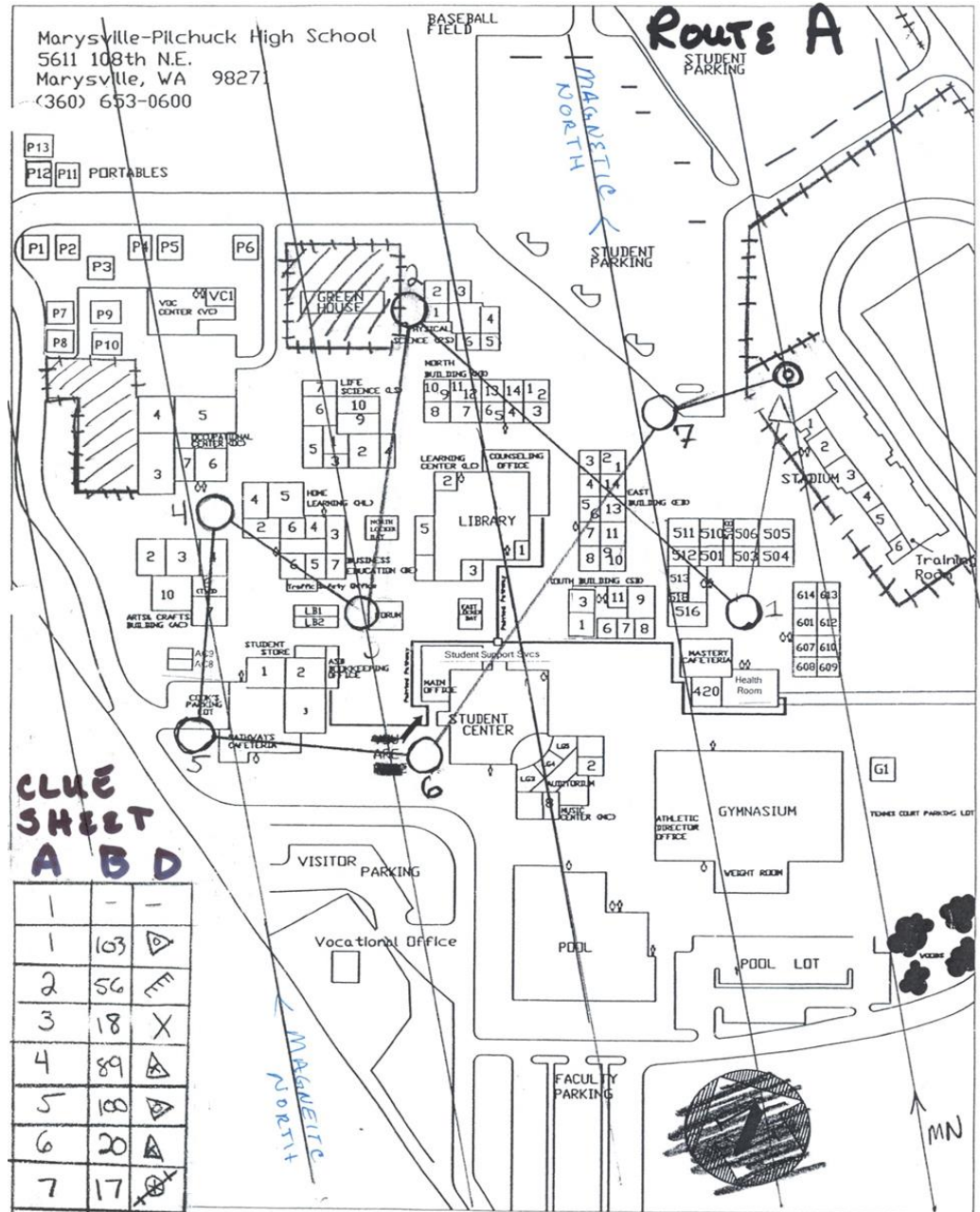
Control 3>Control 4 \_\_\_\_\_

Control 4>Control 5 \_\_\_\_\_

Control 5>Control 6 \_\_\_\_\_

Control 6>Control 7 \_\_\_\_\_

Control 7>Finish \_\_\_\_\_



## **Chapter 1 / Section 4: NS1-U6C1S4 – Distance and Direction**

Activity1: Homework Activity – Distance and Direction

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Mark off a distance of 100 meters. Your school track will likely have a 100 meter distance marked on the track. Walk from start to finish using your natural stride, count the number of steps and divide by 100 to determine your pace in feet. Do this three times. Add the three results together and divide by three. This will be your pace on flat terrain. Your pace will differ with the terrain you are traveling. You can use your pace to determine distance you have traveled.

1. Steps /100 = \_\_\_\_\_meters/step

2. Steps /100 = \_\_\_\_\_meters/step

3. Steps /100 = \_\_\_\_\_meters/step

Add the three together and divide by 3 to get flat terrain pace \_\_\_\_\_meters/step

## Chapter 1 / Section 5: NS1-U6C1S5 – G-M Angle

(Section 5 of 6)

### What Students Will Learn to Do:

Understand the principles and tools of map reading and land navigation

### Skills and Knowledge to be Gained:

1. Use a compass and a grid to locate a position on a topographic map
2. Apply map reading and land navigation skills to determine location

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Key terms	Key Term Definitions	Opening Question	Warm Up Questions	Converting the G-M Angle	The Declination Diagram	The G-M Angle	Grid Convergence
Conversion	Conversion With Notes	Conversion Without Notes	Working With an East G-M Angle	Check On Learning A	Determining Location	Determining Eight-Digit Grid Coordinate	Intersection	Intersection - Map and Compass Method
Intersection - Straightedge Method	Check on Learning B	Resection	Resection - Map and Compass Method	Resection - Straightedge Method	Polar Coordinates	Determine Direction Field-Expedient Methods	Shadow-Tip Method	Watch Method
Global Positioning System	Closing Questions	Review Questions	Call for Other Questions					

Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 6, chapter 1. Place a checkmark beside the NS1-U6C1S5 PowerPoint presentation, and these two CPS question deck files:  
NS1-U6C1S5 - Key Terms and NS1-U6C1S5 - Lesson Questions.



## Chapter 1 / Section 5: NS1-U6C1S5 – G-M Angle

- Ensure that every student has a functional CPS response pad and a textbook

### II. Instructional Flow:

<b>Flow Item</b>	<b>Textbook Content / Student Engagement and Assessment</b>	<b>Slides</b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn fundamentals of geography, including the components of a globe. You will also learn how to read maps and use them to locate any point in the world, to determine your own location, and to practice orientation skills.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-7</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “Explain how you measure curved-line distance on a topographic map using the map scale.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the G-M Angle.	<b>8</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>9</b>
<b>Converting the Grid-Magnetic Angle</b>	Explain that in this section, you learn how to use the declination diagram to convert grid azimuths to magnetic azimuths and vice versa. Converting the Grid-Magnetic Angle (G-M Angle) is one of the most difficult tasks to understand in map reading. Therefore, this section presents simple step-by-step procedures for converting the G-M Angle.	<b>10</b>
<b>The Declination Diagram</b>	<p>Explain that mapmakers place the declination diagram in the lower margin of most topographic maps.</p> <p>Explain that declination is the angular difference between true north and either magnetic or grid north. There are two declinations, a magnetic declination and a grid declination. The declination diagram shows the angular relationship, represented by prongs, between the three norths</p>	<b>11</b>
<b>The Declination Diagram</b>	Explain that furthermore, mapmakers usually do not plot the angles between the prongs exactly to scale. Although you can obtain the position of the norths in relation to each other from the diagram, you should not measure the numerical value from it.	<b>12</b>

## Chapter 1 / Section 5: NS1-U6C1S5 – G-M Angle

	For example, if the amount of declination from grid north to magnetic north is one degree, the arc shown on the diagram only represents the direction of the declination and the diagram may exaggerate its value. If measured, the declination may have an actual value of five degrees.	
<b>The Grid-Magnetic (G-M) Angle</b>	Explain that the Grid-Magnetic Angle, or the G-M Angle, is the angular size that exists between grid north and magnetic north in the year that mapmakers prepared the angular size. It is an arc, indicated by a dashed line, that connects the grid-north and magnetic-north prongs. Maps express this value to the nearest one-half (1/2) degree with mil equivalents shown to the nearest 10 mils. The G-M Angle is important in map reading because it helps a user to apply direction to an object that is on a map to its actual direction on the ground and vice versa.	<b>13</b>
<b>Grid Convergence</b>	Explain that the grid convergence is an arc indicated by a dashed line connecting the prongs for true north and grid north. The value of the angle for the center of the sheet is given to the nearest full minute (of degrees) with its equivalent to the nearest mil. Mapmakers show these data in the form of a grid-convergence note.	<b>14</b>
<b>Conversion</b>	Explain that there is an angular difference between the grid north and the magnetic north caused by the attraction of the earth's magnetic field (found in Northern Canada). Because all compasses point toward magnetic north, the location of this magnetic field does not match exactly with the grid-north lines on the maps. Therefore, a conversion from magnetic to grid, or vice versa, is needed.	<b>15</b>
<b>Conversion With Notes</b>	Explain that if the declination diagram on a map provides conversion notes explaining the use of the G-M Angle, simply refer to them. One note gives instructions for converting a magnetic azimuth to a grid azimuth. The other shows how to convert a grid azimuth to a magnetic azimuth. The conversion (to add or subtract) depends on the direction of the magnetic-north prong relative to the grid-north prong.	<b>16</b>
<b>Conversion Without Notes</b>	Explain that some maps do not contain these declination conversion notes. Thus, it is necessary to convert from one type of declination to another. A magnetic compass gives a magnetic azimuth, but in order to plot this line on a map with grid lines, you must change the magnetic azimuth value to a grid azimuth value. Therefore, you must use the declination diagram for these conversions. A rule to follow when solving such problems is "starting from the reference line, always measure the angle to the azimuth line in a clockwise direction."	<b>17</b>
<b>Conversion Without Notes</b>	<p>With this rule in mind, you can now solve the problem using the following steps:</p> <ol style="list-style-type: none"> <li>1. Draw a vertical, or grid-north, line (prong). Always align this line with the vertical lines on the map.</li> <li>2. From the base of the grid-north line, draw a direction line (or an azimuth line) at roughly a right angle from north, regardless of the actual value of the azimuth in degrees.</li> <li>3. Examine the declination diagram on the map and determine the direction of the magnetic north (right-left or east-west) relative to that of the grid-north prong. Draw a magnetic prong from the base of the grid-north line in the desired direction.</li> <li>4. Determine the value of the G-M Angle by drawing an arc from the grid prong to the magnetic prong and placing the value of the G-M Angle above the arc.</li> <li>5. Complete the diagram by drawing an arc from each reference line to the vertical line you first drew. A glance at the completed diagram shows</li> </ol>	<b>18-20</b>

## Chapter 1 / Section 5: NS1-U6C1S5 – G-M Angle

	<p>whether the given or desired azimuth is greater, and thus whether you must add or subtract the known difference between the two azimuths.</p> <p>6. The inclusion of the true-north prong in relationship to the conversion is of little importance.</p>	
<b>Working With an East G-M Angle</b>	<p>Explain that to plot a magnetic azimuth of 210 degrees on a map, you must convert it to a grid azimuth. To do so, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Determine the declination in degrees. In this example, it is 12 degrees east.</li> <li>2. Because the arc from magnetic north to the azimuth line is shorter than the arc from grid north to the azimuth line, you must add the G-M Angle. This yields a grid azimuth of 222 degrees.</li> </ol>	<b>21-23</b>
<b>Working With an East G-M Angle</b>	<p>Explain that to use a magnetic azimuth in the field with a compass when you have a grid azimuth of 303 degrees, you must convert it to a magnetic azimuth.</p> <p>Explain that the second application is to convert an east grid azimuth to a magnetic azimuth.</p> <ol style="list-style-type: none"> <li>1. Determine the declination in degrees. In this example, it is 10 degrees east.</li> <li>2. Because the arc from grid north to the azimuth line is longer than the arc from magnetic north to the azimuth line, you must subtract the G-M Angle. This yields a magnetic azimuth of 293 degrees.</li> </ol>	<b>24-25</b>
<b>Working With an East G-M Angle</b>	<p>Explain that in converting a grid azimuth to a magnetic azimuth, when the G-M Angle is greater than the grid azimuth, first do the following:</p> <ol style="list-style-type: none"> <li>1. Add 360 degrees to the grid azimuth. In this example, the grid azimuth is 2 degrees). You can now convert the grid azimuth to a magnetic azimuth because the grid azimuth is larger than the G-M Angle Note: Because there are no negative azimuths on the azimuth circle, 0 degrees is the same as 360 degrees; therefore, 2 degrees (in this example) is the same as 362 degrees. This is because 2 degrees and 362 degrees are located at the same point on the azimuth circle.</li> <li>2. This procedure is the same as Step 2 in the last example. Because the grid north arc of 362 degrees is longer than the arc from magnetic north to the azimuth line, you must subtract the G-M Angle. This yields a magnetic azimuth of 346 degrees.</li> </ol>	<b>26-27</b>
<b>Working With an East G-M Angle</b>	<p>Explain that each time you convert a G-M Angle, you must construct a G-M Angle diagram that shows the required azimuths. When the map does not give any conversion notes, the construction of a diagram takes the guesswork out of converting azimuths.</p> <p>Explain that converting the G-M Angle requires practice. Become familiar with the proper procedures to follow whether there is an east or west G-M Angle, or the G-M Angle is greater than your grid or magnetic azimuth.</p>	<b>28</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	<p>Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.</p>	<b>29</b>

## Chapter 1 / Section 5: NS1-U6C1S5 – G-M Angle

<b>Determining Location</b>	<p>Explain that sometimes it is not enough to know how to locate a point to within 1,000 or 100 meters, or to estimate the location of a distant point on the ground. There may be times when you have to determine your location, or a distant point, even more accurately. Or, perhaps you will need to use certain known locations as reference points.</p> <p>Explain that skills such as determining an eight-digit grid coordinate and locating an unknown point using polar coordinates, intersection, and resection will help you to more accurately locate and plot points on a map. This section examines those skills and gives you an opportunity to practice them. You will also learn how to determine direction using a field-expedient method.</p>	<b>30</b>
<b>Determining an Eight-Digit Grid Coordinate</b>	<p>Explain that to determine an eight-digit coordinate, you must use a coordinate scale. Keep in mind that there are 100 meters between each 100-meter mark (number) on the coordinate scale, with a short tick mark to indicate 50 meters between each 100-meter mark. To locate spot elevation (SE) 450 in Figure 1.65 to within 10 meters, use the following procedures:</p>	<b>31</b>
<b>Determining an Eight-Digit Grid Coordinate</b>	<p>1. Recall that you must first identify the 1,000 meter grid square in which the spot elevation is located. To do this, remember the first cardinal rule of map reading: read right, then up. When reading a map right and up, each north-south grid line increases in value from west to east, and each east-west grid line increases in value from south to north.</p> <ul style="list-style-type: none"> <li>• By reading right, the last north-south grid line before reaching the grid square containing SE 450 is 11.</li> <li>• By reading up, the last east-west grid line before reaching the grid square containing SE 450 is 43.</li> <li>• By adding the 100,000 meter square identifier (YF), YF1143 locates SE 450 to the nearest 1,000 meters.</li> </ul>	<b>32</b>
<b>Determining an Eight-Digit Grid Coordinate</b>	<p>2. Place the coordinate scale parallel to and directly on top of grid line 43 with the “0 mark” at the lower left corner of grid square YF1143.</p> <p>Note: Ensure that you are using the correct scale.</p>	<b>33</b>
<b>Determining an Eight-Digit Grid Coordinate</b>	<p>3. Keeping the horizontal scale on top of the 43 grid line, slide the scale to the right into the grid square until the vertical scale intersects the center of mass of SE 450.</p> <p>4. Reading from the “0 mark,” the right reading shows that SE 450 lies between the 600 and 650 meter mark by approximately 30 meters.</p> <p>Note: You determine that it is approximately 30 meters by estimating how many tens SE 450 is beyond the 600-meter mark. In this case, there are three, which gives you the third and fourth digits of the coordinate. Thus, the center of mass of SE 450 is 630 meters into the grid square and you would read this number as 1163.</p>	<b>34-36</b>
<b>Determining an Eight-Digit Grid Coordinate</b>	<p>5. Reading up, you can see that SE 450 lies midway between the 300 and 400 meter marks, or 350 meters into the grid square; therefore, the up reading is 4335.</p> <p>6. By combining both sets of numbers and adding the 100,000 meter square identifier, the location of SE 450 is YF11634335.</p> <p>7. You have now correctly located a point to the nearest 10 meters.</p>	<b>37-39</b>

## Chapter 1 / Section 5: NS1-U6C1S5 – G-M Angle

<b>Intersection</b>	Explain that you can use intersection to locate an unknown point by determining where the azimuths from two (preferably three) known positions on the ground intersect. There are two ways to determine intersection—the map and compass method, and the straightedge method.	<b>40</b>
<b>Intersection - Map and Compass Method</b>	<p>Explain that the first way to find an unknown point by intersection is with a map and compass. Follow these steps:</p> <ol style="list-style-type: none"> <li>1. Orient the map using the compass. Note: The best way to orient a map is to use a compass.</li> <li>2. Determine the Grid-Magnetic Angle (G-M Angle) of the map you are using. In this example, the G-M Angle is 5 degrees east.</li> <li>3. Locate and mark your first known position (Point A) on the map.</li> </ol>	<b>41</b>
<b>Intersection - Map and Compass Method</b>	<ol style="list-style-type: none"> <li>4. Measure the magnetic azimuth to the unknown point from Point A using a compass. In this example, the magnetic azimuth is 71 degrees.</li> <li>5. Convert the magnetic azimuth to a grid azimuth. In this example, 71 degrees plus 5 degrees equals a 76-degree grid azimuth.</li> <li>6. Place the coordinate scale on the map, ensuring that the zero-degree indicator is at the top and the index point is directly over the center of mass of Point A. Place a tick mark at 76 degrees on the map. Draw a line from Point A along this grid azimuth.</li> <li>7. Move to Point B (the second known point) and locate it on the map; then, repeat steps 4, 5, and 6. For this example: 1) The magnetic azimuth in step 4 from Point B to the unknown point is 35 degrees; 2) Convert this to a grid azimuth using the formula <math>35 + 5 = 40</math>; 3) Place a tick mark at 40 degrees on the map and draw a line along that grid azimuth.</li> <li>8. The location of the unknown position is where the lines cross on the map. Determine the eight-digit grid coordinate for this position.</li> </ol>	<b>42-45</b>
<b>Intersection - Straightedge Method</b>	<p>Explain that the second way to locate an unknown point by intersection is by using a straightedge. Follow these steps:</p> <ol style="list-style-type: none"> <li>1. Orient the map (on a flat surface) to the ground by terrain association.</li> <li>2. Locate and mark your known position on the map (Point A).</li> <li>3. Place a straightedge on the map with one end at your position (Point A) as a pivot point. Rotate the straightedge until the unknown point (Point C) is sighted along the edge.</li> <li>4. Draw a line along the straightedge.</li> <li>5. Repeat steps 3 and 4 with the second known position (Point B) and check for accuracy. The intersection of these lines on the map is the location of the unknown point (Point C).</li> <li>6. Determine the six- or eight-digit grid coordinate (depending upon the desired degree of accuracy) for the unknown point.</li> </ol>	<b>46-51</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>52</b>
<b>Resection</b>	Explain that you can use resection to locate your unknown position on a map by determining the grid azimuth to at least two well-defined locations on the map. For greater accuracy, the desired method of resection would be to use three well-defined locations. There are three ways you can use resection: the map and compass method, modified resection, and the straightedge method.	<b>53</b>

## Chapter 1 / Section 5: NS1-U6C1S5 – G-M Angle

<b>Resection – Map and Compass Method</b>	<p>Explain that the first way to find your unknown location by resection is with a map and compass. Follow these steps:</p> <ol style="list-style-type: none"> <li>1. Orient the map using the compass.</li> <li>2. Determine the Grid-Magnetic Angle (G-M Angle) of the map you are using. In this example, the G-M Angle is 3 degrees east.</li> <li>3. Identify two or three known locations on the ground. Mark them on the map, such as Hilltop 408 and the control tower.</li> <li>4. Measure the magnetic azimuth to one of the known positions from your location using a compass. In this example, the magnetic azimuth to Hilltop 408 is 312 degrees.</li> </ol>	<b>54-56</b>
<b>Resection – Map and Compass Method</b>	<ol style="list-style-type: none"> <li>5. Convert the magnetic azimuth to a grid azimuth. In this example, 312 degrees plus 3 degrees equals a 315-degree grid azimuth.</li> <li>6. Convert the grid azimuth to a back azimuth by adding or subtracting 180 degrees. In this example, 315 degrees minus 180 degrees equals a 135-degree back azimuth.</li> </ol>	<b>57</b>
<b>Resection – Map and Compass Method</b>	<ol style="list-style-type: none"> <li>7. Place the coordinate scale on the map, ensuring that the zero-degree indicator is at the top and the index point is directly over the center of mass of the known point. Place a tick mark at 135 degrees. Draw a line on the map from the known position back toward your unknown location.</li> <li>8. Repeat steps 4, 5, 6, and 7 for the second known position (the control tower). For this example: <ol style="list-style-type: none"> <li>a. The magnetic azimuth to the control tower is 15 degrees.</li> <li>b. Convert this to a grid azimuth: 15 1 3 5 18.</li> <li>c. Convert this to a back azimuth: 18 1 180 5 198.</li> <li>d. Place a tick mark at 198 degrees on the map and draw a line back toward your unknown location.</li> </ol> </li> <li>9. The intersection of these two lines is your location. Determine the eight-digit grid coordinate for your position.</li> </ol>	<b>58-59</b>
<b>Resection – Map and Compass Method</b>	<p>Note: You can use modified resection to locate your position on the map when you are at a linear feature on the ground, such as a road, canal, stream, and so on. To do this, you need only one known location. Use the first seven steps; then where the drawn line (in step 7) crosses the linear feature is your location.</p>	<b>60-61</b>
<b>Resection – Straightedge Method</b>	<p>Explain that another way to locate your unknown position by resection is by using a straightedge. Follow these steps:</p> <ol style="list-style-type: none"> <li>1. Orient the map (on a flat surface) to the ground by terrain association.</li> <li>2. Locate at least two known distant locations or prominent features on the ground and mark them on the map (Points A, B, and C).</li> <li>3. Place a straightedge on the map pointing toward one of the known points (Point A). Rotate the straightedge until the known point on the map is aligned with the same known point on the ground.</li> </ol>	<b>62</b>

## Chapter 1 / Section 5: NS1-U6C1S5 – G-M Angle

<b>Resection – Straightedge Method</b>	<ol style="list-style-type: none"> <li>4. Draw a line along the straightedge away from the known point on the ground toward your position.</li> <li>5. Repeat steps 3 and 4 using the other known points (Points B and C).</li> <li>6. The intersection of these lines on the map is your location.</li> <li>7. Determine the six- or eight-digit grid coordinate (depending upon the desired degree of accuracy) for your location.</li> </ol>	<b>63-64</b>
<b>Polar Coordinates</b>	<p>Explain that you can use polar coordinates to locate or plot an unknown point from a known location by giving a direction and a distance along the direction line. Three elements must be present to use polar coordinates: a known location on the map, an azimuth (grid or magnetic), and a distance (normally in meters). There are two ways that you can use polar coordinates—the map and compass method, and the protractor method.</p>	<b>65</b>
<b>Polar Coordinates – Maps and Compass Method</b>	<p>Use the following steps and examine Figure 1.72 for the map and compass method.</p> <ol style="list-style-type: none"> <li>1. Orient the map using a compass.</li> <li>2. Determine the Grid-Magnetic Angle (G-M Angle) of the map you are using. In this example, the G-M Angle is 0 degrees.</li> <li>3. Identify the known location on the ground and mark it on the map. In this example, the known location is the water tank in grid square FL4526.</li> <li>4. Measure the magnetic azimuth to the unknown point (a building in grid square FL4729) from the known location using a compass. In this example, the magnetic azimuth to the building is 24 degrees.</li> <li>5. Convert the magnetic azimuth to a grid azimuth. In this example, 24 degrees plus 0 degrees equals a 24-degree grid azimuth.</li> </ol>	<b>66</b>
<b>Polar Coordinates – Maps and Compass Method</b>	<ol style="list-style-type: none"> <li>6. Place a coordinate scale on the map, ensuring that the zero-degree indicator is at the top and the index point is directly over the center of mass of the known point.</li> <li>7. Place a tick mark at 24 degrees.</li> <li>8. Draw a line on the map from the known location along this grid azimuth until it intersects the building.</li> <li>9. Determine the distance to the unknown position. Using a straightedge and the procedure for measuring straight line distance, you determine the distance to the building in grid square FL4729 to be 3,600 meters.</li> </ol>	<b>67-68</b>
<b>Polar Coordinates – Protractor Method</b>	<p>Explain that the second way to locate or plot an unknown point from a known location using polar coordinates is the protractor method. Follow these steps:</p> <ol style="list-style-type: none"> <li>1. Determine the location of a known point on the map to within 100 or 10 meters. In this example, the known location is the water tank at grid coordinates FL45952610.</li> <li>2. Measure a grid azimuth to the desired location or destination (the building in grid square FL4729). By using your protractor, you determine the grid azimuth to be 24 degrees to the building.</li> <li>3. Determine the distance as you did in step 9 of the map and compass method.</li> </ol>	<b>69-70</b>
<b>Determine Direction Using Field-Expedient Methods</b>	<p>Explain that sometimes a compass is not available and you must determine your location by using the materials and resources available to you. There are several methods you can use to determine direction by using the sun and the stars. These include the shadow-tip method and the watch method.</p>	<b>71</b>

## Chapter 1 / Section 5: NS1-U6C1S5 – G-M Angle

<b>Shadow-Tip Method</b>	<p>Explain that the following steps show you how to use the shadow-tip method to determine direction and/or orient a map without a compass.</p> <ol style="list-style-type: none"> <li>1. Place a stick or branch at least 12 inches long vertically into the ground at a fairly level spot where the sun will cast a distinct shadow. Mark the shadow tip on the ground with a small stone, twig, or other means. Note: If the tip of the shadow is difficult to find, tap the end of the stick; the movement of the shadow will help you locate it.</li> <li>2. Wait 10 to 15 minutes until the shadow moves a few inches. Mark the new position of the shadow tip in the same way as the first.</li> <li>3. Draw a straight line through the two marks to obtain an east-west line. Extend this line past the second mark.</li> <li>4. Determine which is the east end of the line and which is the west end using these tips: the sun rises in the east and sets in the west; the shadow tip moves in the opposite direction, and; the first shadow tip mark is always west, and the second mark is always east.</li> </ol>	<b>72</b>
<b>Shadow-Tip Method</b>	<p>5. To find north and south, draw a line at a right angle to the east-west line at any point. From this north-south line, you can now orient your map and determine the direction you want.</p>	<b>73</b>
<b>Watch Method</b>	<p>Explain that you can also use a watch to determine the approximate true north or true south; however, this method can result in errors, especially in the lower latitudes, and may cause circling.</p> <p>Explain that in the Northern Hemisphere, point the hour hand toward the sun. Find a north-south line midway between the hour hand and 12:00 o'clock, standard time. If on daylight saving time, find the line between the hour hand and 1:00 p.m. If you have any doubt as to which end of the line is north, remember that the sun is in the east before noon and is in the west after noon.</p> <p>Explain that in the Southern Hemisphere, point the 12:00 o'clock dial toward the sun, and halfway between 12:00 o'clock and the hour hand will be a north-south line. If on daylight saving time, the line will lie midway between the hour hand and 1:00 p.m.</p>	<b>74</b>
<b>Global Positioning System</b>	<p>Explain that the Global Positioning System (GPS) is a high-tech worldwide radio-navigation system formed from a network of 24 satellites and their ground stations. GPS is the first system to pinpoint a precise location for any point on the globe, during any kind of weather. This system utilizes these satellites to calculate positions down to a matter of meters. As a matter of fact, use of advanced forms of GPS can pinpoint locations down to a centimeter. GPS receivers have become more economical and, therefore, accessible in recent times. Uses of the GPS system include: air navigation, mapping, pinpointing locations, and navigating routes for cars and boats.</p> <p>Explain that a GPS receiver uses the travel time of radio signals to measure distance. The satellites are closely monitored so that their exact location is always known. Any delays created by the radio signals traveling through the atmosphere are corrected.</p>	<b>75-76</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	<p>Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.</p>	<b>77</b>



## **Chapter 1 / Section 5: NS1-U6C1S5 – G-M Angle**

<b>Review Question</b>	The Review Question is “Explain what the declination diagram on a map indicates.” Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students’ best responses for visual reinforcement, and to foster discussion.	<b>78</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>79</b>

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required:

When: At the end of the lesson

- Engage in a class discussion and have the cadets give 1-2 reasons to use eight digit grid coordinates to identify a geographic point? (Think both military and civilian circumstances.) Ask if you they can think of any reasons you would not use grid coordinates? Have them use details and be prepared to defend their answers.

B. At Home Activity: Copy and distribute the handout “Navigation Skills”. Have the cadets write one or two paragraphs describing how the navigation skills discussed in this section would be used by the Navy and under what circumstances/missions.

### IV. Evaluation - see CPS database for chapter test questions.

## Chapter 1 / Section 5: NS1-U6C1S5 – G-M Angle

## Activity 1: Take Home Activity – Navigation Skills

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Write one or two paragraphs describing how the navigation skills discussed in this section would be used by the Navy and under what circumstances/missions.

[illegible]

## Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering

(Section 6 of 6)

### What Students Will Learn to Do:

Understand the principles and tools of map reading and land navigation

### Skills and Knowledge to be Gained:

1. Relate map-reading skills to orienteering

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	Key Term Definitions	Opening Question	Warm Up Questions	Orienteering	Types of Orienteering Courses	Route Orienteering	Line Orienteering
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Cross-Country Orienteering	Score Orienteering	Relay Orienteering	Night Orienteering	Check On Learning A	Controlling Your Movement	Determining Direction of Travel	Route Selection	Movement Techniques
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Check on Learning B	Clothing and Equipment	Organization of the Course - Officials	Control Areas	Scoring	Safety	Give Orienteering a Try!	Conclusion	Closing Questions
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Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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### Outline of Instruction :

#### I. Preparation:

- Open CPS database, and expand folders until you see Unit 6, chapter 1. Place a checkmark beside the NS1-U6C1S6 PowerPoint presentation, and these two CPS question deck files: NS1-U6C1S6 - Key Terms and NS1-U6C1S6 - Lesson Questions.

## Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering

- Ensure that every student has a functional CPS response pad and a textbook

### II. Instructional Flow:

<b><u>Flow Item</u></b>	<b><u>Textbook Content / Student Engagement and Assessment</u></b>	<b><u>Slides</u></b>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	<p>Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.</p> <p>In this lesson, you will learn fundamentals of geography, including the components of a globe. You will also learn how to read maps and use them to locate any point in the world, to determine your own location, and to practice orientation skills.</p>	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-6</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	<p>This Opening Question is “Describe what you know about orienteering competitions, including how they are run and scored.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on orienteering.</p>	<b>7</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	<p>Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.</p> <p>Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.</p>	<b>8</b>
<b>Orienteering</b>	<p>Explain that many of the map reading and land navigation skills practiced in previous sections are critical to orienteering</p> <p>Explain that orienteering began in Scandinavia in the 1800s, primarily as a military event and as part of military training. By 1919, it had become a competitive sport in Sweden. In the early 1930s, the sport received a boost with the invention of an improved compass. Bjorn Kjellstrom, one of the inventors of that compass, introduced orienteering to the United States in 1946.</p> <p>Explain that orienteering is for all ages and degrees of fitness and skill. It provides the suspense and excitement of a treasure hunt. The object is to locate control points (see Figure 1.77) by using a map and compass to navigate the terrain. The object is to locate control points (see Figure 1.77) by using a map and compass to navigate the terrain.</p>	<b>9-10</b>

## Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering

<b>Orienteering</b>	<p>Explain that organizers of an orienteering event will give each participant a topographic map with various control points circled. Each control point has a corresponding flag marker on the ground and a special punch which organizers use to mark the scorecard. Competitive orienteering involves running from point to point. It is more demanding than road running, not only because of the terrain, but because the participant must make decisions, and keep track of the distances covered. Courses may be as long as 10 kilometers.</p> <p>Explain that although orienteering challenges both the mind and the body, the competitor's ability to think under pressure and make wise decisions is sometimes more important than speed or endurance. The person just starting out in orienteering should concentrate more on refining map reading and land navigation skills than on running between the control points.</p>	<b>11-12</b>
<b>Types of Orienteering Courses</b>	<p>Explain that there are different types of orienteering events that range from individual courses, to a relay event, to night competition. All types of orienteering courses are interesting and challenging, but they vary in their degree of difficulty. The best location for an orienteering course is one that is easily identifiable on both a map and the actual terrain. It should also be accessible from several routes. Listed below are some of the most common orienteering events/courses:</p> <ul style="list-style-type: none"> <li>• Route</li> <li>• Line</li> <li>• Cross-Country</li> <li>• Score</li> <li>• Relay</li> <li>• Night</li> </ul>	<b>13</b>
<b>Route Orienteering</b>	<p>Explain that this form of orienteering can be used by beginners to the sport as well as for advanced competition. In route orienteering, a master (or advanced competitor) walks a route while beginners trace the actual route walked on the ground using their maps. Beginners circle the location of the different control points found along the walked route. When they finish, organizers analyze and compare the maps. For beginners, time is not a factor in this event.</p> <p>Explain that another variation of route orienteering involves a course laid out with markers for the competitor to follow. Because the route is indicated with flags or markers, there is no master map. The winner of the event is the competitor who successfully traces the route and accurately plots the most control points.</p>	<b>14</b>
<b>Line Orienteering</b>	<p>Explain that in line orienteering, competitors trace on their maps a pre-selected route from a master map that has at least five control points. The object is to walk the route shown on the map, circling the control points on the map as competitors locate them on the ground.</p>	<b>15</b>
<b>Cross-Country Orienteering</b>	<p>Explain that cross-country (or free-point orienteering) is the most common type of orienteering competition. It is considered to be the most competitive and intriguing form of orienteering. In this event, all competitors must visit the same control points in the same order. With the normal one-minute starting interval, it becomes a contest of route choice and physical skill. The competitor with the fastest time is the winner.</p> <p>Explain that the length and difficulty of the course is determined by the skill of the competitors. There are usually six to 12 control markers on the course in varying degrees of difficulty and distances apart so that there are no easy, direct routes. The course may be closed-in with the start and finish located at the same position (see</p>	<b>16</b>

## Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering

	Figure 1.80) or the start and finish may be at different locations. Explain that organizers mark each point in order on a master map. They give competitors a clue list that describes each control point with an 8-digit grid coordinate, a two-letter control code, and a clue describing the terrain in the location of the marker. Competitors must indicate on their score cards proof of visiting each control marker. This is usually done with a special stamp or punch.	
<b>Score Orienteering</b>	<p>Explain that in this event, the area chosen for the competition has many control points. The control points near the start/finish point (usually identical in this event) have a low point value, while those more distant or more difficult to locate have a high point value. The competitor must locate as many control markers as possible within the specified time (usually 90 minutes).</p> <p>Explain that as with a cross-country event, organizers give each competitor a map and an event card. The card lists all the control points with their different values.</p> <p>Explain that organizers design the course (see Figure 1.81) so that there are more control points than a competitor can possibly visit in the allotted time. Therefore, competitors must plan and choose their route between control points carefully. Points are awarded for each control point visited and deducted for exceeding the specified time; however, there is no reward for returning early with time still available to find more points. The good competitor must be able to coordinate time and distance with the ability to land navigate while running the course. The competitor with the highest point score is the winner.</p>	<b>17</b>
<b>Relay Orienteering</b>	<p>Explain that this type of orienteering is a popular team sport. Each member of the team runs a free-point or line orienteering leg of one to two miles. No person runs more than one leg. The competition may be held using a master map for the entire course or one for each leg.</p> <p>Explain that in the case of a master map for the entire course, the first team member copies down all legs of the course. After completing the first leg, he or she hands the map to the next runner, who completes the next leg of the course. The team repeats this process until all members have run their portion of the course.</p> <p>Explain that in the case of a master map for each leg, the first trainee goes to a master map that has only the first location on it. When that person completes the first leg, he or she gives the map to the next person. This person then goes to a different master map and copies the second portion of the course. This continues until all members of the team have completed their legs.</p>	<b>18</b>
<b>Night Orienteering</b>	<p>Explain that night orienteering is a free-point or score event occurring in the evening. The main differences between a night conducted free-point or score and one conducted during the day are:</p> <ul style="list-style-type: none"> <li>• Control points are marked by a light that is visible from 30 to 50 meters in all directions</li> <li>• Control points are located no more than 400 to 800 meters apart</li> <li>• The event is run over less difficult terrain</li> <li>• The signal used to indicate the conclusion of the event or an emergency is a vehicle horn or a flare.</li> </ul>	<b>19</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on student's understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>20</b>

## Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering

<b>Controlling Your Movement</b>	<p>Explain that a sound knowledge of the basics of map reading will help you immensely as an orienteering event competitor. Additional skills such as accurate compass reading, good decision making, and using the terrain are critical as well. The beginner-level orienteer should learn the following techniques:</p> <ul style="list-style-type: none"> <li>• Determining Direction of Travel</li> <li>• Route Selection</li> <li>• Movement Techniques</li> </ul>	<b>21</b>
<b>Determining Direction of Travel</b>	<p>Explain that after you have plotted the course's control points, you must determine how to get to the first and other control points. The basic compass technique used in orienteering to determine direction of travel consists of five steps:</p> <ol style="list-style-type: none"> <li>1. Lay the map on a flat surface and orient it to magnetic north by placing the edge of the compass along a north-south grid line. Rotate the map and compass until the north arrow is under the black hairline.</li> <li>2. Keeping the map oriented, move the compass in such a way that one side of the compass touches your location and your destination. The compass is now pointing in the direction of travel.</li> <li>3. Rotate the bezel ring until the luminous line is pointing to grid north on the map. The luminous line should be over the north arrow (if the map is still oriented) and it should be parallel to the north-south grid line.</li> <li>4. Lift the compass off the map and correct for magnetic declination. If the declination is west, rotate the bezel ring counterclockwise; if east, then rotate it clockwise.</li> <li>5. Holding the compass in front of you, rotate your body until the north arrow lies under the luminous line. The direction of travel is now indicated by the black hairline.</li> </ol>	<b>22-23</b>
<b>Route Selection</b>	<p>Explain that as mentioned at the beginning of this section, orienteering develops many skills besides map reading. An important one is decision making. Route selection is where competitors must make decisions. Which is the fastest way from point A to point B? Is it over or around a hill? Is it going cross-country or using a road or trail? Except for those instances when organizers mark or specify the route in advance, wise route selection is important.</p> <p>Explain that a good orienteering course will have some elevation obstacles. These obstacles will force you to decide if it is faster to go the most direct route over it or to take a longer detour around it. A simple formula to convert height into comparable flat distance is: 25 feet of elevation equals 100 meters on a flat surface. For example, suppose the straight line distance to point B is 500 meters with a 50 foot high hill en route. The energy you would expend would be equivalent to running 500 meters plus an additional 200 meters for going over the hill. If the detour around the hill equals a total of 680 meters, it may be easier to go around it, depending upon the type of terrain you encounter.</p>	<b>24</b>
<b>Route Selection</b>	<p>Explain that the type of terrain and vegetation that you encounter has a major impact on your pace. You must know your pace count through several types of terrain. In addition, you must know your pace when trotting and running, both when you are fresh and when you are tired. Although pacing will vary from individual to individual, Table 1.1 may be useful to a beginner. These figures apply during daylight, when the runner is fresh and on flat terrain. The numbers represent paces or each time the left foot strikes the ground.</p>	<b>25</b>

## Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering

<b>Movement Techniques</b>	<p>Explain that in addition to knowing where the control points are and where you are at all times, you must also know the best route for getting to the next control point. The shortest route may not be the fastest, and it may not pay to travel between two points as fast as possible if you tire yourself out in the process.</p> <p>Note: Remember, you can locate your position on a map using terrain features, a back azimuth, or resection.</p> <p>Explain that there are several techniques available to aid you in moving from one control point to another. They include the following:</p> <ul style="list-style-type: none"> <li>• Direct Line</li> <li>• Geographic Orientation</li> <li>• Aiming Off</li> <li>• Steering Marks</li> <li>• Attack Points</li> </ul>	<b>26</b>
<b>Movement Techniques</b>	<p>Explain that the direct line method involves establishing a compass bearing between your location and the destination; then, follow the compass bearing until you reach the point. A variation of this technique is to establish a compass bearing that you will follow for a specific distance at which time you establish a new bearing. Repeat this process until you reach the final destination.</p>	<b>27</b>
<b>Movement Techniques</b>	<p>Explain that a steering mark is a prominent object or terrain feature that you can see and that is in the general direction of travel. Such objects as a lone tree or building are good examples of steering marks. One of the advantages of this technique is that once you reach the steering mark, you can reorient yourself before continuing.</p>	<b>28</b>
<b>Movement Techniques</b>	<p>Explain that the aiming off technique is valuable when your destination lies along a linear terrain feature such as a road or stream. Due to errors in compass or map reading, you may reach a linear feature and not know whether your objective lies to the right or the left. Furthermore, each degree that you are offset to the right or left will move the aim-off point from the destination 17 meters to the right or left for each 100 meters traveled. For example, if the number of degrees offset is 10 and the distance traveled is 100 meters, then your location is 170 meters to the left of the objective (10 degrees offset <math>\times</math> 17 meters per 100 meters traveled = 170).</p>	<b>29</b>
<b>Movement Techniques</b>	<p>Explain that when using the attack points technique, you select a prominent terrain feature, such as a hilltop or road junction, near your destination. You may use any technique to arrive at this point. After arriving there, you can reorient yourself, and then make a final short approach to it. The purpose of this technique is to minimize the distance you have to travel on the final approach. This in turn limits any errors in compass work or pacing you might make in locating the destination. The difference between an</p>	<b>30</b>
<b>Movement Techniques</b>	<p>Explain that the geographic orientation technique involves keeping the map oriented as you travel and remembering what terrain features you will encounter en route to the next control point. For example, if you decide to follow a road to reach the next control point, you should orient the map as you stop and make turns along the road.</p>	<b>31</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	<p>Check in on student's understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.</p>	<b>32</b>



## Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering

<b>Clothing and Equipment</b>	<p>Explain that when planning to participate in an orienteering event, you should wear and take the proper clothing and equipment.</p> <p>Explain that choose the clothing to wear depending on the type of vegetation and terrain you will encounter on the course. For example, in bushy terrain, you should wear a long-sleeve shirt and long pants to protect against cuts and scratches. For those who want to pursue orienteering as a sport, consider purchasing light nylon racing suits. These are full-length suits (usually fluorescent) with long sleeves and pouches in the front to carry maps, compasses, and so on.</p> <p>Explain that hiking shoes or boots are excellent for orienteering because of their durability and the ankle support they provide. High-top sneakers also provide excellent ankle support. Cross-country running shoes are good because they are lightweight and have better traction in mud, but they do not normally support the ankles.</p>	<b>33</b>
<b>Clothing and Equipment</b>	<p>Explain that although a standard military lensatic compass is very good for orienteering, its one disadvantage is the time required for the needle to stabilize prior to lining up an azimuth. Those who desire to pursue orienteering as a sport may want to acquire an induction dampened or liquid-filled compass.</p>	<b>34</b>
<b>Clothing and Equipment</b>	<p>Explain that the map is probably the most important item the participant carries. The most common map used in orienteering is a topographic map with a 1:50,000 scale; however, competitors prefer a 1:25,000 scale because it is easier to read and it shows features in greater detail. Try to use multi-colored maps if they are available. After a competitor outlines the course details and copies the key terrain features from color-coded master maps, his or her own maps should be covered with a clear, plastic-like material such as a document protector to prevent these marks from smearing and/or becoming unreadable.</p>	<b>35</b>
<b>Organization of the Course - Officials</b>	<p>Explain that most events often use the same officials at both the start and finish, although their functions are different at each end. At the start, these officials include:</p> <ul style="list-style-type: none"> <li>• Course organizer. Briefs competitors in the assembly area, issues event cards and maps, and calls competitors forward to start individually (or in groups if it is a group event).</li> <li>• Recorder. Records the competitor's name and start time on recorder's sheet, checks the competitor's name and start number on the event card, and issues any last-minute instructions.</li> <li>• Timer. Controls the master clock and releases the competitors across the start line at their start time (usually at one-minute intervals) to the master map area.</li> </ul> <p>Explain that at the finish, the officials include:</p> <ul style="list-style-type: none"> <li>• Timer. Records the finish time of each competitor on his or her event card and passes the card to the recorder.</li> <li>• Recorder. Records competitor's finish times on the recorder's sheet and tallies final score based on time and correctness of control points visited.</li> <li>• Course organizer. Verifies correctness of names, finish times, and final score. Posts competitors' positions on a results board and accounts for all participants at the end of the event.</li> </ul> <p>Explain that more officials and/or assistants may be used; however, the three listed here are the minimum required to run the competition.</p>	<b>36</b>

## Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering

<b>Control Areas</b>	<p>Explain that in many orienteering events, there are at least three control areas. They are:</p> <ul style="list-style-type: none"> <li>• Assembly area. Here participants register and receive instructions, maps, event cards, and start numbers. They may also change into their orienteering clothes if facilities are available, study their maps, and fill out their event cards. Sanitation facilities are normally available in this area.</li> <li>• Start (Start/Finish). At the start, each competitor reports to the recorder and timer to be logged in and released. Oftentimes, the start and finish are at the same location.</li> <li>• Master map area. There are three to five master maps 20 to 50 meters from the start. When the participants arrive at this area, they must mark all the course's control points on their maps. Having done this, competitors must decide on the route they will follow. Experienced competitors will take the time to orient their map and carefully plot the route before rushing off.</li> </ul>	<b>37</b>
<b>Control Areas</b>	<p>Explain that organizers make the event card as small as possible so that competitors can easily carry it in a pocket. It contains the following items: name, start number, start time, finish time, total time, place, and spaces for marking the control points visited. It may also contain a listing of descriptive clues. Figure 1.83 is a sample event card for the most common type of an orienteering course.</p> <p>Explain that organizers prepare these cards with the master maps after the course is set. They contain the descriptive clues for each control point, control code, grid coordinate references, returning time for competitors, removal times for each location, and panic azimuth. Organizers keep the clue description cards and the master maps confidential until the competitors start the event.</p>	<b>38</b>
<b>Scoring</b>	<p>Explain that organizers score the cross-country or free event by the competitor's time alone. Competitors must visit all control points; failure to visit one results in a disqualification. In this event, the fastest time wins. A variation that organizers often use for beginners is to have a "not-later-than" return time at the finish and to add minutes onto their final time for the number of minutes late and for the number of control points not located.</p> <p>Explain that the score event requires the participant to collect as many points as possible within the time limit. Organizers deduct points for extra time spent on the course—usually one point for every 10 seconds over the time limit.</p>	<b>39</b>
<b>Safety</b>	<p>Explain that the following items and provisions are required to ensure that an orienteering course runs as safely as possible. Furthermore, the course organizer should ensure that all participants receive a detailed safety briefing that covers the following key information:</p> <ul style="list-style-type: none"> <li>• First aid. Ensure that a first aid kit is available at the start and finish. One of the officials should be trained in first aid, or a qualified medical person should be at the event.</li> <li>• Control points. Locate all control points where the safety of the competitors is not endangered by hazardous terrain or other conditions.</li> <li>• Safety lane. Designate a location, usually linear, on the course where competitors may go if injured, fatigued, or lost. A good course will usually have a well-defined boundary as a safety lane; then, competitors can set a panic azimuth on their compass and follow it until they reach the boundary.</li> <li>• Finish time. All orienteering events must have a final return time. At this time, organizers should sound a loud siren or horn and all competitors must</li> </ul>	<b>40-41</b>

## Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering

	<p>report to the finish line, even if they have not completed the course.</p> <ul style="list-style-type: none"> <li>• Search and rescue procedures. If all competitors have not returned by the end of the competition, the officials should drive along the boundaries of the course to pick up the missing people.</li> </ul>	
<b>Give Orienteering a Try!</b>	<p>Explain that interest in orienteering within the United States has grown rapidly over the years. Orienteering is conducted under the guidelines of the United States Orienteering Federation, which presently has approximately 70 clubs affiliated with it. For more information, check out the International Orienteering Federation's website at <a href="http://www.orienteering.org/">http://www.orienteering.org/</a>.</p>	<b>42</b>
<b>Conclusion</b>	<p>Explain that maps permit you to see an area of the earth's surface with the key features of that area properly positioned. They can take the guesswork out of traveling to new locations, preventing wasted time and effort. The military most often uses the topographic map because of its detail in portraying terrain features, landforms, the horizontal positions of these features, and elevation and relief.</p>	<b>43</b>
<b>Conclusion</b>	<p>Explain that successful map reading requires a thorough understanding of systems for finding locations. Your ability to use these systems and to locate four-, six-, and eight-digit grid coordinates can increase your confidence in identifying your location. But to navigate successfully, you also must also know how to determine distance. The most accurate method is to use a map scale and to convert the map distance (straight-line or curved-line) to ground distance.</p> <p>Explain you must also be able to express direction. The use of azimuths, compasses, protractors, and maps improves the accuracy of your directions. Using intersection, resection, and polar coordinates, enables you to locate an unknown point on a map.</p>	<b>44</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	<p>Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.</p>	<b>45</b>
<b>Review Question</b>	<p>The Review Question is "Explain the five movement techniques in orienteering." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.</p>	<b>46</b>
<b>Call for Other Questions</b>	<p>Provide the opportunity for students to ask final questions regarding the content covered.</p>	<b>47</b>

## **Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering**

### III. Supplemental Activities -

#### A. In class Activity:

Supplies required: handouts

When: At the end of class

- Use the Handout “Orienterring” and have the cadets write a brief description of Orienteering and identify 10 map symbols that are used in creating a map. Write the description of what each of these mean: scale, contour interval, legend, magnetic north lines.

B. At Home Activity: Use the Handout “Orienteering Clubs” and have the Cadets search for orienteering clubs in their area. Have them list details described on the handout sheet.

### IV. Evaluation - see CPS database for chapter test questions.

## **Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering**

### Activity 1: In-Class Activity 1 – Orienteering

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Write a brief description of Orienteering and identify 10 map symbols that are used in creating a map. Write the description of what each of the following are: scale, contour interval, legend, magnetic north lines.

Orienteering is:

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10 Map symbols used in creating a map:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

## **Chapter 1 / Section 6: NS1-U6C1S6 – Orienteering**

### Activity 1: Homework Activity – Orienteering Clubs

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

A. Do a google search for an Orienteering Club in your area.

Name of Club: \_\_\_\_\_

Address: \_\_\_\_\_

Web Site URL: \_\_\_\_\_

When is their next competition? Do they have training days? Do they have competitive groupings or leagues for competitions?

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B. See if any of the parks or camps in or near your city have installed a permanent orienteering course. List the parks or camps that do have a permanent course.

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## **Unit 6 Chapter 2: NS1-U6C2 – Fundamentals of Survival**

### **What Students Will Learn to Do:**

Understand the basics of survival in several different environments

### **Skills and Knowledge to be Gained:**

1. Explain the fundamentals of survival
2. Describe how to survive in tropical areas
3. Describe how to survive in cold areas
4. Describe how to survive in water

### **Standards Linked in this Chapter:**

#### **Common Core English Language Arts 9-10\***

##### Reading: Informational Text

- RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- RI.9-10.3. Analyze how the author unfolds an analysis or series of ideas or events...
- RI.9-10.4. Determine the meaning of words and phrases as they are used in a text...

##### Writing

- W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts...
- W.9-10.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- W.9-10.8. Gather relevant information from multiple authoritative print and digital sources...

##### Speaking and Listening

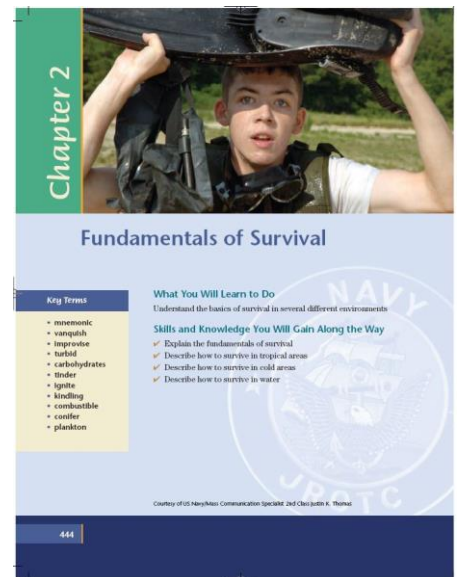
- SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions ...
- SL.9-10.2. Integrate multiple sources of information presented in diverse media or formats...

##### Language

- L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases...

#### **National Health Education Standards 9-10 (NHES)\*\***

- NHES Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health.



## **Unit 6 Chapter 2: NS1-U6C2 – Fundamentals of Survival**

\*A complete listing of all linked grades 9-10 Common Core English Language Arts Standards and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – ELA at the end of the Naval Science 1 Instructor's Guide.

\*\*A complete listing of all linked National Health Education Standards 9-12 (NHES) and their indicators associated with this Chapter are displayed on the Standards Chapter Matrix – NHES at the end of the Naval Science 1 Instructor's Guide.



## Chapter 2 / Section 1: NS1-U6C2S1 – Fundamentals of Survival

(Section 1 of 1)

### What Students Will Learn to Do:

Understand the basics of survival in several different environments

### Skills and Knowledge to be Gained:

1. Explain the fundamentals of survival
2. Describe how to survive in tropical areas
3. Describe how to survive in cold areas
4. Describe how to survive in water

### LESSON FLOW OUTLINE

Contact and Readiness, Objectives	Keyterms	KeyTerm Definitions	Opening Question	Warm Up Questions	Fundamentals of Survival	S-U-R-V-I-V-A-L Spells 'Survival'	A Survivor's Two Goals	Personal Protection
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Nutrition	Maintaining Your Health	Preparing a Survival Kit	Water (A)	Check On Learning A	Water (B)	Food	Eating in the Wilds	Shelter
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Fire	Traveling	Signaling	Check on Learning B	How to Survive in Tropical Areas	Food in Jungle Areas	Travel in the Jungle	How to Survive in Cold Areas	Sleeping
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Food in Cold Areas	Water in Cold Areas	Travel in Cold Areas	How to Survive in Water	Food in the Open Seas	Drinking Water	Travel in The Open Sea	Conclusion	Closing Questions
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Review Questions	Call for Other Questions
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Key:

Textbook Content	Student Engagement and Assessment
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Outline of Instruction :

## Chapter 2 / Section 1: NS1-U6C2S1 – Fundamentals of Survival

### I. Preparation:

- Open CPS database, and expand folders until you see Unit 6, chapter 2. Place a checkmark beside the NS1-U6C2S1 PowerPoint presentation, and these two CPS question deck files: NS1-U6C2S1 - Key Terms and NS1-U6C2S1 - Lesson Questions.
- Ensure that every student has a functional CPS response pad and a textbook.

### II. Instructional Flow:

<u>Flow Item</u>	<u>Textbook Content / Student Engagement and Assessment</u>	<u>Slides</u>
<b>Establish contact and readiness; provide lesson overview and objectives review</b>	Motivate students by relating real or imaginary events to help them see what the lesson will involve. Explain how this lesson ties in with other lessons.  In this lesson, you will learn the fundamentals of survival and how to survive in a variety of environments including tropical areas, extremely cold areas, and on water.	<b>1-3</b>
<b>Key terms - CPS</b>	Ask students to respond to the CPS questions covering each key term.	<b>4</b>
<b>Key terms - Definitions</b>	Reinforce the correct definition for each key term.	<b>5-7</b>
<b>Opening Question(Random Pick a Student – “RPS”)</b>	This Opening Question is “List 2-3 things that you think are the most crucial things you need to survive in the wilderness.” Since this is a discussion question, it can be engaged using the CPS Random Pick a Student function (RPS), where CPS will display one student’s name or clicker number, chosen randomly. That student will orally answer the question (not with his/her clicker). Look for the arrow showing the button to engage it on the CPS toolbar below the slide. You might allow the students to discuss the question for 30-60 seconds with a partner before engaging the RPS question. The MobiView tablet can be used to write the students’ responses to the question on the slide, focusing on the fundamentals of survival	<b>8</b>
<b>Warm-Up Questions(Lesson questions 1-2)</b>	Warm-up questions are typically used to gauge students’ level of interest, to generate interest in learning about upcoming topics, or to gauge prior opinions, knowledge or confidence in their knowledge, and/or uncover misconceptions that might be present. There may or may not be correct answers to these questions.  Ask students to respond to each Warm-up question, with follow-up discussion based on responses as appropriate.	<b>9</b>
<b>Fundamentals of Survival</b>	Have you ever thought of yourself as a “survivor”? Maybe not. Much of your daily routine, though, involves things you do to survive. Dressing appropriately for the weather, remembering your helmet when you go out on your bike, and even eating, drinking, and sleeping are survival activities in the broadest sense.  Most of this is pretty tame stuff, isn’t it? People who are out in extreme climates and conditions, including those serving in the armed forces, need survival skills of a much higher order. This chapter will introduce you to some of the skills those people have	<b>10</b>
<b>S-U-R-V-I-V-A-L</b>	Explain that if you ever have to fend for yourself outside your usual support system,	<b>11</b>

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<b>Spells ‘Survival’</b>	the word survival itself holds clues that may help you return safely home. You can use the letters that spell survival as a mnemonic device.	
<b>S-U-R-V-I-V-A-L Spells ‘Survival’</b>	<p>1. <b>Size</b> up the situation, including:</p> <ul style="list-style-type: none"> <li>• Your surroundings. Are you in a forest, in a jungle, in a desert? Each of these kinds of places has its own features—and possible dangers.</li> <li>• Your physical condition: Have you been injured? If you have, give yourself first aid, and take care not to make your injuries worse.</li> <li>• Your equipment: Check to see what equipment you have and what its condition is.</li> </ul> <p>2. <b>Use</b> all your senses, and remember that undue haste makes waste. In a survival situation, a false move can kill you. Don’t do something just to be doing something. If you act in haste, you may forget or lose equipment. Pay attention to sights, sounds, even smells around you. Pay attention to changes in light, temperature, and weather.</p>	<b>12</b>
<b>S-U-R-V-I-V-A-L Spells ‘Survival’</b>	<p>3. <b>Remember</b> where you are. If you have a map, try to spot your location on it. Try to relate what you see on your map to what you see around you. If you see a mountain or a stream, for instance, can you find it on your map? Being able to do this is a basic survival skill. If there are others in your group, make sure they know where they are as well, but don’t rely on them to keep track of your route. Pay attention to where you are and how you are moving. Orient yourself constantly; that is, keep locating yourself with respect to some clear reference point. Always keep an eye out for water resources, especially in the desert. Be alert for areas that will provide good shelter.</p> <p>4. <b>Vanquish</b> fear and panic. To vanquish is to conquer. In a survival situation you need to conquer fear and panic. They may leave you unable to think straight and will drain your energy. Formal survival training will build your confidence and enable you to stand up to these enemies of survival.</p>	<b>13</b>
<b>S-U-R-V-I-V-A-L Spells ‘Survival’</b>	<p>5. <b>Improvise</b>. You may not have much experience improvising. For instance, at home you have a bed you sleep in every night. In a survival situation, you may have to find shelter creatively. In other words, you’ll have to improvise. It’s good to learn to use your imagination to improvise. You can learn to use natural objects around you for different needs. You can use a rock as a hammer, for instance.</p> <p>6. <b>Value living</b>. Your will to live can save your life. Most people are creatures of comfort in their day-to-day living. But in a life-or-death situation, you may have to cope with all kinds of stress and discomfort. Stubbornness, a refusal to let things get you down, will give you the mental and physical strength to endure.</p>	<b>14</b>
<b>S-U-R-V-I-V-A-L Spells ‘Survival’</b>	<p>7. <b>Act</b> only after thinking. Don’t give up. If you see animals around you, watch them for clues about how to survive. After all, they also need food, water, and shelter. But remember that animals aren’t an absolute guide. Many animals can eat plants that are poisonous to humans.</p> <p>8. <b>Live</b> by your wits, but for now, learn basic skills. You need to know about the environment where you’re going, and you must practice skills geared to that environment. In the desert, for instance, knowing how to find water is essential. You can use any training exercise—even a weekend hike with your friends—as an opportunity to practice basic survival skills. Survival training reduces fear of the unknown. It gives you self-confidence and teaches you to live by your wits.</p>	<b>15</b>

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<b>A Survivor's Two Goals</b>	<p>Explain that if you're ever caught in a real survival situation, you will have two main goals: stay alive and to return— return to your home, to your campground, to your base, to your ship. It's simple perhaps, but not necessarily easy.</p> <p>Explain that to stay alive, you need to think about three things: personal protection, nutrition, and health.</p>	<b>16</b>
<b>Personal Protection</b>	<p>Explain that personal protection involves:</p> <ul style="list-style-type: none"> <li>• Adequate clothing: The human body can't tolerate much in the way of temperature extremes, but it has a wonderful ability to regulate heating and cooling. You must make the most of the clothing you have with you, especially in extreme hot or cold.</li> <li>• Survival equipment: If you have it, it can be a great help. But you may find that what you have isn't helpful in the situation you're in, or that it is not in good repair. Be ready to improvise.</li> <li>• Shelter: This provides a place to rest and protection from the elements. Where it's very cold or very hot, finding safe shelter from the elements will be your most important task. You may have only minutes to complete it.</li> <li>• Fire: You can use fire to purify water, cook food, keep warm, and dry wet clothing. You can also use fire to send signals.</li> </ul>	<b>17</b>
<b>Nutrition</b>	<p>Explain that people always need food and water, of course. But in survival situations these normal needs become even more important because of the physical stresses you are under. In a survival situation, you must remember to drink water. Your body needs it.</p> <p>Explain that although water comes first, you need to think about food, too. People caught in a survival situation may not think much about food for the first few hours, or maybe even the first couple of days. But lack of food will eventually lead to loss of energy, stamina, and strength. If you don't eat, you get irritable easily, as well, and that won't help you get home.</p> <p>Explain that a survival situation is no place for a picky eater. If you have an adequate supply of canned tuna and candy bars, you may do fine out in the woods waiting to be rescued. But if not, you may have to overcome prejudices about foods you don't like, and this goes way beyond broccoli.</p>	<b>18</b>
<b>Maintaining Your Health</b>	<p>Explain that if you're going to be a survivor, you may have to be your own doctor, nurse, psychologist, and cheerleader. You must protect your physical and mental health.</p> <p>Explain that where first aid supplies may be few or nonexistent, do everything you can to avoid injury in the first place. Take special care with knives and axes, especially if you're not used to using them.</p> <p>Explain that keeping your spirits up may be the best thing you can do to get yourself back home. Optimism, grit, and humor will all help.</p>	<b>19</b>
<b>Preparing a Survival Kit</b>	<p>Explain that if you're going to be out in a wilderness area where you might have to fend for yourself, it's a good idea to put together a survival kit. It should be in a waterproof case that is also durable and easy to carry. Some recommended items include waterproof matches, snare wire, fish hooks, a lighter, a knife a needle and thread and water purification tablets.</p>	<b>20-21</b>

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<b>Water</b>	<p>Explain that it bears repeating: in a survival situation, you must be sure always to get enough water. The average adult needs two to three quarts of water daily in normal temperatures. Under the stresses of a survival situation, you could easily need much more. While you can live up to 30 days without food, you can only go one to three days without water.</p> <p>Explain that if you notice yourself becoming inefficient as you try to perform even simple tasks, you may be in the early stages of dehydration. Weakness, dizziness, headache, and fever may follow. If you fail to get enough water to replace your body fluids, you will die. To prevent dehydration, drink small amounts of water throughout the day. Drink more water to prevent dehydration if it gets hotter, or if you exert yourself more.</p>	<b>22</b>
<b>Water</b>	<p>Explain that in tropical or temperate regions, you may find water in rivers, streams, or lakes. You may drink rainwater, too. In cold regions, you can get water by melting ice or snow.</p> <p>Explain that you may need to purify the water you find before you drink it. Always treat water that has a strong odor, or foam or bubbles. Also treat water that is discolored or has a turbid appearance. Water that tastes salty or makes you gag also needs treatment. Healthy green vegetation growing around a water source is a good sign. If this is missing from the water source you've found, that's another indication that you need to treat the water before you drink it.</p>	<b>23</b>
<b>Check on Learning Questions A (Lesson questions 3-4)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 3 and 4, with follow-up discussion as appropriate.	<b>24</b>
<b>Water</b>	<p>Explain that among the ways to purify water are these:</p> <ul style="list-style-type: none"> <li>• Boil it for at least 10 minutes</li> <li>• Use your purification tablets</li> <li>• Put eight drops of 2 percent iodine solution per quart.</li> </ul>	<b>25</b>
<b>Food</b>	Explain that after water, your next most urgent need is usually food. Eating well, or at least adequately, can make the difference between surviving or not. You will need to pay attention to three types of foods—carbohydrates, fats, and proteins—plus vitamins and minerals. These latter are important in keeping certain bodily processes in good working order.	<b>26</b>
<b>Food</b>	Explain that carbohydrates are made up of simple molecules that are easily digested. They are good suppliers of energy. Nutrition experts say that in a survival situation, half your caloric intake should be carbohydrates. Starches and sugars are both carbohydrates. You find these in fruits, vegetables, and legumes, as well as in breads, cereals, and candy.	<b>27</b>
<b>Food</b>	<p>Explain that fats are more complex than carbohydrates and release their energy more slowly. Butter, cheese, oils, nuts, egg yolks, margarine, and animal fats are sources of dietary fat.</p> <p>Explain that protein is the third type of food. The body breaks proteins down into amino acids and from these forms new body tissues such as muscles. Complete protein gives the body the exact amino acids it needs to rebuild itself. Protein lacking one or more of these amino acids is called incomplete. Fish, meat, and poultry are considered complete protein. Cheese, milk, grains, and legumes provide incomplete protein. You should have two to three ounces of complete protein daily.</p>	<b>28</b>

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<b>Eating in the Wilds</b>	<p>Show table 2.1 of the caloric and fat values of selected food found in the wild.</p> <p>Explain that the average person needs 2,000 calories a day to function at a minimum level. In a survival situation, though, you need between 3,000 and 5,000 calories in warm weather, and between 4,000 and 6,000 in cold weather.</p> <p>Explain that there is plenty to eat in the wilds, but it may take some getting used to. Along the seacoast, between the high and low tide marks, is one of the best places to find food. Marshes, mud flats, or mangrove swamps where a river flows into another river or the ocean are also good places to look for food as are riverbanks, edges of forest meadows, protected mountain slopes, and abandoned farm fields.</p> <p>Explain that fish are a good source of protein and fat. They're relatively abundant and easy to catch, especially early in the morning or late in the afternoon. Light often attracts fish at night. Fish will gather in deep pools of water, under overhanging brush, and in and around logs and other objects that provide shelter.</p> <p>Explain that if you're going to go after animals, concentrate on the smaller ones. Those that inhabit a particular area and have regular feeding habits will be easier to stalk. Remember to move quietly.</p>	<b>29-30</b>
<b>Eating in the Wilds</b>	<p>Explain that don't forget insects. They're easy to catch and full of protein—65 to 80 percent, as compared with 20 percent for beef. There are some insects you should avoid: all adults that sting or bite, all hairy or brightly colored insects, and any caterpillars or insects that have a sharp odor. Avoid spiders and disease carriers such as ticks, flies, and mosquitoes.</p>	<b>31</b>
<b>Shelter</b>	<p>Explain that a shelter can protect you from the elements and help you keep your spirits up and maintain your will to survive. Don't make your shelter too big. It needs to be large enough to protect you but small enough to contain your body heat. This is especially important in cold climates.</p> <p>Explain that in choosing a shelter site, you want to consider weather, life forms (plant and animal), terrain, and time of day. How much time do you have to build a shelter before it gets dark? You want to get the maximum shelter for the minimum energy.</p>	<b>32</b>
<b>Shelter</b>	<p>Explain that there are two general types of shelters—immediate-action shelters, for when you need protection right away, and improvised shelters, which you can build when you have some time and don't need immediate protection from the elements. You can find an immediate-action shelter in a natural formation such as a cave or a tree well. You can also make a shelter out of aircraft parts, parachutes, rafts, or tarpaulins.</p>	<b>33</b>
<b>Fire</b>	<p>Explain that knowing how to start a fire is one of the many skills that, in a survival situation, can make the difference between life and death. Fire can provide warmth and comfort, can cook food and purify water, and can even provide a psychological boost.</p> <p>Explain that small is better than large when it comes to building a fire. Small fires require less fuel and are easier to control. Never leave a fire unattended unless it's "banked." To bank a fire, scrape cold ashes and dry earth onto the fire, leaving just enough air coming through the dirt at the top to keep the fuel smoldering.</p> <p>Explain that a fire needs three things: air (oxygen), heat, and fuel. If you remove any of these, the fire goes out. With practice, you can learn to get these three elements into the right balance for the most efficient fire.</p>	<b>34</b>

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<b>Fire</b>	<p>Explain that to build a fire, start with tinder. Tinder is any type of material that will ignite easily, even from just a spark: cedar or birch bark, dry wood shavings, straw, dry leaves, or paper. If you have matches or a lighter, they would be your best option for igniting your kindling. A magnifying lens can focus sunlight onto dry leaves to start them smoldering. Other methods of starting a fire involve friction, such as flint and steel, or a bow and drill.</p> <p>Explain that after tinder comes kindling. Kindling will be larger pieces of combustible material that will ignite when you bring them into contact with the burning tinder. Take care not to let the bigger pieces of kindling smother the flame from the tinder. Twigs, plant fibers, small branches of trees, even pieces of split wood, should you have them, can all serve as kindling. Just make sure whatever you use is dry.</p> <p>Explain that the next step is adding fuel to the fire. This is the point where you add bigger logs. They will burn slowly and steadily. They don't have to be completely dry, either, as long as the flames from the kindling raise the temperature high enough. Your first choice of firewood should be dry hardwood. Green wood is the next best, followed by pine and other conifers.</p>	<b>35</b>
<b>Fire</b>	Explain that once you have the flames started, you can add logs according to any of a number of different methods, each suited to a different purpose. Several examples are shown in Figure 2.3.	<b>36</b>
<b>Traveling</b>	Explain that in any survival situation in which you may find yourself—for instance, the breakdown of your car in a remote area, or the emergency landing of your aircraft—you will have to decide whether to stay where you are or to try to return on your own. On land, you're generally better off staying with your vehicle or craft. You should strike out on your own only when: 1) you know where you are and know that you can reach water, shelter, food, and help by traveling; or 2) you've waited several days and rescue hasn't come. If weather conditions are uncertain, or if you're ill or injured, that would argue for staying put.	<b>37-38</b>
<b>Signaling</b>	Explain that one thing you can do while you await rescue is to try to signal those who may be looking for you. You can signal with a mirror, with fire, smoke, smoke grenades, flares, and even fireworks. On the water, a dye marker can help rescuers find you. It releases a quantity of fluorescent dye onto the surface of the water, where it is visible to pilots flying overhead. On the ground, you can spell out the letters SOS (an international distress signal) in rocks, with dye on snow, or with branches or brush in a clearing—anything that can be seen from the air.	<b>39-40</b>
<b>Check on Learning Questions B (Lesson questions 5-6)</b>	Check in on students' understanding of information covered so far by engaging lesson questions 5 and 6, with follow-up discussion as appropriate.	<b>41</b>
<b>How to Survive in Tropical Areas</b>	<p>Explain that a tropical jungle may be one of four types:</p> <ul style="list-style-type: none"> <li>• Mangrove jungle, a swamp of tangled roots and branches along a tropical seashore</li> <li>• Primary jungle, with large trees and a network of vines</li> <li>• Secondary jungle, with very dense growth of vegetation at ground level</li> <li>• High mountain jungle, probably the most difficult type of terrain in which to travel and find food. Problems here include rain and fog, as well as insects such as tree leeches, which often drop down onto passing travelers.</li> </ul>	<b>42-43</b>

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<b>Food in Jungle Areas</b>	Explain that fish, crayfish, and mollusks are plentiful in jungle streams and in coastal areas alongside jungles. Oysters and fish abound in mangrove swamps. Water birds nest in mangrove swamps, and their eggs are good to eat. Monkeys and wild pigs are also common in these areas.	<b>44</b>
<b>Travel in the Jungle</b>	Be patient and plan carefully. Rivers, trails, and ridgelines often make the best routes, though these may all have dangers you must be alert to. Your machete, if you have one, is the best aid to survival in the jungle. But never cut brush if you can simply part it. If you must cut, use a down-and-out angle, to save effort, rather than a flat-and-level approach. Take your time. Watch your footing. Avoid grabbing at bushes or plants. Wear gloves and keep all your clothing buttoned for protection.	<b>45</b>
<b>Travel in the Jungle</b>	Explain that quicksand can be a problem in the jungle. If you fall into it, don't panic, but assume a spread-eagle position and "swim" out of it.	<b>46</b>
<b>How to Survive in Cold Areas</b>	Explain that the key to survival in cold regions is preparation. You'll need adequate footwear, warm clothing, and an insulated sleeping bag. You'll need to know how to build emergency shelters to protect yourself against extreme cold, wind, and storms.  Explain that you may have already learned the principle of layering if you jog, bike, or hike. It's even more valid in extreme cold. Several shirts, a sweater, and a wind-resistant jacket will be more useful than one big heavy coat. And you'll have to keep adjusting your clothing—peeling off layers when you're active—to avoid heat buildup—and putting them back on when you're at rest.	<b>47</b>
<b>How to Survive in Cold Areas</b>	Take care to avoid restricting circulation. The flow of blood through your body distributes heat and prevents frostbite. If this flow is restricted, you may get into trouble. Layering doesn't work right if you put on three pairs of socks and then try to get your feet into boots that give you room for only one pair.  Keep your head covered. When you're moving about, minimize perspiration by opening your clothing at the neck and wrists and loosening at the waist. If you're still feeling warm, take off an outer layer—but put it back on as soon as you're no longer exerting yourself.	<b>48</b>
<b>How to Survive in Cold Areas</b>	Explain that if you have enough room in your boots, you can tuck dry grass or moss or similar material into them.  Keep your clothes as dry as possible. Brush snow off before you enter a shelter or get near a fire. If you take off clothes to warm them at a fire, beat the frost and snow out of them first.  Explain that protection for your eyes is essential in the dazzling brightness of a snowy landscape. Sunglasses of some sort should be part of your equipment. If no sunglasses are available, you have to improvise. A strip of bark with a couple of slits for your eyes might do the job.  Explain that parachute material, if you have it, can be useful in improvising a shelter.	<b>49</b>
<b>Sleeping</b>	Explain that to make your bed in a cold-climate survival situation, you'll need a bottom layer under your sleeping bag. You can make this of tree boughs, seat cushions, a parachute, an inflated rubber life raft—whatever materials come to hand. Remember that you must fluff up your sleeping bag once it comes out of its carrying case. Otherwise it won't insulate you very well.  Explain that you'll want to keep your sleeping bag clean and dry, as well as fluffed. You	<b>50</b>



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	can dry it by turning it inside out and warming it by your fire. But don't let it burn!	
<b>Food in Cold Areas</b>	<p>Explain that plants in arctic regions are generally small and stunted, but you can eat many of them.</p> <ul style="list-style-type: none"> <li>• Dandelions: Their leaves and roots are edible raw or cooked.</li> <li>• Black and white spruce: Their buds, needles, and stems are a source of vitamin C if you chew them. In spring and summer the inner bark is edible as well.</li> <li>• Dwarf arctic birch: You can eat its thin tooth-edged leaves, buds, and inner bark.</li> <li>• Lichens: These are abundant; many species are edible as starch substitutes.</li> </ul>	<b>51</b>
<b>Water in Cold Areas</b>	<p>Explain that the physical exertion of surviving in extreme cold—including hauling firewood, building shelters, and shivering to keep warm—means that your body needs five to six quarts of water a day—two or three times normal water intake. If you're depending on dehydrated rations, you'll need even more water.</p> <p>Explain that the good news here is that water is generally easy to find in cold climates because of an abundance of ice and snow. If possible, melt them first to avoid lowering your body temperature by ingesting something frozen.</p>	<b>52</b>
<b>Travel in cold Areas</b>	<p>Explain that travel in extreme cold can be so dangerous that you're better off waiting to be rescued. You should try to travel only if you need to move to escape danger or to reach an area of obviously better resources. You'll have to cope with intense cold and high winds, of course, and with a lack of landmarks. This makes it hard to judge distance. You may even face white-out conditions. And remember that your compass may act erratically in polar latitudes.</p> <p>Explain that in the summer, cold regions offer another set of challenges: What was frozen solid in the winter may become a mass of bogs and swamps. You'll need protection against mosquitoes, midges, and black flies. If you're severely bitten, infections may develop.</p> <p>Explain that in mountainous parts of extreme latitudes, travel along ridge lines to get a firmer footing free of vegetation. If you're going over a glacier, be sure to have a probe pole with you, and test your footing at every step. A single slip through a crevasse can kill you.</p>	<b>53</b>
<b>How to Survive in Water</b>	<p>Explain that water covers more than 70 percent of the earth's surface, and so if you ever find yourself in a survival situation, it may well be in the water—especially if you join the Navy.</p> <p>Explain that all military ships and planes that operate over water are routinely equipped for emergencies at sea. Their lifeboats or life rafts include such supplies as fresh water, dry rations, first aid supplies, and signaling equipment.</p>	<b>54</b>
<b>How to Survive in Water</b>	<p>Explain that in a survival situation in warm waters, one of your biggest challenges will be protecting yourself against the sun and getting adequate drinking water. Do everything you can to stay out of direct sun. Improvise a sun shade. Use sunscreen if you have it. Dampen clothing in sea water to get the cooling effect of evaporation.</p>	<b>55</b>

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	<p>Explain that in colder ocean areas, the challenge to survivors is staying dry and keeping warm. If you have an anti-exposure suit available, put it on at once. You should know that if you are wearing wet clothing, heat will leave your body much faster than if your clothing is dry. Survivors on the water in cold climates should put on any extra clothing that's available. Covering the floor of your raft or lifeboat with any material available will help insulate you against the cold.</p>	
<b>Food in the Open Seas</b>	<p>Explain that if you're ever at sea in a lifeboat, remember that most seaweed is edible and a good source of carbohydrates or proteins. It can be washed and eaten raw or dried. You may also find small fish or crabs in bits of seaweed you find floating on the water.</p> <p>Explain that you can also eat plankton—tiny plants and animals that float in the water. You can catch them with a net. But plankton is hard to digest, so if you are going to rely on it at sea, you'll want to start with small quantities until your system adjusts.</p>	<b>56</b>
<b>Food in the Open Seas</b>	<p>Explain that as noted earlier, fish are another food source. Almost any fish is edible; few are likely to be poisonous. Even if you lack fishing gear, you may be able to catch flying fish. You can attract them into your boat at night with a light. Seabirds are another source of food, though likely to be scarce in mid-ocean. You can use leftover bird bones to make lures and hooks. You can use feathers for insulation, too.</p>	<b>57</b>
<b>Drinking Water</b>	<p>Explain that your biggest challenge on the open seas will be finding enough drinking water. Never drink seawater in its natural state. It will make you very sick in no time.</p> <p>Explain that if you're fortunate, you'll have a solar still in your survival kit. Otherwise, wait for a rainstorm. When it comes, drink as much water as you can, and collect as much in small containers as you can. At night and in fog, you can use a sponge or cloth to collect dew from the outer surfaces of your boat. Don't worry if small amounts of seawater get into your fresh water supply; it will still be safe to drink.</p> <p>Explain that there is no substitute for fresh water. Some substances like fish juices have only limited value in staving off dehydration. Because they contain proteins, they require more water to digest.</p> <p>Explain that you must never drink urine. It contains waste material that will build up in your body and only require more water to eliminate.</p>	<b>58</b>
<b>Travel in the Open Sea</b>	<p>Explain that if you're ever adrift in a lifeboat, it will probably be after going down in an airplane or abandoning a sinking ship. Rescuers will know you're missing and will know where your vessel went down. Make it easier for them to find you by putting down an anchor if you can. If you have an emergency radar reflector in your survival kit, use it.</p> <p>Explain that if no help has arrived after a day or so, it may be best to strike out for the closest land available. If you have certain minimal equipment—a nautical chart, a compass, a protractor, a timepiece, a Nautical Almanac, perhaps even a handheld GPS receiver—and some knowledge of navigation, you may be able to set a course for land. Remember that it is better to "go with the flow." Even with a sail, you won't be able to make much progress against the prevailing current and wind. Better to aim for landfall at some distance downwind and down-current than for land that is closer but upwind.</p>	<b>59</b>

## **Chapter 2 / Section 1: NS1-U6C2S1 – Fundamentals of Survival**

<b>Travel in the Open Sea</b>	<p>Explain that once you set your course, you can estimate your travel time. And once you know how long you'll be at sea, you can figure out how to make your supplies last. Keep checking your position. Make midcourse corrections as needed. When you start seeing more seabirds, land debris, and high cumulus clouds, you'll know you're getting close to land.</p> <p>Stay calm, don't exert yourself, and take heart in the fact that you'll eventually reach either land or a major shipping lane.</p>	<b>60</b>
<b>Conclusion</b>	<p>Explain that the survival skills that help people make it back safely after experiences such as getting lost in the wilderness or having to bail out of an airplane rest on some basic concepts: Size up your situation. Use all your senses, and avoid undue haste. Remember where you are. Vanquish fear. Improvise. Value life. Act only after thinking. Live by your wits.</p> <p>Explain that most people never come close to a survival situation as we usually think of it. But learning the concepts behind these survival skills will give you more confidence and help you be more alert and aware of your environment wherever you are.</p>	<b>61</b>
<b>Closing Questions(Lesson Questions 7 - 8)</b>	Have students respond to questions 7 and 8 covering the final segment of the lesson, with follow-up reinforcement and discussion as appropriate.	<b>62</b>
<b>Review Question</b>	The Review Question is "Explain the process for starting a fire and keeping it going for survival in the wilderness." Question is designed to provide an opportunity for some reflection and assimilation of the content covered, and is to be engaged in RPS (Random Pick a Student) mode as the Opening Question above. MobiView can be used here to write the students' best responses for visual reinforcement, and to foster discussion.	<b>63</b>
<b>Call for Other Questions</b>	Provide the opportunity for students to ask final questions regarding the content covered.	<b>64</b>

### **III. Supplemental Activities -**

#### **A. In Class Activity:**

Supplies required: Handouts

When: At the end of the lesson

- Have the cadets use the handout to list the "Ten Essentials" (both classic and updated) Explain why they think they are different and which is the better list.

B. At Home Activity: Using the handout "Fundamentals of Survival" have the cadets use their lists from the in class activity and check out their home, vehicles and backpacks and other places for the 10 essentials. Have them answer the questions: How many of the 10 essentials did you have at home, in your vehicle or backpack? What are they?

### **IV. Evaluation - see CPS database for chapter test questions.**

## **Chapter 2 / Section 1: NS1-U6C2S1 – Fundamentals of Survival**

Activity 1: In-Class Activity- Fundamentals of Survival

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Directions: Use the following websites to learn about the “10 essentials”.

<http://www.rei.com/learn/expert-advice/ten-essentials.html>

[http://www.mountaineersbooks.org/Assets/ClientPages/zz\\_TenEssentials.aspx](http://www.mountaineersbooks.org/Assets/ClientPages/zz_TenEssentials.aspx)

List the “Ten Essentials” and the Updated Ten Essential Systems

10 Essentials (The Classic List)	10 Essentials Systems
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Which do you feel is the better list and why:

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**Chapter 2 / Section 1: NS1-U6C2S1 – Fundamentals of Survival**

Activity 1: Take Home Activity- Fundamentals of Survival

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Check out your home, vehicles and backpacks. How many of the 10 essentials do you have at home, in your vehicle or backpack? What are they?

Home	Vehicle	Backpack	Boat	Camper	Other

Other items you think should be included in this list?

Item	Why

# Naval Science 1

## Standards/Chapter Matrix ELA Grades 9-10

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Body	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
RI.9-10. READING:INFORMATIONAL TEXT							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.							X		X	X			X	X	X	X	X	X	X	X	X	X	X	X
RI.9-10.2. Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.							X												X					
RI.9-10.3. Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.				X														X						X

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Body	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
RI.9-10.4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
RI.9-10.5. Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).				X								X												
RI.9-10.C. INTEGRATION OF KNOWLEDGE AND IDEAS				X	X	X											X	X						
RI.9-10.7. Analyze various accounts of a subject told in different mediums (e.g., a person's life story in both print and multimedia), determining which details are emphasized in each account.				X		X									X									
RI.9-10.8. Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.					X												X	X						

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Bod	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
RI.9-10.9. Analyze seminal U.S. documents of historical and literary significance (e.g., Washington's Farewell Address, the Gettysburg Address, Roosevelt's Four Freedoms speech, King's "Letter from Birmingham Jail"), including how they address related themes and concepts.						X		X	X															
W.9-10. WRITING		X	X	X		X	X	X	X	X		X	X		X	X		X	X		X	X	X	X
W.9-10.1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.				X		X	X	X	X	X		X	X			X		X	X		X	X	X	X
W.9-10.1.a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.												X				X		X	X				X	
W.9-10.1.b. Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns.										X		X											X	



	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Bod	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
W.9-10.1.c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.				X		X	X	X	X	X						X			X		X	X		
W.9-10.2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.		X		X						X						X			X					
W.9-10.2.a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.		X																						
W.9-10.2.b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience s knowledge of the topic.										X														
W.9-10.2.d. Use precise language and domain-specific vocabulary to manage the complexity of the topic.		X		X												X								

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Bod	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
W.9-10.3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.			X				X														X	X		
W.9-10.3.a. Engage and orient the reader by setting out a problem, situation, or observation, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.			X																					
W.9-10.3.d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.			X				X																	
W.9-10.B. PRODUCTION AND DISTRIBUTION OF WRITING	X	X					X					X			X				X			X	X	X
W.9-10.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)	X	X					X							X				X				X	X	X

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Bod	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
W.9-10.6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology s capacity to link to other information and to display information flexibly and dynamically.	X	X										X							X			X		
W.9-10.C. RESEARCH TO BUILD AND PRESENT KNOWLEDGE												X	X											
W.9-10.7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	X	X													X									
W.9-10.8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.	X	X		X					X			X	X				X					X		X
W.9-10.9. Draw evidence from literary or informational texts to support analysis, reflection, and research.	X			X																				

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Bod	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
SL.9-10. SPEAKING & LISTENING	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SL.9-10.1.a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.																					X			
SL.9-10.1.b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.						X	X		X											X	X			
SL.9-10.1.c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Bod	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
SL.9-10.1.d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	X	X		X	X	X						X								X				
SL.9-10.2. Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.									X													X	X	X
SL.9-10.3. Evaluate a speaker s point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.		X																						
SL.9-10.4. Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.							X							X								X		
SL.9-10.6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grades 9 10 Language standards 1 and 3 on pages 54 for specific expectations.)					X																			

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Bod	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
L.9-10. LANGUAGE	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L.9-10.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	X															X								
L.9-10.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	X																							
L.9-10.2.b. Use a colon to introduce a list or quotation.																								
L.9-10.2.c. Spell correctly.	X															X								
L.9-10.3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.					X	X																		
L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 9-10 reading and content, choosing flexibly from a range of strategies.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L.9-10.5.a. Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text.						X																		

[illegible]

# Naval Science 1

## External Standards/Chapter Matrix

### National Health Education Standards (NHES)

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Body	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
NHES Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.													X	X	X	X	X	X	X	X	X			
NHES 1.12.1 Predict how healthy behaviors can affect health status.														X	X	X			X	X	X			
NHES 1.12.2 Describe the interrelationships of emotional, intellectual, physical, and social health.																				X				
NHES 1.12.3 Analyze how environment and personal health are interrelated.													X				X	X	X	X	X			
NHES 1.12.4 Analyze how genetics and family history can impact personal health.																	X	X						



	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Bod	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
NHES 1.12.5 Propose ways to reduce or prevent injuries and health problems.													X	X				X	X		X			
NHES 1.12.7 Compare and contrast the benefits of and barriers to practicing a variety of healthy behaviors.																	X	X			X			
NHES 1.12. Analyze personal susceptibility to injury, illness, or death if engaging in unhealthy behaviors.													X		X	X		X	X	X	X			
NHES 1.12.9 Analyze the potential severity of injury or illness if engaging in unhealthy behaviors.																	X	X	X		X			
NHES Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.						X							X	X	X	X	X	X		X	X			
NHES 2.12.1 Analyze how the family influences the health of individuals.						X												X						
NHES 2.12.2 Analyze how the culture supports and challenges health beliefs, practices, and behaviors.						X							X	X	X	X	X	X			X			
NHES 2.12.3 Analyze how peers influence healthy and unhealthy behaviors.																		X			X			

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Bod	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
NHES 2.12.4 Evaluate how the school and community can affect personal health practice and behaviors.						X							X	X			X							
NHES 2.12.5 Evaluate the effect of media on personal and family health.																	X	X						
NHES 2.12.7 Analyze how the perceptions of norms influence healthy and unhealthy behaviors.						X														X				
NHES 2.12.8 Analyze the influence of personal values and beliefs on individual health practices and behaviors.						X							X								X			
NHES 2.12.9 Analyze how some health risk behaviors can influence the likelihood of engaging in unhealthy behaviors.																					X			
NHES 2.12.10 Analyze how public health policies and government regulations can influence health promotion and disease prevention.														X	X	X	X	X			X			
NHES Standard 3: Students will demonstrate the ability to access valid information, products, and services to enhance health.															X	X	X	X		X	X	X		

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Body	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
NHES 3.12.1 Evaluate the validity of health information, products, and services.																	X			X	X			
NHES 3.12.2 Use resources from home, school, and community that provide valid health information.																				X	X	X		
NHES 3.12.3 Determine the accessibility of products and services that enhance health.																						X		
NHES 3.12.4 Determine when professional health services may be required.																						X		
NHES Standard 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.														X			X			X	X	X		
NHES 4.12.1 Use skills for communicating effectively with family, peers, and others to enhance health.														X			X				X			
NHES 4.12.3 Demonstrate strategies to prevent, manage, or resolve interpersonal conflicts without harming self or others.																					X			

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Body	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
NHES 4.12.4 Demonstrate how to ask for and offer assistance to enhance the health of self and others.																					X	X		
NHES Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health.													X				X			X	X	X		X
NHES 5.12.1 Examine barriers that can hinder healthy decision making.																								X
NHES 5.12.2 Determine the value of applying a thoughtful decision-making process in health-related situations.																	X			X	X	X		X
NHES 5.12.3 Justify when individual or collaborative decision making is appropriate.																						X		
NHES 5.12.4 Generate alternatives to health-related issues or problems.																					X			X
NHES 5.12.5 Predict the potential short-term and long-term impact of each alternative on self and others.																				X	X	X		
NHES 5.12.6 Defend the healthy choice when making decisions.													X				X			X	X			X

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NHES 5.12.7 Evaluate the effectiveness of health-related decisions.													X								X			X
NHES Standard 6: Students will demonstrate the ability to use goal-setting skills to enhance health.													X				X							
NHES 6.12.1 Assess personal health practices and overall health status.													X				X							
NHES 6.12.2 Develop a plan to attain a personal health goal that addresses strengths, needs, and risks.													X											
NHES 6.12.3 Implement strategies and monitor progress in achieving a personal health goal.													X				X							
NHES 6.12.4 Formulate an effective long-term personal health plan.													X											
NHES Standard 8: Students will demonstrate the ability to advocate for personal, family, and community health.																	X	X	X	X	X	X		
NHES 8.12.1 Utilize accurate peer and societal norms to formulate a health-enhancing message.																	X		X					



# Naval Science 1

## Standards Chapter Matrix

### C3-Framework for Social Studies State Standards

	NS1U1C1: Introduction to the NJROTC Program	NS1U1C2: Career Planning	NS1U2C1: Followership	NS1U2C2: Leadership	NS1U2C3: Motivation	NS1U2C4: Relationships	NS1U2C5: Attitudes and Emotions	NS1U3C1: Laws and Your Role as a Citizen	NS1U3C2: Foundations of US Government	NS1U3C3: National Defense	NS1U4C1: Navy Ships	NS1U4C2: Naval Aviation	NS1U5C1: Choosing the Right Exercise Program	NS1U5C2: Evaluating Your Physical Fitness	NS1U5C3: You Are What You Eat	NS1U5C4: Nutrition - Nourishing Your Body	NS1U5C5: Dietary Guidelines	NS1U5C6: Controlling Fat	NS1U5C7: Taking Care of Yourself	NS1U5C8: Understanding and Controlling Stress	NS1U5C9: Drug Awareness	NS1U5C10: First Aid	NS1U6C1: Geography, Maps, and Environment	NS1U6C2: Fundamentals of Survival
D2. Civic and Political Institutions								X	X	X		X												
D2.Civ.1.9-12. Distinguish the powers and responsibilities of local, state, tribal, national, and international civic and political institutions.								X	X															
D2.Civ.2.9-12. Analyze the role of citizens in the U.S. political system, with attention to various theories of democracy, changes in Americans' participation over time, and alternative models from other countries, past and present.								X	X															

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D2.Civ.7.9-12. Apply civic virtues and democratic principles when working with others.								X	X			X												
D2.Civ.8.9-12. Evaluate social and political systems in different contexts, times, and places, that promote civic virtues and enact democratic principles.												X												
D2.Civ.10.9-12. Analyze the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights.								X																
D2.Civ.11.9-12. Evaluate multiple procedures for making governmental decisions at the local, state, national, and international levels in terms of the civic purposes achieved.												X												



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D2.Civ.14.9-12. Analyze historical, contemporary, and emerging means of changing societies, promoting the common good, and protecting rights.								X	X															
D2. Geography																						X		
D2.Geo.1.9-12. Use geospatial and related technologies to create maps to display and explain the spatial patterns of cultural and environmental characteristics.																						X		
D2. History								X	X	X														
D2.His.1.9-12. Evaluate how historical events and developments were shaped by unique circumstances of time and place as well as broader historical contexts.								X	X															
D2.His.2.9-12. Analyze change and continuity in historical eras.								X	X															

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D2.His.3.9-12. Use questions generated about individuals and groups to assess how the significance of their actions changes over time and is shaped by the historical context.								X	X															
D2.His.6.9-12. Analyze the ways in which the perspectives of those writing history shaped the history that they produced.									X															
D2.His.10.9-12. Detect possible limitations in various kinds of historical evidence and differing secondary interpretations.									X															
D2.His.11.9-12. Critique the usefulness of historical sources for a specific historical inquiry based on their maker, date, place of origin, intended audience, and purpose.									X															

National Council for the Social Studies (NCSS), The College, Career, and Civic Life (C3) Framework for Social Studies State Standards: Guidance for Enhancing the Rigor of K-12 Civics, Economics, Geography, and History (Silver Spring, MD: NCSS, 2013)