Unit 2 - CPR, AED, First Aid and Safety

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Title Section

Department of Curriculum and Instruction

Belleville Public Schools

Curriculum Guide

Comprehensive Health and Physical Education, Grade 11

Unit 2 - CPR, AED, First Aid and Safety

Belleville Board of Education

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Unit Overview

The purpose of the American Red Cross First Aid/CPR/AED program is to help participants recognize and respond appropriately to cardiac, breathing, and first aid emergencies. The courses in this program teach skills that participants need to know to give immediate care to suddenly injured or ill person until more advanced medical personnel arrive and take over. Throughout this unit the students will also be given knowledge about a variety of cancers. They will learn the causes, treatments, and expectations of the diseases. Understanding how to prevent the contraction of cancer will be another aspect the students will learn. Students will also learn about the anatomy of the heart as well as function and preventative care.

Enduring Understanding

- Students will understand how important CPR is during an emergency situation.

- Students will learn the emergency action steps.
- Students will learn the steps to CPR for adults, children and infants.
- Students will understand the purpose of using an AED and how to use it.
- Students will understand how to treat someone with an external bleeding emergency.
- Students will understand the different signs and symptoms of anaphylaxis, an asthma attack and shock.
- Students will learn how to perform self checks on themselves.
- Students will demonstrate knowledge of the anatomy of the heart.
- Students will list factors that can lead to a healthy heart.
- Students will identify factors that lead to anaphylaxis and asthma attacks.
- Students will understand the importance of Good Samaritan Laws.
- Students will demonstrate the Heimlich maneuver, both on themselves and others.
- Students will demonstrate how to administer an EpiPen.

Essential Questions

- What are the steps to take before giving care?
- What determines if a scene is safe?
- What are the "3 C's" and why is it important to remember them?
- What is the difference between healthy and unhealthy risks?
- Why do we sometimes take risks that cause harm to others and ourselves?
- Why are compressions a vital part of CPR?
- How important is an AED during cardiac arrest?What are some common causes of breathing emergencies?
- How common are heat and cold emergencies?
- How should you prevent skin cancer?
- What factors can affect heart health?
- How does CPR differ between adults, children and infants?
- How do you conduct a "head to toe" check?
- What are the Good Samaritan Laws?
- How can we prevent injuries from occurring?
- What happens during an asthma attack?
- What is anaphylaxis?
- How do you administer an Epi Pen?
- How is the Heimlich performed?

Exit Skills

- Demonstrate first aid procedures including caring for head trauma, burns and bleeding, bone, joint and muscle injuries, responding to an emergency, and heat and cold injuries.
- Demonstrate how to perform CPR, use an AED, perform the Heimlich, administer an EpiPen and assist with an inhaler.
- Determine what makes a scene safe and the steps in responding to an emergency.
- Determine the causes and outcomes of intentional and unintentional injuries and propose prevention strategies.

New Jersey Student Learning Standards (NJSLS)

HPE.2.1.12.A.1	Analyze the role of personal responsibility in maintaining and enhancing personal, family, community, and global wellness.
HPE.2.1.12.A.CS1	Developing and maintaining wellness requires ongoing evaluation of factors impacting health and modifying lifestyle behaviors accordingly.
HPE.2.1.12.D.1	Determine the causes and outcomes of intentional and unintentional injuries in adolescents and young adults and propose prevention strategies.
HPE.2.1.12.D.6	Demonstrate first-aid procedures, including Basic Life Support and automatic external defibrillation, caring for head trauma, bone and joint emergencies, caring for cold and heat injuries, and responding to medical emergencies.
HPE.2.1.12.D.CS2	Applying first-aid procedures can minimize injury and save lives.
HPE.2.3.12.A.CS1	Medicines come in a variety of forms (prescription medicines, over-the-counter medicines, medicinal supplements), are used for numerous reasons, and should be taken as directed

in order to be safe and effective.

Interdisciplinary Connections

LA.RI.9-10.1	Accurately cite strong and thorough textual evidence, (e.g., via discussion, written response, etc.) and make relevant connections, to support analysis of what the text says explicitly as well as inferentially, including determining where the text leaves matters uncertain.
LA.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.
LA.SL.9-10.4	Present information, findings, and supporting evidence clearly, concisely, and logically. The content, organization, development, and style are appropriate to task, purpose, and audience.
LA.SL.9-10.6	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English.
LA.L.9-10.4.A	Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.

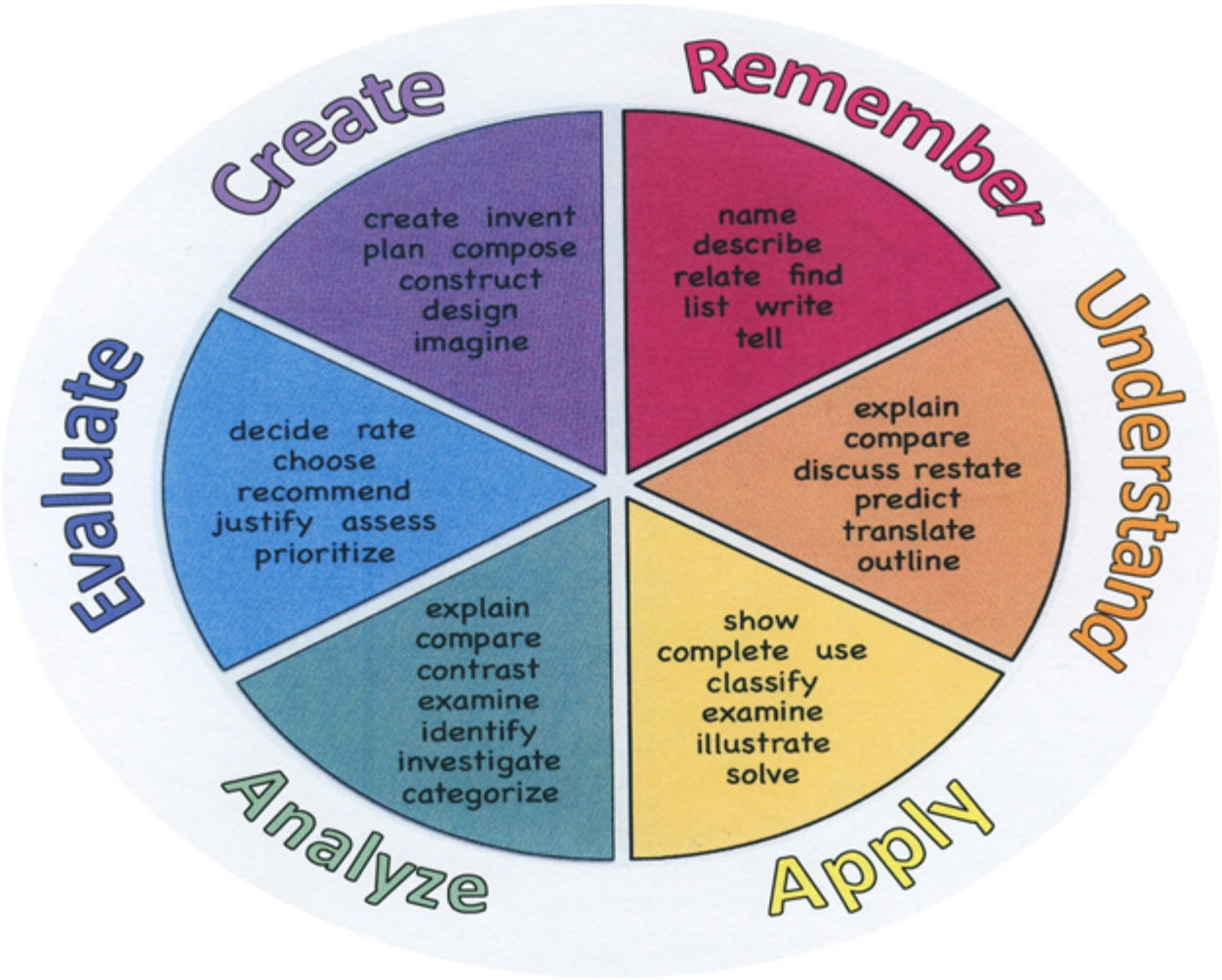
Learning Objectives

- SWDAT Describe how to recognize an emergency.
- SWDAT Identify the difference between consent and implied consent.
- SWDAT List the causes of cardiac arrest.
- SWDAT Demonstrate how to perform CPR on adults, children and infants.
- SWDAT Demonstrate how to use an AED on adults, children and infants.
- SWDAT Demonstrate how to care for a person who is choking by performing the Heimlich maneuver.
- SWDAT Identify the signals of heat-related and cold-related emergencies.
- SWDAT Demonstrate how to control external bleeding.
- SWDAT Explain how to care for muscle, bone, or joint injuries.
- SWDAT Describe the anatomy of the heart
- SWDAT explain the benefits of a healthy heart
- SWDAT Compare and contrast the difference between open and closed wounds.
- SWDAT Identify what kind of first aid treatment is necessary for treating a wound
- SWDAT Demonstrate proper technique for bandaging up a wound.
- SWDAT Compare and contrast the multiple causes of seizures.
- SWDAT Identify signs of a seizure and describe how to respond to someone having one.
- SWDAT Identify signs and symptoms of an asthma attack.
- SWDAT Demonstrate and explain how to administer first aid to a person experiencing an asthma attack.
- SWDAT Compare and contrast the different forms of asthma medications.
- SWDAT Compare and contrast the multiple causes of allergic reactions.
- SWDAT Identify signs of an allergic reaction and describe how to respond to someone having one.

- SWDAT Describe how to administer epinephrine through the use of an EpiPen.
- SWDAT demonstrate the emergency action steps and conduct a Head-To-Toe check on a partner.
- SWDAT Recognize an emergency and evaluate a scene for safety.
- SWDAT Know when and how to activate EMS and interact with EMS.
- SWDAT Explain the legal issues related to providing first aid.
- SWDAT Describe methods to prevent exposure to blood-borne pathogens, and what to do if you are exposed.

Action Verbs: Below are examples of action verbs associated with each level of the Revised Bloom's Taxonomy.

Remember	Understand	Apply	Analyze	Evaluate	Create
Choose	Classify	Choose	Categorize	Appraise	Combine
Describe	Defend	Dramatize	Classify	Judge	Compose
Define	Demonstrate	Explain	Compare	Criticize	Construct
Label	Distinguish	Generalize	Differentiate	Defend	Design
List	Explain	Judge	Distinguish	Compare	Develop
Locate	Express	Organize	Identify	Assess	Formulate
Match	Extend	Paint	Infer	Conclude	Hypothesize
Memorize	Give Examples	Prepare	Point out	Contrast	Invent
Name	Illustrate	Produce	Select	Critique	Make
Omit	Indicate	Select	Subdivide	Determine	Originate
Recite	Interrelate	Show	Survey	Grade	Organize
Select	Interpret	Sketch	Arrange	Justify	Plan
State	Infer	Solve	Breakdown	Measure	Produce
Count	Match	Use	Combine	Rank	Role Play
Draw	Paraphrase	Add	Detect	Rate	Drive
Outline	Represent	Calculate	Diagram	Support	Devise
Point	Restate	Change	Discriminate	Test	Generate
Quote	Rewrite	Classify	Illustrate		Integrate
Recall	Select	Complete	Outline		Prescribe
Recognize	Show	Compute	Point out		Propose
Repeat	Summarize	Discover	Separate		Reconstruct
Reproduce	Tell	Divide			Revise
	Translate	Examine			Rewrite
	Associate	Graph			Transform
	Compute	Interpolate			
	Convert	Manipulate			
	Discuss	Modify			
	Estimate	Operate			
	Extrapolate	Subtract			
	Generalize				
	Predict				



Suggested Activities & Best Practices

- Board Rotation
- Buzz Session - Checking the scene for safety
- cooperative learning activities
- Crossword Puzzle
- Discussion
- First Aid Kahoot!
- Group AED/CPR Video Analysis
- Group Text Analysis
- Hands On Practice
- Peer Review
- Think, Pair, Share

Assessment Evidence - Checking for Understanding (CFU)

Cross word puzzle - formative assessment

Think, pair, share - formative assessment

Unit test - summative assessment

Group presentations - alternative assessment

Peer review - formative assessment

- "What Stuck with You?" Exit Tickets
- Anticipation Guide
- Common Benchmarks
- Compare & Contrast
- Create an Emergency Action Step Poster
- Define
- Describe
- Evaluate
- Evaluation rubrics
- Explaining
- First Aid, CPR, AED Unit test
- Fist- to-Five or Thumb-Ometer
- Hands on Demonstration
- Illustration
- Journals
- KWL Chart
- Learning Center Activities
- Newspaper Headline

- Outline
- Practice AED
- Quickwrite
- Quizzes
- Self- assessments
- Skill Sheets
- Socratic Seminar
- Study Guide
- Surveys
- Teacher Observation Checklist
- Think, Pair, Share
- Think, Write, Pair, Share
- Top 10 List
- Unit review sheet
- Web-Based Assessments
- Written Reports

Primary Resources & Materials

Mc Graw Hill Education - Glencoe Comprehensive Health and Physical Education Virtual Textbook

- Chapter 26 Safety and Injury Prevention - Lessons 1, 2, 3 and 4 (with Spanish Translation)
- Chapter 27 First Aid and Emergencies - Lessons 1, 2, 3 and 4 (with Spanish Translation)

Ancillary Resources

Supplemental Teacher Material

- Emergency Action Steps presentation
- Emergency Action Steps Notes

- Emergency Action Steps Skill Sheet
- AED Powerpoint Presentation
- Practice AED
- AED Worksheet
- AED Skill Sheet
- CPR Presentation
- CPR Skill Sheet
- CPR on adults note sheet
- CPR on children note sheet
- CPR on infants note sheet
- Cardiac Emergency Powerpoint Presentation
- Checking a Responsive Person Skill Sheet
- Checking an Unresponsive Person Skill Sheet
- Choking Emergencies Powepoint Presentation
- Heimlich Maneuver Note sheet
- Allergic Reactions and Anaphylaxis Powerpoint Presentation
- Allergic Reactions and Anaphylaxis Notes
- EpiPen note Sheet
- Closed and Open Wounds Powerpoint
- Closed and Open Wounds Skill Sheet
- Closed and Open Wounds Worksheet
- Asthma Powerpoint Presentation
- Asthma Worksheet
- Shock Powerpoint Presentation
- Treating Shock worksheet
- First Aid, CPR, AED Review Packet
- First Aid, CPR, AED Test
- Understanding Good Samaritan Laws Sheet
- Heat and Cold Illnesses Slideshow Presentation
- Heat and Cold Illnesses worksheet

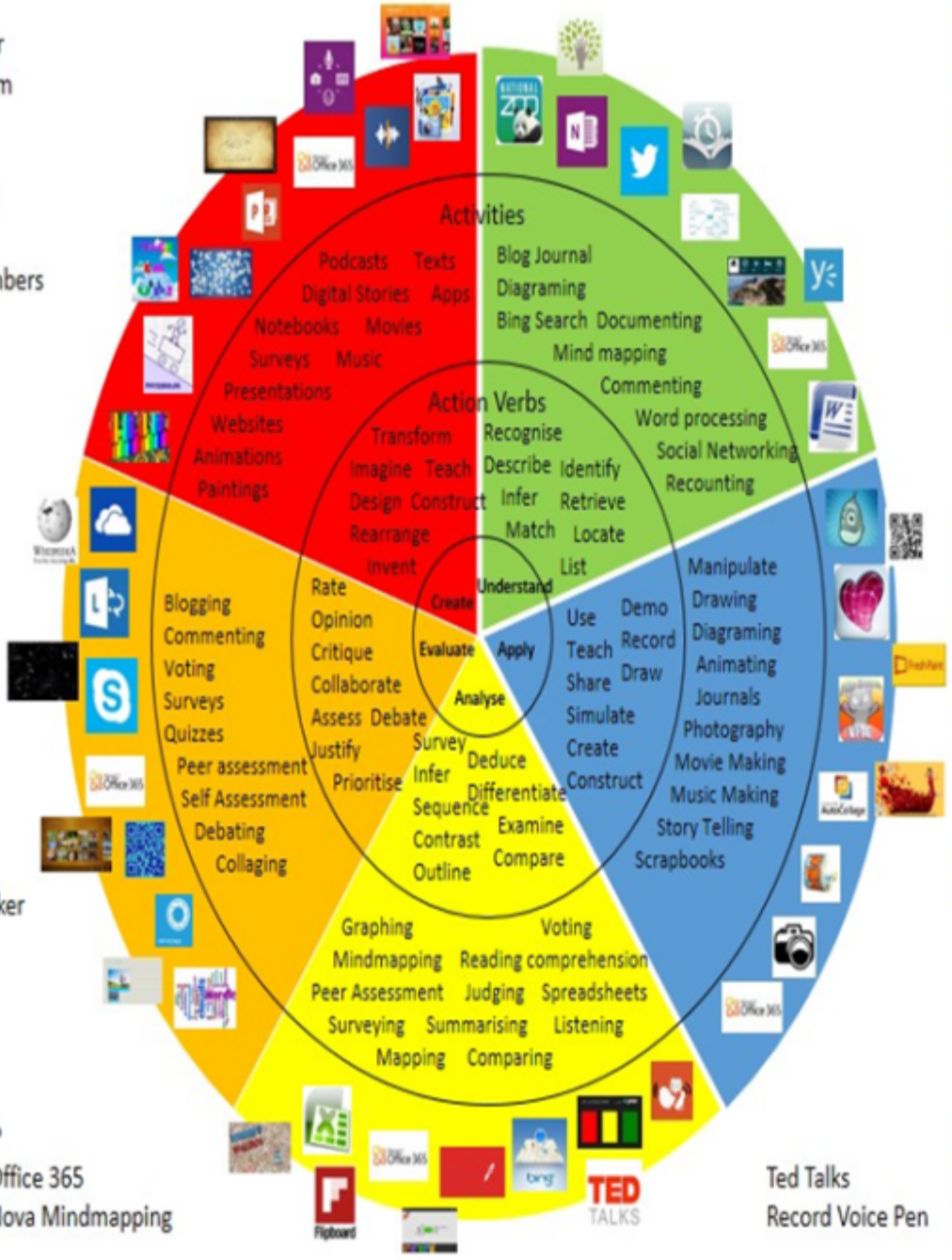
Technology Infusion

- Smart TV
- Slideshow Presentations
- Youtube videos (AED for adults, children, infants - CPR for adults, children, infants - Performing the heimlich on self and others - administering an EpiPen - Treating shock)
- Practice AED

Win 8.1 Apps/Tools Pedagogy Wheel

Podcasts
Photostory 3
Kid Story Builder
Music Maker Jam
Paint A Story
Office 365
MS PowerPoint
Stack 'Em Up
NqSquared Numbers
Physamajig
Xylophone 8

Wikipedia
Skydrive
Lync
SkyMap
Skype
Office 365
Puzzle Touch
Easy QR
Memorylage
Life Moments
Word Cloud Maker



Where's Waldo?
MS Excel Office 365
Flipboard Nova Mindmapping

Ted Talks
Record Voice Pen

Originally taken from http://www.coetail.com/vzimmer/files/2013/02/iPadagogy-Wheel.001.jpg
And adapted for Windows 8.1 devices by Charlotte Beckhurst @CharBeckhurst

Alignment to 21st Century Skills & Technology

CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP3	Attend to personal health and financial well-being.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP11	Use technology to enhance productivity.
CAEP.9.2.12.C.2	Modify Personalized Student Learning Plans to support declared career goals.
CAEP.9.2.12.C.3	Identify transferable career skills and design alternate career plans.
TECH.8.1.12.A.CS1	Understand and use technology systems.
TECH.8.1.12.B.CS2	Create original works as a means of personal or group expression.
TECH.8.1.12.E.CS4	Process data and report results.

21st Century Skills/Interdisciplinary Themes

- Communication and Collaboration
- Creativity and Innovation
- Critical thinking and Problem Solving
- ICT (Information, Communications and Technology) Literacy
- Information Literacy
- Life and Career Skills
- Media Literacy

21st Century Skills

- Civic Literacy
- Environmental Literacy
- Financial, Economic, Business and Entrepreneurial Literacy
- Global Awareness
- Health Literacy

Differentiation

Differentiations:

- Small group instruction
- Choice of creating a powerpoint, poster or pamplet
- Notes posted on Google Classroom to reference
- Printed notes
- Small group assignments
- Extra time to complete assignments
- Pairing oral instruction with visuals
- Repeat directions
- Use manipulatives
- Center-based instruction
- Token economy
- Study guides
- Teacher reads assessments allowed
- Scheduled breaks
- Rephrase written directions
- Multisensory approaches
- Additional time
- Preview vocabulary
- Preview content & concepts
- Story guides
- Behavior management plan
- Highlight text
- Student(s) work with assigned partner
- Visual presentation
- Assistive technology
- Auditory presentations
- Large print edition
- Dictation to scribe
- Small group setting

Hi-Prep Differentiations:

- Alternative formative and summative assessments
- Choice boards
- Games and tournaments
- Group investigations
- Guided Reading
- Independent research and projects
- Interest groups
- Learning contracts
- Leveled rubrics
- Literature circles
- Multiple intelligence options
- Multiple texts
- Personal agendas
- Project-based learning
- Problem-based learning
- Stations/centers
- Think-Tac-Toes
- Tiered activities/assignments

- Tiered products
- Varying organizers for instructions

Lo-Prep Differentiations

- Choice of books or activities
- Cubing activities
- Exploration by interest
- Flexible grouping
- Goal setting with students
- Jigsaw
- Mini workshops to re-teach or extend skills
- Open-ended activities
- Think-Pair-Share
- Reading buddies
- Varied journal prompts
- Varied supplemental materials

Special Education Learning (IEP's & 504's)

- printed copy of board work/notes provided
- additional time for skill mastery
- assistive technology
- behavior management plan
- Center-Based Instruction
- check work frequently for understanding
- computer or electronic device utilizes
- extended time on tests/ quizzes
- have student repeat directions to check for understanding
- highlighted text visual presentation
- modified assignment format
- modified test content
- modified test format
- modified test length
- multi-sensory presentation
- multiple test sessions
- preferential seating

- preview of content, concepts, and vocabulary
- Provide modifications as dictated in the student's IEP/504 plan
- reduced/shortened reading assignments
- Reduced/shortened written assignments
- secure attention before giving instruction/directions
- shortened assignments
- student working with an assigned partner
- teacher initiated weekly assignment sheet
- Use open book, study guides, test prototypes

English Language Learning (ELL)

- teaching key aspects of a topic. Eliminate nonessential information
- using videos, illustrations, pictures, and drawings to explain or clarif
- allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning;
- allowing students to correct errors (looking for understanding)
- allowing the use of note cards or open-book during testing
- decreasing the amount of workpresented or required
- having peers take notes or providing a copy of the teacher's notes
- modifying tests to reflect selected objectives
- providing study guides
- reducing or omitting lengthy outside reading assignments
- reducing the number of answer choices on a multiple choice test
- tutoring by peers
- using computer word processing spell check and grammar check features
- using true/false, matching, or fill in the blank tests in lieu of essay tests

At Risk

- allowing students to correct errors (looking for understanding)
- teaching key aspects of a topic. Eliminate nonessential information
- allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning
- allowing students to select from given choices

- allowing the use of note cards or open-book during testing
- collaborating (general education teacher and specialist) to modify vocabulary, omit or modify items to reflect objectives for the student, eliminate sections of the test, and determine how the grade will be determined prior to giving the test.
- decreasing the amount of workpresented or required
- having peers take notes or providing a copy of the teacher's notes
- marking students' correct and acceptable work, not the mistakes
- modifying tests to reflect selected objectives
- providing study guides
- reducing or omitting lengthy outside reading assignments
- reducing the number of answer choices on a multiple choice test
- tutoring by peers
- using authentic assessments with real-life problem-solving
- using true/false, matching, or fill in the blank tests in lieu of essay tests
- using videos, illustrations, pictures, and drawings to explain or clarify

Talented and Gifted Learning (T&G)

- Above grade level placement option for qualified students
- Advanced problem-solving
- Allow students to work at a faster pace
- Cluster grouping
- Complete activities aligned with above grade level text using Benchmark results
- Create a blog or social media page about their unit
- Create a plan to solve an issue presented in the class or in a text
- Debate issues with research to support arguments
- Flexible skill grouping within a class or across grade level for rigor
- Higher order, critical & creative thinking skills, and discovery
- Multi-disciplinary unit and/or project
- Teacher-selected instructional strategies that are focused to provide challenge, engagement, and growth opportunities
- Utilize exploratory connections to higher-grade concepts
- Utilize project-based learning for greater depth of knowledge

Sample Lesson

Unit Name: First Aid - Respiratory Distress (Asthma)

NJSLS: (linked below)

Interdisciplinary Connection: English Literacy

Statement of Objective:

- SWDAT Compare and contrast what determines a scene to be safe and unsafe.
- SWDAT Identify signs and symptoms of an asthma attack.
- SWDAT Demonstrate and explain how to administer first aid to a person experiencing an asthma attack.
- SWDAT Compare and contrast the different forms of asthma medications.

Anticipatory Set/Do Now: Google Classroom Post - "What is asthma? What are some triggers of an Asthma attack?"

Learning Activity: Through the use of powerpoint, video analysis, personal experiences, and discussions, students will discuss the signs/symptoms, causes and first aid care for asthma attacks. Students will discuss the types of medications and how to take them.

Asthma Simulation - Students will run in place for 60 seconds, then breathe through a straw. Students will run in place for an additional 60 seconds, while breathing through the straw, then when they finish running they will breathe through a beverage stirrer. Students will explain how they felt during this activity. Students will be reminded that they are lucky enough to remove this straw when people with asthma do not have that option.

Student Assessment/CFU's: What Stuck With You? post its

Materials: Smart TV, Powerpoint, Chromebooks, "How Asthma Works" Video

21st Century Themes and Skills:(linked)

Differentiation:(linked)

Integration of Technology: Powerpoint, Google Classroom, video

HPE.2.1.12.C.1	Determine diseases and health conditions that may occur during one's lifespan and identify prevention and treatment strategies.
HPE.2.1.12.D.6	Demonstrate first-aid procedures, including Basic Life Support and automatic external defibrillation, caring for head trauma, bone and joint emergencies, caring for cold and heat injuries, and responding to medical emergencies.
HPE.2.1.12.D.CS2	Applying first-aid procedures can minimize injury and save lives.
HPE.2.3.12.A.CS1	Medicines come in a variety of forms (prescription medicines, over-the-counter medicines, medicinal supplements), are used for numerous reasons, and should be taken as directed in order to be safe and effective.