03_Unit 3: Non-Communicable/Communicable Diseases

Content Area: **Physical Education/Health**
Course(s):
Time Period: **Marking Period**
Length: **1 1/2 weeks**
Status: **Published**

General Overview, Course Description or Course Philosophy

Overall wellness is framed around a balanced lifestyle. Individuals need to understand the importance of mental health, physical fitness, and nutrition as it relates to weight management and the prevention of diseases and illness. Preventing injury and knowing how to react in life threatening situations is also crucial. Students will gain knowledge in CPR/AED skills and learn how to implement them correctly. Students will also explore various health related careers and coaching principles to enhance personal goal setting and real life skill sets for the future.

OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

Unit 3 - 1 1/2 weeks - 5-6 Classes

Noncommunicable diseases develop due to genes, diet, behaviors, and other factors. Treatment for noncommunicable diseases usually involves a combination of methods, including behavioral changes, medications, and therapy. Specific disease-causing microorganisms, called pathogens, cause specific diseases. Pathogens can spread between living organisms and objects therefore, communicable diseases can too. Communicable diseases, also known as infectious diseases, are capable of being passed from one person to another, therefore it is imperative to know how to protect ourselves.

Essential Questions:

- What factors lead to the development of a noncommunicable disease?
- How do cardiovascular diseases affect the body, and how can they be prevented?
- How does cancer affect the body?
- What other noncommunicable diseases can affect a person's health?

- What causes communicable diseases?
- What skills can you use to protect yourself and others from communicable diseases?

Enduring Understandings:

- Noncommunicable diseases are diseases that develop due to genes, diet, behaviors, and other factors. These diseases occur when the body's state of homeostasis, or internal balance, is disrupted.
- If the heart's supply of oxygen becomes restricted or cut off, the heart's muscle cells die quickly. When its

cells die, the heart muscle weakens and stops circulating blood. This can be prevented by exercising every day, proper nutrition, reducing stress, avoiding alcohol and drugs, and getting the proper amount of sleep.
● Abnormal cells reproduce uncontrollably, forming malignant tumors that spread throughout the body.
● The most common noncommunicable diseases in the US are cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases like asthma. Other common noncommunicable diseases include allergies, arthritis, Alzheimer's disease and other kinds of dementia, epilepsy, and osteoporosis.

● Communicable diseases are caused by organisms too small to see with the naked eye.
● Specific disease-causing microorganisms, called pathogens, cause specific diseases.
● Pathogens can spread between living organisms and objects therefore, communicable diseases can too.
● Strategies include promoting resistance to infection, washing your hands, using respiratory etiquette, and getting vaccinations.

CONTENT AREA STANDARDS

NJSLS - Comprehensive Health and Physical Education
2.1.12.CHSS.6: Evaluate the validity of health information, resources, services, in school, home and in the community.
2.3.12.HCDM.1: Develop a health care plan to help prevent and treat diseases and health conditions one may encounter (e.g., breast/testicular exams, Pap smear, regular STIs testing, HPV vaccine).
2.3.12.HCDM.2: Provide examples of how drugs and medication mimic or block the action of certain cells in the body, and how abusing drugs can affect the human body.
2.3.12.HCDM.4: Evaluate emerging methods to diagnose and treat diseases and health conditions that are common in young adults in the United States and in other countries (e.g., hepatitis, stroke, heart attacks, cancer,).
2.3.12.HCDM.5: Analyze local, state, and international public health efforts to prevent and control diseases and health conditions (e.g., vaccinations, immunizations, medical exams, gene editing, artificial organ systems, prosthesis).

RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)

NJSLS - Career Readiness, Life Literacies, and Key Skills
9.4.12.CI.1: Demonstrate the ability to reflect, analyze, and use creative skills and ideas.
9.4.12.IML.2: Evaluate digital sources for timeliness, accuracy, perspective, credibility of the source, and relevance of information, in media, data, or other resources (e.g., NJSLSA.W8, Social Studies Practice: Gathering and Evaluating Sources.)
9.4.12.CT.1: Identify problem-solving strategies used in the development of an innovative product or practice (e.g., 1.1.12acc.C1b, 2.2.12.PF.3).
9.4.12.CT.2: Explain the potential benefits of collaborating to enhance critical thinking and problem solving (e.g., 1.3E.12profCR3.a).

STUDENT LEARNING TARGETS

Non-Communicable Diseases:

1. Contrast communicable and noncommunicable diseases
2. Explain how noncommunicable diseases develop

3. Analyze the causes of noncommunicable diseases
4. Describe how noncommunicable diseases progress
5. Discuss how doctors diagnose and plan treatment for noncommunicable diseases
6. Explain how the heart and blood vessels work together to circulate blood throughout the body
7. Differentiate between arteriosclerosis and atherosclerosis
8. Analyze the consequences of hypertension;
9. Discuss how diseases of the blood vessels and hypertension can lead to a stroke or heart attack
10. Describe what happens in congestive heart failure
11. Identify the symptoms of arrhythmias and mitral valve prolapse
12. Assess steps for preventing and treating cardiovascular diseases
13. Explain how cancer develops; differentiate between benign and malignant tumors
14. Analyze the factors and behaviors that influence cancer risk
15. Identify common types of cancer
16. Assess strategies for preventing cancer
17. Describe treatment options for cancer
18. Differentiate between type 1 and type 2 diabetes mellitus
19. Explain how Alzheimer's disease (AD) affects the brain
20. Describe the symptoms of epilepsy;
21. Identify different types of arthritis;
22. Describe how osteoporosis affects bone health
23. Describe how the body responds in an allergic reaction & explain how asthma impacts breathing

Communicable Diseases:

1. Explain what makes a disease communicable
2. Identify different types of pathogens
3. List the stages of infection

4. Analyze the different ways communicable diseases spread to others

5. Assess how the body defends itself from pathogens and disease

6. Differentiate between signs and symptoms of diseases

7. Identify common infections of the respiratory system

8. List the symptoms of common communicable diseases such as the stomach flu, athlete's foot, pink eye, impetigo, MRSA, mononeucleosis, meningitis, hepatitis, and tetanus

9. Describe the impact of emerging infectious diseases

10. Explain ways to promote resistance to infections

11. Describe the importance of washing your hands

12. Analyze how vaccination prevents disease

13. Describe ways of treating bacterial, viral, fungal, and parasitic infections

Declarative Knowledge

Students will understand that:

Analyze the steps necessary in obtaining a NJ driver license.

Examine the NJMVC administrative laws on permits and licensing.

Characterize and describe what is needed for obtaining a license.

Have students turn to the person next to them and test each other to see if one can name all the components of requirements necessary for obtaining a NJ driver License.

Have students form into five groups to prepare for a team quiz by reviewing the five steps: a learning permit and an examination permit. See which group volunteers the most effective answers.

Set up an eye chart, have students stand the appropriate distance and take the test. Discuss

why it is important.

Procedural Knowledge

Students will be able to:

1. Identify the steps involved in a GDL program, 6 points ID program and

vehicle registration in New Jersey.

2. Explain the difference between the Early Bird Road and the Young Adult road permit systems.

3. Identify the five steps for obtaining a learning permit and an examination permit.

4. Compare limitations for the special, examination and probationary permits. 5. Explain the GDL exemptions, special learner permits and examination

permits for NJ residents.

6. Explain why altering a driver license is illegal and identify the consequences. 7. Explain why an application for a driver license may be rejected (test

performance, expired inspection

sticker, condition of the vehicle etc. 8. Describe the requirements for NJ driver test (6 point verification, vision test and knowledge test). Describe the screening test (eye sight, written test, health screening).

9. Describe the road test.

10. Analyze why an application for a driver license may be rejected (test

performance, expired inspection

sticker, condition of the vehicle etc

EVIDENCE OF LEARNING

Refer to the 'Formative Assessments' and 'Summative Assessments' sections.

Formative Assessments

Lesson Review Glencoe Health Book

Teacher Created Worksheet

Summative Assessments

Unit Test

Chapter Reviews

RESOURCES (Instructional, Supplemental, Intervention Materials)

Glencoe Health Book

Chromebooks

Teacher/Administrative Approved Research Sites

Noncommunicable Diseases: What You Should Know
- https://youtu.be/F3SEhwWyDGY
- https://youtu.be/NU3m4P_mYv8

Cancer: Cells out of Control
- https://youtu.be/GhfrHjBX5eA

Diabetes, Allergies, Asthma, and Arthritis
- Diabetes: https://youtu.be/7ddEi2h-k6c
- Allergies: https://youtu.be/1YrKVobZnNg
- Asthma: https://youtu.be/uBT94QxL7AE
- Arthritis: https://www.webmd.com/arthritis/video/rippe-arthritis-any-age

Assignment Discovery - Understanding Viruses (51:11) - youtube

Spredability of Covid - 19 vs. Influenza

https://www.youtube.com/watch?v=PWzbArPgo-o&t=237s

https://nmaus.org/meningococcal-disease/#resources

https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html

https://www.meetmeningitis.com/get-acquainted-with-meningitis

https://www.nmaus.org/wp-content/uploads/2019/04/Alembic_NMA_Map_r28.pdf

https://www.cdc.gov/meningococcal/about/causes-transmission.html

INTERDISCIPLINARY CONNECTIONS

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

See link to Accommodations & Modifications document in course folder.