



FOUNDATION SKILLS

PATHWAY: All Pathways
COURSE: All CTAE Courses
UNIT 7.6: Pandemics



INTRODUCTION

Annotation:

This lesson focuses on the possible effects of a pandemic on their career field. Students will learn about past pandemics and present diseases that could become pandemics, including bird flu and swine flu. Students will contemplate their actions and the actions of the general public, their co-workers and family should a pandemic occur.

Grade(s):

X	9 th
X	10 th
X	11 th
X	12 th

Time:

2 hours

Author:

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Additional Author(s):

Students with Disabilities:

For students with disabilities, the instructor should refer to the student's IEP to be sure that the accommodations specified are being provided. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation.



FOCUS STANDARDS

GPS Focus Standards: Please list the standard and elements covered.

- **CTAE-FS-7 Safety, Health and Environment.** Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance

National / Local Standards / Industry / ISTE:

- **ESS06. Safety, Health and Environmental.** Understand the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. Follow organizational policies and procedures and contribute to continuous improvement in performance and compliance.



UNDERSTANDINGS & GOALS

Enduring Understandings:

- Historically, there have been many pandemic events worldwide. It is important to be able to understand what a pandemic is and how it affects every industry and every person.

Essential Questions:

- What is a pandemic?
- What causes pandemic?
- What are examples of historical pandemics?
- What current illnesses have “pandemic potential”?
- How would a pandemic affect the economy?

Knowledge from this Unit: Factual information.

- **Students will be able to:**
 - Define pandemic.
 - Identify between a pandemic and epidemic.
 - Recognize the different historical pandemics.
 - List present sicknesses that could become future pandemics.

- Describe different treatments for pandemic illnesses.

Skills from this Unit: Performance.

- Predict their actions as well as those around them should a pandemic occur and the effects on the economy and their career area.
- Prescribe possible actions to lessen the effects of a pandemic on themselves, their family, and their industry.



ASSESSMENT(S)

Assessment Method Type: Select one or more of the following. Please consider the type(s) of differentiated instruction you will be using in the classroom.

- Pre-test
- Objective assessment - multiple-choice, true- false, etc.
 - Quizzes/Tests
 - Unit test
- Group project
- Individual project
- Self-assessment - May include practice quizzes, games, simulations, checklists, etc.
 - Self-check rubrics
 - Self-check during writing/planning process
 - Journal reflections on concepts, personal experiences and impact on one's life
 - Reflect on evaluations of work from teachers, business partners, and competition judges
 - Academic prompts
 - Practice quizzes/tests
- Subjective assessment/Informal observations
 - Essay tests
 - Observe students working with partners
 - Observe students role playing
- Peer-assessment
 - Peer editing & commentary of products/projects/presentations using rubrics
 - Peer editing and/or critiquing
- Dialogue and Discussion
 - Student/teacher conferences
 - Partner and small group discussions
 - Whole group discussions
 - Interaction with/feedback from community members/speakers and business partners
- Constructed Responses
 - Chart good reading/writing/listening/speaking habits
 - Application of skills to real-life situations/scenarios
- Post-test

Assessment(s) Title:

1. Pandemic Unit Exam

2. Pandemic Word Scramble

Assessment(s) Description/Directions:

Attachments for Assessment(s): Please list.

3. Pandemic Unit Exam
4. Pandemic Word Scramble



LEARNING EXPERIENCES

Instructional planning: Include lessons, activities and other learning experiences in this section with a brief description of the activities to ensure student acquisition of the knowledge and skills addressed in the standards. Complete the sequence of instruction for each lesson/task in the unit.

Sequence of Instruction

1. Identify the Standards. Standards should be posted in the classroom for each lesson.

- o **CTAE-FS-7 Safety, Health and Environment.** Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance

2. Review Essential Questions.

- a. What is a pandemic?
- b. What causes pandemic?
- c. What are examples of historical pandemics?
- d. What current illnesses have “pandemic potential”?
- e. How would a pandemic affect the economy?

3. Identify and review the unit vocabulary.

Antibiotics– having the capacity in dilute solutions to inhibit the growth of or to destroy bacteria and other microorganisms, used chiefly in the treatment of infectious diseases

Bubonic Plague – zoonotic disease transmitted by flea bites; causes large swelling of the lymph nodes

Lymph Node – any of the small bodies located along the lymphatic vessels, particularly at the neck, armpit, and groin, that filter bacteria and foreign particles from lymph fluid. During infection, lymph nodes may become swollen with activated lymphocytes

Malaria – zoonotic disease caused by a parasite and is transmitted by the bites of infected mosquitoes;

Cholera – acute intestinal infection causes by ingesting food or water that is contaminated.

Contagious – capable of being transmitted by bodily contact with an infected person or object

Disease – any abnormal condition that interferes with vital physiological processes, caused by pathogenic microorganisms, parasites, unfavorable environmental, genetic, or nutritional factors, etc.

Epidemic – affecting many persons at the same time and spreading from person to person in a locality where the disease is not permanently prevalent; generally a disease or condition that is not infectious or contagious

Eradicate – to remove or destroy utterly

H1N1 – sub-type of influenza of swine origin

H5N1 – sub-type of influenza of avian origin

Infectious – communicable by infection, as from one person to another or from one part of the body to another

Influenza – an acute, commonly epidemic disease, occurring in several forms, caused by numerous rapidly mutating viral strains and characterized by respiratory symptoms and general prostration

characterized by attacks of chills, fever, and sweating

Pandemic – spread of infectious diseases through large regions of populations; has to be both infectious and contagious

Smallpox – contagious disease caused by a virus and is said to have originated over 3,000 years ago in India or Egypt

Spanish Flu of 1918 – the largest influenza pandemic that spread to nearly every part of the world

Supportive Therapy – any form of treatment intended to relieve symptoms or help the patient live with them rather than attempt changes in character structure

Vaccination – any preparation used as a preventive inoculation to confer immunity against a specific disease

Virus – any of various simple submicroscopic parasites of plants, animals, and bacteria that often cause disease; unable to replicate without a host cell

Yellow Fever – zoonotic disease transmitted by mosquitoes between humans and monkeys

Zoonotic – can be transferred from animals to humans

4. Show the PowerPoint on Pandemic and discuss the different types of pandemics and how to recognize them.

5. Ask the students what the difference is between a pandemic and an epidemic.
 - The answer is that a pandemic is at a much larger scale than an epidemic. Also, epidemics don't have to be infectious and contagious (ex: cancer) while a pandemic has to be both infectious and contagious.

6. Ask the students how a possible pandemic could affect their future career paths.
 - The answers are not as important as students realizing that no matter what career path they are in, the pandemic would affect it.

Attachments for Learning Experiences: Please list.

1. Pandemic PowerPoint
2. Pandemic Word Scramble

Notes & Reflections:

CULMINATING PERFORMANCE TASK (Optional)

Culminating Unit Performance Task Title:

- **Optional:** The teacher may ask the student to write a short paper on how a possible pandemic could affect their chosen career paths. There are many different reasons that they can come up with and this activity will help them better understand just how much the economy will be affected by a pandemic.

Culminating Unit Performance Task Description/Directions/Differentiated Instruction:

Attachments for Culminating Performance Task: Please list.



UNIT RESOURCES

Web Resources:

Attachment(s): Supplemental files not listed in assessment, learning experiences, and performance task.

Materials & Equipment:

What 21st Century Technology was used in this unit?

<input checked="" type="checkbox"/>	Slide Show Software	<input type="checkbox"/>	Graphing Software	<input type="checkbox"/>	Audio File(s)
<input type="checkbox"/>	Interactive Whiteboard	<input type="checkbox"/>	Calculator	<input type="checkbox"/>	Graphic Organizer
<input type="checkbox"/>	Student Response System	<input type="checkbox"/>	Desktop Publishing	<input checked="" type="checkbox"/>	Image File(s)
<input type="checkbox"/>	Web Design Software	<input type="checkbox"/>	Blog	<input type="checkbox"/>	Video
<input type="checkbox"/>	Animation Software	<input type="checkbox"/>	Wiki	<input type="checkbox"/>	Electronic Game or Puzzle Maker
<input type="checkbox"/>	Email	<input checked="" type="checkbox"/>	Website		