



PANDEMIC: LEARNING FROM THE PAST, PLANNING FOR THE FUTURE

Subject: Health | Current: 2010 | Grade: 9-12

Day: 1 of 2

1 Purpose

----- To describe a pandemic, emphasizing factors in day-to-day life that influence the spread of illness.

2 Duration of Lesson

----- 50 minutes

3 Additional Topics

----- Social Studies

4 Objectives

----- At the conclusion of this lesson, students will be able to:

- define common terms associated with a pandemic
- describe the 1918 influenza pandemic, emphasizing factors that enhanced the spread of the disease
- compare day-to-day life currently in the United States with that of 1918 in terms of entertainment, communication, transportation and medical care
- develop 4 general recommendations related to entertainment, communication, transportation and/or medical care to reduce the spread of disease during a future pandemic

5 Standards Addressed

----- HEALTH CAREERS EDUCATION:

INTRODUCTION TO HEALTHCARE SYSTEMS

The disease process: Describe behaviors that reduce risks of infectious diseases.

HCSY.9

Diagram and explain the infectious disease process.

HCSY.9.1

Diagram and explain the infectious disease process.

HCSY.9.1



Name disease causing microorganisms.

HCSY.9.2

Describe common signs/symptoms of infectious diseases.

HCSY.9.5

SOCIAL STUDIES- GEOGRAPHY OF HISTORY AND THE WORLD

Students will examine the physical and human geographic factors associated with examples of how humans interact with the environment, such as deforestation, natural hazards and the spread of diseases, and the regional and global consequences of these interactions.

GHW.9

Distinguish and assess the human and physical factors associated with the spread of selected epidemics and/or pandemics over time and describe the impact of this diffusion on countries and regions. Propose strategies for limiting the spread of diseases.

GHW.9.4

Example: Europe (Black Death, Bubonic Plague): spread from Central Asia, dramatic decrease in population (fourteenth century); North America (Native Americans): Europeans bringing smallpox and measles to New World (1500s); World: the cholera pandemic (1700-1800s), Influenza Pandemic (1918-1919), the AIDS epidemic (1900s); Asia and United States: the potential for a bird flu pandemic and the response by the United States with the help of the Centers for Disease Control (2007).

Indiana Department of Education. (n.d.). Indiana Standards and Resources: Social Studies: World Geography, Sociology, and U.S. Government. Retrieved from <http://dc.doe.in.gov/Standards/AcademicStandards/StandardSearch.aspx>

6 Vocabulary

----- These terms are included in the lesson plan:

- **Epidemic:** a widespread outbreak of an infectious disease in a community or country
- **Infectious:** contagious, capable of spreading rapidly to others
- **Influenza:** flu, infectious disease caused by a virus
- **Pandemic:** a outbreak of an infectious disease that spreads to multiple countries in various regions of the world



7 Materials

----- Materials to aide the lesson plan include:

- ABC news video clip, “The Flu Epidemic of 1918” - <http://www.youtube.com/watch?v=z5zFmCwfxHM>
- U.S. Department of Human Services website, “The Great Pandemic: The United States in 1918-1919” - <http://1918.pandemicflu.gov/index.htm>

8 Additional Resources

----- Additional Resources include:

- Classroom computer with projector for viewing video
- Individual computers for students to access website, completion of independent practice

9 Procedures & Methods

----- The lesson plan’s course is as follows:

A. Introduction

Pandemic! It’s a word that can change the way we live our lives. From schools to hospitals, businesses to governments, all must react in unison to the potential threat.

What is a pandemic? To explain pandemic, one must understand the term epidemic. An epidemic describes a widespread outbreak of an infectious disease in a community or country. As the outbreak spreads to multiple countries in various regions of the world, it becomes a pandemic.

Although epidemics and pandemics can be caused by a variety of infection agents (e.g. viruses, bacteria, parasites, etc. . .), viruses appear to be a common cause. In the past 100 years, there have been 4 pandemics, all caused by influenza (flu) viruses. These were the 1918 Spanish flu, the 1957 Asian flu, the 1968 Hong Kong flu and the 2009 Swine (also called H1N1) flu. For most people, the 2009 pandemic was a story reported in the news. Because the symptoms were so mild there was little impact on local schools, hospitals, businesses and government. However, for those living in 1918, the effects were enormous. Not only was the flu deadly for those who became infected, it was also very easily spread. The purpose of this lesson is to learn more about pandemics, especially how they are spread.



B. Development

Next, take a look at this short video clip describing the 1918 pandemic - <http://www.youtube.com/watch?v=z5zFmCwfxHM>. While watching, think about how the flu was so readily spread within communities and across the world.

Individually (or in pairs, if desired), access information related to the 1918 pandemic at <http://1918.pandemicflu.gov/index.htm>. Although students may browse the entire site, they should focus the majority of their time reading the sections entitled, “Life in 1918” and “The Pandemic.” Students may find it helpful to take notes for use in the practice and independent practice activities.

C. Practice

Following review of the video and website, students will return to the group. They will describe entertainment, communication, transportation and medical care in the U.S. in 1918 and discuss how these may have influenced the spread of the disease. In addition, they will compare day-to-day life currently in the United States with that of 1918 in terms of entertainment, communication, transportation and medical care.

D. Independent Practice

Students will be asked to develop 4 general recommendations related to entertainment, communication, transportation and/or medical care to reduce the spread of disease during a future pandemic. This assignment will be due at the next class meeting.

E. Accommodations (Differentiated Instruction)

For students who have difficulty with comprehension issues, a graphic organizer such as a Venn diagram or a compare/contrast chart may be used to provide a more concrete way to complete the Practice portion of the lesson.

Two excellent children’s books have been written on the 1918 flu. *Purple Death: The Mysterious Flu of 1918* (David Getz, 2000) would be helpful to students whose reading level is comparable to those at upper elementary to early middle school. *The Influenza Pandemic of*

1918 (Claire O’Neal, 2007) is written for elementary students. Both books would provide support to ELL students or others who have difficulty reading grade-level literature. These materials would provide an alternate source for the material written on the website.

High ability/gifted students may want to go further in depth and research the four different pandemics, comparing and contrasting the issues involved with each.



F. Checking for understanding

- Students will be asked to define infectious in their own words
- Students will be asked to identify the difference between an epidemic and a pandemic
- Students will be asked to describe how they would communicate with family and friends if they lived in 1918

G. Closure

- Review terms
- Summarize key differences between day-to-day life in 1918 and the present
- Identify related careers. Careers related to this lesson include nursing, physician, health educator, epidemiologist and laboratory technician. For more information, students may visit the following links - <http://www.whatispublichealth.org/careers/index.html> , <http://pathwaystopublichealth.org/High-School-Students/26/> , and <http://www.cdc.gov/excite/careers/> .
- Assign independent practice

10 Evaluation

Students will be evaluated by their participation in group discussion and completion of written assignment.

The group discussion will be graded in a pass/fail manner. Students able to characterize life in 1918, describe its impact on the spread of disease and/or compare current day-to-day life with that of 1918 will receive full credit. Students experiencing difficulties may be assisted through open-ended questioning (i.e. How do you think the lack of telephones and computers in 1918 affected the spread of the disease?) by the teacher. Students unable to meet the standard above will not receive credit.

The written assignment will be graded in a pass/fail manner. Students who have developed 4 general recommendations related to entertainment, communication, transportation and/or medical care to reduce the spread of disease during a future pandemic will receive full credit. Because the assignment encourages students to think broadly, it is not possible to include a list of correct answers. Answers that include a targeted topic (entertainment, communication, transportation and medical care) and a action likely to reduce exposure among individuals will be considered correct.



11 Teacher Reflection

----- To be completed by teacher following the lesson.

12 Resources & Media

- ABC news video clip, “The Flu Epidemic of 1918” - <http://www.youtube.com/watch?v=z5zFmCwfxHM>
- U.S. Department of Human Services website, “The Great Pandemic: The United States in 1918-1919” - <http://1918.pandemicflu.gov/index.htm>
- <http://www.whatispublichealth.org/careers/index.html>
- Purple Death: The Mysterious Flu of 1918 (David Getz, 2000)
- The Influenza Pandemic of 1918 (Claire O’Neal, 2007)

	3 points	3 points	3 points
Group Discussion	Student is able to characterize life in 1918, describe its impact on the spread of disease and/or compare current day-to-day life with that of 1918	Student is able to somewhat characterize life in 1918, describe its impact on the spread of disease and/or compare current day-to-day life with that of 1918	Student is not able to characterize life in 1918, or cannot describe its impact on the spread of disease and/or compare current day-to-day life with that of 1918
Written Assignment	Student is able to develop 4 general recommendations related to entertainment, communication, transportation and/or medical care to reduce the spread of disease during a future pandemic	Student is able to develop 2-3 general recommendations related to entertainment, communication, transportation and/or medical care to reduce the spread of disease during a future pandemic	Student is able to develop 1 general recommendations related to entertainment, communication, transportation and/or medical care to reduce the spread of disease during a future pandemic
Points earned per column			

Total points:

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