

Episode One Lesson Plan: Geographic Luck

This lesson is designed for students studying geography, world history, economics, and life science in grades 6-12.

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Lesson Objectives:

Students will be able to:

1. Hypothesize about why some countries have accumulated great riches over time while other remained historically poor and share these ideas with classmates in small and large group discussions.
2. Discuss the features of various land masses using an online map from the “Guns, Germs, and Steel” website.
3. Use listening and note taking skills to view the film segment and complete the accompanying viewing guide accurately.
4. Discuss what they have learned by providing specific reasons, facts, and examples from the film and their notes.
5. Utilize a number of primary sources to conduct research about plants and animals.
6. Teach others what they have learned by creating a game based upon their research and directing/interacting with other students as they play the game.
7. State their opinions about Jared Diamond’s theory and support these opinions with specific reasons, facts, and examples.

Relevant National Standards:

World History

Standard 27: Understands how European society experienced political, economic, and cultural transformation in the age of global intercommunication between 1450 and 1750.

Standard 29: Understands the economic, political, and cultural interrelations among peoples of Africa, Europe, and the Americas between 1500 and 1750.

Geography

The World in Spatial Terms

Standard 1: Understands the characteristics and uses of maps, globes, and other geographic tools and technologies

Standard 2: Knows the location of places, geographic features, and patterns of the environment

Standard 3: Understands the characteristics and uses of spatial organization of Earth’s surface

Places and Regions

Standard 4: Understands the physical and human characteristics of place

Standard 5: Understands the concept of regions

Human Systems

Standard 9: Understands the nature, distribution, and migration of human populations on Earth's surface

Standard 12: Understands the patterns of human settlement and their causes

Uses of Geography

Standard 17: Understands how geography is used to interpret the past

Science

Life Sciences

Standard 6: Understands relationships among organisms and their physical environment

Language Arts

Writing:

Standard 4: Gathers and uses information for research purposes

Reading:

Standard 7: Uses reading skills and strategies to understand a variety of information texts.

Listening and Speaking:

Standard 8: Uses listening and speaking strategies for different purposes

Viewing:

Standard 9: Uses viewing skills and strategies to understand and interpret visual media.

Thinking and Reasoning:

Standard 1: Understands and applies the basic principles of presenting an argument

Standard 5: Applies basic trouble-shooting and problem-solving techniques

Standard 6: Applies decision-making techniques

Working With Others

Standard 1: Contributes to the overall effort of the group

Standard 4: Displays effective interpersonal communication skills

Estimated Time:

Approximately 3 90-minute or 5 to 6 45-minute class periods

Materials Needed:

- Internet access to allow for viewing of companion website's "The World" map feature and conducting research
- Television/vcr for viewing "Guns, Germs, and Steel: Episode 1" content
- Viewing Guide handout for each student (printable copy provided with lesson plan)
- Library/primary resources for conducting research
- Research Project Guidelines for each student (printable copy provided with lesson plan)
- Assorted art supplies including poster board, construction paper, markers, glue, colored pencils, re-sealable bags, etc. for construction of games and packaging

For more GUNS, GERMS, AND STEEL lesson plans...go to: www.pbs.org/gunsgermsteel/

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Backgrounder for Teachers:

Jared Diamond's basic theory is that some countries developed more rapidly than others and were able to expand and conquer much of the world because of geographic luck. The natural resources available to them coupled with the native species and climate provided by their geography led them to become more agricultural and less reliant on hunting and gathering for sustenance. This agrarian lifestyle, in turn, allowed for the development of "specialists" within the civilization who could work on developing and perfecting the technologies necessary to make these civilizations more profitable, stronger, and more powerful than others around them. Diamond asserts that those living in temperate climates with indigenous animals that could be domesticated were more likely to develop advanced civilizations.

Assumed Student Prior Knowledge

Students will need to have a basic understanding of latitude and longitude and the location and size of the world's continents. In addition, students will need to understand the words "cultivate" and "domesticate".

Teaching Strategy:

Part 1: Geographic Luck

1. The land of riches and opportunity is how most people worldwide would describe America. We are, undisputedly, the richest nation on Earth. Yet when we examine America's history, we learn that our riches do not date back thousands of years like China or the areas of the Middle East once referred to as the "Fertile Crescent". Rather, America has gained its riches over a relatively short period of time.
2. To get students interested in and focused on the topic, have them answer the following question quietly, in writing.
 - Why do some countries have an abundance of wealth and riches while others have remained poor for most of their history?Once students have answered this question in writing, have them work in pairs or small groups to share their answers with one another. Provide 2-3 minutes for students to share their answers and discuss their ideas with one another.
3. Next, introduce students to the "The World" feature from the Guns, Germs, and Steel website available at <http://www.pbs.org/gunsgermsteel/world/index.html>. Click on each of the featured sections of the map and read the information related to that section. Then discuss the map using the following questions:
 - Looking at the map, why do you think areas like North America, Europe, and Asia have some much technological development and wealth while huge continents like Africa have high rates of poverty and disease and remain relatively undeveloped?
 - How has a relatively isolated continent like Oceania managed to advance technologically and build the relatively wealthy nation of Australia and have other areas, such as New Guinea, where technological advances are few and wealth are much less?
 - After studying the map and reading the information about each key area, what theories do you have about why most of the wealth in the world is found in areas north of the Tropic of Cancer (23.5 degrees N. latitude)?
4. Explain to students that Jared Diamond, a famed author and professor, has spent more than 30 years developing a theory about why some civilizations have developed more quickly than others. His idea that geography determines the wealth of a civilization is explained in

“Guns, Germs, and Steel Episode 1”. Use this introduction, along with the **Viewing Guide** to introduce the film. Have students view Episode 1 in its entirety. Pause to discuss questions from the Viewing Guide as needed.

5. Once all students have had a chance to view Episode 1 and complete the Viewing Guide, facilitate a classroom discussion about the questions presented on the guide. Encourage students to give specific examples from the program to support their ideas.

Part 2: Which Plants and Animals Made People Geographically Lucky?

1. Explain to students that they will now be working to learn more about how the U.S. became the richest nation on earth. They will do this by exploring Diamond’s theory of geography and how it applies to the U.S.
2. Use the “Guns, Germs, and Steel” website section entitled “Variables” available at <http://www.pbs.org/gunsgermssteel/variables/index.html>, and pay specific attention to the content in the sections entitled “Crops” and “Animals”. Using this information along with other primary sources, students will work in pairs or small groups to learn about how a specific plant or animal was introduced to the U.S. and discuss how this impacted the country. Each pair or group will focus on a specific plant or animal and present their findings to the class.
3. Using the **Research Project Guidelines**, have students begin work on their projects. Provide classroom time for researching and constructing games.
4. Once all projects have been completed, each pair/group should take 1-2 minutes to present the game they have created to the class. Students will then take turns playing one another’s games in order to learn about each specific plant or animal.
5. After all games have been presented and played, ask students to respond to the following question in writing using specific things they have learned to support their opinions.
 - Do you agree or disagree with Jared Diamond’s theory about geography being the main determining factor in which countries became rich and powerful through the development of technology and conquest and which countries remain impoverished and underdeveloped in relation to the rest of the world. Explain your reasons why using specific reasons, facts, and examples.

Assessment Suggestions:

1. Students could receive participation scores/grades for involvement in class discussion, group presentation, and game-playing activities.
2. Students could receive completion or accuracy grades for their work on the Viewing Guides.
3. Students could complete peer evaluations or be graded using a scoring guide for completion of the research project/production of the games.
4. Students should receive individual grades on the follow-up written opinion essay asking them to discuss their opinions about Diamond’s geographic luck theory.

Extension Ideas:

1. Have students share what they have learned by using the games they have created to teach students in younger grades about the historical significance of the plants and animals they studied and about how cultivation and domestication of these animals was important to creating civilizations around the world.

2. Expand student research and have the class look at some of the most historically important societies that have evolved throughout history. Research the importance of plants and animals in the development of the great Greek, Roman, Egyptian, Inca, Mayan, Zulu, Khoi San, and Chinese, and other empires. Report these results back using the creation of games of by creating museum-type displays of what was learned.

Related Resources:

“Guns, Germs, and Steel” website sections entitled:

The World (interactive map activity) <http://www.pbs.org/gunsgermsteel/world/index.html>

Variables (“The story of...” features content about various plants and animals) <http://www.pbs.org/gunsgermsteel/variables/index.html>

Cyberspace Farm

<http://www.cyberspaceag.com/farmanimals/default.htm>

provides a short history of common farm animals and crops and how these have evolved over time as agriculture has advanced technologically

Food and Agriculture Organization of the United Nations

http://www.fao.org/waicent/FAOINFO/agricult/aga/AGADA_en.asp

provides links to a variety of animal species along with information about how these animals shaped the development of civilizations throughout history

U.S. Department of Agriculture

http://www.usda.gov/wps/portal/!ut/p/s.7_0_A/7_0_1OB?navid=SEARCH&q=genetic+engineering+of+plants

find information and resources about the genetic engineering of plants

About the Author:

Lisa Proski is an independent educational consultant who taught middle school and high school English, social studies, reading, and technology courses for twelve years. Proski has worked extensively with PBS authoring and editing many lesson plans for various PBS programs and TeacherSource. In addition to conducting workshops for teachers at various state and national meetings, Proski also works with many corporate clients creating training programs and materials, facilitating leadership and operations workshops, and providing instructional support for new program rollouts. Proski has authored one book and also serves as an editor for other writers of instructional materials.