

In the Wake of Columbus: Decline of Indigenous Peoples

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Grade Levels 4-6
Duration 1 class period

National Standards

GEOGRAPHY

Element 4: Human Systems

9. Characteristics, distribution, and migration of human populations on Earth's surface.

AZ Standards

MATHEMATICS

Geometry

4.OA.C.6 When solving problems, assess the reasonableness of answers using mental computation and estimation strategies including rounding.

5.G.2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation.

Summarize and describe distributions.

6.SP.B.4 Display and interpret numerical data by creating plots on a number line including histograms, dot plots, and box plots.

6.SP.B.5 Summarize numerical data sets in relation to their context by:

- Reporting the number of observations.
- Describing the nature of the attribute under investigation including how it was measured and its units of measurement.
- Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
- Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Standards for Mathematical Practice

4.MP.4 and 5.MP.4. Model with mathematics.

4.MP.5 and 5.MP.5. Use appropriate tools strategically.

Arizona Social Science Standards

GEOGRAPHY

The use of geographic representations and tools help individuals understand their world.

4.G1.1 Use and construct maps and graphs to represent changes in the Americas over time.

Key concepts include but are not limited to human and physical features of the Americas, trade and exploration routes, the location of civilizations and societies in the Americas including indigenous peoples, and settlement patterns including the development of the Southern, Middle, and New England Colonies

Examining human population and movement helps individuals understand past, present, and future conditions on Earth's surface.

5.G3.1 Use key historical events with geographic tools to analyze the causes and effects of environmental and technological events on human settlements and migration.

Key concepts include but are not limited to consequences of territorial expansion on American Indians, the institution of slavery, the positive and negative impact of new technologies on the environment and the growth of cities, and the impact of transportation and infrastructure on settlement and migration

Global interconnections and spatial patterns are a necessary part of geographic reasoning.

6.G4.2 Describe how natural and human-made catastrophic events and economic activities in one place affect people living in nearby and distant places. Key concepts include but are not limited to disease, war, items exchanged, ideas spread along trade routes, and natural disasters

ELA

Writing

Text Types and Purposes

4.W.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.

c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).

5.W.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.

c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).

d. Use precise language and domain-specific vocabulary to inform about or explain the topic.

e. Provide a concluding statement or section related to the information or explanation presented.

6.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

HISTORY

The development of civilizations, societies, cultures, and innovations have influenced history and continue to impact the modern world.

4.H1.1 Utilizing a variety of multi-genre primary and secondary sources, construct historical narratives about cultures, civilizations, and innovations in the Americas.

Key concepts include but are not limited to Olmec, Maya, Inca, Aztec, American Indians living in the Americas before and after European exploration, enslaved and free Africans living in the colonies, British, French, Dutch, Spanish explorers and settlers, and the thirteen colonies

5.H4.1 Use primary and secondary sources to describe how diverse groups (racial, ethnic, class, gender, regional, immigrant/migrant) shaped the United States' multicultural society within the historical timeframe.

6.H1.1 Compare the development and characteristics of historical cultures and civilizations from different global regions within designated time periods.

6.H1.2 Explain the causes and effects of interactions between cultures and civilizations.

Key concepts include but are not limited to trade, competition, warfare, slavery, serfdom, innovations, and contributions.

Cycles of conflict and cooperation have shaped relations among people, places, and environments.

4.H2.1 Describe the cycles of conflict and compromise that occurred in the Americas during the convergence of Europeans, American Indians, and Africans in the Americas before and after European exploration

5.H2.1 Use primary and secondary sources to summarize the causes and effects of conflicts, resolutions, and social movements throughout the historical timeframe.

Key conflicts can include but are not limited to cultural conflicts, political conflicts, economic conflicts, military conflicts, and conflicts related to resource use and availability

6.H2.1 Evaluate the causes and effects of conflict and resolution among different societies and cultures.

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- b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
- c. Use appropriate transitions to clarify the relationships among ideas and concepts.
- d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
- e. Establish and maintain a formal style.
- f. Provide a concluding statement or section that follows from the information or explanation presented.

Key factors such as control and use of natural resources, political power, religious rivalry, acquisition of wealth, cultural diversity, and economic rivalry

Overview

This lesson explores the population consequences of European exploration on Indigenous peoples of the Americas. The geographic theme of place is not limited to what a place is like today. It includes, too, what it was like in the past.

Purpose

This lesson graphically shows the dramatic population decline of Indigenous people following the arrival of Europeans in the Americas and examines possible causes for this decline.

Materials

- In the Wake of Columbus Background Information (for teachers)
- In the Wake of Columbus Timeline
- Graph of the Indigenous Population of the Central Andes
- Graph of the Indigenous Population of Central Mexico
- Graph of the Indigenous Population of Hispaniola
- 3 one-gallon milk jugs, filled with water
- Measuring cup, graduated in cups and ounces
- Container for 3 gallons of discarded water
- Answer Keys (for graphs)

Objectives

The student will be able to:

1. Recognize the causes of Indigenous population decline.
2. Determine the magnitude of Indigenous population decline.

Procedures

Please read "Background Information for Teachers" prior to beginning the lesson.

Instructional Notes:

- ❑ For each of the three culture areas, begin with a full milk jug (128 ounces) to represent that area's pre-contact population.
- ❑ Pour out the indicated amount of water leaving the remaining water to represent the remaining population of indigenous people in a given year.
- ❑ Students will fill in the appropriate blank on their handout.
- ❑ Repeat for each decline and then proceed on to the next culture area.
- ❑ Students should use this information to construct graphs.
- ❑ Data are given for the following three areas: the Central Andes, Central Mexico, and Hispaniola (the location of the present-day countries of Haiti and the Dominican Republic).

CENTRAL ANDES

Students should record the population data on the lines of the worksheet.

1. Begin with a full milk jug of 128 ounces. This represents an estimated 12 million people in 1520.
2. Pour out 48 ounces. This leaves an estimated 7.5 million people in 1540.
3. Pour out 37.5 ounces. This leaves an estimated 4 million people in 1560.
4. Pour out 21 ounces. This leaves the estimated 2 million people in 1570.
5. Pour out 15 ounces. The remaining water represents the 1620 population of 600,000 Indigenous peoples.

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CENTRAL MEXICO

Students should record the population data on the lines of the worksheet.

1. Start with a full milk jug to represent the estimated 25.2 million people in 1518.
2. Pour out 43 ounces, leaving the estimated 16.8 million people of 1532.
3. Pour out 53 ounces. This leaves an estimated 6.3 million people in 1548.
4. Pour out 18 ounces. The remaining water represents the 2.7 million Indigenous people left in 1568.
5. Pour out 4 ounces, the remaining water representing the 1.9 million people in 1580.
6. Pour out 3 ounces. This leaves an estimated 1.4 million Indigenous people in 1595.
7. Pour out 1 ounce, leaving an estimated population of 1.1 million in 1608.

HISPANIOLA

Students should record the population data on the lines of the worksheet.

1. Begin with a full milk jug, representing an estimated population of 1 million in 1492.
2. Pour out 120.5 ounces. This leaves the estimated population of 60,000 in 1508.
3. Pour out 5.5 ounces. The remaining water represents the estimated population of 14,000 in 1514.
4. Pour out all of the remaining water, representing the fact that no Indigenous people remained on Hispaniola in 1550.

Assessment

Math Assessment: Students should determine the appropriate type of graph (line or bar) for this assignment. Points can be assigned in for the following manner: accuracy (20 points) and correct choice of graph to create (10 points). Mastery is considered 24 points or higher.

Geography Assessment: Students' timelines can be graded for accuracy. One point can be given for each date given (16 points). Mastery is considered 13 points or higher.

ELA Assessment: The final assessment is to assign a reaction paper to gauge student comprehension of the post-contact population decline. Use the 6 Traits Writing Rubric to score the reaction papers focusing on the traits of Ideas and Content and Organization. Mastery is considered 4 or higher.

Extensions

Students could calculate the percentage drop in population that occurred (usually around 90%-95%). Students could convert the measurements given in this activity to metric equivalents. Students could discuss what modern day diseases might cause a decline in a culture's population.

Sources

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Numerous works of Sherburne F. Cook and Woodrow Borah.