

Finding the Americas: How Physical Features Impact Human Settlement

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Grade Level	4
Duration	3 class periods

National Standards

GEOGRAPHY
Element 1: The World In Spatial Terms
 1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

Element 4: Human Systems
 9. The characteristics, distribution and migration of human populations on Earth's surface

Element 6: The Uses of Geography
 17. How to apply geography to interpret the past

AZ Standards

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).

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.

Arizona Social Science Standards

GEOGRAPHY
The use of geographic representations and tools helps individuals understand their world.
 4.G1.1. Use and construct maps and graphs to represent changes in the Americas over time (trade and exploration routes).
Examining human population and movement helps individuals understand past, present, and future conditions on Earth's surface.
 4.G3.1: Explain how the location and use of resources affects human settlement and movement.

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.

SIOP Elements		
<p>Preparation Adapting content Linking to background Linking to past learning Strategies used</p>	<p>Scaffolding Modeling Guided practice Independent practice Comprehensible input</p>	<p>Grouping Option Whole class Small groups Partners Independent</p>



Integrating Processes Reading Writing Speaking Listening	Application Hands on Meaningful Linked to objectives Promotes engagement	Assessment Individual Group Written Oral
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Arizona English Language Proficiency Standards

Grade 4

Basic

Listening, Speaking, Reading, and Writing

Standard 6 By the end of each language proficiency level, an English learner can participate in grade-appropriate oral and written exchanges of information, ideas, and analyses, responding to peer, audience, or reader comments and questions.

B-1: participate in discussions about familiar topics and texts.

B-2: participate in written exchanges about familiar topics and texts.

B-4: ask questions to gain information or clarify understanding.

B-5: contribute information and evidence to collaborative oral and written discussions.

Standard 7 By the end of each language proficiency level, an English learner can conduct research and evaluate and communicate findings to answer questions or solve problems.

B-1: gather information from multiple provided resources to answer questions.

Standard 8 By the end of each language proficiency level, an English learner can analyze and critique the arguments of others orally and in writing.

B-5: use academic words and phrases to express ideas and phrases.

Overview

A working knowledge of geography gives us valuable insights into the historical evolution of how humans are situated on earth. The discovery of the Americas by Europeans in the late 15th century was a product of commerce and geographic elements. As Europeans attempted to find oceanic routes to replace the dangerous land routes of the Silk Road, they learned how to navigate the ocean gyres and prevailing winds and, in the process, discovered the Americas.

Purpose

In this lesson students will review the seven continents. They will also be able to describe how the earth's physical features influence human settlement. This lesson is meant to be an introduction to the study of early American history.

Key Vocabulary

The Silk Road: a trade route between Asia, Europe and Africa that started out as a way to

get silk fabrics from China to buyers in Europe and Africa

India, China, the East Indies: Asian lands that had very desirable trade goods that were being purchased by Europeans and Africans

virtual representation: presenting information about things by drawings, maps or digital displays

prevailing winds: the direction a wind usually blows in any given place

ocean gyres: continual movements of surface water in the oceans that can affect ocean navigation

navigation: planning and tracking of one's travel

Materials

- Vocabulary PowerPoint
- Computer and projection device
- Finding the Americas PowerPoint
- Personal whiteboards or notebook paper
- Small sticky notes (1.5 x 2 inch)
- Continents of the World map (unlabeled)
https://geoalliance.asu.edu/sites/default/files/maps/World_Continents_blank.pdf
- Chromebooks or handheld devices for students

- Scoring Guide for Assessment Questions

Objectives

The student will be able to:

1. explain that the role of the Silk Road in Europeans “discovering” the Americas.
2. explain how physical features impact human settlement.
3. create a virtual representation on Google Maps.

Procedures

Prerequisites: Students should have been introduced to and have some familiarity with continents and the compass directions.

SESSION ONE

Engage:

1. Slide 1: Display the website windy.com to whet student’s curiosity.
2. Explain that in the next couple of days, we will be focusing on geography and history to learn more about human settlement. You will review some basic map skills. You will learn how Europeans came to settle in the Americas. You will learn what challenges those sailors had in reaching the Americas. So, let’s prepare to take to the seas...And we are off on our adventure!
3. Slide 2: Discuss the definition of geography. Ask students to explain the key words in the definition (variety, physical, human, environment). **(Preparation: Linking to background)**
4. Slide 3: Ask a student to read the Big Question. Then have class read the question chorally. Have students offer possible answers to the question. Where do humans live, why? (mountains, country borders, oceans, rivers can be barriers; it is easier to travel and live on flat land; people need to be near fresh water; neighboring lands can be friendly or not; you need a mode of transportation (boat, camel, etc) to go long distances; etc. Write these responses on the whiteboard. **(Integrating Processes: Speaking, Listening)**
5. Slide 4: Ask students to look at a large world map. Looking at a world map, can they think of more answers to the Big Question? Add any new responses to the whiteboard.
6. Distribute notebook paper or personal whiteboards to the students. As a

reinforcement of their learning, have students partner up and write the Big Question down and all of the answers they can remember without looking at the classroom whiteboard.

(Integrating Processes: Writing, Speaking and Listening)

7. Slide 5: Have partners fill in the blank and name the 7 continents to each other, if they can. **(Preparation: Linking to past learning)**
8. Distribute the Continents of the World map (unlabeled).
https://geoalliance.asu.edu/sites/default/files/maps/World_Continents_blank.pdf
9. Have students work together to label the continents, draw a compass rose, and identify the directions. Lastly, have them label the scale. **(Grouping Option: Partners)**
10. Slide 6: Have students correct any mistakes they made in labeling. End the slide show for today. Have students study the maps (continents, compass, and scale) as homework.

Explore:

Prior to this part of the session, decide on which Challenge to do or if you will do both.

1. Challenge 1: Give students a stack of 7 small sticky notes. Have them write the continents (one on each sticky note) and number them 1-7 in any order they wish.
2. Distribute a second Continents of the World map. This will give them an unlabeled map to use for the following game.
3. Have partner #1 take sticky note 1 and put it on the blank map labeling the continent (say Africa). Student #2 will put his #2 sticky note on the correct continent (say North America). Student #2 will identify the direction #2 is from #1 orally. (west) Student #1 will then label continent #3 and determine the direction from continent #2 orally. Continue until all of the sticky notes are placed. **(Assessment: Oral), (Application: Hands On)**
4. Challenge 2: Select 3-5 teams with 4-6 students on each team depending on class size. Each team will have two inverted stacks of post-it/sticky notes with each note having a name of one of the continents. Each team will also have a stack of blank post-it notes and a pencil. An unlabeled Continents map is taped up for each team. Note: Before starting the game, model it with the two volunteers and the teacher coaching the students to perform

the game in the described manner.

(Scaffolding: Modeling)

5. Have teams of 4-6 students each lined up in single file. **(Grouping Option: Small Groups)**
6. Have the first student in each line draw 2 continent names (2 post-it cards) one from each stack (don't peek!), and then take 1 blank note.
7. Tell students to go to their blank map and turn over the post-it notes. They will put the continents where they think they go and then put the blank note on the map in-between the two labeled continents. The student will then write directions to get from one continent to the other only using E/W/N/S (two directions if necessary) and arrow(s). For example: a student draws N.Am and Africa cards — they would place a blank somewhere between the two continents and write W with an arrow from Africa towards N. Am. It would be okay to have two directions W and N as well as orienting directions *from* N.Am. **(Scaffolding: Guided practice), (Application: Hands On)**
8. Keep track of order of completion — 2 points to the first team to get a correct answer, 1 to later completers. **(Assessment: Group)**
9. If a majority of the class seems unable to get the continents right, the “blank map” can be initially replaced with the labeled map. **(Scaffolding: Comprehensible input)**
10. Ticket Out the Door: Students, without looking at labeled maps, will label the map.

SESSION TWO

Note: If you are concerned about Slide 7 and 8 promoting some sort of community issue, skip to Slide 9.

Explain:

1. Begin the session by asking, Who has ever moved? Have students raise hands.
2. Slide 7: Then have students respond to the question on the slide. **(Preparation: Linking to Background)**
3. Slide 8: Explain that humans originated in Africa according to anthropologists. (red on the map) From Africa, man began to migrate (move) to new areas and create new settlements. See if students can trace the lines of migration.
 - Out of Africa (125,000 years ago)
 - Into Asia (100,000 years ago)
 - Into Australia (50,000 years ago)
 - Etc.

4. Do you think these people had maps to follow? Do you think their migration was easy or hard? How long do you think it took for people to eventually spread all over the world? **(Preparation: Strategies used)**
5. Slide 9: This is a virtual representation of the world 500 years ago. Discuss the term “virtual representation” and place the card on the world wall. This is what Europeans thought the world looked like. Can you find Africa, Asia and Europe? Can you find North and South America? Can you find any physical features? Any human features?
6. Slide 10: This is another map from 500 years ago showing what was known about the Atlantic Ocean. What they knew was in orange/brown. What was really there is in light blue. How much did they know about North America? South America?
7. Slide 11: Introduce the next Big Questions.
8. Slide 12: To understand why Europeans would want an ocean trade route to Asia, let's look at the map of The Silk Road(s). The red lines are land routes. What are the hazards of traveling over land? (mountains, deserts, thieves, need horses or other beasts of burden, hot, cold, etc.) The blue lines are water routes. What are the hazards of traveling over water? (storms, no wind, too much wind, pirates, getting lost, need boats, food and water, etc.) So both ways were dangerous and took many months.
9. Slide 13: Discuss the trade items that were sought from Asia. **(Integrating Processes: Reading, Speaking, Listening)**

Elaborate:

1. Slide 14: Have students express ideas that answer the Big Questions posed on the slide. Possible answers: to get the trade goods faster and cheaper, avoid theft, make more profit
2. Slide 15: Briefly discuss the “breaking” of the Silk Road due to previously discussed physical dangers and the increasing divisions and factionalization of human geographic features of territory/governments.
3. Slide 16-17: Recognizing Europe's motivations to find an oceanic trade route to Asia, revisit Toscanelli's 1491 map of the known world and have students offer their thoughts on the questions of Slide 17; what geographic challenges did the Europeans face? Was it reasonable that they thought they a sailing route to Asia would be as straightforward as the map showed? Possible

answers: Don't know the world. Don't know about ocean currents and wind currents. Don't have maps. Don't have the technology to know exactly where they are in the world. Don't have money to finance exploration.

- Slide 18: There are the two physical features of the Earth that the early navigators will need to understand before they can travel far from land (ocean currents/gyres and prevailing winds). This map shows how the winds usually blow. Remember all large ships at this time are using wind as their source of power.
- Slide 19 and 20: These are the ocean gyres or currents. This water current will help the boat go faster or slower. If you are going the way the water is flowing, you will go faster. Why would sailors want this? Assuming there are no winds to contend with, what direction would your ship go if you were in the Atlantic gyre? **(Integrating Processes: Reading Speaking, Listening)**
- Slide 21: Let's look at both maps. Have students look at the Prevailing Winds map and find the latitude belt that would help the boat go west. Then look at the Atlantic gyre and explain how the ocean current would move them across the Atlantic and then back to Europe.
- Slide 22: But of course the early explorers did not know all of this. The next two centuries from about the 1450s to the 1650s would become the Age of Exploration.

SESSION THREE

- Have students access Google Maps on their computing platform. Announce that today they will become sailors. But unlike sailors 500 years ago, they have modern mapping technology.
- Demonstrate how to make measurements in miles and plot a course with the measurement points on Google Maps. Remind students that during the measurement and charting activities, the route will be deleted if the student cancels the measurement window and will have to start over.
- As practice, ask students to measure the circumference around the world at the equator. Check off students as they finish. They should measure close to 25K miles or 40Km. **(Scaffolding: Individual practice)**
- Project Slide 21 again. Have students refer to the maps on this slide as they create a

route on Google Maps that would go from Spain to Florida and from Florida back to Spain using the wind and ocean currents to their advantage.

- When students have created their two routes, note their achievement as satisfactory (two routes sort of right) or excellent (two routes exactly right). **(Application: Linking to objectives, Assessment: Individual)**
- Have students take a screenshot of their Google Map and submit to a digital repository such as Google classroom. **(Assessment: Individual)**

Evaluate:

- Slide 23: Project windy.com or have students access the website with hand held devices or Chromebooks. Explain that this is another form of a virtual representation. If students have their own devices, have them pan in and out to see local v. global views. If students do not have their own devices, project the direction of the winds, intensity of winds over land and ocean, add the rain layer, etc. Look at the various continents.
- Slide 24: With a partner, have students look at their screenshot of their Google Map and compare it to the Voyages of Columbus. Have them measure their achievement as satisfactory (two routes sort of right) or excellent (two routes exactly right). **(Grouping Option: Partners)**
- Slide 25: Share the Scoring Guide for Assessment Questions and explain how this assignment will be graded. Have students write at least one paragraph on each of these two questions. **(Assessment: Written)**

Assessment

Social Science and ELA

The paragraphs written about the two Big Questions on Slide 25 can be graded for social science content and language arts skills using the Scoring Guide for Assessment Questions. Mastery will be considered 80% or higher.

Extensions

Assign students to navigate a route to the Indies on Google Maps by going around the "Cape of

Storms” (southern Africa) for further practice in navigating prevailing winds and ocean gyres.

Briefly discuss latitude and longitude coordinates. Direct students to record the latitude and longitude numbers every 500 miles (or segment break) using Google Maps while

mapping going from Europe to the Indies. Assign students to assess each other’s routes by following the coordinates given.

Sources