



Filling in the map: Exploration and the growth of knowledge

<https://www.loc.gov/rr/geogmap/waldexh.html>

Overview/Prior Knowledge

The 15th and 16th Centuries were times of rapid change as Europeans' knowledge and understanding of the world expanded, many cultures experienced first contact with each other, and cross continental exchanges began that helped transformed the history of the world. We can learn from this period of rapid growth in knowledge by studying how exploration of the Western Hemisphere expanded existing knowledge.

Teachers can use historical maps effectively to illustrate the extent of geographic knowledge or ignorance that existed at a given time. Using a series of historical maps can illustrate to students how geographic knowledge grew over time and that people in previous times and places did not possess the same understanding of the world that we do. Using these maps help students see that knowledge and understanding are often slowly created over time and new knowledge based on experience can update erroneous knowledge and understandings of the world.

In this lesson, students about the exploration of the Americas using historical maps from before 1492 and through 1562 from the Library of Congress and other sources to demonstrate how the Age of Exploration increased European knowledge of the world.

Objectives

- Students will analyze maps of the world that illustrate the extent of European knowledge of the world prior to 1492 (Chronicon Nurembergense Map (1493) and the part of the Waldseemuller Map (1507) that includes Europe, Asia, and Africa).
- Students will compare and contrast these earlier maps to a current world map to identify areas that are the most accurate, the least accurate, and areas not represented.
- Students will analyze historical maps that illustrate the growth of geographic knowledge developed during the Age of Exploration (complete Waldseemuller Map (1507) and Gutierrez Map (1562)).
- Students will research and identify what various European explorers contributed to the geographic understanding of the world.

Time Required

Two to three 55 minute periods.

Recommended Grade Range

4th- 8th grades

Subject/Sub-Subject

Social Studies/ World History or American History

Standards

Social Studies

5. 1. Understand the people, events, and types of government associated with the development of the United States.

c. Identify significant European supporters (e.g., King Ferdinand and Queen Isabella) and explorers (e.g., Cortez, Ponce de Leon, Hernando De Soto) and the settlements they established (e.g., Roanoke, Jamestown, Plymouth). (DOK 3)

2. Understand global connections and explore issues, concerns, and possible solutions.

a. Locate physical features that influenced and impacted the migration, exploration and settlement in North America (e.g., continents, ocean currents, winds, forests, rivers, mountain regions). (DOK 3)

c. Locate on maps of North America and South America, land claimed by Spain, France, England, Portugal, the Netherlands, Sweden, and Russia. (DOK 3)

6.4. Understand the world in spatial terms using maps, major physical and human features, and urban and rural land-use patterns.

a. Analyze information using social studies tools (e.g., timelines, time zones, maps, globes, graphs, political cartoons, tables, technology, etc.). (DOK 3)

8.3. Understand how geography and politics have influenced the historical development of the United States in the global community.

a. Examine the exploration and colonization periods of the United States using social studies tools (e.g., timelines, time zones, maps, globes, graphs, political cartoons, tables, technology, etc.). (DOK 2)

English Language Arts

CCSS.ELA-Literacy.RI.5.2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

CCSS.ELA-Literacy.RI.5.3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

CCSS.ELA-Literacy.RI.6.2. Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.

CCSS.ELA-Literacy.RI.6.3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).

CCSS.ELA-Literacy.RI.7.2. Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.

CCSS.ELA-Literacy.RI.7.3. Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).

CCSS.ELA-Literacy.RI.8.2. Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.



CCSS.ELA-Literacy.RI.8.3. Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).

Library of Congress - Teaching with Primary Sources Skills:

- use the beginner's list – elementary; experienced list – high school; depending on what you are doing maybe a combo between the two lists for middle school

Highlighted Strategies:

- Observe- Reflect- Question (ORQ)

Credits

Kenneth V. Anthony, Mississippi State University; Melissa Black, Starkville Oktibbeha Consolidated School District

Materials

- Primary Sources – See Resource Guide at the end of this document.

Procedures

Introduction

The Teacher will begin the session by posing the question: “How do we learn about our world and disseminate that knowledge to others?” Students will brainstorm and share different ways we learn and share with others. The Teacher will state that the act of exploration is one way that we learn about our world and share that information with others. Recent examples include space exploration and undersea exploration, but the Age of Exploration in the 15th and 16th Century is another example that we can use in our United States history classes to illustrate this lesson.

During

Illustrating the known world prior to Columbus

The Teacher will provide Students in groups of 5-6 a copy of the portion of the Waldseemuller map (1507) that includes Europe, Africa, and Asia. This portion of the map is cut into 6 pieces and students will work to put the puzzle together in order to view the map. Students will analyze the map using the Library of Congress Observe, Reflect, Question process (ORQ). Once Students have completed the ORQ process, the Teacher will ask what areas of the map were most accurate and what were least accurate (to the real world). Teachers may provide students a map of modern Europe and Asia to help with this activity. The Teacher will ask what was most interesting about the map and if the Students have any questions about the map.

The Teacher will then provide a copy of the Chronicon Nurembergense Map (1493) and repeat the same process. The Students will conclude that these maps illustrate the known world prior to Columbus' 1492 and subsequent voyages. The Teacher will provide background information on how

these maps were based on many different maps going all the way back to Ptolemy (90- 168 AD). The information on these maps were based in part on earlier travelers, traders, and explorers' experiences, but also based on imagination and philosophy. It was the Age of Discovery and the experience of the various explorers helped to fill in the incomplete knowledge and understanding of the world that Europeans held in the last 15th Century. The goal of the lesson is to help illustrate this using historical maps.

Illustrating how Columbus's voyages changed European knowledge of world geography

The Teacher will pass out the part of the Waldseemuller map (1507) that includes the Western Hemisphere. This map is divided into two puzzle pieces and students will complete the Waldseemuller map puzzle to show the entire worlds as Europeans understood it in the early 1500s. Students will conduct a quick ORQ of the complete map. The Waldseemuller map is the first map with the name "America" on it (labelling South America). Students will then compare the representation of North and South America with a current map of the world. Their analysis will reveal that the 1507 understanding of the Western Hemisphere was inaccurate and incomplete. This map is based on the voyages of Columbus and Amerigo Vespucci. It is revolutionary in that it added two additional landmasses to the European understanding of the world. But it would take another 50 plus years to complete the outline of the new continents.

Filling in the map of the Americas

The Teacher will divide the Students into groups for mini-research projects (based on materials provided in the session). The groups will identify the areas of the Western Hemisphere explored by 14 European explorers. The goal is to determine what each explorer contributed to the geographic understanding of the Western Hemisphere. In other words, how did they help fill in the map? The Teacher will allow each group to label a large map of the Western Hemisphere with a picture of their explorer and to describe his contribution to filling in the map. Students will complete an explorer chart to record the information learned during their mini-research project. Students will then conduct 2-3 minute speeches on their assigned explorer. The speeches will include the information on the chart. Students will also show the areas of the Americas that the explorer explored. (Teachers can use encyclopedias, websites, non-fiction books or history textbooks to complete this activity. We used a 5th grade U.S. History textbook. Teachers will want to ensure that each explorer included in the activity are represented in the text they choose to use for this activity).

List of explorers- chart

Name	Date	Nation represented	Goal/purpose	Discovery/impact
Columbus-	1492			
Cabot-	1497			
Vespucci-	1499			
Balboa-	1510			
Ponce de Leon-	1513			
Magellan-	1519			
Cortes-	1519			
Pizarro-	1531			
Verrazano-	1524			
Cartier-	1534			
DeSoto-	1539			
Coronado-	1540			
Champlain-	1608			
Hudson-	1609			

Goals and purposes behind exploration

To illustrate to students the varied goals and purposes behind each European nation, Students will sort the pictures of the explorers based on the purpose of their exploration (there are multiple possible solutions because the explorers had multiple purposes). The teacher can ask students “who belongs together and why?” Teachers can have students first sort the explorers in small groups and then conduct the sorting as a group to force students to come to consensus. Students will be able to identify the differences and similarities among the various European nations for exploring the new world. Again, there are several ways that the Students can conduct this activity in their classroom including using traditional United States history textbooks, non-fiction books, and online resources.

Possible solutions to the grouping of explorers based on their purpose or goals:

Gold: Ponce de Leon, Columbus, Cortez, Pizarro, DeSoto, Coronado

Passage to Asia: Columbus, Cabot, Magellan, Verrazano, Cartier, Hudson

Claim land/ establish colonies: Columbus, Balboa, Cortez, Pizarro, DeSoto, Champlain

Explore new world: Vespucci, Balboa, Ponce de Leon, DeSoto

Convert natives to Christianity: Columbus, most of the Spanish and some of the later French

Conclusion

The class will participate in a consolidation activity to review and reinforce the key points of the session. We will return to the question: “How do we learn about our world and disseminate that knowledge to others?” During this activity the Students will be given Gutierrez’s 1562 Map of America. On this map, the general outline of the Eastern coast of North America is accurate and the general shape of both Central and South America are accurate. Students will highlight ways that this map is more accurate than the Chronicon Nurembergense Map (1493) and the Waldseemuller Map (1507). The Teacher will lead a discussion about how the European explorers contributed geographic knowledge that helped create a more accurate geographic understanding of the Americas. The session will end with the Teacher sharing a map of the Lewis and Clark Expedition and Fawcett’s Amazon Expedition to illustrate that this process continued into the 19th and 20th Centuries. After the general outline of the continents were known, exploration continued to learn about the true geographic nature of the interior of the continents.

Assessment

Formative: The teacher will observe students to identify how many differences and similarities they identify when comparing the old maps to modern maps. The teacher will assess students’ understanding of how maps change over time and the influence of exploration of the growth of knowledge by identifying areas of the modern world explored by European explorers.

Summative: The teacher will assess student’s speech for accuracy of information and ability to describe how the explorer increased European understanding and knowledge of the geography of the Western Hemisphere.

Differentiation

- Teachers can differentiate based on reading ability by providing reading materials appropriate to each student’s reading level during the mini-research project.

Supplementary Materials

- Explorer images (provided in this lesson)
- Explorer charts (provided in this lesson)
- Chronicon Nurembergense Map (1493) handout (provided in this lesson)
- Large wall maps- Western Hemisphere (modern), Eastern Hemisphere (modern)
- Small desk maps- Western Hemisphere (modern), Eastern Hemisphere (modern)
- Texts describing European exploration (we used *America: History of our Nation* by James West Davidson, published by Prentice Hall).

Teaching with Primary Sources Resource Guide

Title: Filling in the map: Exploration and the growth of knowledge

Historical Background:

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The 15th and 16th Centuries were times of rapid change as Europeans' knowledge and understanding of the world expanded, many cultures experienced first contact with each other, and cross continental exchanges began that helped transformed the history of the world. We can learn from this period of rapid growth in knowledge by studying how exploration of the Western Hemisphere expanded existing knowledge.

Primary Source 1:



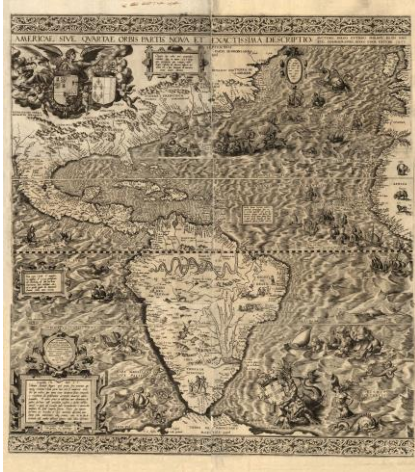
Title: *Universalis Cosmographia Secundum Ptholomaei Traditionem et Americi Vespucii Aliorū[m]que Lustrationes*, (Waldseemuller Map, 1507)

CE 1507

Link: <https://www.loc.gov/rr/geogmap/waldexh.html>

Purpose: This map is used to show European geographical knowledge at the beginning of the age of exploration.

Primary Source 2:



Title: *Americae sive quartae orbis partis nova et exactissima description* (Guitierrez Map, 1562)

Link: <https://www.loc.gov/resource/g3290.ct000342>

Purpose: This map is used to show how the age of exploration expanded European geographic knowledge when compared to the Waldseeuller Map (1507).

Primary Source 3:



Title: *Chronicon Nurembergense Map*

CE 1493

Link: Available on various Internet sites

Purpose: This map is used to show European geographical knowledge at the beginning of the age of exploration.

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