

Lesson Developer: Cindy Bandow / Junction City High School

Subject Area: Social Studies / Pacific Northwest History

Grade Level: High School (9th-12th)

Lesson Description: The student will learn to use the module tutorial, identifying the query, measuring, eraser, information, and magnifying tools, as well as the layers on the web based Lewis and Clark Map. This lesson will be a part of a larger unit on mapping and creating a “travel brochure”/ atlas within a history class. This lesson will be used for one class period.

Education Standards:

Common Core Standard English Language Arts Standards: English language Arts Standards
».History / Social Studies » Grade 12

CCSS.ELA-Literacy.RH.11-12.7: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.

Common Core Standard English Language Arts Standards: English Language Arts Standards »
Science & Technical Subjects » Grade 11-12

CCSS.ELA-Literacy.RST.11-12.3: Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

ITSE National Technology:

3. Research and Information Fluency
 - a. Plan strategies to guide inquiry
 - b..Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
 - c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
 - d. Process data and report results
4. Critical Thinking, Problem Solving, and Decision Making
 - c. Collect and analyze data to identify solutions and/or make informed decisions
5. Digital Citizenship
 - b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
6. Technology Operations and Concepts
 - a. Understand and use technology systems
 - b. Select and use applications effectively and productively

National Geography Standards

- 1) How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
- 2) How to analyze the spatial organization of people, places, and environments on Earth's surface
- 3) How to apply geography to interpret the present and plan for the future

Learning Objectives / Geospatial Concepts

1. The student will use the idea of pattern as it is associated with historical thinking and analysis.
2. The student will understand the concept of movement as it is associated with the Lewis and Clark Trails/route choices.
3. The student will understand the concept of association as it is applied to *correlation* between river systems and route choices.

Other Disciplines: This lesson integrates literacy and writing skills as well as develops technology and graphic skills all while building on a historical foundation.

Web-based GIS Tools: The student will use the following tools for this activity: measuring, index, eraser, pan, zoom in, zoom out, and select by rectangle.

Materials: Computers, printers, paper, pens, base map copies, text books, colored pencils.

Prerequisites and Lesson Placement: This lesson will be used after the tutorial on how to use the mapping modules. It will be their first use of the web based GIS program as well as their first interaction with this particular module.

The lesson will be presaged by an introduction to Lewis and Clark in class as well as an introduction to web based GIS.

Lesson Beginning: We will begin by going to the media center and having each student sign into their own folder on the server so all work can be saved. Then everyone should go to Mozilla and then to <http://arcgis.lanecc.edu/website/lewisclark/viewer.htm>

Lesson Development: This lesson will be one in a two week lesson. We, as a class, will have already read the text on Lewis and Clark and will have developed a timeline and a journal/diary. It will be a part of a bigger “travel brochure” / atlas that also includes: a base map, a tribal encounters map, a topographic map, a trip inventory, a flora and fauna inventory, and a landmark inventory.

Lesson Conclusion and Assessment: The lesson will be followed up by a class lesson with an atlas and a paper map of the same route. They will have to place the info by hand and then we will discuss the differences between web based mapping and good old fashioned cartography. They will then integrate their paper map, their web based assignment and their chapter notes into a class created “travel brochure” / atlas to be collected after the two week period.

Career Connection: This will be made each Friday in class as Thursdays are our day to go to the media center and use the computers. Fridays we will recap the information gathered on Thursdays as well as discuss what kind of careers are available for this type of skill set.