

GIS: A New Look at Lewis & Clark

Summary

This lesson will introduce students to the the David Rumsey Historical Map Collection site. Students will use georeferenced maps from the Rumsey collection to examine the route of the 1803 -- 1806 Lewis and Clark Expedition and evaluate its success or failure in achieving President Thomas Jefferson's goals for that expedition.

Time Frame

2 class periods of 45 minutes each

Materials

Introduction: The David Rumsey Historical Map Collection
Goals: The Lewis and Clark Expedition, 1803 - 1806
Timeline of the Lewis and Clark Expedition: Key Benchmarks
GIS Activity: The Lewis and Clark Expedition

Intended Learning Outcomes

The student is able to:

- Describe and explain the diverse routes taken by Lewis and Clark's expedition between 1803 and 1806.
- Describe the physical and human landscapes traversed by the expedition.
- Identify changes in knowledge and perception of the North American continent that resulted from the Lewis and Clark expedition.
- Evaluate the expedition's success in terms of its given goals and objectives.

Instructional Procedures

Lesson Introduction:

Introduce the lesson with an exploration of what students already know about the Lewis and Clark Expedition. One way to do that is to give students a short time (2 minutes) to write down as many words or phrases that come to mind when they think of the Lewis and Clark Expedition. Tell them there are no "right" or "wrong" answers -- the purpose of the activity is just to explore their "associations" with the expedition. At this point, students should work individually - without any discussion.

When the time is up, go around the room and ask students to share one of the things they wrote down. Continue until all the student associations have been listed. As students share words/phrases write them on an overhead so that all can see. Ask students to hold their comments or questions about listed items until all these "associations" have been recorded. When the list is complete, ask students to look it over and allow them to question items that they don't understand or that they believe are incorrect in some way. The student who originally suggested the word or phrase should explain it. This is an excellent way to find out what students already know about a topic, to correct misunderstandings, and to stimulate further interest in a topic.

After this introductory activity, use the student handout called Goals: The Lewis and Clark Expedition, 1803 -- 1806 to develop a context and background for the exercise. Depending on the grade level of your students, your classroom goals, and time, you may want to use additional readings or resources to supplement the materials provided in this lesson.

NOTE: The first time a user goes to the David Rumsey Historical Map Collection site, it is necessary to download a Java applet that is required to run the GIS browser. Depending on the configuration of

your computers and your students' computer skills, you may want to do this step on your own ahead of time. The very simple procedure is explained on the sheet called Introduction: The David Rumsey Historical Map Collection. You may want to use this sheet as an additional student handout

Student Activity:

Distribute Timeline of the Lewis and Clark Expedition: Key Benchmarks and GIS Activity: The Lewis and Clark Expedition handouts to the students. Explain that in this activity, they will be using a web site that allows them to explore historic maps with a geographic information system. (NOTE: The students do not need to have prior GIS experience to do the lesson.) The first part of the activity will introduce them to the basic GIS tools and functions of the web site. The second part of the activity will employ those tools and functions to explore the path of the Lewis and Clark expedition and the characteristics of the landscape it traversed. They will also use the web site's tools to evaluate the relative success or failure of the expedition in meeting its established goals. In addition to detailed instructions, the GIS Activity handout includes questions to help students focus on key issues. Some questions will have specific answers, while others call for speculation and will have a range of possible responses.

In addition, answers to many questions will vary with student knowledge of American history. An answer key to questions in the GIS activity is located at the end of this lesson.

Conclusion:

If possible, use one computer and a projection device to process the GIS Activity as a group. As students compare answers and observations, it gives you an opportunity to elaborate on key points and to demonstrate GIS procedures.

As a final component to the lesson, go around the room as you did in the introductory activity and ask students to share their answers to the final question on the activity sheet: Describe something that you have learned about the Lewis and Clark Expedition from this activity that you did not know before you began.

Bibliography

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