

The Lewis and Clark Stream Expedition

University of Northern Iowa: Geology of Iowa for Teachers 2011

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A. Description:

I will use the IOWATER course to begin a field study of our local stream.

B. Objectives:

- Students will reflect on the historical significance of accurate data collection and its influence on expansionism in the United States.
- Students will demonstrate good citizenship and accurate data collection at a near-by stream.
- Students will graph their data over a period of time.
- Students will present their data in a presentation.

C. Implementation Statement:

This will be a cross-curricular unit with Science, Math, and History. This stream data collection activity will be framed with the story of Lewis and Clark. After reading and reflecting on the value of environmental data collection of Lewis and Clark the students will be prepared for their mission. The history teacher, playing the role of Thomas Jefferson, will give the students the mission to explore and collect data from our local stream to determine if living along this stream would be safe. Students will be divided into pairs taking on the role of the explorers Lewis and Clark. In science class students will discuss clean water implications and the need, as protectors of the environment, to care for our local stream. The science teacher will ask the students to hypothesize the cleanliness of our local stream. In science, students will practice and learn to use the tools of stream physical and chemical analysis. After several months of data collection, students will practice graphing data over a period of time in math class.

D. Evaluation

Students will role play and present the data they recovered from the stream data collection. The students will report their findings to Thomas Jefferson who will be played by the teacher.

Introduction

Establish the characters, (Lewis and Clark) setting (Where are you having this conversation with Mr. Jefferson?) and plot (How did you get here, why are you here? What does your audience need to know about the plot?)
Restate the mission and who gave it to you

Body

Describe your physical analysis.
Analyze your findings by walking us through the graphs you prepared
Describe any irregularities

Conclusion

Would you encourage settlement near this stream? Why or why not?
Conclude plot