

Lesson 2: Harbor Restoration in Marquette, Michigan

By Kelly Bolen

Target: Upper Elementary

Lesson Overview

Students will review the process of mining and shipping throughout history in the Upper Peninsula with a concentration in Marquette. Students can research the type of freighter used, the amount of copper and iron mined, and number of freighters necessary to transport copper and iron. Students will then learn about harbors that are no longer needed as shipping ports. Students will design a harbor project that no longer needs its port for shipping with the intent to benefit a community of diverse people.

Objectives

- Students will be able to describe changes in the history of mining in the Upper Peninsula including the amount mined and transportation needs.
- Students will understand ways to restore harbors
- Students will be able to see the needs of different populations of people within a community
- Students will design a harbor restoration project to benefit a community of diverse people.

State Standards

I. Historical Perspective, Content Standard 1

Distinguish among the past, the present and the future

I. Historical Perspective, Content Standard 4

Recall situations in their lives that required decisions and evaluate the decisions made in light of their consequences

II. Geographic Perspective, Content Standard 2

Describe the ways in which their environment has changed by people, and the ways their lives are affected by the environment

Suggest ways the people can help improve their environment

II. Geographic Perspective, Content Standard 3

Identify locations of significance in their immediate environment and explain reasons for their location

Identify people and places in other locations and explain their importance to the community

II. Geographic Perspective, Content Standard 4

Describe changes in the region over time as well as presently

Materials

Internet/computer lab use for entire class
Drawing paper
Drawing pencils/colored pencils
Black pen

Room Arrangement

There are no specific room arrangements for this project

Vocabulary

mining diversity
freighter restoration
community harbor

Background Information

Mining History and Changes through History

Vinyard, Dr. Joellen McNergney. Michigan Adventures in Time and Place. Macmillan McGraw-Hill Publishers; New York. pgs. 151-154

McConnell, David B. Michigan's Story. Hillsdale Educational Publishers; Hillsdale. pages 101-107, 132-139, 161-167

Deur, Lynne and Sara Michel. The Making of Michigan. River Road Publications, Inc; Spring Lake. pgs. 16, 179-191

Killoran, James, Stuart Zimmer and Mark Jarrett. Michigan Its Land and Its People. Jarrett Publishing Company; Lafayette. pgs. 124-125, 240-241, 247-254, 252, 255-259

Mitchell, John and Tom Woodruff. Great Lakes and Great Ships. Suttons Bay Publications; Suttons Bay.

Marquette and Economics

Killoran, James, Stuart Zimmer and Mark Jarrett. Michigan Its Land and Its People. Jarrett Publishing Company; Lafayette. pgs. 38-39, 225-254

Holling, C. Holling. Paddle to the Sea. Houghton Mifflin.

Pre-Assessment

Lead students in a group discussion about the past mining lesson about mining today. This project should follow the first lesson so students have great prior knowledge in current mining and shipping processes. A Venn diagram can be used to further pre-assessment. Have students label Venn diagram "Mining through History." In the first circle, have students list topics and ideas remembered from Empire Mining lesson. In the second circle, have students list prior knowledge about mining in the 1800's. Students can research the information listed in the background materials listed above. In the joining section, students list what the two topics have in common. Collect students' Venn diagram and assess where lesson should begin.

Focus Questions

1. What happens to the ports no longer used for shipping?
2. How many of these areas are in Michigan? Upper Peninsula?
3. Have you ever been to an area that has been redeveloped to support a city?

Attention Getter

Asking students the following questions will get their attention!

- Ask students -**
- Does anyone want to be a designer?
 - Does anyone want to be an architect?
 - Have you ever thought about designing a city?
 - What would people want in their city?

Classroom Activity/Internet

1. Read pages in Michigan History books as a class and discuss.
2. Print list of websites and questions for students
3. Observe and assist students in computer lab as they use the list of websites to answer the questions on the question page
4. Go over questions with students and discuss possible answers.
5. Lead discussion about what a city would need to do to begin a restoration. Include economic needs such as land, money, population support, and workers.
6. Then discuss with the class what types of things could a city do to a harbor to better its community. Also describe different or diverse people in a community and the importance of remembering to include something for everyone.
7. Pass out “Harbor Restoration Project” page
8. Students should answer questions at the top of the page to assist them in preparing for their design.
9. Students can then begin designing the harbor, port, and docks for the city of Marquette.

Harbor Restoration Project

Marquette Restoration Project

Research

What year was the most copper mined in the Upper Peninsula?

What year was the most iron mined in the Upper Peninsula?

What happened to reduce the need to ship from Marquette?

What changed in freighter design to no longer use the port in Marquette?

What is the population of Marquette?

What are the three largest groups of people in Marquette? One is related to education, two are related to careers.

Websites to assist in research:

www.marquette.org

click on economic development, iron ore heritage area research, employment opportunity, demographics and community information

also click on community information and Lake Superior community partnership

http://hunts-upguide.com/marquette_lake_superior_ishpeming_rr_ore_dock.html

<http://www.miningjournal.net/stories/articles.asp?articleID=5198>

<http://hunts-upguide.com/marquette.html>

<http://www.marquettecountry.org/Iron%20Ore%20Boats.htm>

excellent picture of docs and iron ore pellets

<http://www.michigan.org>

then go to travel, then city, then Marquette

Creative

What would these three groups of people enjoy at a harbor?

What would others enjoy at a harbor?

You want to keep the structure of the old dock, but make it usable. What will you design around or in it?

What will you suggest the city do with the land around the harbor?

What is the theme of your proposal?

Safety

No safety measures are required for this project.

Assessment

Marquette Restoration Project	
Venn Diagram – prior knowledge	SCORE
<p>_____ recalled at least 8 steps of mining process</p> <p>_____ attempted to list facts of mining in 1800's by analyzing the Empire mining process to determine what was possible at that time period</p> <p>_____ used prior knowledge of other mining facts</p> <p>_____ found some similarities of mining in 1800's and 2000's</p>	<p>4 3 2 1</p> <p>Comments:</p>
Research project	
<p>_____ used all websites listed</p> <p>_____ good searching skills on web site</p> <p>_____ accurate comprehension skills when searching for information</p>	<p>3 2 1</p> <p>Comments:</p>
Analysis and Creativity	
<p>_____ analyzed data to make best creative choices</p> <p>_____ choices involved 3 major groups represented in the community</p> <p>_____ choices involved others also</p> <p>_____ reasonable and creative ideas for harbor</p> <p>_____ reasonable and creative ideas for old dock</p>	<p>5 4 3 2 1</p> <p>Comments:</p>
Final Design	
<p>_____ used research ideas</p>	<p>7 6 5 4 3 2 1</p>

<input type="checkbox"/> used analyzed creative ideas <input type="checkbox"/> neat and colorful drawings <input type="checkbox"/> detailed drawings <input type="checkbox"/> used entire harbor area <input type="checkbox"/> includes design for old dock <input type="checkbox"/> used realistic ideas for small community	Comments:
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Extensions

Students may have options to choose their own city. This would involve more time to research the city of the student's choice.

Students could be required to use economic and math concepts by being given a dollar amount for their restoration project. Students would then have to research the cost of the different parts of their project and make sure that all restoration projects are under their budget.

Resources

See Harbor Restoration page