

Lesson 1: The Geography of Mining

Grade Level:

6-8

Subject Areas:

U.S. History, Minnesota History, Geography, Technology or Digital Media, Language Arts, Art

MN State Standards:

Geography Standards

6.3.1.1.1, 7.3.1.1.1 Create and use various kinds of maps, including overlaying thematic maps, of places in Minnesota; incorporate the “TODALSS” map basics, as well as points, lines and colored areas to display spatial information.

6.3.3.6.1 Locate, identify, and describe major physical features in Minnesota; explain how physical features and the location of resources affect settlement patterns and the growth of cities in different parts of Minnesota.

6.3.4.10.1 Describe how land was used during different time periods in Minnesota history; explain how and why land use has changed over time.

8.3.3.5.1 Describe the locations of human populations and the cultural characteristics of the United States and Canada.

8.3.3.6.1 Describe how the physical and environmental features of the United States and Canada affect human activity and settlement.

History Standards

6.4.1.2.1, 7.4.1.2.1 Pose questions about a topic in Minnesota history, gather a variety of primary and secondary sources related to questions, analyze sources for credibility, identify possible answers, use evidence to draw conclusions, and present supported findings.

6.4.4.20.2 Analyze the causes and impact of migration and immigration on Minnesota society during the late nineteenth and early twentieth centuries. (Development of an Industrial United States: 1870-1920)

English Language Arts Standards

Speaking, Viewing, Listening, and Media Benchmarks

6.9.2.2 Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.

Writing Benchmarks

6.7.2.2-8.7.2.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

Arts Standards

6.2.1.5.1 Create original two- and three-dimensional artworks in a variety of artistic contexts.

Materials:

Minnesota's Lost Mining Towns DVD and DVD player

Computers/laptops/tablets for students

Scissors, markers, index cards, construction paper, poster board, glue sticks

Objectives:

- Students examine online maps to understand the geography of the Iron Range and its lost communities.
- Students review the qualities of different types of mining communities.
- Students produce a “ghost town” map of their own community.

Procedure:

Day 1: Examining Minnesota's Iron Range

- Download the Mining Towns Map PDF from WDSE's *Minnesota's Lost Mining Towns* website. Project this map at the front of the room. Make sure it is enlarged to clearly show the towns on the Mesabi and Vermilion Ranges.
- Ask students to name the general area of the map where the towns are listed (*Iron Range*). Then ask them if they recognize any of the names of the towns on the map. (5 minutes)
- Introduce the *Minnesota's Lost Mining Towns* documentary as a history of settlements that no longer exist on the Iron Range. Show the first twelve minutes of the documentary, up until the Taconite Harbor section (at 12:42). (15 minutes)
- Project the Mining Towns Map again. Discuss the shapes the towns form, and what those shapes reveal about features that are underground. (*They reveal the shapes of iron ore bodies underground.*) (5 minutes)
- Provide pairs of students with a paper copy of the Mining Towns Map and a laptop or tablet that is able to access Google Earth. Have pairs pull up a Google Earth map that is centered on Hibbing, MN. Have pairs circle on the Mining Towns Map the towns that are also shown on Google Earth. Then have them look for the following on Google Earth:
 - towns that no longer exist (roads lead to nowhere, there are foundations with no houses)
 - areas of active mining (equipment is present)
 - inactive mine pits (usually filled with water)
 - mined areas that have been reclaimed (rows of planted trees are present on brown soil) (20 minutes)

Day 2: Searching for Settlements

- Take some time at the beginning of class to review student findings on Google Earth.
 - Project a Google Earth map, centered on Hibbing, MN, at the front of the room.

- Ask students to steer you towards each of the types of areas you asked them to find (towns that no longer exist, areas of active mining, etc.).
- Discuss what you see on the map that allows you to identify each of these areas (e.g., areas of active mining are brown and have equipment scattered around).
- Focus in on an area that used to be one of the lost towns. Have students describe why they think the town no longer exists. *(Sample answer: If it is brown, the area was mined; if it has overgrown streets and no houses, the mine near the area may have shut down)* (13 minutes)
- Play the documentary from the section that discusses the Taconite Harbor town site (12:42) to the end of the section that discusses the Glen Location (34:40). Ask students to write down some of the similarities and differences between a location and a town site as they watch. (22 minutes)
- Finish class by listing the characteristics of locations vs. town sites. *(Sample answer: Locations were areas right by a mine that had houses, boarding houses, schools, and gardens, but no shops. Town sites were farther from the mine and had houses, boarding houses, schools, shops, hotels, and a simple government.)* (10 minutes)

Day 3: Moving Communities

- Play the rest of the documentary, starting at Locations on the Move (34:40). (20 minutes)
- As a class, discuss some of the reasons that locations or town sites disappeared. (5 minutes)
- Break the class into small groups and have each group discuss what it would be like to find out that their own community was going to be moved or eliminated. Then, have each student write a paragraph that describes some of the feelings they would personally have if they lost their community. (20 minutes)

Day 4: Making a “Ghost Town” Map

- As a class, talk about the idea of ghost towns. A ghost town can be a place with missing or empty buildings and grown-over roads. It can also be a collection of memories of former places or events that have passed. Distribute scissors, markers, index cards, construction paper, poster board, and glue sticks to small groups. Have each group come up with a “Ghost Town” map of their own community. The map can include businesses, houses, wood lots, and other physical places that are no longer there, and also memories that are associated with particular places. Have them annotate their map using the index cards. (35 minutes)
- Have student groups describe their maps to the rest of the class. (10 minutes)