Mapping I: "The Mountain Is…"

Monadnock Afternoon
Rockwell Kent

Overview: Students will become familiar with different types of representations of a place, including maps, and what each is good for.

This is the first of three linked lessons:
(1)"The Mountain is…" (2) Mapping Position and Size, and
(3) Mapping: Topography. The paintings in the Museum can be viewed at any point during the unit, and you may want to visit more than once.

Goals: This lesson will
Support concepts & skills: interpretation of maps, different kinds of maps, getting information from different sources, evaluating information.
Fulfill Learning Standards: Science Strand 1 (gr.6-8) 1; History & Social Sciences 2, 3, 4, 5, 5.1, 6.1; ELA 1-3, 9-11, 13, 17, 26; Visual Art 5.1-3, 6, 8, 12.
Practice: map reading skills; media literacy, analysis, synthesis
Familiarize students with: maps, visual literacy, media analysis

Objectives for Students: Students will
Be able to: "read" an object to decipher the information it is offering; distinguish among different kinds of maps, and the information they provide; "read" a topographical map.
Understand: that different representations give very different information.

Key Questions (to be answered by students):
1. What are some different ways can a place be represented?
2. What kinds of information about a place can we get from different representations of it? How does the media affect my interpretation?
3. In what situations would different representations be most appropriate?

Materials Needed: Mt. Monadnock Hiking map; topographical map of Monadnock area; any other photographs, postcards, etc., or written descriptions of the mountain; possible geological description and commercial objects; Monadnock Math worksheet.

Museum Object: *Monadnock Afternoon* by Rockwell Kent, oil on canvas, 1909, Gift of Mrs. Paul Mellon in memory of her grandfather Arthur H. Lowe (1983.69)

Mapping I: "The Mountain is…" How does the visual representation of a subject affect our perception of it?
Pre-Museum Visit – Ask students if they have ever heard of Mount Monadnock, and do a KWL chart (What do you know and want to learn) about the mountain.

At the Museum – Look at the painting *Monadnock Afternoon,* and at the map of Mt. Monadnock hiking trails, and at a topographical map of the Mt. Monadnock area. If you have any other representations of the mountain (postcard, written description, photograph, etc.) they can be included in the activity. You may want to split the class into smaller groups, and assign

each group a different representation of the mountain. The groups can rotate so that each group has time to look at each representation. Ask the students to decipher what information about the mountain their particular representation is giving them. Ask them to look at each of the objects, one at a time, and for each write three sentences beginning "The mountain..." "Write not what you know about the subject but what that particular representation of the subject is telling you. You may write a simple description, such as 'The mountain is purple.' Or you may write something more complex, such as 'The mountain requires great effort to climb it.'"

Post-Museum Visit – Compare the different kinds of information they got from each. Maybe ask them to compare with a partner first, and discuss how their sentences were similar or different from their partner's.

Reflection: "How did your sentences about the representations of the mountain differ?" "Why or when would we want each kind of information?" "How are the different kinds of information useful?" "What other objects connected to the mountain could you imagine would give us still different information?" (souvenir, commercial object, aerial photo, cartoon) "How does a particular representation of something affect our perception of it?" Talk about how photographs, maps and paintings differ from each other.

"Is it something about the medium that creates its impact?" "Can the artist (painter, photographer, commercial designer) create an intentional effect on the viewer?" "What is an example of a media that is clearly trying to have an intentional affect on the viewer?" "Who said: "The Medium is the Message," and what did he mean by that?"

Supportive Material: Monadnock Math worksheet

Documentation and Assessment Options: Pre- and Post-test: How are a painting, a photograph, and a map of the same place different from each other? Keep copies of their sentences to analyze.

Other Works of Art in the Museum that can connect to this lesson: Students can focus on any representational work (not abstract), and ask what it is communicating about the subject, and what different effect it might have if it was done in another medium or style.

Links to Other Curriculum: See the lesson "Then and Now: Historical Eras in North Central Massachusetts" on this CD-ROM for more information about Mt. Monadnock.
Math: Monadnock Math worksheet.
ELA: You may want to compare different representations of a particular subject to compare the impact of the media – for example a poem, a story, a factual description, an advertisement, a dramatic description, news coverage, or hyperbole.

Author of the lesson: Anne Rhodes

Monadnock Math

1. If you can see 100 miles in every direction from the summit of the mountain, how large is the circle of land that you can see?

After you have solved the problem, discuss with each other: What are the different ways that you can describe a circle's size? Which kind of description would give you the best idea in your mind of how much land you are looking at from the top?

2. If 125,000 people hike the mountain every year, and if during the five winter months only 1/5 the number of people hike it as in the other seven months, what is the average number of hikers per day from April through October?

After you have solved the problem, discuss with each other: Do you think the same number of people climb in April as in July or August? Why or why not? What would we need in order to get a more accurate idea of how many people climb every month?

3. The first white people who were recorded to have reached the summit were 15 men in 1725. Now about 125,000 people climb the mountain every year. If there were a steady increase of climbers year by year how many people would have climbed in 1800? In 1900? In 1950? How could you graph this information?

After you have solved the problem, discuss with each other: Do you think there actually was a steady increase year by year? Why or why not? What factors might have caused the number to increase suddenly?

4. How long does it take you to get to what you can see in the distance? Mount Monadnock is visible from about fifty miles in any direction. If you were standing at the limit of where you could see the mountain, how long would it take you to get to it if you were walking? What if you were riding a bicycle? Riding a horse? Driving a motorcycle? Driving a car? How would you go about figuring this out?

5. How big is big? Mount Monadnock is between 1500 and 2000 feet tall. A Popsicle stick is 4 and 1/2 inches long. How many Popsicle sticks placed end to end would it take to be as tall as the mountain? How many cars would it take end to end, if an average car is fifteen feet long? What about the Empire State Building (1,453 ft.)? Look at the drawing of the mountain. Can you draw in the Empire State Building? How big would you have to draw each different object on your picture for them to be in the right scale?

Mount Everest is the tallest mountain on the planet. It is 29,028 feet tall. How big would a drawing of Mt. Everest have to be in your picture to be in the same scale as your drawing of Mount Monadnock?

6. We have no idea how long Native American peoples have been climbing Mount Monadnock, probably tens of thousands of years. But we do know that the first white people to climb it got to the top in 1725. How many years have white people been climbing the mountain? How many decades? How many months? How many weeks? Days? Hours? How many seconds?

7. In calm weather, temperature on the mountain decreases steadily with increasing altitude. The average decrease is about 2 and 1/2 degrees Fahrenheit for every 330 feet of altitude. If the mountain is about 2000 feet high at the summit, how much colder is the temperature at the summit than at the base?

8. Look at the painting. Approximately how far away from the mountain so you think this observer is? Why do you think this? Would there be a way to estimate more accurately? How would you do that?