1. How to Read a Map

Overview: The Language of Maps

Reading a map is a lot like reading a book or an article: check out the title and the brief description that is sometimes on the cover. The title of a map gives away just what the map is about and the brief description can be found in the legend. Go on to use the clues of the colors on the map, the scale, date, source, orientation or compass rose and the source of the map, to help you read the map just as you would use chapter titles, charts, graphs, and illustrations to find out the content of what you are reading in a book or story.

Grade Levels: 3 – 8

Time: One 40 minute session.

Minnesota State Standards: Geography

GRADING 3

Benchmark: 3.3.1.1.2
Create and interpret simple maps of places around the world, local to global; incorporate the “TODALS” map basics, as well as points, lines and colored areas to display spatial information.

GRADE 4

Benchmark: 4.3.1.1.1
Create and use various kinds of maps, including overlaying thematic maps, of places in the United States, and also Canada or Mexico; incorporate the “TODALS” map basics, as well as points, lines and colored areas to display spatial information.

GRADE 5

Benchmark: 5.3.1.1.1
Create and use various kinds of maps, including overlaying thematic maps, of places in the North American colonies; incorporate the “TODALS” map basics, as well as points, lines and colored areas to display spatial information.

MGRADING 8:

Benchmark: 8.3.1.1.1
Obtain and analyze geographic information from a variety of print and electronic sources to investigate places or answer specific geographic questions; provide rationale for its use.

Benchmark: 8.3.1.1.2
Create and use various kinds of maps, including overlaying thematic maps, of places in the world; incorporate the “TODALSS” map basics, as well as points, lines and colored areas to display spatial information.

Objectives

● To define and use the language of maps correctly.

Materials

● A variety of Food for Thought maps from www.mda.state.mn.us/fft
● Wall Maps of Minnesota, the United States, and the World
● A variety of reference maps, including a state road map

Key Words

TODALS (3rd, 4th, 5th gr.), TODALSS (8th grade)

● title, legend, orientation, date, author, compass rose, source, scale, grid, index
Procedure

Together, read the map terms and have the students list the terms and define them.

1. Using the wall maps, discuss the importance of the title on the maps:
   a. What is the map telling you? Why would you want to read this map?

2. Find the legends on different maps.
   a. What is similar in all the legends? What are the differences?
   b. List the different types of information the different legends give you.
   c. Is there more information on the map than is listed in the legend? What is it?
   d. Could you understand the maps without the legend?

3. Find the compass rose or orientation.
   a. Where do you usually find the north arrow? Why? Does it have to point to the top of the map? Why or why not? (Answer: it doesn’t)
   b. What is the value of having an orientation on a map?

4. Find the source or creator of the map.
   a. Does it matter who made the map? How might the author influence the information that is on the map?

5. Find the date the map was produced or, on a historical map, the date the map refers to.
   a. Are maps always the same? How do they change over time?
   b. Considering the dates on a map, which map would we want to use to plan a trip this summer, to study changes in the population in an area, to understand the votes in a recent election?

6. Find the scale on the map. Demonstrate to younger students what scale means.
   a. Use a ruler to determine the distances on the map between two points.
   b. What would happen to the map if the scale was larger? smaller?

7. Using the world map, find the grid system that should show the longitude and latitude.
   a. How do we use this “square” overlay to find our way around the world?
   b. Are there grids on other maps? Why? (Answer: A grid system gives places addresses that are based on directions rather than relationship to other places, as in 45 degrees north by 90 degrees west.)

8. Using the road map, point out that some maps have indexes.
   a. Define an index and find one in a reference book.
   b. What is the value of having an index on a map?

9. Conclude this part of the lesson by having the students find the following on different types of maps: title, orientation, author, date, legend, scale, grid, and index. In partners/pairs, they should explain what they read in their maps to other pairs. When students make any maps in the future or when maps are being read together in class, refer to this language of maps.

Assessments

1. Observation of conversation between pairs explaining maps.

2. Reflections in which students define the terms in their own words or create a fictional map showing the different elements of maps.