Geography: Labeling & Reading Maps

Grades: 4-6

Objective: Locate towns on maps and read the landscape using maps.

Method: Students will use geographic coordinates to locate two communities on a New York State map and they will read a topographical map to determine the landforms that exist between the two places.

Materials:

- A copy of a topographic map of NY (with a distance scale and marked latitude and longitude) for each student.
- Geographic coordinates (see below)
- A large sheet of poster paper
- A marker
- Writing implements

Time:

- Preparation Time: 15 minutes
- Class Time: 45-60 minutes

Procedure:

- Before class, determine the coordinates of your school's local community. Also, determine the coordinates of East Meredith, NY, where Hanford Mills Museum is located. If you do not have access to this information, the following free websites allow users to look up geographical coordinates for specific locations throughout the world:
    - Latitude and Longitude Search – this website will give you coordinates for general locations. For example you will find a village's coordinates, but you may not find your school and you won't find Hanford Mills Museum.
    - EarthTools – if you are good at reading maps you can find exact coordinates for any location you can pinpoint on their map. For example the coordinates of the Hanford Mills Museum millpond are 42.4234°N 74.8855°W.
- At the beginning of class, write the coordinates of your community and East Meredith on the board.
- Give each student a blank map and ask each to locate your school's local community on the map using the coordinates provided.
- Explain that Hanford Mills Museum is located in East Meredith, New York.
- Ask the students to locate East Meredith on their map using the coordinates.
- Check each map to be sure that students labeled them correctly.
- Analyzing the Map:
    - Questions to ask:
        - How far is Hanford Mills from your community? Students should use the scale to determine how far away East Meredith is.
        - Are there any physical challenges between the two communities that would make traveling from one to the other difficult? How might this have affected travel one hundred years ago?

- Ask students to brainstorm some important businesses and other organizations or buildings in their community. Make a list of these places on a large sheet of paper (either you or the students may do this, taking turns).
- Hang the paper on the classroom wall for later use in post-visit activities.
- Discuss the relationship between where people live and where the important community businesses and organizations are located.
    - Questions to Ask:
        - Where do most people live in your community? Do they live closer to or further from the important businesses and buildings?
        - Do you have to travel to other communities to go shopping, to church, or to the doctor's office/hospital?
- Explain that you will be visiting Hanford Mills Museum in East Meredith and that you will learn more about that community while you are there.

Assessment:

- Class participation in discussion and activity (speaking and listening)
- Map activity

NYS Learning Standards:

- ELA Standard 1
- ELA Standard 3
- Social Studies Standard 3

Vocabulary & Spelling Words

Geographic Coordinates – n. numbers used to define the position of a location on a map, usually expressed as latitude and longitude.
Landform – n. a specific natural feature on the surface of the earth, ranging from large-scale features such as plains, plateaus, and mountains to minor features such as hills, valleys, and rivers.
Latitude – n. the distance between the equator and a point north or south on the earth's surface. This distance is measured in degrees.
Longitude – n. distance on the earth's surface east or west of an imaginary line on the globe that goes from the north pole to the south pole and passes through. Greenwich, England. Longitude is usually measured in degrees.
Map – n. a drawing of the features of an area of the earth, showing them in their respective forms, sizes, and relationships according to some convention of representation.
Scale – n. a graduated line, as on a map, representing proportional distance or the ratio of distances on a map to the corresponding values on the earth. A scale helps you to figure the distance on a map.
Topographic Map – n. a map showing the differences in elevation and slope between the higher and lower parts of the land surface of a given area, usually by means of contour lines or color shading.