

Task: Map Reading

Task Description

Students recognize and read map symbols, determine distances, identify features, and get from one place to another.

Background

Mapping is a method of accurately locating on a flat surface a variety of objects or information about those objects. Most maps typically contain the following:

- Title**—Explains the focus of the map
- Colors**—Represent areas of equal value
- Legend**—Explains what symbols on the map represent
- Compass Rose**—Helps orient the map to the lay of the land
- Scale**—Used to determine distances

Maps used at Blackacre are developed and produced through Arcview GIS using the Louisville and Jefferson County Information Consortium (LOJIC) information database. This consortium of more than 30 user agencies, including public works and utility organizations, is managed by the Metropolitan Sewer District.

Additional Information and Resources

Learning Orienteering Step by Step, Gunnar Hasselstrand
Be an Expert with Map and Compass, Bjorn Kjellstrom
ESS Mapping Teachers Guide—Delta Education
Mapping Small Places—Examining Your Environment
Series video: *Finding Your Way—Using Maps and Globes*, 23 min. (JCPS AV #7672) VIDEO: *Using Maps Together* (JCPS AV #2155)

Materials

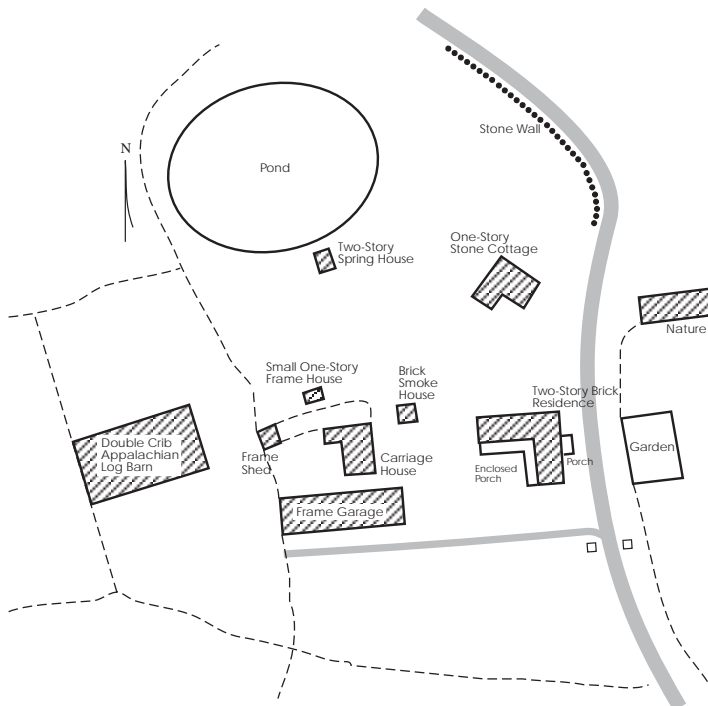
Blackacre map
Camera
Student's reproducible page

Discussion Questions

What do maps try to show?
What are some important features of maps?
What are some types of maps?

Organization of Task (how to implement this lesson)

1. Introduce Blackacre map. Discuss basic map components (title, legend, compass rose, and scale bar).
2. Examine map legend and have students find an example of each legend item on the map. A compass may be used at this point to assist with cardinal directions.
3. Survey students to determine which items the group will find and photo-document. From the student list, plan a route so that the group will visit each item. Use scale bar on map to determine distances to travel from one location to the next. Photo-document each spot.



Knowledge-Work Planner: Map Reading

Core Content:

- Geometry/Measurement
- Geography

Blackacre:

- Students use Blackacre map to locate legend features.

School:

- Obtain, develop, or adapt map of school grounds and develop a legend for it.
- Use photographs from Blackacre to develop bulletin board display.

Classroom:

- Have students use a map and write directions from their school to Blackacre.
- Have students highlight route to Blackacre on a map. Students follow along during the bus ride.
- Estimate time and length of trip. Use watch and the bus odometer to see whose estimate is closest.

Community:

- Using a city map, have students locate each of their homes.
- Have students bring in or develop a map of their favorite community site. Compare maps and their features.

Student Learning

Assessment and Student Products

Core Content:

Science

Social Studies

Reading

Writing

Mathematics

Arts and Humanities

Practical Living

What's Next?

Thinking Beyond . . .

Map Reading

A map can be a useful tool for a variety of purposes if one knows how to use one. Name three (3) components of a typical map and explain the importance of each.

1.

2.

3.

Literature

Maps and Globes, Jack Knowlton, 1985. Harper and Row.

Map Reading

Using a map of Blackacre, plan a hike. Draw the route on the map. Use the legend and the compass rose to describe the hike.

What is your point of origin?

In what direction will you be traveling first? Describe what you see as you walk on this part of the hike.

When you change directions, in what direction will you be walking? Does the land look different? Tell what you might see.

Does your hike pass by a pond? Are there any other features listed in the legend that you will pass on your hike?

Use the scale to measure the approximate length of your hike.

A mile is 5,280 feet. Is your hike more than a mile, less than a mile, or about a mile long?