Objectives:
To interpret maps by using symbols found in the map legend. Symbols are the dots, lines and patterns used to represent natural and people-made features on maps.

Materials Needed: A pencil and your map.

Lesson

Maps Represent the World

A map is a drawing created to represent the world or a part of the world's surface. Maps show where physical or natural features, such as lakes and mountains, are found. They also show where human or political features, such as cities and country boundaries, are located.

Symbols are used to represent the features shown on maps.

Map makers do not want people to guess about the meaning of symbols used on maps. For this reason most maps include a key or legend. The map legend lists the symbols used on the map and tells us what the symbols represent. Examining the map legend will help you understand the meaning of the symbols used on that map.

Look at the map of the United States. Find the legend. The legend lists some of the symbols used on the map. It also explains what these symbols mean.

Dot Symbols
The United States map legend shows that six dot-like symbols are used to represent the locations and population of cities.

Use the six dot population symbols found in the United States map legend to answer the following questions. Write your answers in the spaces provided.

1. Are there any cities in Mississippi, Alabama, Arkansas, or Oklahoma with a population of over 1,000,000? ________________________________

2. What is the largest city in Arizona? 
   ________________________________

3. What Texas cities have more than 1,000,000 people? 
   ________________________________

   What Texas city has a population of 500,000 to 1,000,000 people? 
   ________________________________

4. What are the two largest cities in Arkansas? ____________________ and ____________________

5. What are the three largest cities in New Mexico? ____________________
   ____________________
   ____________________

6. What are the two largest cities in Idaho? ____________________ and ____________________
7. List the four cities in Washington with populations of more than 50,000 people?
____________________  __________________  __________________
____________________
Which of these cities is the largest? __________________

**Line Symbols**

The United States legend shows that several different line symbols are used to represent canals, dams, country boundaries and state boundaries. For example, country boundaries are represented by red lines made up of one long dash and two short dashes. State boundaries are represented by red lines made up of one long dash and one short dash.

Use the state boundary symbol in the United States map legend to answer the following questions. Write your answers in the spaces provided.

8. What eight states share a common boundary with Tennessee? List them in alphabetical order. __________________  __________________
____________________  __________________
____________________  __________________
____________________  __________________

9. Six states share a common boundary with Iowa. List them in alphabetical order. __________________  __________________
____________________  __________________
____________________  __________________

10. List in alphabetical order the six states that share a common boundary with Idaho. __________________  __________________
____________________  __________________
____________________  __________________

11. What two states do not touch any other state? __________________
State Capitals

The United States map legend shows that a city with its name underlined and a star in the population symbol. The example used in the legend is shown below.

*Indianapolis*

Use the state capital symbol found in the United States desk map legend to answer the following questions. Write the name of the state capital in the space next to the name of the state.

12. North Dakota ___________________ 17. Illinois ___________________
15. Pennsylvania ____________________ 20. Hawaii _____________________

Area Symbols

The legend on the United States maps shows that different colors are used to represent water and land areas. Bodies of water are all colored blue. Land areas are shown in shades of green, yellow, and brown. Shades of the colors are used to represent differences in land elevation.

Land Elevation

Shades of green, yellow and brown are used on maps to represent elevation. The elevation of a place refers to its heights above the level of the sea. The legend on the United States map shows that dark green is used to represent places from sea level to
500 feet above sea level. Light green is used to represent land areas that are between 500 and 1,000 feet above the level of the sea. Bright yellow is used for place with elevation of 1,000 to 2,000 feet. Places with elevations 2,000 to 5,000 feet are represented by a yellow-brown pattern. Places 5,000 to 10,000 feet above sea level are represented by brown. Places over 10,000 feet above sea level are represented by a darker brown.

Answer the following statements about elevation in the United States. Use the six land elevation symbols in the map legend to help you. Circle T if the statement is true and F if the statement is false.

22. Most of Florida has land elevation of 500 to 1,200 feet above sea level.  
   T  F

23. Most of Louisiana is 500 to 1,200 feet above sea level.  
   T  F

24. Most of Michigan is 500 to 1,200 feet above sea level.  
   T  F

25. One way to describe North Carolina would be that the land elevation becomes higher as you travel from east to west.  
   T  F

Note: Particular symbols are not used to represent the same things on all maps. For example, on the United States map various circles and squares are used to represent the population of a city. On another map the same symbol might represent a furniture store or a factory. This is way examining a map's level is so important. The legend will help you understand the meaning of the symbols used on that map.