

Lesson 3: Reading Maps (3 Days)

Getting Started

✿ Questions to Explore

- How do we use maps to help us understand our environment?
- How does the environment meet people's needs?



Facts and Definitions

- **Cardinal directions** are north, south, east, and west.
- The ordinal directions are northeast, southeast, northwest, and southwest.
- A **map grid** is a combination of numbers and letters that is used to identify the location of places on a map.
- A **map key** explains what the symbols on a map mean.

⦿ Skills

- Define geography and use geographic terms to describe landforms, bodies of water, weather, and climate. (SS)
- Describe the role of a geographer and apply geographic tools such as maps, globes, compasses, and photographs in the understanding of locations and characteristics of places and regions. (SS)
- Identify the absolute and relative location of communities. (SS)

✂ Materials

- *Map Symbols, Keys, and Scales* by Susan Ahmadi Hansen
- atlas* (optional)
- clipboard
- crayons, colored pencils, or markers
- green construction paper
- penny
- ruler

Introduction

Ask your child why people use maps. Tell him that maps provide us with information about geographical locations. Ask your child what maps can tell us about the environment (answers include weather, geographical features, roads, and where places are located relative to other places).

Read the book *Map Symbols, Keys, and Scales* with your child.

Activities

Activity 1: Cardinal Directions

Ask your child to watch the video about cardinal directions and compass roses at the following web link.



What Are Cardinal Directions and a Compass Rose?

www.beyondthepage.com/link/11565/

Show your child the compass rose at the top of the "Cardinal Directions" page. Then show your child the "Compass Rose" activity page. Review the four cardinal directions (north, south, east, and west) and ask your child to label them on the compass rose. Find a major marker for north on a wall in a spacious room in your house. Move around the room in different directions (only moving clearly toward the north, south, east, or west) and ask your child to describe the direction you are moving.

Next, discuss the ordinal directions. Help your child label the compass with NE, SE, SW, and NW.

Put a penny on the center of the compass rose. Move it in different directions starting in the middle of the compass and then extending beyond the points on the compass. Ask your child to identify the direction the penny is moving.

Show your child the map on the "Cardinal Directions" page. Discuss the different places found on the map and how each place meets the needs of the people in the community. Ask your child to answer the questions about the locations of different places on the map.

Answer Key:

1. Which street is located north of Stone Mountain? (Main Street)
2. What building is located northwest of Sunshine Lake? (hospital)
3. What body of water is located southwest of the hospital? (Crystal Lake)
4. What building is east of the post office and south of the café? (grocery or library)
5. In what two directions does Main Street run? (east and west)

Day 2

Activity 2: Map Grid

Explain to your child that a map grid helps people locate a specific place on a map. Letters run horizontally on the map, and numbers run vertically. On the "Map Grid" sheet, your child will find a grid map that is similar to the map used in the previous activity. Explain to your child that a grid map uses numbers and letters to show a location, and the letter is always recorded before the number (for example, B-3). Let your child answer each of the questions on the page.

Answer Key:

1. What is located at A-5? (Crystal Lake)
2. What is located at D-2? (hospital)
3. What is located at F-3? (café)
4. What is located at G-4? (grocery)
5. (pond at B-2 should be right below Pine Mountain)
6. (house at F-2 should be aright above the café)
7. (dentist's office at G-3 should be to the right of the café)

Activity 3: Using a Map Key

Page 7 of *Map Symbols, Keys, and Scales* shows a map with a map key. Ask your child to use the map key to point out different places on the map (such as post offices, libraries, and police stations). Then ask him to turn to pp. 11 and 15 and locate the keys on each of the maps. In one or both of the maps, ask your child

questions based on the key (such as where campsites are located in the map on p. 11). You can also have him identify the keys in some of the maps in *All Kinds of Maps* (pages 9, 11, 12, 15, and 16).

Give your child the "Using a Map Key" page and point out the treasure map. Explain that this map key describes the symbols used to show the geographical features of the island. Discuss what each symbol represents on the map and then ask your child to identify the location of each symbol on the map. Next, ask him to follow the instructions at the bottom of the page.

Answer Key:

- Where do you go after you reach the tree? (go to the Native Village, or go northwest)
- Describe where the buried treasure is located. (answers may include the southwest area of the island, west of Central Mountain, northwest of Big River, etc.)
- What is located south of Central Mountain? (Big River)
- What is at the east end of the river? (Piranha Pool)

Day 3

Activity 4: Map Scale

Review pages 12-16 of *Map Symbols, Keys, and Scales* with your child. Ask him to locate the map scale on page 15. Explain that the larger the area on the map, the more miles/kilometers an inch must represent. Choose one of the following options for your child to complete.

Option 1

Give your child the "Map Scale" (Option 1) page and show him the scale. Explain that a scale shows the distance between two places on the map. Tell him that on this map 1 inch = 1 mile. Give your child a ruler, show him the scale, and set the ruler on the scale to show that the distance between the marks is one inch. Show your child how to use the ruler to measure the distance between two places on the map. Then explain that the inches will tell him how many miles apart the places are. Next, your child can answer the questions at the bottom of the map.

Remind your child that on some maps an inch might be equal to 10 miles, 50 miles, or even more.

Answer Key:

1. How far is it from the grocery store to the fire department? (1 mile)
2. How long is West Street? (2 miles)
3. How far is the library from the school? (1/2 mile)
4. How far is the drive from the dentist's office to the restaurant? (2 miles)
5. How far is the doctor's office from the hospital? (1 1/2 miles)

Option 2

"On the Map Scale" (Option 2) page, show your child the scale. Explain to him that a scale shows the distance between two places on the map. Tell him that on this map one inch is equal to **ten** miles. Give your child a ruler, show him the scale, and set the ruler on the scale to show that the distance between the marks is one inch. Show your child how to use the ruler to measure the distance between two places on the map. Then explain that the inches will tell him how many miles apart the places are. Next, your child can answer the questions at the bottom of the map.

Answer Key:

- How far is it from the grocery store to the fire department? (10 miles)
- How long is West Street? (20 miles)
- How far is the library from the school? (5 miles)
- How far is the drive from the dentist's office to the restaurant? (10 miles)
- How far is the doctor's office from the hospital? (15 miles)

Activity 5: A Park

Give your child a sheet of green construction paper and a clipboard. Tell him that he is going to create a map for the park. Ask him to draw a compass rose in the upper right hand corner of the map and a box for a map key in the bottom right corner. Take your child to a local park. Tell him that his map should have symbols to represent the swings, slides, large trees, monkey bars, restrooms, and any other special features. Then let him draw the items on the map, showing where they are located in relation to one another. Then he can label each symbol and give his map a title. When he is finished, ask him to identify the relationship of places in the park to one another, applying his understanding of cardinal directions. Help him to draw a one-inch map grid on the page. Then ask him to locate features of the park using the grid.

Activity 6: Where I Want To Live

For this creative activity, give your child the 1" grid paper provided. Then ask him to think about an imaginary land where he would like to live. Explain that the places on his map should not be exactly the same as those found in his community — they can be imaginary and fanciful. Encourage him to use his imagination to think of what his land will have. He can record his ideas on a separate sheet of paper and add them to his map. As he adds geographical features and places, he can label them or make a map key.

NOTE: To extend this lesson, encourage your child to tell you a story about the imaginary environment he created. He should include different places on his map and explain what occurs in each place.

Wrapping Up

Ask your child to describe some different features of maps. Ask him how to use a grid, a map key, and a scale. Ask him how each gives the map reader information about a geographic area.

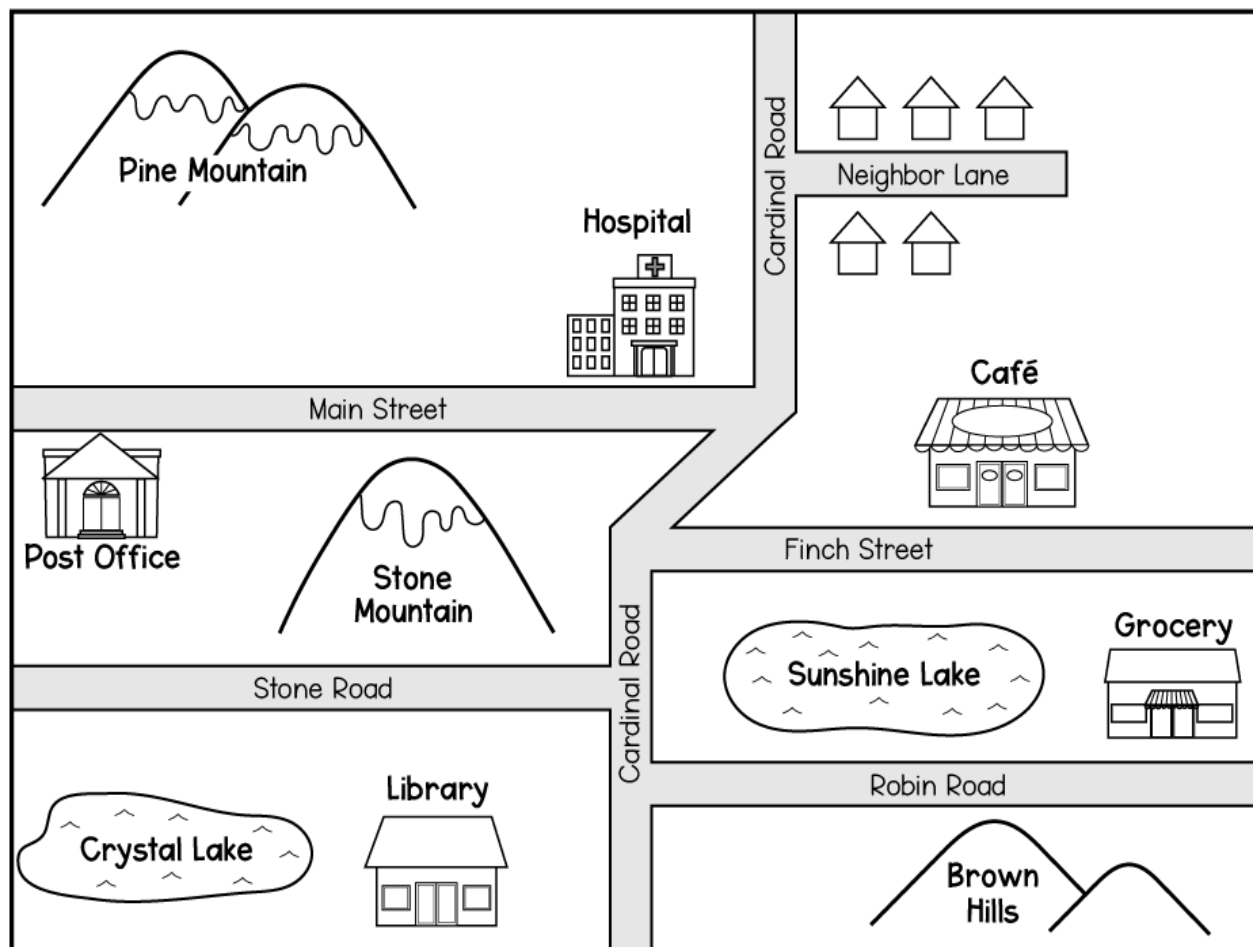
Life Application

Help your child locate a map of his own neighborhood using an online resource such as Google Maps. Identify your own home on the map and ask your child to explain the location of other places on the map in relation to his home.

Ask your child to locate scales, keys, and grids in an atlas or other book of maps.

CARDINAL DIRECTIONS

Directions: Answer the questions about the location of different places on the map.



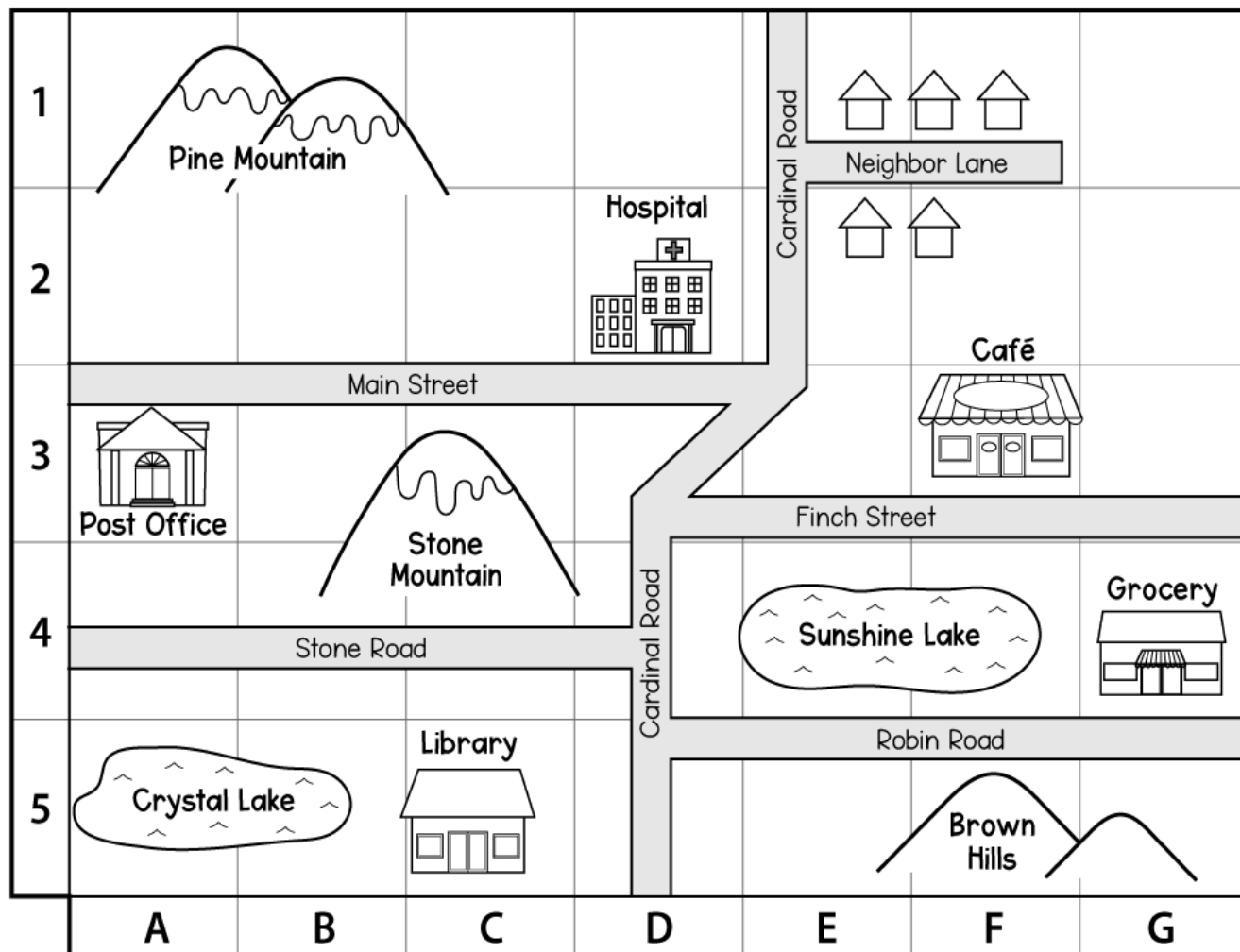
1. Which street is located north of Stone Mountain? _____
2. What building is located northwest of Sunshine Lake? _____
3. What body of water is located southwest of the hospital? _____
4. What building is east of the post office and south of the café? _____
5. In what two directions does Main Street run? _____

Compass Rose



MAP GRID

Directions: Answer the questions about the location of different places on the map.



1. What is located at A-5? _____

2. What is located at D-2? _____

3. What is located at F-3? _____

4. What is located at G-4? _____

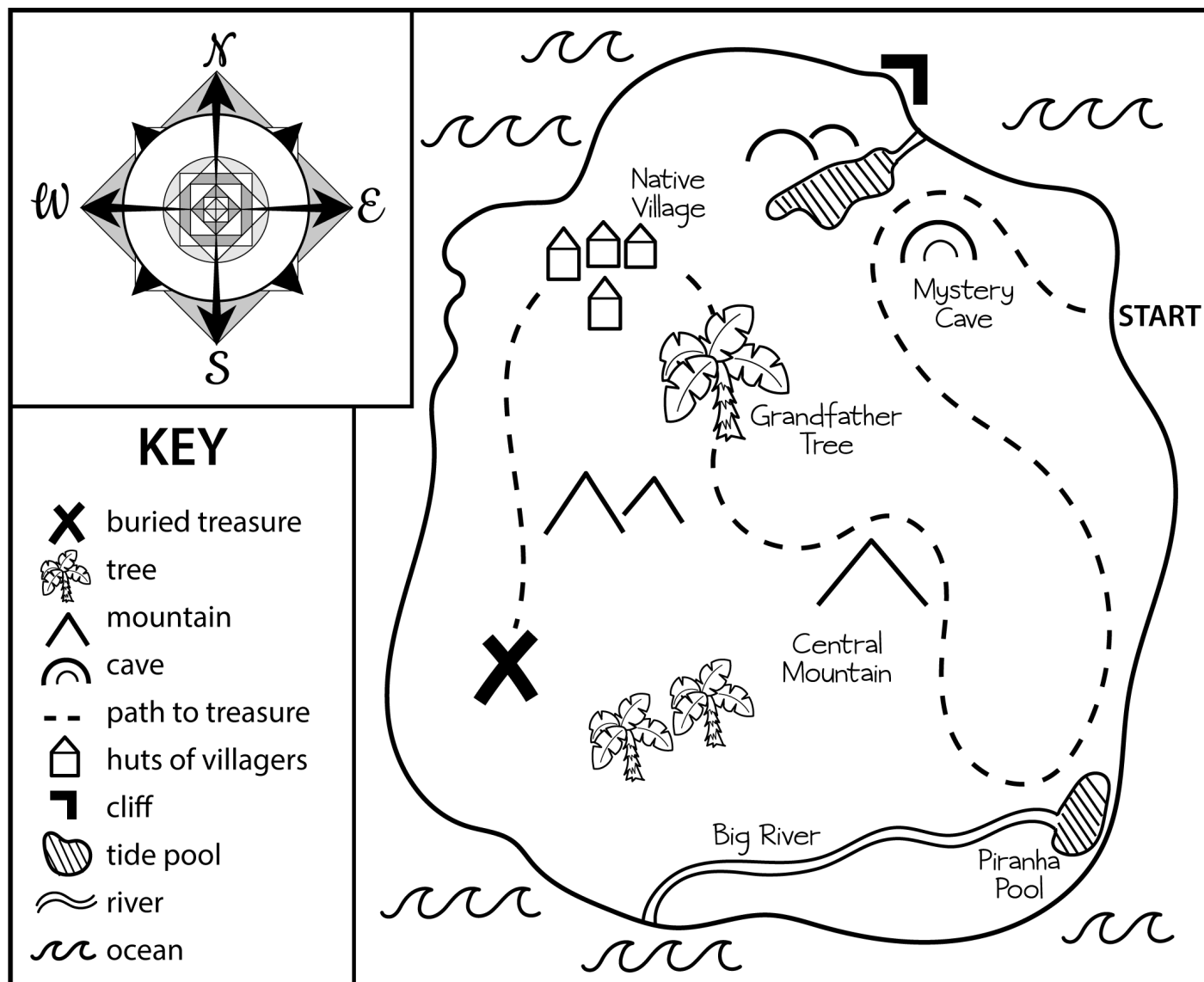
5. Add a pond in B-2.

6. Add a house in F-2.

7. Draw a dentist's office at G-3.

Using a Map Key

Directions: Follow the directions below on the treasure map.



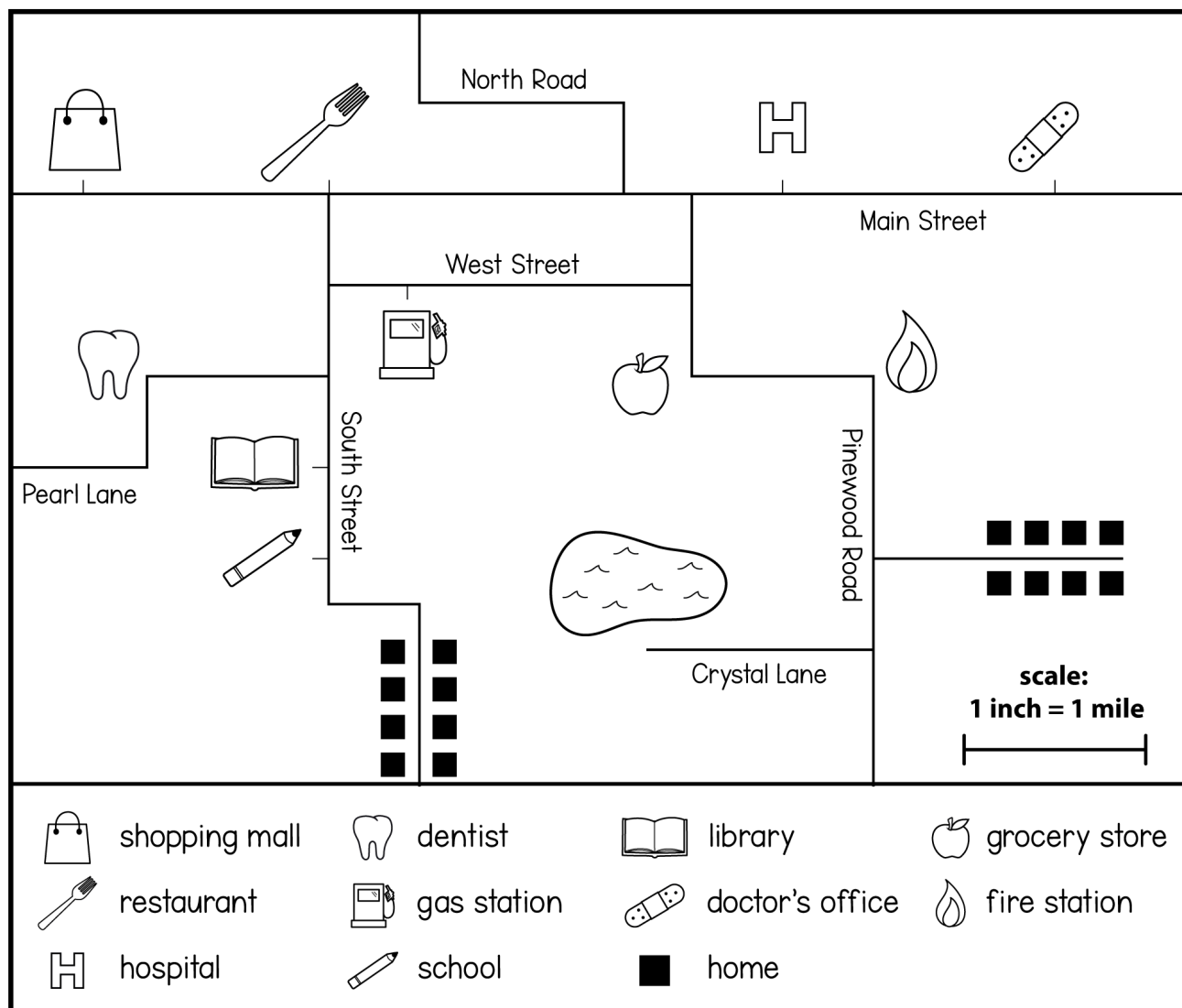
Directions:

1. Color the cave black.
2. Where do you go after you reach the tree? _____
3. Describe where the buried treasure is located.

4. Color the huts brown.
5. What is located south of Central Mountain? _____
6. What is at the east end of the river? _____

MAP SCALE

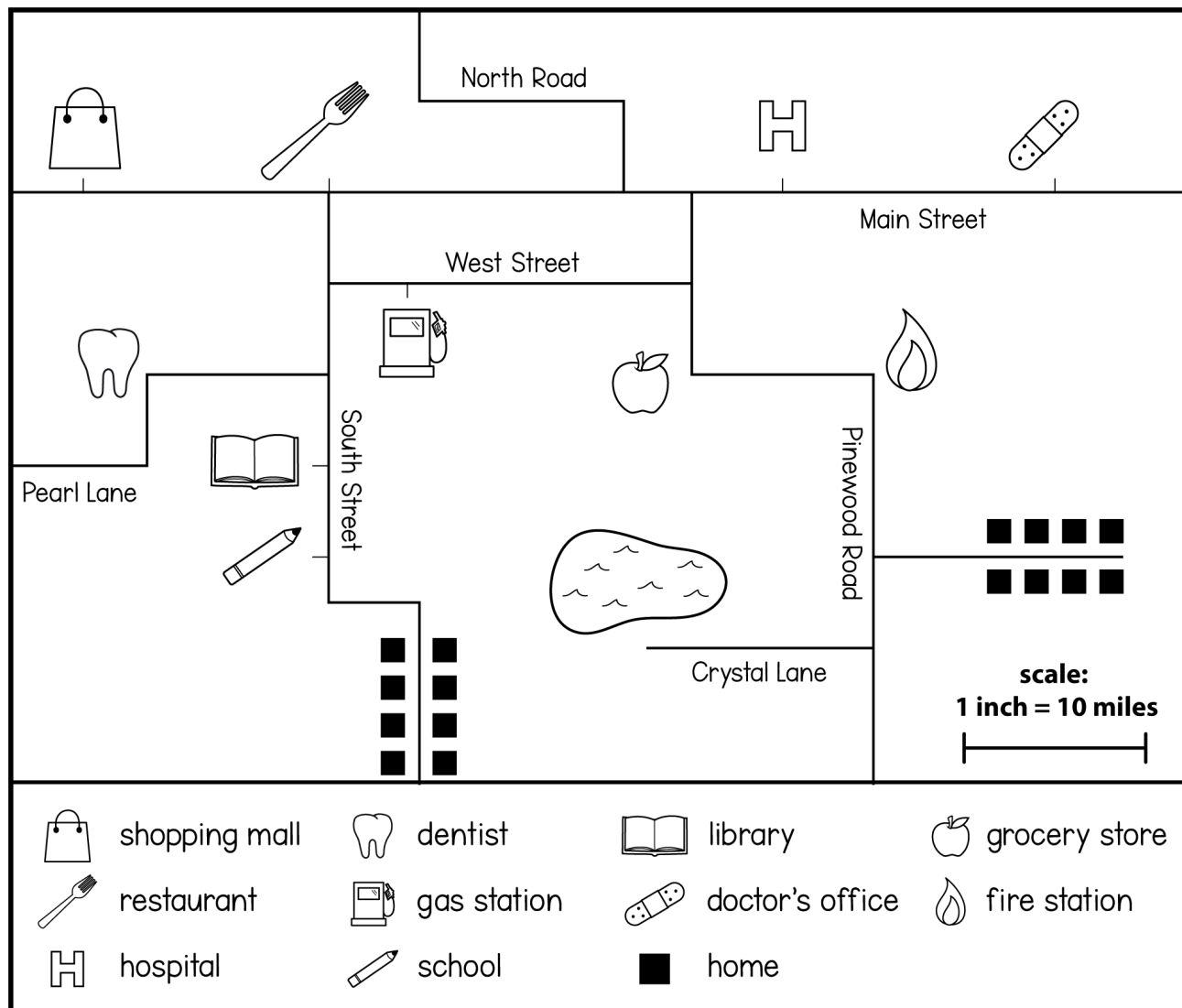
Directions: Use a ruler and the map scale to answer the questions about the map.



- How far is it from the grocery store to the fire department? _____
- How long is West Street? _____
- How far is the library from the school? _____
- How far is the drive from the dentist's office to the restaurant? _____
- How far is the doctor's office from the hospital? _____

MAP SCALE

Directions: Use a ruler and the map scale to answer the questions about the map.



1. How far is it from the grocery store to the fire department? _____
2. How long is West Street? _____
3. How far is the library from the school? _____
4. How far is the drive from the dentist's office to the restaurant? _____
5. How far is the doctor's office from the hospital? _____

