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# MAPS CHARTS GRAPHS

## Communities

## Level C

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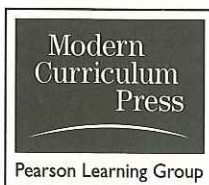
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# What is a map?

**Learn to:** find details in an aerial photograph  
compare details in a photograph and a map

This photograph was taken from an airplane. It shows buildings, trees and streets as they look from above. This is called an **aerial photograph**. Map makers use aerial photographs to help them make maps. Look carefully at this aerial photograph.

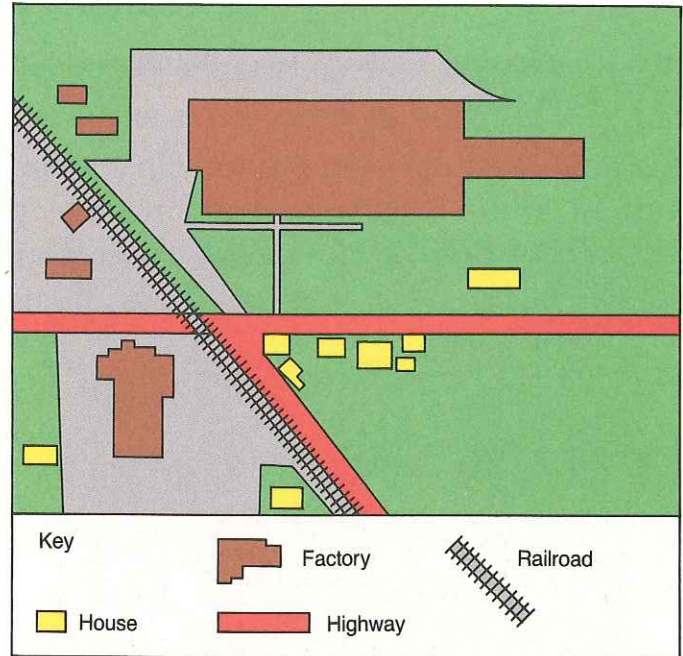


**Complete the following.**

1. Put an X on the railroad tracks.
2. Draw a square around any tree.
3. Put an F on the largest building.
4. Circle a house.
5. Put an H on the highway.
6. What is an aerial photograph?
  - a. a picture taken from the ground
  - b. a picture taken from an airplane
  - c. a picture of an airport



Below is the same photograph with a map drawn of the area. You can see that the map is a flat drawing that shows many details of the area. Maps can show streets, buildings and railroads. Look carefully at the photograph and map.



Circle the correct answer.


7. What do both the map and photograph show?

- a. buildings    b. a lake    c. an airplane

8. How is the railroad shown on the map?

a. 

b. 

c. 

9. What is the largest building on both the map and the photograph?

- a. factory    b. church    c. house

10. What do both the map and photograph show about the highway?

- a. It is very crooked.  
b. It crosses the railroad tracks.  
c. It ends at the railroad tracks.

11. What is shown on the photograph that is not shown on the map?

- a. trees    b. buildings    c. highways

12. What can you see when you compare the photograph and the map?

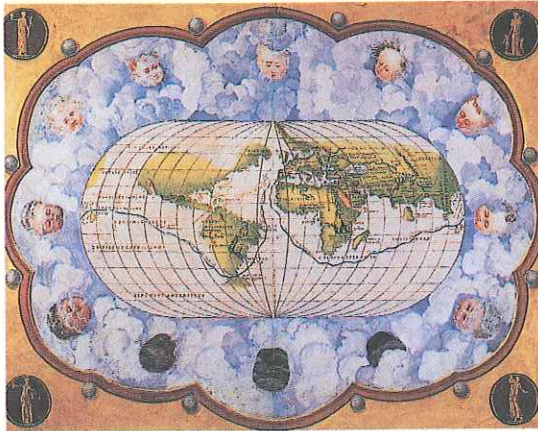
- a. Both the map and photograph show cars.  
b. Factories look like boxes on the map and like buildings on the photograph.  
c. The photograph shows houses but the map doesn't.



# Map Making

**Learn to:** identify reasons why people make maps

Maps were invented long ago to help people find places. Maps are tools of communication. Early maps were made by people scratching in the dirt with sticks. Others were carved or painted on animal hides or stone. Later, people started drawing maps on paper-like materials.



Map 1  
Early sea routes



Map 2  
Early map of United States

**Circle the correct answer.**

1. How were early maps made?
  - a. by scratching in the dirt
  - b. by carving on trees
  - c. by drawing on paper
2. Why were maps invented?
  - a. to be given as gifts
  - b. to serve as art
  - c. to help people find places
3. Circle the true statements below.
  - a. Maps were invented a few years ago.
  - b. Early maps were drawn by sailors and explorers.
  - c. Maps were invented to help travelers.
4. Which map above shows an early map of the United States?
  - a. Map 1    b. Map 2
5. Which map above shows early sailing routes?
  - a. Map 1    b. Map 2
6. Why would it be useful to have a map drawn on paper?
  - a. It is easier to take on a trip.
  - b. It lasts longer.
  - c. It is more correct than other maps.



People who draw maps are called **cartographers**. Cartographers draw maps to show many different places and things. They often put their maps together in a book called an **atlas**.

Cartographers use many things to help them draw accurate maps. They often use a **survey** of a place. A survey is a careful measuring of an area, using special tools. Many community maps are drawn by using both a survey and an aerial photograph. Cartographers also use photographs of the earth taken by satellites in space.



An aerial photograph of the city of San Francisco, California.



A view of Jupiter taken by a satellite.

**Complete the following.**

7. What is a survey? \_\_\_\_\_  
\_\_\_\_\_
8. What is a cartographer? \_\_\_\_\_  
\_\_\_\_\_
9. What kind of book is an atlas?  
\_\_\_\_\_  
\_\_\_\_\_
10. What does a cartographer use to draw a community map?  
\_\_\_\_\_  
\_\_\_\_\_
11. How was the picture of Jupiter above, taken?  
\_\_\_\_\_  
\_\_\_\_\_
12. Does an aerial photograph or satellite photograph show buildings and streets of a city?  
\_\_\_\_\_  
\_\_\_\_\_

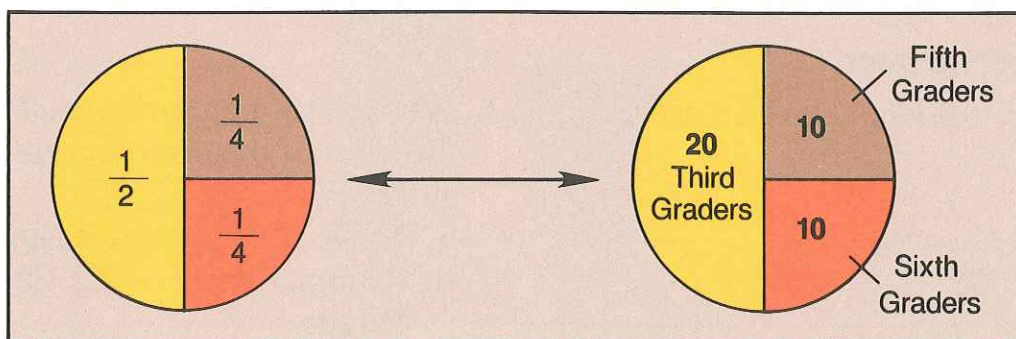
## Circle Graphs

**Learn to:** read a circle graph

A **circle graph** shows one whole thing divided into parts. It looks like a pie cut into pieces. Sometimes it is called a pie graph. The title tells what the graph is about. The lines cut the graph into parts. The numbers on the graph tell you how many are in each part.

The circle graphs below show the same information in two different ways. Each graph shows a whole group of bus riders, divided into parts. Look at each graph carefully.

**RIDERS OF BUS 54**



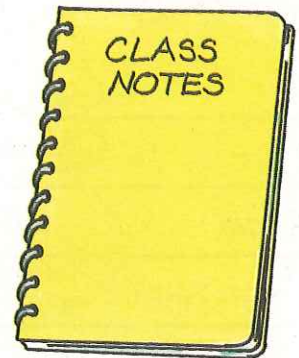
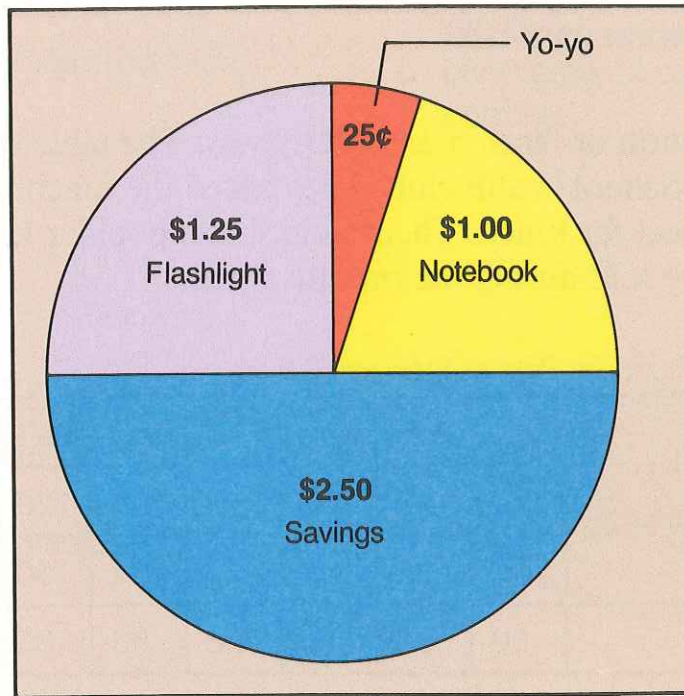
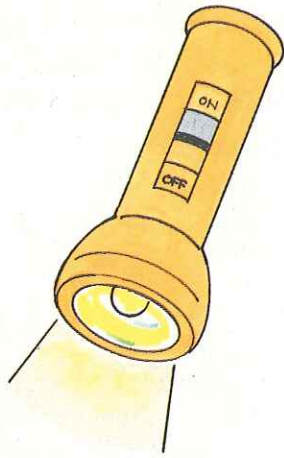
**Circle the correct answer.**

- What do both graphs show?
  - all children in the third grade
  - all riders of Bus 54
  - all riders of Bus 77
- How many third graders ride the bus?
  - 40
  - 20
  - 10
- What part of Bus 54 riders are third graders?
  - $\frac{1}{2}$
  - $\frac{1}{4}$
- How many sixth graders ride the bus?
  - 40
  - 20
  - 10
- What is the total number of students that ride Bus 54?
  - 40
  - 20
  - 10
- What two grades have the same number of bus riders?
  - third and fifth
  - third and sixth
  - fifth and sixth



Read the title and labels on this pie graph carefully. Use the graph to answer the questions.

**MANUEL'S BIRTHDAY MONEY**



**Complete the following.**

7. What does this pie graph show?
  - a. Manuel's favorite games
  - b. how Manuel used his birthday money
  - c. how much Manuel spent on school supplies
8. How much money did Manuel put into savings?
  - a. \$2.50
  - b. \$1.25
  - c. \$1.00
9. What did Manuel spend the least on?
  - a. notebook
  - b. flashlight
  - c. yo-yo
10. What did Manuel spend on a flashlight?
  - a. 25¢
  - b. \$2.50
  - c. \$1.25
11. How much did Manuel spend all together?
  - a. \$2.50
  - b. \$1.00
  - c. \$1.25
12. What did Manuel do with half of his money?
  - a. saved it
  - b. spent it on a yo-yo
  - c. spent it on a flashlight



# Answer Key

## Lesson 1

pages 2-3

- |                                     |       |
|-------------------------------------|-------|
| 1. c                                | 7. a  |
| 2. a                                | 8. b  |
| 3. c                                | 9. c  |
| 4. b                                | 10. a |
| 5. (any two) fish, corn,<br>pumpkin | 11. b |
|                                     | 12. b |
6. The stream gave the Indians fish to eat, and water to drink and to water their vegetables. They also needed the stream for transportation. They needed the trees in the forest for firewood, to make houses and to make tools.

## Lesson 2

pages 4-5



- |                                 |      |       |
|---------------------------------|------|-------|
| 1.-5. See photo<br>for answers. | 7. a | 10. b |
|                                 | 8. c | 11. a |
| 6. b                            | 9. a | 12. b |

## Lesson 3

pages 6-7

- |        |   |   |
|--------|---|---|
| 1. a   | 7. a careful<br>measuring<br>of an area | 10. a survey and<br>an aerial<br>photograph |
| 2. c   |   |   |
| 3. b,c |   |   |
| 4. b   | 8. a person<br>who draws<br>maps        | 11. It was taken<br>by a satellite.         |
| 5. a   |   | 12. aerial<br>photograph                    |
| 6. a   | 9. a book of<br>maps                    |   |

## Lesson 4

pages 8-9

- |      |      |       |
|------|------|-------|
| 1. b | 5. b | 9. b  |
| 2. a | 6. c | 10. c |
| 3. c | 7. b | 11. b |
| 4. b | 8. a | 12. a |

## Lesson 5

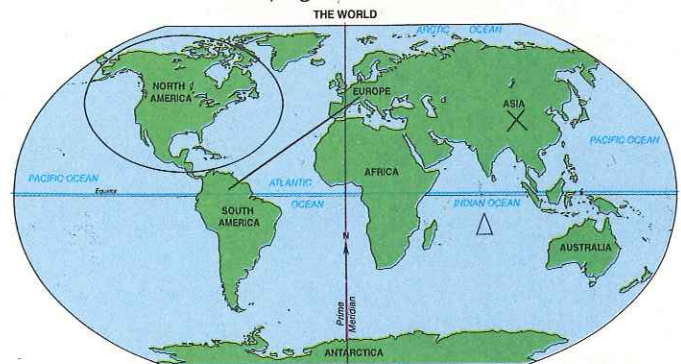
pages 10-11

W <u>N</u>	N	W <u>N</u>	W <u>N</u>
E	W <u>E</u>	E	E
S	S	S	<u>S</u>

- |      |      |      |
|------|------|------|
| 1. a | 4. b | 7. c |
| 2. c | 5. a | 8. a |
| 3. d | 6. c |      |

## Lesson 6

pages 12-13



- |                               |      |       |
|-------------------------------|------|-------|
| 1.-6. See map<br>for answers. | 7. c | 9. c  |
|                               | 8. a | 10. b |

## Lesson 7

pages 14-15

- |      |       |       |
|------|-------|-------|
| 1. a | 6. b  | 11. c |
| 2. d | 7. a  | 12. a |
| 3. a | 8. b  | 13. b |
| 4. c | 9. b  | 14. a |
| 5. a | 10. b |       |