

28-3 What Are Some Parts of a Food Chain and a Food Web?

Plants use light energy of the sun to make food. The food is stored in the cells of the plant. Plants are called producers because they make food. Some of the stored energy in the food plants make is passed on to the animals that eat the plants. Plant-eating animals are called primary consumers. Some of the energy is passed on to the animals that eat primary consumers. Animals that eat other animals are called secondary consumers.

The pathway that food takes through an ecosystem is called a food chain. A food chain also shows the movement of energy from plants to plant eaters and then to animal eaters. An example of a food chain can be written:

seeds → sparrow → hawk

Some of the food energy in the seeds moves to the sparrow that eats them. Some of the food energy then moves to the hawk that eats the sparrow.

Because a hawk eats animals other than sparrows, you could make a food chain for each animal the hawk eats. If all the food chains were connected, the result is a food web. A food web is a group of connected food chains. A food web shows many energy relationships.

GOALS

In this exercise, you will:

- determine what different animals eat in several food chains.
- build a food web that could exist in a forest ecosystem.

MATERIALS

Colored pencils
metric ruler

PROCEDURE

Part A. Examining Food Chains

- Study the food chains listed below and at the top of the next page.
- Complete the table on the next page. Checkmark all the things that each animal listed on the left side eats.

plant parts →	land snail →	mouse →	raccoon
plant parts →	sparrow →	hawk	
plant parts →	rabbit →	fox	
plant parts →	cricket →	chipmunk →	snake
plant parts →	mouse →	fox	

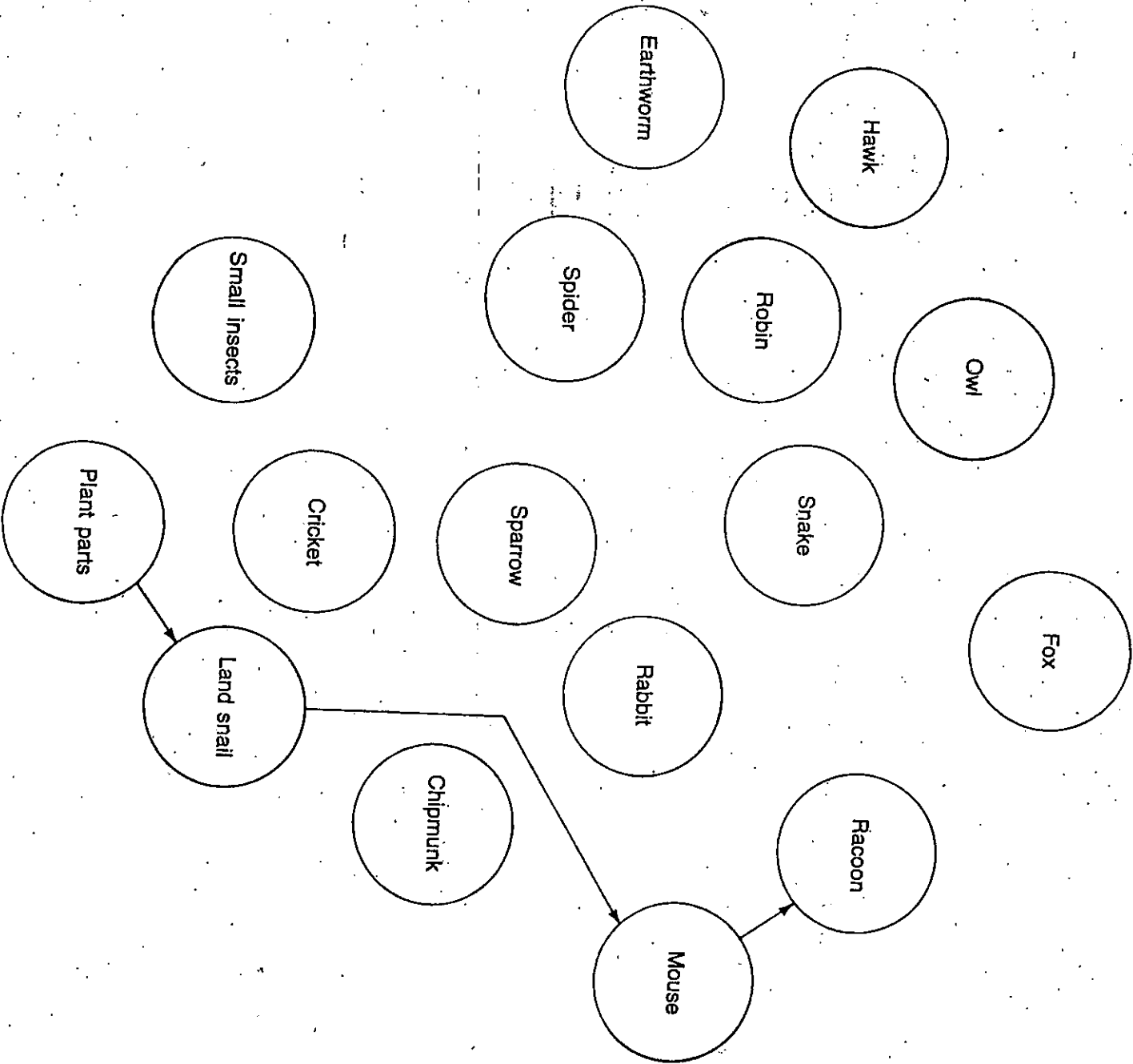
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Part B. Making a Food Web

1. Use the information in the food chains given on pages 217 and 218 to complete the diagram below. Draw a line from each living thing below to each thing that eats it. The first food chain is done for you.
2. Use different colors for different food chains. Be sure to work in an order so you can tell when you have all the given food chains in the food web. Also, draw your lines so they bend around the animal names. This will make your food web easier to read when you finish.



QUESTIONS

1. In how many food chains do the following animals appear?

hawk _____ earthworm _____ fox _____

owl _____ snake _____ chipmunk _____

2. In how many food chains do plants (parts) appear? _____

3. List the names of the living things in this forest ecosystem that are producers.

4. List those things that are primary consumers. _____

5. List those things that are secondary consumers. _____

6. List the consumers that eat both plants and animals. _____

7. What would happen to the food web if all the plants were removed? _____

Explain your answer. _____

APPLICATIONS

Draw three food chains showing producers and consumers that you might see in your backyard or on your way to school.

VOCABULARY

Define each of the following terms.

1. food web _____

2. producer _____

3. food energy _____

4. consumer _____