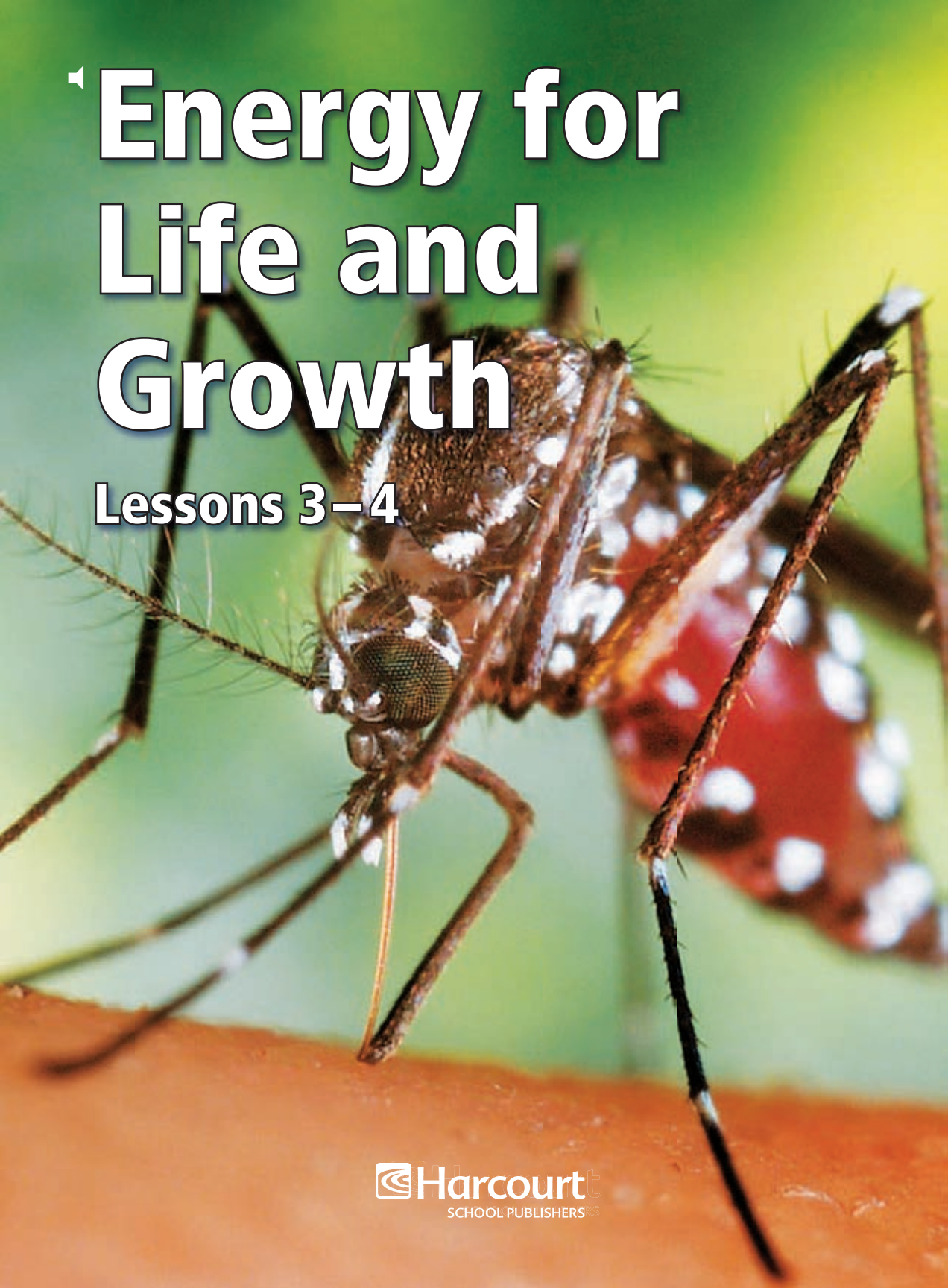




Energy for Life and Growth

Lessons 3–4

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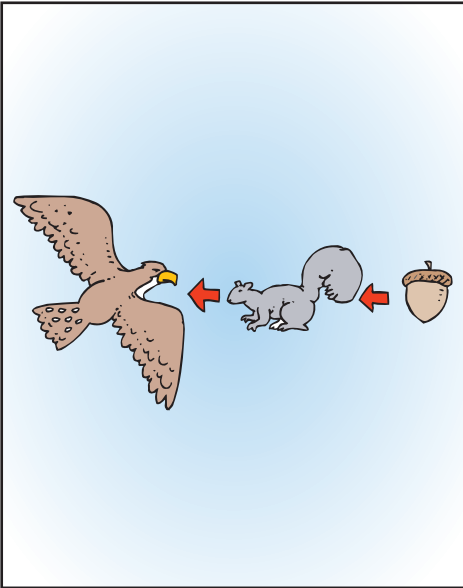


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VOCABULARY

- food chain
- prey
- predator
- food web

What are Food Chains and Food Webs?



- Energy moves from one living thing to another through food. The energy follows a **food chain**.



- Some animals are hunted and eaten as **prey**.



▶ This **predator** hunts and eats other animals for food.



▶ Some animals are part of more than one food chain. They are part of a **food web**.



READING FOCUS SKILL

SEQUENCE

When you **sequence** things, you put them in order.

See if you can follow the **sequence** of a food chain.

Tell where different plants and animals are in a food chain.

Food Chains

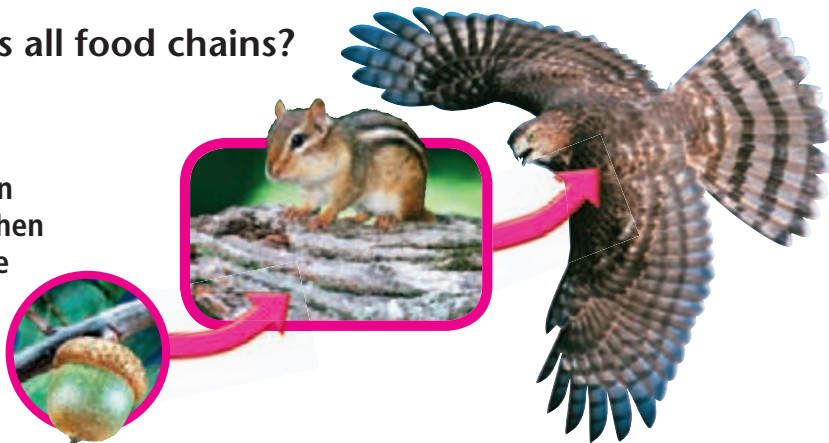
Living things need food energy to live. A **food chain** shows the movement of food energy. Energy moves from one living thing to another. This movement follows a *sequence*. Every food chain starts with producers. Producers such as plants use sunlight to make food. Then animals eat the producers. These animals are then eaten by other animals.

Consumers that are eaten are called **prey**. Consumers that eat prey are called **predators**. In a habitat, some animals are always prey. After prey is eaten by consumers, decomposers break down what remains. They return nutrients to the soil. This helps plants grow.



What starts all food chains?

The acorn is eaten by a chipmunk. Then the hawk eats the chipmunk. ►



Food Webs

Foods chains may overlap. Food chains that overlap make a **food web**. One kind of producer can be food for different animals. Some consumers eat more than one kind of food.

 In an ocean food web, small fish eat producers called *plankton* are eaten by small fish. The small fish are called *first level consumers*. Then bigger fish eat the small fish. The bigger fish are *second level consumers*. Finally, the biggest fish and mammals eat the bigger fish. They are *top level consumers*.



 What can happen after the smallest fish eat producers?

Review



Complete these **sequence** statements.

-  1. A _____ shows how food chains overlap.
-  2. _____ are at the start of an ocean food web.
-  3. Then _____ consumers eat the plankton.
-  4. Next, _____ consumers eat the smaller small fish.

VOCABULARY

- habitat
- resources
- competition

How Do Living Things Compete for Resources?



An animal's **habitat** meets its needs.



Animals need **resources** like food, water, and shelter to survive.



Competition for food is greater when there is less food.



READING FOCUS SKILL

CAUSE AND EFFECT

A **cause** is something that makes another thing happen. An **effect** is the thing that happens.

Look for examples of **cause** and **effect**. Look for what causes animals to live where they live.

Habitats

A **habitat** is a special environment. It meets the needs of a living thing. Habitats can be large or small. An insect is small, so it has a small habitat. A space under a rock can meet the needs of an insect. A bird that migrates needs a larger habitat. That habitat may be an entire continent.



Many types of snakes also live in the desert.



Tarantulas live in the desert.

Each living thing in a habitat has a special *niche* [NITCH]. That means it has a special part to play in its habitat.

All habitats have resources. **Resources** are useful things in the environment. Some resources are food. Others are air, water, and shelter.

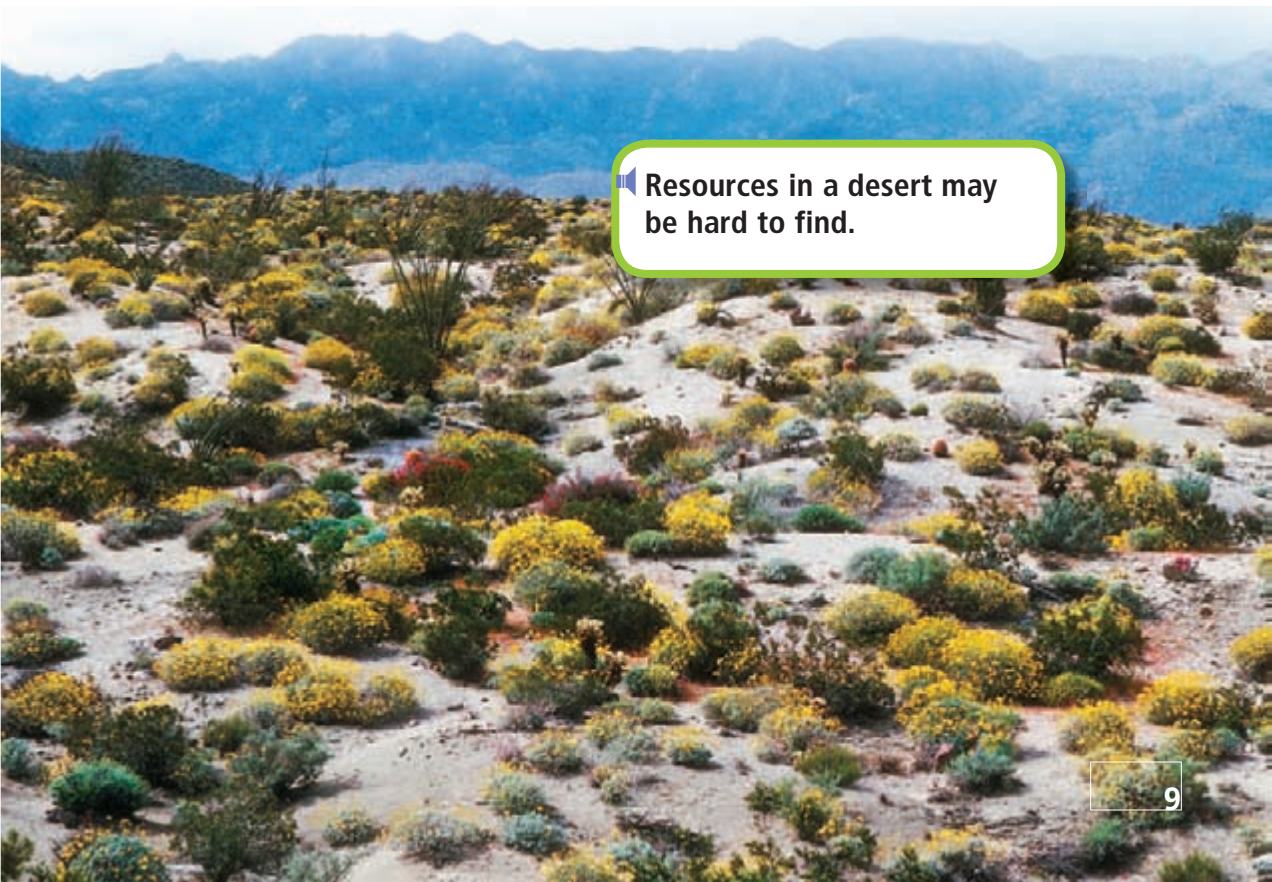
Part of a snake's niche is eating mice and birds that live in its habitat. These are the snake's food resources.

If all the snakes in a habitat die, there will be no snakes to eat mice or birds. The numbers of mice and birds will then grow too large. Snakes help keep balance in their habitat. With balance, all three kinds of animals are helped. They all are more likely to survive.



What can cause some animals in a habitat to die?

Resources in a desert may be hard to find.



Competing for Resources

In a habitat, resources are limited. There is only a certain amount of food, water, and shelter. No matter how many animals there are, these resources stay the same.

Competition is a kind of contest. Living things compete to win resources. They compete for the things they need to survive. They compete for the same kinds of food. They also compete for shelter.



Leaves are the main food source for deer. Each deer eats a lot of leaves. If there are too many deer, this food is soon be gone.

Plants also compete for space in a habitat. The plants on a rainforest floor are in competition. They compete for the small amount of sun that reaches the forest floor.



What is the effect of too many of the same kind of animal in a habitat?



Review



Complete these **cause** and **effect** statements.

1. The right _____ is where animals are able to find food.
2. _____ like food, water, and shelter allow animals to survive better.
3. _____ in a habitat causes the numbers of animals to stay in balance.
4. Because some animals cannot find food, they will not _____ .

GLOSSARY

-  **competition** (kahm•puh•TIH•shuhn) The working of organisms to win limited resources.
-  **food chain** (FOOD CHAYN) A series of organisms that depend on one another for food.
-  **food web** (FOOD WEB) A group of food chains that overlap.
-  **habitat** (HAB•uh•tat) An environment that meets the needs of an organism.
-  **predator** (PRED•uh•ter) A consumer that eats prey.
-  **prey** (PRAY) Consumers that are eaten by predators.
-  **resources** (REE•sawr•suhz) Useful things in the environment, such as air, food, water, and shelter, that animals need to survive.

Think About the Reading

-  **1.** Do you want to know more about habitats after reading this unit? Where can you look fo find out more?
-  **2.** Do you know what kind of habitat hawks live in? How can find out more about this habitat?

Hands-On Activity

You learned about food chains, food webs and resources. You learned how animals compete for food.

-  **1.** Draw a picture of some animals that live near your home or school.
-  **2.** Draw the food chain or food web of these animals. Draw the food resources they compete for.

School-Home Connection

Talk to your family about food chains. Visit or talk about a zoo and the animals there. Tell which animals are predators. Tell which are prey. Talk about the food chains of some zoo animals.