

Understanding the Food Chain



Understanding the Food Chain

Food for All	2
What's on the Menu?.....	4
Predators and Prey	6
Food Chains	8
Food Webs	10
Energy Pyramids.....	12
Staying Alive	14
Glossary.....	16




Orlando Austin New York San Diego Toronto London

Visit *The Learning Site!*
www.harcourtschool.com

Food for All

Every living thing needs food. Both plants and animals need food to grow and stay healthy. But different organisms get food in different ways.

Plants make their own food by using sunlight, air, and water. Plants are producers. **Producers** are living things that make, or produce, their own food. The food is full of the energy they need. Grass, bushes, and trees are producers.



Apple trees are producers. They make their own food from sunlight, air, and water.

You might eat an apple for food, but you did not “make” the apple. Even the farmer who grew the apple did not “make” it. The farmer gathered it from a tree that produced the apple.

Animals can't produce their own food. Animals are consumers. **Consumers** are living things that get energy by eating other things, either plants or the animals that eat the plants.

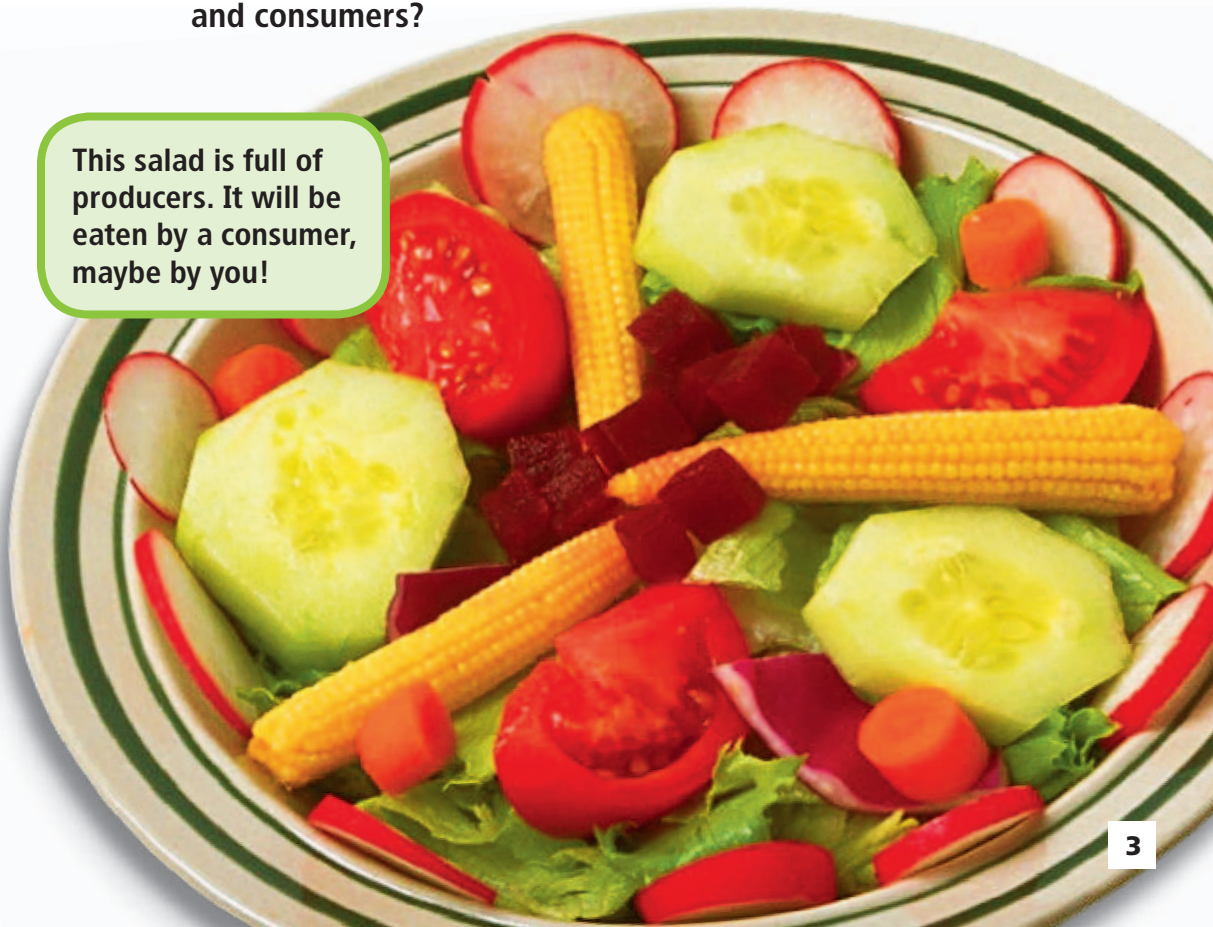
Some consumers, such as birds, eat plants. Energy from the plants is taken into the birds' bodies. Other consumers get energy by eating the birds.

A **decomposer** is a living thing that breaks down dead things for food. Earthworms and mushrooms are decomposers. Other decomposers are so small that you can see them only with a microscope.



COMPARE AND CONTRAST What is the difference between producers and consumers?

This salad is full of producers. It will be eaten by a consumer, maybe by you!



What's on the Menu?

There are three kinds of consumers. Each kind eats from a different menu.

Herbivores eat only plants. A garden snail is a small herbivore, weighing only about 50 grams (1.75 oz). A dromedary camel is a large herbivore, weighing about 400–600 kilograms (880–1,326 lb).

Each herbivore has special body parts that help it eat plants. A garden snail has a tongue covered with tiny, curved teeth. The teeth help tear off pieces of leaves to eat. The dromedary camel lives mostly on thorny plants. It has lips that are thick and tough.

Some people are herbivores, too. They choose not to eat meat or other food that comes from animals.

This herbivore eats the nuts and berries from plants. It stores extra food in its big cheeks for later!



A **carnivore** gets its food by eating other animals. Carnivores have body parts to help hunt and eat. Most frogs are carnivores that have long, sticky tongues to help catch insects. Lions have sharp teeth to help catch and eat the animals they hunt.

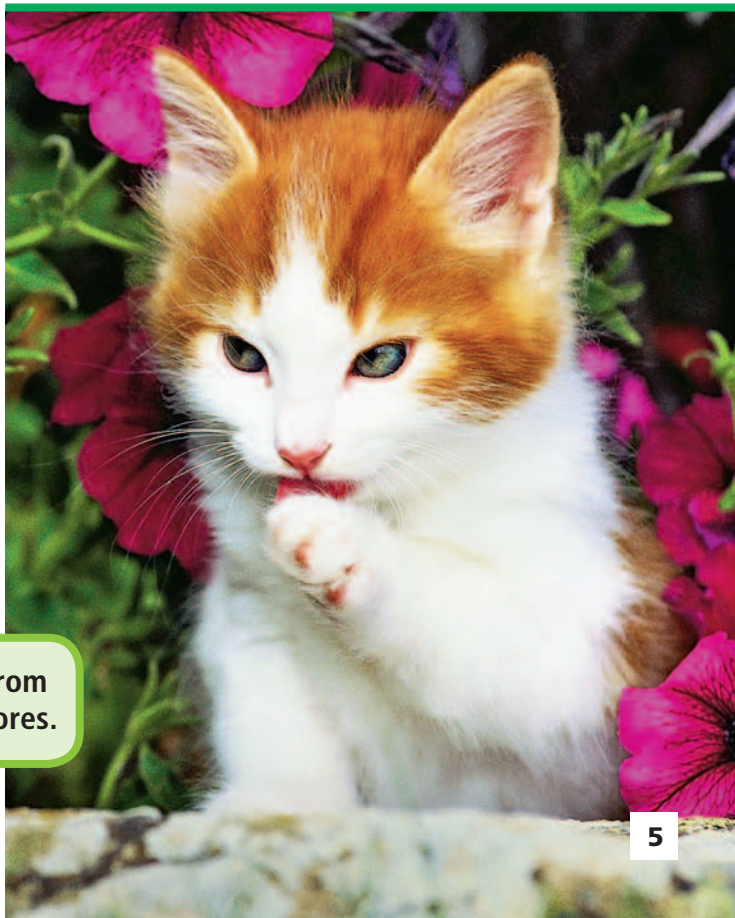
An **omnivore** eats both plants and animals. Freshwater mussels live at the bottoms of rivers and lakes. They eat microscopic particles—both animals and plants—out of the water.

Most omnivores have teeth that help them eat both plants and animals. Sharp teeth in the front of a human's mouth help tear meat. Flat teeth in the back help grind plants.



COMPARE AND CONTRAST How are carnivores and herbivores alike? How are they different?

A house cat comes from a long line of carnivores.



Predators and Prey

You know that carnivores and omnivores eat other animals. They need to hunt for their food. A **predator** is an animal that hunts another animal for its food.

Lions are predators. They can sneak up on other animals and overpower them. Grizzly bears are powerful predators, too. Not all predators are as large as lions or bears. Anteaters are predators. They hunt ants by using their tongues. Spiders are predators. They set traps in their webs and wait for a meal to come to them.

An animal that is hunted by a predator is called **prey**.

A wild giant anteater consumes an amazing number of insects—sometimes up to 30,000 in just one day!



Fast Fact

Pollution can hurt sea turtles. Plastic bags and balloons look a lot like jellyfish to sea turtles. When they eat them, they get very sick.

Zebras are prey for lions. Fish, deer, and squirrels are prey for bears.

Insects are prey for anteaters and spiders.

Some animals can be both predators and prey. A tuna fish might hunt and eat a shrimp. Tuna fish are predators of shrimp. But then the tuna might be eaten by a shark. Tuna fish are prey of great white sharks.



MAIN IDEA AND DETAILS A cat hunts for mice. Which is the prey? Why?



Jellyfish are prey for sea turtles.