

Get Energized!

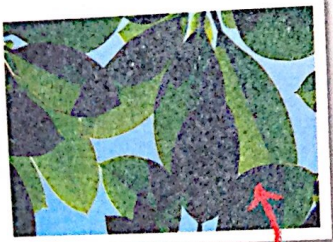
How do organisms get energy?

Energy is all around you. Chemical energy is stored in the bonds of molecules and holds molecules together. The energy from food is chemical energy in the bonds of food molecules. All living things need a source of chemical energy to survive.

Active Reading 6 Identify As you read, underline examples of producers, decomposers, and consumers.

Producers Convert Energy Into Food

A **producer**, also called an autotroph, uses energy to make food. Most producers use sunlight to make food in a process called photosynthesis. The sun powers most life on Earth. In photosynthesis, producers use light energy to make food from water, carbon dioxide, and nutrients found in water and soil. The food contains chemical energy and can be used immediately or stored for later use. All green plants, such as grasses and trees, are producers. Algae and some bacteria are also producers. The food that these producers make supplies the energy for other living things in an ecosystem.



This plant is a producer. Producers make food using light energy from the sun.

Decomposers Break Down Matter

An organism that gets energy and nutrients by breaking down the remains of other organisms is a **decomposer**. Fungi, such as the mushrooms on this log, and some bacteria are decomposers. Decomposers are nature's recyclers. By converting dead organisms and animal and plant waste into materials such as water and nutrients, decomposers help move matter through ecosystems. Decomposers make these simple materials available to other organisms.



These mushrooms are decomposers. They break down the remains of plants and animals.

Think Outside the Book

5 Apply Record what you eat at your next meal. Where do you think these items come from, before they reach the market?

Consumers Eat Other Organisms

A **consumer** is an organism that eats other organisms. Consumers use the energy and nutrients stored in other living organisms because they cannot make their own food. A consumer that eats only plants, such as a grasshopper or bison, is called an **herbivore**. A **carnivore**, such as a badger or this wolf, eats other animals. An **omnivore** eats both plants and animals. A **scavenger** is a specialized turkey vulture, eat the leftovers of the meals of other animals or eat dead animals.



This wolf is a consumer. It eats other organisms to get energy.

Consumers

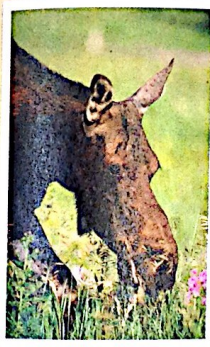
Visualize It!

7 List Beside each image, place a check mark next to the word that matches the type of consumer the animal is.



Name: Hedgehog
What I eat: leaves, earthworms, insects

What am I?
 herbivore
 omnivore
 carnivore



Name: Moose
What I eat: grasses, fruits

What am I?
 herbivore
 omnivore
 carnivore



Name: Komodo dragon
What I eat: insects, birds, mammals

What am I?
 herbivore
 omnivore
 carnivore

8 Infer Explain how carnivores might be affected if the main plant species in a community were to disappear.
