adaptation

a structure, feature, or behavior that helps an organism survive and/or reproduce
algae

a large plantlike group of water organisms that make their own food
alveoli

spherical air sacs where gases pass into and from the blood
aquatic

referring to water
aquatic ecosystem

an ecosystem in a body of water
artery

a blood vessel that carries blood from the heart to the body
atmosphere

the layer of gases surrounding Earth
bacteria

microorganisms that act as decomposers
behavior

the things organisms do to survive and reproduce
biosphere

a system of interacting living organisms on Earth
blade

the flat part of a leaf
bloodstream

the transporter of nutrients to the body’s cells
bolus

a wad of food
brain

part of the central nervous system protected by the skull
by

-product

a secondary, and often unintended, product of a process
capillary

the smallest blood vessel. Gases, nutrients, and wastes are exchanged between capillaries and cells.
carbohydrate

a nutrient, such as sugar and starch, that provides energy
carbon dioxide
(CO2)

a waste gas produced during cellular respiration. Plants use carbon dioxide during photosynthesis to make food.
carnivore

an animal that eats other animals
cell

the basic unit of life
central nervous system

where sensory impulses pass through the brain and spinal cord
chlorophyll is a molecule that absorbs red and blue light and reflects green light.
circulate

to move in a circle
circulatory system

the system of blood vessels and organs that transports blood to all the cells in the body
classification

the process by which scientists identify and organize objects and organisms, such as plants
classify
to identify and
organize according
to similar properties
or other criteria
colon

the large intestine where solid waste is compacted in preparation for elimination
compete
to rely on or need
the same resource as
another organism
compost
decaying
organic
material
consumer

an organism that cannot make its own food. Consumers eat other organisms.
cytoplasm

the liquid that fills living cells
decomposer

an organism that breaks down plant and animal material into simple chemicals
detritivore

an organism that feeds on broken down materials from dead organisms
detritus

organic litter
made up of dead organisms, their parts, and waste
diaphragm

a large, flat, arched muscle that draws air in as well as pushes air out of the lungs
Digestion

The process of breaking down food into nutrients that can be used by cells.
digestive system

the organs and structures that digest food. The digestive system includes the teeth, mouth, esophagus, stomach, small intestine, large intestine, and colon.
dormancy

the state of being dormant or at rest
ecosystem

a community of organisms interacting with each other and with the nonliving environment
energy
what cells need to do work
esophagus

the tube connecting the mouth and the stomach
food chain

a description of the feeding relationships between organisms in an environment
food web

the feeding relationships among all the organisms in an ecosystem. Arrows show the flow of matter and energy from one organism to another.
freshwater ecosystem

a subset of Earth’s aquatic ecosystems that include lakes and ponds, rivers, streams, springs, and wetlands
fungus (plural fungi)

an organism that lacks chlorophyll and gets nutrients from dead or living organisms
geosphere
(lithosphere)

Earth’s core, mantle, and crust
glucose

a sugar found in food; the sugar broken down in cells to release energy
heart

a muscular organ that pumps blood
heart valve

a regulator that moves blood in one direction, ensuring that it does not pump the wrong way in the system
herbivore

an animal that eats plants
hydrosphere
the interacting water on, under, and above Earth’s surface
inherited trait

a characteristic that is passed down from generation to generation
instinct/
instinctive
an action that is
performed
without thinking
or planning
interact
to act upon one another
kelp forest

a seaweed forest that occurs in the ocean
large intestine

the part of the digestive system between the small intestine and the rectum where water is removed from the solid waste
leaf vein

the branching network of tiny raised lines on the underside of a leaf
learned behavior

a behavior that is acquired by being taught by an older individual and practicing
left atrium

the upper chamber on the left side of the heart
left ventricle
the lower chamber on the left side of the heart
living
alive
lungs

the organ in animals where gases, such as oxygen and carbon dioxide, pass between the atmosphere and the blood
margin

the edge of a leaf
marine ecosystem

an ocean ecosystem
membrane

the outside of a living cell
metabolism

the process that occurs when an organism uses nutrients for energy and produces waste products
microorganism

microscopic organisms such as bacteria and fungi
mineral

a nutrient that xylem transports to the cells in a vascular plant
motor neuron

the cells that send information to the muscles
mouth

a body opening where an animal takes in food
multicellular organism
an organism composed of many cells
neuron

a communication cell found in the brain and nervous system
nonliving

referring to something that has never been alive or to things that were once alive and are no longer alive
nutrient

a chemical in food that helps keep an organism alive and active
omnivore

an animal that eats plants and animals
oxygen

a waste gas produced by plants during photosynthesis. Oxygen is used by all plants and animals during cellular respiration.
palmate

describing a leaf in which several veins start at one point near the base. The veins look like the fingers of a hand.
parallel
describing a leaf in which the veins are straight lines all running in the same direction
phloem

the long cells through which nutrients, such as sugars, are distributed in a plant
photosynthesis

a process used by plants and algae to make sugar (food) out of light, carbon dioxide, and water
phytoplankton

microscopic plantlike organisms in aquatic environments that produce their own food
pinnate

describing a leaf that has one main vein with smaller veins branching off sideways from it
predator
an animal that preys on other animals
prey

the living animal that is hunted and eaten by another animal
producer

an organism, such as a plant or algae, that makes its own food

Review: Producers

• Producers are organisms that make their own food using air, sunlight, and water
• Such as, green plants and algae
receptor

cells that send messages to the brain when it receives stimuli
recycle
to use again
redworm

an earthworm that lives on the surface of the soil
reflex

a simple one-dimensional action that is performed without thinking or planning
respiratory system

the system of lungs and connecting tubes that transports oxygen to the red blood cells and gets rid of carbon dioxide
respond to react or to answer

You're welcome!
response

a reaction of a living thing to a stimulus
response time

the length of time it takes for a person to respond to a stimulus
right atrium

the upper chamber on the right side of the heart
right ventricle

the lower chamber on the right side of the heart
saliva

the liquid produced in the mouth that aids digestion
sap

a sugar-rich liquid transported by phloem
sensory neuron

a nerve cell that sends information from sense organs to the brain
small intestine

the part of the digestive system between the stomach and large intestine, where nutrients are absorbed from digested food
specialized structure

a structure used primarily for one purpose
stimulus

something that causes an action or response
stomach

the organ where food is reduced to mush by acid and muscle activity
subsystem

a small system that is inside a larger system
sugar

the nutrient that cells use for energy
system

a collection of interacting parts
teeth

hard structures in the mouth used for cutting, biting, and chewing food
terrestrial

referring to land
terrestrial ecosystem

an ecosystem on land
transpiration

the process in which water is removed from the cells and passes into the environment
transport

to move or carry
variable

anything you can change in an experiment that might affect the outcome
vascular bundle

the group of xylem tubes and phloem tubes in a vascular plant
vascular plant

a plant with an internal system of tubes for transporting nutrients to its roots, stems, and leaves
vascular system

keeps fluids moving throughout the entire system, maintaining a moist (aquatic) environment for all cells
vein

the blood vessel that carries blood from the body to the heart
vital capacity

the maximum volume of air a person can take into their lungs and then expel
waste

no longer of use, excess
xylem

the hollow cells of a plant that transport water and minerals to plant cells
yeast

a single-celled fungus
microscopic animals in aquatic environments