

Glossary

algae Protists that resemble plants. Algae contain chlorophyll, a green substance that is important in photosynthesis. Algae are producers. Euglenas and volvox are algae. The singular of *algae* is *alga*.

angiosperm A plant that reproduces with seeds formed in flowers. Angiosperms have vascular tissue. Their seeds are surrounded by a fruit.

behavior Something an organism does. You must learn some behaviors, such as tying your shoelaces. You are born with other behaviors, such as pulling your hand away from a hot stove.

budding The process in which yeasts reproduce by pinching off part of the cell. The cell that pinches off is called the mother cell. The new cell that is growing is called a bud.

cellular respiration The process in cells that releases energy from sugar molecules. Cellular respiration uses oxygen and produces carbon dioxide and water as waste products. Almost all organisms on Earth get energy from cellular respiration.

fermentation A process used by yeast to get energy by breaking down sugar. During fermentation, yeast produces carbon dioxide gas. Unlike cellular respiration, fermentation does not use oxygen.

germination The sprouting of a young plant from a seed. When a young plant sprouts, first a root grows out of the seed. Then a green shoot containing a stem and two leaves grows.

gills **1.** The organs in a fish or young amphibian that take oxygen out of the water. **2.** The structures on the underside of a mushroom cap where spores are formed.

gymnosperm A plant that reproduces with seeds but does not form flowers. Gymnosperms have vascular tissue. Their seeds are produced in a cone and are not surrounded by a fruit.

invertebrate An animal that does not have a backbone. Sponges, starfish, earthworms, insects, crabs, and spiders are invertebrates.

micrometer (μm) Tiny unit of measure for length; $1,000 \mu\text{m} = 1 \text{ mm}$. Most microorganisms are measured in micrometers.

microorganism An organism that cannot be seen without the aid of a microscope. The amoeba, paramecium, and hydra are microorganisms.

mold A kind of fungus that reproduces by forming spores in a sporangium. A mold sporangium shoots the spores into the environment, where they develop into new fungi.

photosynthesis The process of using the energy in sunlight to make food from water and carbon dioxide. The green pigment chlorophyll traps the energy in sunlight.

protist A small organism, usually made of one cell, that has some of the characteristics of a plant or an animal. A euglena is a plantlike protist. An amoeba is an animal-like protist.

protozoan A protist that resembles an animal. A paramecia, stentor, spirostomum, and amoeba are protozoans. Protozoans are consumers and must eat food.

respiration The process of breathing in air to get oxygen and breathing out waste gases. Respiration is a physical process of pumping gases in and out of the body. It takes place in the gills of fish and the lungs of humans.

Glossary (continued)

seed A plant structure that contains a tiny undeveloped plant and a supply of food for the plant. Gymnosperms and angiosperms produce seeds.

sporangium A structure in which spores are formed. Mold, moss, and fern spores are formed in a sporangium. The plural of *sporangium* is *sporangia*.

spore A seedlike structure that produces a new organism. Most fungi and some simple plants reproduce with spores.

stomata Tiny openings in the surface of a leaf. Carbon dioxide enters a plant through its stomata. Oxygen and water vapor exit the plant through the stomata. The singular of *stomata* is *stoma*.

transpiration The release of water vapor into the air from a plant's leaves. Most of the water that enters a plant through the roots exits the plant through the stomata in the leaves.

vascular system A system of tubes that carry water, minerals, and nutrients to all parts of a plant. The tubes are arranged in bundles called veins. You can see veins on a leaf.

vertebrate An animal that has a backbone. A backbone gives an animal support and allows the animal to move easily. There are five main groups of vertebrate animals. The groups are fish, amphibians, reptiles, birds, and mammals.

yeast A one-celled fungus. Yeast cells are microscopic. They ferment sugar to get energy and produce carbon dioxide. They reproduce by budding.