

FOSS® Living Systems—NGSS Edition

Glossary

adaptation a structure, feature, or behavior that helps an organism survive and/or reproduce (IG)

algae a large plantlike group of water organisms that make their own food (IG)

alveoli spherical air sacs where gases pass into and from the blood (IG)

aquatic referring to water (SRB)

aquatic ecosystem an ecosystem in a body of water (IG)

artery a blood vessel that carries blood from the heart to the body (SRB, IG)

atmosphere the layer of gases surrounding Earth (SRB, IG)

bacteria microorganisms that act as decomposers (SRB, IG)

behavior the things organisms do to survive and reproduce (IG)

biosphere a system of interacting living organisms on Earth (SRB, IG)

blade the flat part of a leaf (SRB)

bloodstream the transporter of nutrients to the body's cells (IG)

bolus a wad of food (SRB)

brain part of the central nervous system protected by the skull (SRB, IG)

by-product a secondary, and often unintended, product of a process (IG)

capillary the smallest blood vessel. Gases, nutrients, and wastes are exchanged between capillaries and cells. (SRB, IG)

carbohydrate a nutrient, such as sugar and starch, that provides energy (SRB)

carbon dioxide (CO₂) a waste gas produced during cellular respiration. Plants use carbon dioxide during photosynthesis to make food. (SRB, IG)

carnivore an animal that eats other animals (IG)

cell the basic unit of life (SRB, IG)

central nervous system where sensory impulses pass through the brain and spinal cord (SRB, IG)

chlorophyll a molecule that absorbs red and blue light and reflects green light (SRB, IG)

circulate to move in a circle (SRB)

circulatory system the system of blood vessels and organs that transports blood to all the cells in the body (SRB, IG)

classification the process by which scientists identify and organize objects and organisms, such as plants (SRB)

classify to identify and organize according to similar properties or other criteria (SRB, IG)

colon the large intestine where solid waste is compacted in preparation for elimination (SRB)

compete to rely on or need the same resource as another organism (SRB)

compost decaying organic material (IG)

consumer an organism that cannot make its own food. Consumers eat other organisms. (SRB, IG)

cytoplasm the liquid that fills living cells (SRB)

decomposer an organism that breaks down plant and animal material into simple chemicals (SRB, IG)

detritivore an organism that feeds on broken down materials from dead organisms (SRB)

detritus organic litter made up of dead organisms, their parts, and waste (SRB)

diaphragm a large, flat, arched muscle that draws air in as well as pushes air out of the lungs (IG)

digestion the process of breaking down food into nutrients that can be used by cells (SRB, IG)

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

dormancy the state of being dormant or at rest (IG)

ecosystem a community of organisms interacting with each other and with the nonliving environment (SRB, IG)

energy what cells need to do work (SRB, IG)

esophagus the tube connecting the mouth and the stomach (SRB, IG)

food chain a description of the feeding relationships between organisms in an environment (SRB, IG)

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. (SRB, IG)

freshwater ecosystem a subset of Earth's aquatic ecosystems that include lakes and ponds, rivers, streams, springs, and wetlands (IG)

fungus (plural **fungi**) an organism that lacks chlorophyll and gets nutrients from dead or living organisms (SRB, IG)

geosphere (lithosphere) Earth's core, mantle, and crust (SRB, IG)

glucose a sugar found in food; the sugar broken down in cells to release energy (SRB)

heart a muscular organ that pumps blood (SRB, IG)

heart valve a regulator that moves blood in one direction, ensuring that it does not pump the wrong way in the system (IG)

herbivore an animal that eats plants (IG)

hydrosphere the interacting water on, under, and above Earth's surface (SRB, IG)

inherited trait a characteristic that is passed down from generation to generation (SRB, IG)

instinct an action that is performed without thinking or planning (IG)

instinctive a behavior that is imprinted in an organism's brain from birth and helps it to survive (IG)

interact to act upon one another (SRB, IG)

kelp forest a seaweed forest that occurs in the ocean (IG)

large intestine the part of the digestive system between the small intestine and the rectum where water is removed from the solid waste (SRB, IG)

leaf vein the branching network of tiny raised lines on the underside of a leaf (IG)

learned behavior a behavior that is acquired by being taught by an older individual and practicing (IG)

left atrium the upper chamber on the left side of the heart (SRB)

left ventricle the lower chamber on the left side of the heart (SRB, IG)

living alive (IG)

lung the organ in animals where gases, such as oxygen and carbon dioxide, pass between the atmosphere and the blood (SRB, IG)

margin the edge of a leaf (SRB)

marine ecosystem an ocean ecosystem (IG)

membrane the outside of a living cell (SRB)

metabolism the process that occurs when an organism uses nutrients for energy and produces waste products (IG)

microorganism microscopic organisms such as bacteria and fungi (IG)

mineral a nutrient that xylem transports to the cells in a vascular plant (SRB)

motor neuron the cells that send information to the muscles (SRB)

mouth a body opening where an animal takes in food (SRB)

multicellular organism an organism composed of many cells (SRB)

neuron a communication cell found in the brain and nervous system (SRB, IG)

nonliving referring to something that has never been alive or to things that were once alive and are no longer alive (SRB, IG)

nutrient a chemical in food that helps keep an organism alive and active (SRB, IG)

omnivore an animal that eats plants and animals (IG)

oxygen a waste gas produced by plants during photosynthesis. Oxygen is used by all plants and animals during cellular respiration. (SRB)

palmate describing a leaf in which several veins start at one point near the base. The veins look like the fingers of a hand. (SRB, IG)

parallel describing a leaf in which the veins are straight lines all running in the same direction (SRB, IG)

phloem the long cells through which nutrients, such as sugars, are distributed in a plant (SRB, IG)

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

phytoplankton microscopic plantlike organisms in aquatic environments that produce their own food (SRB)

pinnate describing a leaf that has one main vein with smaller veins branching off sideways from it (SRB, IG)

predator an animal that preys on other animals (IG)

prey the living animal that is hunted and eaten by another animal (IG)

producer an organism, such as a plant or algae, that makes its own food (SRB, IG)

receptor cells that send messages to the brain when it receives stimuli (SRB, IG)

recycle to use again (IG)

redworm an earthworm that lives on the surface of the soil (IG)

reflex a simple one-dimensional action that is performed without thinking or planning (IG)

respiratory system the system of lungs and connecting tubes that transports oxygen to the red blood cells and gets rid of carbon dioxide (SRB, IG)

respond to react or to answer (SRB)

response a reaction of a living thing to a stimulus (IG)

response time the length of time it takes for a person to respond to a stimulus (IG)

right atrium the upper chamber on the right side of the heart (SRB)

right ventricle the lower chamber on the right side of the heart (SRB, IG)

saliva the liquid produced in the mouth that aids digestion (SRB)

sap a sugar-rich liquid transported by phloem (SRB, IG)

sensory neuron a nerve cell that sends information from sense organs to the brain (SRB)

small intestine the part of the digestive system between the stomach and large intestine, where nutrients are absorbed from digested food (SRB, IG)

specialized structure a structure used primarily for one purpose (SRB)

stimulus something that causes an action or response (SRB, IG)

stomach the organ where food is reduced to mush by acid and muscle activity (SRB, IG)

subsystem a small system that is inside a larger system (IG)

sugar the nutrient that cells use for energy (SRB, IG)

system a collection of interacting parts (SRB, IG)

teeth hard structures in the mouth used for cutting, biting, and chewing food (SRB)

terrestrial referring to land (SRB)

terrestrial ecosystem an ecosystem on land (IG)

transpiration the process in which water is removed from the cells and passes into the environment (SRB, IG)

transport to move or carry (SRB)

variable anything you can change in an experiment that might affect the outcome (SRB)

vascular bundle the group of xylem tubes and phloem tubes in a vascular plant (SRB, IG)

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

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

vein the blood vessel that carries blood from the body to the heart (SRB, IG)

vital capacity the maximum volume of air a person can take into their lungs and then expel (IG)

waste no longer of use, excess (IG)

xylem the hollow cells of a plant that transport water and minerals to plant cells (SRB, IG)

yeast a single-celled fungus (IG)

zooplankton microscopic animals in aquatic environments (SRB)