

GLOSSARY AND CREDITS

Life is all around us—the trees and grass, fish and birds, and even life we can only see with a microscope, like bacteria. The science that studies life is biology. You will learn many applications of biology and what it means to be alive. You will also learn how the amazing diversity of life is organized.

VOCABULARY

archaea	also known as archaeobacteria; prokaryotic organisms with different structures than bacteria; believed to be the most primitive organisms, capable of inhabiting extreme environments
binomial nomenclature	the two-name system of naming living things used in classification
characteristic	feature that identifies and distinguishes one living thing from another
cell	the basic unit of life
class	a taxonomic category containing a group of similar orders; between order and division in plant classification; between order and phylum in animal classification
classification	a system of distinguishing groups for purposes of identification; a means or device for sorting into groups with similar characteristics
controlled experiment	the testing of a hypothesis in duplicate with only one factor being different

dichotomous key	a two-choice sorting device used in taxonomy to identify taxa, genus species, or common names of plant or animal specimens
division	in plant classification, a grouping of similar classes; between kingdom and class in taxa
DNA	a giant molecule consisting of the sugar deoxyribose, phosphates, and nitrogen bases; contains the coded genetic information
domain	the largest taxonomic category
ecology	the study of living things' dependence on each other and their environment; the relationship of an organism with its total environment
eubacteria	prokaryotic organisms including bacteria and cyanobacteria
eukaryote	a cell that has a membrane-bound nucleus and/or organelles as its major characteristic
eye wash station	This is used when a chemical splash or gas fume has reached the eyes.
family	a taxonomic category containing a group of similar genera; between the taxa of order and genus.
fire blanket	Blanket used to smother small fires.
fire extinguisher	Used to put out small fires in the lab.
first aid kit	Kit used for any small cuts or injuries that occur in the lab.
genus	a taxonomic category containing a group of similar species; between the taxa of family and species; the first name of the scientific name; (plural, genera)
homeostasis	the maintenance of a constant internal body environment by an organism's body
hypothesis	an educated guess or rational explanation about a specific phenomenon

key	a sorting device made up of a system of choices, as used in taxonomy
kingdom	a taxonomic category containing a group of similar domains; between the taxa of domain and phylum
lab shower	The shower is used when a chemical spill has occurred on clothes or in case of a fire.
law	a universal and absolute fact or truth about a specific action or phenomenon
metabolism	all of the chemical reactions in the organism for maintenance of the processes of life
morphology	the form or appearance of an organism; the collection of physical characteristics and the structure which make up an organism; a basis for species definition
order	a taxonomic category containing a group of similar families; between the taxa of class and family
organelle	a small structure within the cell that serves specialized functions
phenotypic cure	the alteration of the phenotypic expression of a genetic defect
photosynthesis	a process in green plants that involves the use of carbon dioxide and water in the production of glucose and oxygen using the Sun's energy
phylum	a grouping of similar classes; a taxonomic category between kingdom and class; (plural, phyla)
prokaryote	a cell whose nucleus is not bound by a membrane
reproductive isolation	the separation of populations of organisms by some type of barrier to produce variations of species; no reproduction or exchange of genes occurs between the separated groups; a basis for species definition
Science	Body of factual knowledge that exists around the world, and the method of study used to arrive at that knowledge

scientific method	a recognized means of inquiry to provide scientific answers to questions
species	the smallest taxonomic category, containing only similar varieties of an organism; the second word of the scientific name
systematics	the study of classifying organisms according to their evolutionary relationships
taxon	the categories used in classifying organisms (i.e., class, order); (plural, taxa)
taxonomist	a scientist who classifies organisms
taxonomy	the science of the classification of organisms
theory	an explanation for a natural phenomenon that appears to be supported by evidence gathered over a period of time
ventilation hood	A work station that shields the user from any toxic or dangerous fumes and vents the substance away.