Glossary

abiotic The nonliving components in an ecosystem include water, temperature, and sunlight.

advantage A property that, in your opinion, is favorable.

biodiversity The variety of life at every level, from genes to species to ecosystems.

biotic The living components in an ecosystem are the organisms.

cell The smallest structural unit, enclosed by a membrane, that makes up all living organisms.

cellular respiration A series of chemical reactions in a cell that break down sugars and release energy.

commensalism The relationship between two species where one species benefits while the other species is neither harmed nor helped.

competition The situation when two organisms or two species compete for the same resource.

constraint In engineering design, something that limits the solution to a problem.

consumer An organism that gets its food by eating other organisms.

correlation A relationship between one event or action and another. There may or may not be a causal relationship between two correlated events.

criteria In engineering design, the goals and the desired features of the solution.

data Information gathered from an experiment or observations.

decomposer An organism that gets its food from dead organisms and wastes from living organisms.

dependent variable The observed phenomenon that is being measured.

disadvantage A property that, in your opinion, is not favorable.

ecologist Scientists who study ecology.

ecology The study of the relationships of organisms to one another and to the physical environment.

ecosystem All of the living and nonliving components, and all of the interactions among them.

energy The ability to cause objects to change, move, or work.

energy transfer The transfer of energy from one object to another.

energy transformation The change of energy from one type to another, such as from chemical to heat.

error Variations between a measurement and the true value of a quantity.

evidence Information that supports or refutes a claim.

food web A diagram that models feeding relationships within an ecosystem.

habitat A location in an environment where an organism lives.

hypothesis A tentative theory used to explain a set of facts. A hypothesis can lead to further investigation to test whether the hypothesis is valid.

independent variable The controlled variable in an experiment.

infer To conclude by reasoning from known facts.

inference A conclusion based on observations or what is already known.

interpret To explain or give an account of facts with regard to the explainer's conception of what the facts mean.

introduced species Species that exist outside of the species' normal range because of human activity.

invasive species Introduced species that cause or have the ability to cause harm to the environment or people.

mass The amount of matter in an object.

matter The stuff that makes up all living and nonliving objects.

meter The fundamental unit of length in the metric (SI) system; 1 meter is equal to 100 centimeters.

model Any representation of a system or its components used to help one understand and communicate how it works.

mutualism The relationship between two species where both species benefit.

parasitism The relationship between two species where one species benefits while the other is harmed.

pattern Something that happens in a repeated and predictable way.

photosynthesis The process by which plants convert water and carbon dioxide into sugars and oxygen.

population A group of organisms of the same species living in the same habitat.

predator An organism that eats another living organism.

prey An organism that is eaten by another organism.

producer An organism that produces its own food.

quadrat A square or rectangular plot of land marked off, to determine where to collect their samples.

range In ecology, the total of all the areas where a species lives.

rate A ratio of two different kinds of measurement.

scientific model, See *model*.

species A group of individuals that actually or potentially interbreed in nature.

stable Not changing or resistant to change.

structure The parts of an object or system, including what they are made of, their shapes, and their arrangement

symbiosis The close and often long-term interaction between two species.

technology The application of science to make practical things for everyday life and for use especially in industrial manufacturing and for commercial purposes.

temperature A measure of the amount of molecular motion, generally using the Fahrenheit (°F) or Celsius (°C) scale.

tested variable A variable that is changed in a systematic way in an experiment or investigation in order to determine its effect.

trade-off A desirable outcome given up to gain another desirable outcome.

transect The specific path or area, often marked with a rope or measuring tape showing where data should be collected.

variable A changing factor. In an experiment, the variable is what is studied, such as the effect of amplitude of a wave on the energy it transmits.