

SCIENCE GLOSSARY

Abiotic:	A nonliving factor or element (e.g., light, water, heat, rock, energy, mineral).
Acid deposition:	Precipitation with a pH less than 5.6 that forms in the atmosphere when certain pollutants mix with water vapor.
Allele:	Any of a set of possible forms of a gene.
Biochemical conversion:	The changing of organic matter into other chemical forms.
Biological diversity:	The variety and complexity of species present and interacting in an ecosystem and the relative abundance of each.
Biomass conversion:	The changing of organic matter that has been produced by photosynthesis into useful liquid, gas or fuel.
Biomedical technology:	The application of health care theories to develop methods, products and tools to maintain or improve homeostasis.
Biomes:	A community of living organisms of a single major ecological region.
Biotechnology:	The ways that humans apply biological concepts to produce products and provide services.
Biotic:	An environmental factor related to or produced by living organisms.
Carbon chemistry:	The science of the composition, structure, properties and reactions of carbon based matter, especially of atomic and molecular systems; sometimes referred to as organic chemistry.
Closing the loop:	A link in the circular chain of recycling events that promotes the use of products made with recycled materials.
Commodities:	Economic goods or products before they are processed and/or given a brand name, such as a product of agriculture.

Composting:	The process of mixing decaying leaves, manure and other nutritive matter to improve and fertilize soil.
Construction technology:	The ways that humans build structures on sites.
Consumer:	1) Those organisms that obtain energy by feeding on other organisms and their remains. 2) A person buying goods or services for personal needs or to use in the production of other goods for resale.
Decomposer:	An organism, often microscopic in size, that obtains nutrients by consuming dead organic matter, thereby making nutrients accessible to other organisms; examples of decomposers include fungi, scavengers, rodents and other animals.
Delineate:	To trace the outline; to draw; to sketch; to depict or picture.
Desalinization:	To remove salts and other chemicals from sea or saline water.
Dichotomous:	Divided or dividing into two parts or classifications.
Ecosystem:	A community of living organisms and their interrelated physical and chemical environment.
Electronic communication:	System for the transmission of information using electronic technology (e.g., digital cameras, cellular telephones, Internet, television, fiber optics).
Embryology:	The branch of biology dealing with the development of living things from fertilized egg to its developed state.
Endangered species:	A species that is in danger of extinction throughout all or a significant portion of its range.
Engineering:	The application of scientific, physical, mechanical and mathematical principles to design processes, products and structures that improve the quality of life.
Environment:	The total of the surroundings (air, water, soil, vegetation, people, wildlife) influencing each living being's existence, including physical, biological and all other factors; the surroundings of a plant or animals including other plants or animals, climate and location.

Enzyme:	A protein that increases the rate of a chemical reaction without being changed by the reaction; an organic catalyst.
Equilibrium:	The ability of an ecosystem to maintain stability among its biological resources (e.g., forest, fisheries, crops) so that there is a steady optimum yield.
Ergonomical:	Of or relating to the design of equipment or devices to fit the human body's control, position, movement and environment.
Evolution:	A process of change that explains why what we see today is different from what existed in the past; it includes changes in the galaxies, stars, solar system, earth and life on earth. Biological evolution is a change in hereditary characteristics of groups of organisms over the course of generations.
Extinction:	The complete elimination of a species from the earth.
Fact:	Information that has been objectively verified.
Geologic hazard:	A naturally occurring or man-made condition or phenomenon that presents a risk or is a potential danger to life and property (e.g., landslides, floods, earthquakes, ground subsidence, coastal and beach erosion, faulting, dam leakage and failure, mining disasters, pollution and waste disposal, sinkholes).
Geologic map:	A representation of a region on which is recorded earth information (e.g., the distribution, nature and age relationships of rock units and the occurrences of structural features, mineral deposits and fossil localities).
Groundwater:	Water that infiltrates the soil and is located in underground reservoirs called aquifers.
Hazardous waste:	A solid that, because of its quantity or concentration or its physical, chemical or infectious characteristics, may cause or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed.
Homeostasis:	The tendency for a system to remain in a state of equilibrium by resisting change.

Hydrology:	The scientific study of the properties, distribution and effects of water on the earth's surface, in the soil and underlying rocks and in the atmosphere.
Hypothesis:	An assertion subject to verification or proof as a premise from which a conclusion is drawn.
Incinerating:	Burning to ashes; reducing to ashes.
Information technology:	The technical means that humans create to store and transmit information.
Inquiry:	A systematic process for using knowledge and skills to acquire and apply new knowledge.
Instructional technology:	Any mechanical aid (including computer technology) used to assist in or enhance the process of teaching and learning.
Integrated pest management:	A variety of pest control methods that include repairs, traps, bait, poison, etc. to eliminate pests.
Law:	Summarizing statement of observed experimental facts that has been tested many times and is generally accepted as true.
Lentic:	Relating to or living in still water.
Lotic:	Relating to or living in actively moving water.
Manufacturing technology:	The ways that humans produce goods and products.
Mitigation:	The policy of constructing or creating man-made habitats, such as wetlands, to replace those lost to development.
Mitosis:	The sequential differentiation and segregation of replicated chromosomes in a cell's nucleus that precedes complete cell division.
Model:	A description, analogy or a representation of something that helps us understand it better (e.g., a physical model, a conceptual model, a mathematical model).

Niche (ecological):	The role played by an organism in an ecosystem; its food preferences, requirements for shelter, special behaviors and the timing of its activities (e.g., nocturnal, diurnal), interaction with other organisms and its habitat.
Nonpoint source pollution:	Contamination that originates from many locations that all discharge into a location (e.g., a lake, stream, land area).
Nonrenewable resources:	Substances (e.g., oil, gas, coal, copper, gold) that, once used, cannot be replaced in this geological age.
Nova:	A variable star that suddenly increases in brightness to several times its normal magnitude and returns to its original appearance in a few weeks to several months or years.
Patterns:	Repeated processes that are exhibited in a wide variety of ways; identifiable recurrences of the element and/or the form.
Pest:	A label applied to an organism when it is in competition with humans for some resource.
Physical technology:	The ways that humans construct, manufacture and transport products.
Point source pollution:	Pollutants discharged from a single identifiable location (e.g., pipes, ditches, channels, sewers, tunnels, containers of various types).
Radioactive isotope:	An atom that gives off nuclear radiation and has the same number of protons (atomic number) as another atom but a different number of neutrons.
Recycling:	Collecting and reprocessing a resource or product to make into new products.
Regulation:	A rule or order issued by an executive authority or regulatory agency of a government and having the force of law.
Renewable:	A naturally occurring raw material or form of energy that will be replenished through natural ecological cycles or sound management practices (e.g., the sun, wind, water, trees).
Risk management:	A strategy developed to reduce or control the chance of harm or loss to one's health or life; the process of identifying, evaluating, selecting and implementing actions to reduce risk to human health and to ecosystems.

Scale:	Relates concepts and ideas to one another by some measurement (e.g., quantitative, numeral, abstract, ideological); provides a measure of size and/or incremental change.
Science:	Search for understanding the natural world using inquiry and experimentation.
Shredder:	Through chewing and/or grinding, microorganisms feed on non-woody coarse particulate matter, primarily leaves.
Stream order:	Energy and nutrient flow that increases as water moves toward the oceans (e.g., the smallest stream (primary) that ends when rivers flow into oceans).
Succession:	The series of changes that occur in an ecosystem with the passing of time.
Sustainability:	The ability to keep in existence or maintain. A sustainable ecosystem is one that can be maintained.
System:	A group of related objects that work together to achieve a desired result.
	Closed Loop system: A group of related objects that have feedback and can modify themselves.
	Open Loop system: A group of related objects that do not have feedback and cannot modify themselves.
	Subsystem: A group of related objects that make up a larger system (e.g., automobiles have electrical systems, fuel systems).
Technological design process:	Recognizing the problem, proposing a solution, implementing the solution, evaluating the solution and communicating the problem, design and solution.
Technology education:	The application of tools, materials, processes and systems to solve problems and extend human capabilities.
Theory of evolution:	A theory that the various types of animals and plants have their origin in other preexisting types and that the distinguishable differences are due to modification in successive generations.

Theory:	Systematically organized knowledge applicable in a relatively wide variety of circumstances; especially, a system of assumptions, accepted principles and rules of procedure devised to analyze, predict or otherwise explain the nature or behavior of a specified set of phenomena.
Tool:	Any device used to extend human capability including computer-based tools.
Topographic map:	A representation of a region on a sufficient scale to show detail, selected man-made and natural features of a portion of the land surface including its relief and certain physical and cultural features; the portrayal of the position, relation, size, shape and elevation of the area.
Transportation systems:	A group of related parts that function together to perform a major task in any form of transportation.
Transportation technology:	The physical ways humans move materials, goods and people.
Trophic levels:	The role of an organism in nutrient and energy flow within an ecosystem (e.g., herbivore, carnivore, decomposer).
Waste Stream:	The flow of (waste) materials from generation, collection and separation to disposal.
Watershed:	The land area from which surface runoff drains into a stream, channel, lake, reservoir or other body of water; also called a drainage basin.
Wetlands:	Lands where water saturation is the dominant factor determining the nature of the soil development and the plant and animal communities (e.g., sloughs, estuaries, marshes).