

GED Science Glossary

- activation energy** the energy needed to enable a chemical reaction to take place
- air mass** a body of air with a certain temperature and with a certain moisture content
- air pressure** the weight of the atmosphere
- air resistance** friction caused by air
- alternating current** a current in which the electrons flow first in one direction and then in the opposite
- amino acids** the building blocks of proteins
- amniocentesis** a procedure that is used to examine fetal cells to identify certain types of genetic disorders present in a fetus
- asexual reproduction** a method of reproduction in which an organism is produced from a single cell
- assumption** a belief that something is true without checking its facts
- astronomy** the study of all celestial bodies in the universe
- atmosphere** the blanket of air that surrounds Earth
- atom** the smallest particle of an element that can exist alone
- atomic mass** the sum of the protons and neutrons in the nucleus of an atom
- atomic number** the number of protons in an atom
- axis** the imaginary line running through Earth's center from the North Pole to the South Pole on which the planet rotates
- axon** a long fiber in a nerve cell through which a nerve impulse is sent
- barometric pressure** see air pressure
- big bang theory** the idea that the universe began with an explosion of a dense, hot, compact mass under extreme pressure
- binary fission** a method of reproduction in which a cell simply divides into two new cells
- biodegradable** organic materials that naturally decompose
- biodiversity** a healthy variety of plant and animal species coexisting in an environment and making the environment more stable
- biogenesis** the principle that living things only come from other living things
- biological clock** an internal control of natural behavioral cycles
- biology** the study of all living things
- black hole** the collapsed leftovers of a supernova
- boiling** the process by which a liquid changes to a gas
- botany** the study of plants
- calorie** a measure of food energy
- camouflage** a coloring pattern that enables an animal to blend into its surroundings and not be seen by predators
- carbohydrate** the main source of food energy
- cartilage** a tough, flexible material that covers bones and joints
- catalyst** a substance that provides a faster mechanism by which a reaction may take place
- cell** the basic unit of life
- cell membrane** the soft, flexible covering that holds a cell together and separates it from other cells
- cell specialization** the process in which the cells of an organism develop in different shapes, structures, and functions
- cell wall** a tough, flexible covering that surrounds the cell membrane of a plant cell

chain reaction a reaction in which nuclei are split apart in a controlled way, resulting in a great quantity of nuclear energy

chemical bonding the process through which atoms are combined

chemical change a change that produces a new substance

chemical equation a shorthand way of describing what happens in a chemical reaction

chemical formula a shorthand way of showing which elements are contained in a molecule

chemical reaction the process in which two or more substances combine to form one or more new substances

chlorophyll the green substance in a plant cell that is used to capture light energy

chromosome a group of genes that carries genetic information for various traits circadian clock a biological clock that controls daily activity

cloning the process of creating a genetically identical replica of an organism

cold-blooded a classification of an organism that cannot control its own internal body

comet a small object made of dust and frozen gas that orbits in a predictable path around the Sun

composting the use of natural biological processes to aid in the decomposition of organic material

compound a group of molecules that each contain the atoms of two or more elements

condensing the process by which a gas becomes a liquid

conductor a material in which electrons can be made to flow

conservation the controlled use and preservation of natural resources

constancy the tendency for things to remain unchanged

contaminants substances that harm the environment

continental drift the movement of continents

contraction a decrease in size of a substance due to its atoms moving closer together, often caused by a decrease in temperature

core the center of Earth

crust the outermost layer of the Earth

crustal plates the exterior layer of Earth's crust (surface); also called tectonic plates

cytoplasm a jellylike fluid of water, salt, minerals, and many types of organic molecules that are essential to all life processes

dendrite a branching fiber on a nerve cell that receives messages from another nerve cell

digestion the breaking down of food into nutrients that the body's cells can use

direct current electric current that moves in one direction only

dissolve to become part of a solution

DNA a large, complex molecule formed by chains of chemical compounds

dominant gene one gene in a gene pair that determines the effect of the gene pair

drawing conclusions expressing unstated ideas that are logically connected to given information

ecology the study of the relationship of organisms to their environment

ecosystem a community of populations of organisms and the habitats and natural resources that affect the whole

electric current the flow of electrons in a material

electric force the force that holds electrons in orbit around the nucleus of an atom

electromagnet a strong magnet that is made by coiling a wire around a piece of iron and running an electric current through the wire

electron a particle with a negative electric charge that orbits the nucleus of an atom

element a pure substance composed of identical atoms

embryo an organism in its early stage of development

energy the capacity for doing

environment all the living and nonliving things that affect an organism's life in some way

environmental science the study of how human beings interact with their environment

enzyme a specialized protein that breaks down organic molecules

epidemic the rapid spread of an infectious disease through an entire population

equilibrium a condition in which change takes place in equal and opposite ways

erosion the natural movement of rock fragments over the surface of Earth

evolution a series of changes that occur over time

excretion the process in which waste products are removed from the body

expansion an increase in size of a substance due to its atoms moving farther apart, often caused by an increase in temperature

experiment a procedure that is designed to test a hypothesis

extinction the dying off of an entire plant or animal

famine widespread starvation

fat an energy source derived primarily from animal products

fetus the developing stage of a baby

fission the splitting of the nucleus of an atom

food chain the interdependence of organisms for food

food web a group of food chains that are linked

force any push or pull that can affect an object either in motion or at rest

fossil a trace remain of an organism of a past geological age

fossil fuels fuels, such as petroleum, coal, and natural gas, that are used to produce energy for industrialized societies

fraternal twins two children who develop from two eggs fertilized by two sperm during the same reproductive cycle

freezing the process by which a liquid turns into a solid

friction a force that slows a moving object

front the boundary line where a warm air mass collides with a cold air mass

fusion the combining of two atomic nuclei to form one nucleus

galaxy a large group of stars

gas the phase of matter in which the molecular structure of a substance is relatively loose, allowing atoms to move apart independently of each other

gene a strand of DNA that carries the information for a specific trait

genetic disorder a disease, disability, or difference caused by an abnormal gene

genetics the study of how characteristics are passed from one organism to another

geochemistry the study of the distribution of chemical elements in Earth's crust

geology the study of the composition and structure of Earth

geothermal energy energy that comes from Earth's hot interior

global warming the overheating of Earth's surface

glucose a simple sugar that is used to produce energy in plants

gravity a force of attraction between two objects that is due to their mass

greenhouse effect the natural heating of a planet by the process of atmospheric gases trapping heat energy

habitat a home for a community of plants or animals

half-life the rate at which a substance undergoes radioactive decay

heat the energy of moving atoms

hemisphere the left or right half of the human brain

hormone a chemical produced within the body that regulates body functions

humidity the measure of the water vapor in the air

hydrocarbon a compound composed of only carbon and hydrogen

hydroelectric power electrical energy formed by the conversion of the energy of flowing water

hypothesis a reasonable explanation of evidence or a prediction based on evidence

identical twins two children who form from the same fertilized egg cell

immune system molecules, cells, and organs that work together to defend the body against pathogens

incineration the burning of solid

inertia the natural resistance of matter to change its state of rest or motion

infer to guess at what is not stated

inference a point of view that a person arrives at because of what he or she reads, hears, or sees

insulation material that protects against electric shock

invertebrate an animal without a backbone or skull

involuntary muscle a muscle over which a person has limited control

ion an atom that has either lost or gained an electron

ionic bond a bond that is formed when an electron in the outermost energy shell of one atom transfers to the outermost shell of a second atom

ionosphere the region of Earth's atmosphere that reflects radio waves toward the ground

irrelevant information information that includes any facts that do not directly affect a person's decision

joint the spot where two or more bones come together

kinetic energy the energy of motion

kingdom the most general classification of an organism

landfill a place where solid wastes are buried

law of chance a description of the probability of something happening

law of nature a property of nature that does not change

leaves the site of food production in a plant

lever a simple machine in which a small force times a large distance at one end becomes a large force times a small distance at the other end

life cycle the stages of life that all living things go through: beginning, growth, maturity, decline, and death

ligament a tough strand of connective tissue

light the range of electromagnetic wavelengths that humans can visibly detect

light-year the distance that light travels in one year: about 6 trillion miles

lipid an energy-storing fat

liquid a phase of matter in which a substance takes the shape of its container and has a definite volume

lysosome a special organelle in an animal cell that gets rid of waste materials, protects the cell from foreign invaders, and destroys worn-out or damaged organelles

machine a device that is designed to make work easier

magnetism a trait in which an object attracts and repels another object

mantle the layer of Earth between the crust and the core

mass the amount of matter an object or particle contains

matter anything that has weight and takes up space

melting the process by which a solid turns into a liquid

mesosphere the layer of Earth's atmosphere in which air temperature drops with increasing altitude

metamorphosis the process in which insects and amphibians go through stages of life

meteor a bright streak of light in the night sky caused by a meteoroid burning up as it enters Earth's atmosphere

meteorite a fragment of a meteor that is found on the surface of Earth

meteorology the study of the atmosphere

migrate to move from one place to another

milestone a turning point or point at which everything changes

mitosis the process of cell

molecule a combination of two or more atoms

molting the process through which an organism sheds its exoskeleton

multicellular organism an organism that consists of more than one cell

muscle a contracting tissue that is responsible for bone movement

mutation a change in the genetic information within a cell

natural resources resources provided by nature that are available to support life

natural selection the idea that individuals with favorable traits are the most likely members of a species to survive, reproduce, and pass on those traits

nerve impulse electrical signals that travel to and from nerve cells throughout the body

neuron a nerve cell that makes up brain

neutron a particle in the nucleus of an atom that has no electric charge

nonconductor a material in which electrons cannot be made to flow

nonrenewable resources resources that cannot be replaced or that take hundreds or thousands of years to replace

nuclear force the force that holds neutrons and protons together in the nucleus of an atom

nuclear reactor a device in which controlled chain reactions are carried out

nucleus an organelle that controls the activities of a cell and stores heredity information

nutrient a food substance that the body can use for tissue growth and repair, as well as for energy

nutrition the study of the health value of food

oceanography the study of Earth's oceans

opinion a personal belief that is often based on a person's own value system

orbit the path in which a planet travels around the Sun ,

order the tendency of properties and behavior to be predictable

organ a group of different types of tissue that work

organ system a group of organs that work together

organic a carbon-containing compound

organic chemistry the study of carbon

organism a living thing

ozone a type of oxygen gas that surrounds Earth and absorbs ultraviolet rays

paleontology the study of prehistoric animal and plant life through the analysis of fossil remains

Pangaea the massive supercontinent that split into the seven continents

pathogen a harmful bacterium, virus, or fungus that invades the human body

phases of matter the three forms of a substance: solid, liquid, and gas

photosynthesis the process in which a plant changes sunlight, carbon dioxide, gas and water into glucose

physical change a change that does not produce a new substance

physical weathering a type of weathering that breaks rocks apart without changing the chemicals within the rocks

planet a celestial body that revolves around the Sun

plate tectonics the theory of the movement of Earth's crustal plates

pollen a grain that contains the male sex cell of a flowering plant

pollination the process by which flowering plants reproduce

pollution any form of contamination that affects the quality of life

polymer a hydrocarbon that contains a large number of carbon atoms

potential energy stored energy

predator an animal that hunts other animals

prey an animal that is hunted by another animal

prism a triangular piece of glass that breaks light into a spectrum of colors

protein a molecule that is necessary for cell growth and repair and sometimes energy

proton a particle in the nucleus of an atom that has a positive electric charge

radioactivity a property of some types of atoms in which the nuclei are unstable and break apart, releasing particles and radiation

reactants the substances that combine in a chemical reaction

reaction rate the speed at which a chemical reaction takes place

recessive gene a gene that has no effect if a dominant gene is present

recycling the breaking down of trash into its component substances and reusing them in new products

reflection the process in which a wave bounces off a smooth surface

refraction the process in which a wave crosses a boundary and begins to move in a slightly different direction

relevant information information that includes facts that directly affect a person's opinion

renewable resources resources that can be used and then replaced over a relatively short period of time

respiration the process in which food sugar is broken down and energy and carbon dioxide gas are released

response the reaction of an organism to a stimulus

restate to use different words and phrases to express the same idea

revolution a planet's complete trip around the Sun

scientific fact a conclusion, based on evidence, that scientists agree on

scientific method a logical way to perform experiments and to draw conclusions that are supported by all available evidence

semiconductor a material in which only a small amount of electric current can be made to flow

skeleton the frame of the human body

social behavior the behavior of animals of the same species as they live together

soil a mixture of tiny rock fragments and organic materials produced by living things

solar cell a device that produces electricity when sunlight strikes

solar energy energy from sunlight

solar system the system comprised of the Sun and the nine planets that revolve around it

solid the phase of matter in which the molecular structure of a substance is nearly rigid

solute the substance that is dissolved in a solution

solution a uniform mixture of substances

solvent the substance in a solution that dissolves the solute

species a group of organisms that have the same number of chromosomes and display similar traits

spore a tiny reproductive cell

static electricity electricity in which electrons are transferred from one object to another

stimulus something that causes a change in an organism's behavior

stratosphere the second layer of Earth's atmosphere; contains ozone

summarize to briefly express a writer's key thought

superconductor a conductor in which there is no electrical resistance

supernova a flash of light caused by the explosion of a massive blue star that has become too hot

synapse the point of contact between two nerve cells

system an organized group of related objects or components that form a whole

technology the use of knowledge, materials, and tools to solve human problems and to provide for human needs and wishes

temperature the measure of heat energy

tendon a strong, fibrous connective tissue that connects bones and muscles

thermosphere the outermost layer of Earth's atmosphere in which the temperature rises with altitude

tissue a collection of similar cells

troposphere the layer of Earth's atmosphere that is closest to the ground

ultraviolet light high-energy light from the Sun that is harmful to people

unicellular organism an organism that consists of a single cell

vertebrate an animal with a backbone and a skull

vitamin a chemical that is necessary for proper body growth, body activity, and the prevention of certain diseases

voluntary muscle a muscle that a person can consciously control

warm-blooded a classification of animals who can control their own internal body temperature

wavelength the distance between the highest or lowest points of two adjacent waves

weathering the breaking down of rock into smaller pieces by natural processes

wheel and axle a machine, consisting of a rope and axle, in which the force felt by the weight is much more than the force applied to the free end of the rope

work the process in which an object moves in response to an applied force

zoology the study of animals

Adapted from Contemporary's GED On-line Learning Center Glossary
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