

Acid- Having a pH value of less than 7.

Adaptation- The ability of a species to survive in a particular environment because of alterations of form or behavior brought about through natural selection.

Allele- A genetic code that represents a specific trait.

Amplitude- Greatness of size; magnitude. The high point in a wave.

Asexual reproduction- Involves one parent and leads to offspring that are genetically identical to the parent and to one another.

Atoms- The basic unit of matter consisting of a dense central nucleus surrounded by a cloud of negatively charged electrons.

Attributes- A characteristic of a thing.

Base- Having a pH value of more than 7.

Boiling point- The temperature at which a liquid becomes a gas. The boiling point changes as pressure changes.

Bond- A force linking atoms.

Change of state or phase- A change from one state (solid or liquid or gas) to another without a change in chemical composition.

Chemical change- The altering of an object's chemical composition (changing what it is made of).

Chemical energy- Energy liberated by a chemical reaction or absorbed in the formation of a chemical compound.

Chemical equation- A symbolic representation of a chemical reaction.

Chemical properties- Any of a material's properties, such as color, pH, boiling point, melting point, density, or its ability to react with another material.

Chemical (change) reaction- A process in which atoms rearrange themselves to form a new substance.

Chromosome- Circular strand of DNA that contains the hereditary information necessary for cell life.

Closed system- A system in which matter may circulate, but may not enter or leave.

Compound- A substance consisting of two or more different elements chemically bonded together.

Compressional wave- Having the same direction of vibration along their direction of travel.

Concept- The general notion or idea.

Concept map- A visual representation of concepts in a figure, using boxes, arrows, and other symbols to help show relationships between different items. It is a graphical tool for organizing and representing knowledge.

Conclusion- A final statement of the findings of an investigative process that is supported by investigative evidence (data).

Conduction- The transfer of heat from one object to another through direct contact.

Conductor- A substance, body, or device that readily conducts heat, electricity, sound, etc.

Conservation of Mass (energy)- A physical law stating that the total amount of mass remains constant. Also stated as: mass can be neither created nor destroyed during a chemical reaction—only rearranged.

Convection- The transfer of heat by the movement of particles in a substance.

Crest- The height of a wave.

Current- The flow of electricity through a conductor.

Density- The amount of mass per unit volume.

Dissolve- To make a solution of by mixing with a liquid.

Distance- The measured space between two objects.

Diversity of species- Measure within an ecological community that incorporates both the number of species in a community and the evenness of abundance of species.

DNA- The large molecules inside the nucleus of living cells that carry genetic information.

Electrical energy- Energy made available by the flow of electric charge through a conductor.

Electron- A particle of an atom that carries a negative charge.

Electromagnetic spectrum- The entire range of wavelengths or frequencies extending from gamma rays to the longest radio waves and including visible light.

Element- A pure chemical substance composed of all atoms that have the same number of protons.

Energy- The amount of work that can be done by a force.

Energy levels- The location within in an electron cloud where electrons orbit the nucleus.

Energy transfer- The movement of energy from one location to another.

Energy transformation- The change of energy from one form to another.

English System- A standard system of measurements based on the inch, pound and Fahrenheit degrees. Primarily used in the United States and England.

Evidence- A thing or things helpful in forming a conclusion or judgment. Proof.

Evolution- The change in the gene pool through a series of gradual or rapid changes of a population from generation to generation by such processes as mutation, natural selection, and genetic drift accounting for the current diversity of species.

Extinction- The death of all members of a species of plant or animal. It is generally considered to be the death of the last individual of that species, although the capacity to breed and recover may have been lost before this point.

Formula- A group of symbols that represent a compound.

Fossil record- The total make up of fossilized artifacts and their placement within earth's rock layers. It provides information about the history of life on earth.

Frequency- The number of occurrences within a given period of time.

Gas-a fluid (as air) that has neither independent shape nor volume but tends to expand indefinitely.

Gene- A segment of inheritance information that specifies a trait.

Genetic- Something inherited or affected by genes.

Genetic information- A set of instructions coded in DNA molecules that specifies the traits of an organism.

Genetic mutation- Occurs when a DNA gene is damaged or changed in such a way that alters the genetic message being carried by that gene.

Genetic variation- A measure of the tendency of individual genotypes in a population to vary from one to another.

Genotype- The genetic makeup code received from the parent for specific traits.

Gravitational potential- The amount of work which must be done against gravitational forces to move an object to a specified position from a reference position.

Heat- A form of kinetic energy produced by the motion of atoms and molecules and may be transferred from one body or system to another due to a difference in temperature.

Heredity- The passing of traits to offspring. This is the process by which an offspring cell or organism acquires the characteristics of its parent cell or organism.

Heterogeneous-Consisting of diverse ingredients.

Homogenous-Consisting of the same or similar ingredients.

Indicator- A substance that specifies the degree of acidity or basicity of a solution.

Input- The addition of matter, energy, or information to a system.

Insulator- A material that is a poor conductor of energy such as electricity or heat.

Intrinsic-Anatomy. (of certain muscles, nerves, etc.) belonging to or lying within a given part.

Kinetic energy- The energy of motion.

Law- An observed regularity of the natural world that scientists have observed repeatedly and can be used to accurately predict what will happen in many situations.

Lens- The transparent body behind the iris in the eye that's role is to focus light on the retina.

Light- Wavelengths of electromagnetic radiation that can be seen with the human eye.

Liquid- A fluid that takes the shape of the part of the container that it occupies, and that forms a distinct surface.

Logical argument- A set of one or more assumptions supported by evidence that leads to a clear conclusion.

Magnetism- The properties of attraction possessed by magnets; the molecular properties common to magnets.

Mass- The amount of matter inside an object.

Measure- How much there is or how many there are of something that you can quantify.

Mechanical wave- A wave that requires a medium to pass through.

Melting point- The temperature at which a solid melts and becomes a liquid.

Mendelian genetics- Refers to the transmission of hereditary characteristics from parent organisms to their offspring; it underlies much of genetics.

Metric system- The numerical system of choice for scientists. It is based on powers of ten used by the majority of the world, therefore is adopted as a way to communicate data in a standard form in the international community.

Mixture- A portion of matter consisting of two or more substances in varying proportions that retain their own properties.

Molecule- A stable unit of two or more atoms held together by chemical bonds.

Natural selection- The process by which heritable traits that are favored by environmental conditions become more common in successive generations, and heritable traits that are less favored by environmental conditions become less common. Over time, this process may result in the emergence of new species.

Neutron- A particle of an atom that carries a neutral charge.

Nuclear energy- The energy from nuclei.

Nucleus (In biology)- The part of the cell containing DNA and RNA and responsible for growth and reproduction.

Nucleus (In physics)- The central structure in an atom that contains neutrons and protons.

Offspring- The immediate descendants of a parent.

Open system- A system in which matter may flow in and out, as opposed to a closed system in which matter may not flow in or out.

Output- Matter, energy, or information that flows out of a system.

Parallel circuit- A closed circuit in which the current divides into two or more paths before recombining to complete the circuit

Periodic table- A tabular arrangement of the elements according to their atomic numbers so that elements with similar properties are in the same column

pH- The measure of the acidity or basicity of a solution.

Phase- Any of the forms or states in which matter can exist, depending on temperature or pressure.

Phenotype- What an organism looks like as a consequence of the interaction of its genotype and the environment.

Physical change- Any change not involving modification of a substance's chemical identity, such as a change of state from solid to liquid, a change in appearance or a change in size or color.

Physical property- Any property used to characterize matter and energy and their interactions most often observed by using the senses.

Plasma-A collection of charged particles exhibiting some properties of a gas but differing from a gas in being a good conductor of electricity and in being affected by a magnetic field.

Potential energy- Stored energy.

Population- All the organisms inhabiting a specified area.

Principle- Rule or law concerning the functioning of systems of the natural world.

100.**Product**- The results of a chemical reaction.

Properties- Essential attributes shared by all members of a group.

Proton- A particle of an atom located inside the nucleus that carries a positive charge.

Punnett square- A diagram that is used to predict an outcome of a particular cross or breeding experiment.

Pupil- The whole in the center of the iris that allows light into the eye.

Radiant energy- The energy of electromagnetic waves.

Radiation- The process in which energy particles travel through a medium or space.

.Rarefaction- The reduction of the medium's density, the opposite of compression.

Reactant- Any substance that undergoes a chemical change in a given reaction.

.Reflection- The change in direction of a wave at a surface so that the wave returns into the medium from which it originated.

Refraction- The change in direction of a wave due to a change in its speed.

Reproduction- The natural process among organisms by which new individuals are generated and the species perpetuated.

Retina- The light sensitive tissue lining the inner surface of the eye.

Series circuit- Components connected in row are connected along a single path, so the same current flows through all of the components.

Sexual reproduction- The production of new generations involving the combination of chromosomes from both a male and female parent. Because each parent contributes genetic information, the offspring of sexual reproduction are usually not identical to either parent.

.Simulation- Imitation or enactment, as of something anticipated or in testing.

.Skepticism- The attitude in scientific thinking that emphasizes that no fact or principle can be known with complete certainty; the tenet that all knowledge is uncertain.

.Solid- The state of matter characterized by resistance to deformation and changes of volume.

Solubility- The ability of a given substance to dissolve in a liquid.

Solute- A substance which is dissolved within a solution.

Solution (process)- A device or process created through technological design to meet a human need or want.

Solution (physical science)- A mixture in which particles of one substance are evenly distributed through another substance.

Solvent- A substance that dissolves another to form a solution.

Sound- A mechanical wave composed of frequencies within the range of hearing.

States of matter- Matter can exist in various states (or forms), which may depend on temperature and pressure. Traditionally, three states of matter are recognized: solid, which maintains a fixed volume and shape; liquid, which maintains a fixed volume but adopts the shape of its container; and gas, which occupies the entire volume available. Plasma, or ionized gas, is a fourth state that occurs at very high temperatures.

Sublimation- A change in state or phase whereby a substance moves from solid to gas phase without going through liquid phase.

Substance- That of which a thing consists; physical matter or material.

Symbol- Represents the name of an element on a periodic table.

System- A collection of things that have some influence on one another and the whole.

Temperature- The measurement of the average kinetic energy of the molecules in an object or system.

Theory of Evolution- Explains the facts of biological evolution in terms of the law of natural selection and the facts and laws of genetics. Scientists use this theory to explain how the current diversity of living things came into existence and the relationships between modern organisms and their more "primitive" ancestors.

Thermal Energy- The movement of atoms and molecules in matter. It is a form of kinetic energy produced from the random movements of those molecules. Thermal energy of a system can be increased or decreased.

Trait- A distinguishing characteristic or quality.

Transfer- Move from one place to another.

Transverse wave- A moving wave that consists of oscillations occurring perpendicular to the direction of energy transfer.

Trough- The low point in a wave.

Validity- Measuring what you claim to be measuring through tightly controlled conditions with an emphasis on quality by checking and questioning the observations or data and discussing their accuracy.

Variation- A measure of the tendency of individuals in a population to differ from one another.

Visible Light- Electromagnetic radiation to which the organs of sight react, ranging in wavelength from about 400 to 700 nm, considered variously as a wave.

Volume- The amount of the three-dimensional space enclosed within or occupied by an object, geometric solid, etc.

Voltage- The representation of the electric potential energy per unit charge.

Wave- A disturbance that propagates through space and time, usually with transference of energy.

Wavelength- The distance between one peak or crest of a wave and the next peak or crest. It is equal to the speed of the wave divided by its frequency, and to the speed of a wave times its period.

Weight- The strength of the gravitational pull on an object.