Glossary of Scientific Terms

The following list includes some scientific terms that have appeared on previously released ACTs. While the ACT Science Reasoning Test is not a test of scientific knowledge, basic understanding of some of these terms might help you better understand the passages and increase your confidence on test day.

Acceleration: The rate of change of velocity

Aerobic respiration: The breakdown of glucose in the body of an animal to supply muscles with oxygen

Aerosol: Solid or Liquid particles suspended in gas

Alkalinity: Having a pH greater than 7 (contrast with basic, which meaning having PH less than 7)

Altitude: Elevations above a level of reference, usually given in feets above sea level

Amino Acids: Organic compounds that link together to form proteins

Anatomical: Related to the structure of an organism

Antigen: A substance such as a toxin or enzyme that is capable of eliciting an immune response

Antitoxin: An antibody created for and capable of neutralizing a toxin

Asteroids: Small celestial bodies that revolve around the sun

Asthenosphere: The lower layer of the Earth's crust

Bacteria: Single-celled microorganisms

Basalt: Solidified lava; a denses, dark grey, fine-grained igneous rock

Basic: Having a pH less than 7 (contrast with alkalinity)

Biomass: Total mass of all living matter within a given area

Biosynthesis: The production of a chemical compound within the body

Boiling point: The temperature at which a liquid changes state from a liquid to a gas

Capillary: A very slim tube; one of a network of extremely small blood vessels

Carbohydrate: Sugars and starches that serve as a major energy source for animals

Celsius: A temperature scale in which the freezing point of water is 0 and the boiling point is 100 degrees under normal atmospheric conditions

Cerebral edema: Brain swelling

Chlorophyll: A green pigment produced in response to sunlight during photosynthesis

Cholesterol: A soft waxy compound found in the body and the food we eat

Colloid: A gelatinous material

Compressibility: The ease at which pressure can alter the volume of matter

Condense: To become more compact; to change from vapor to a liquid

Diffusion time: The time that it takes for material to spread from one area to another

Dilute: To weaken the strength of a solution

Disperse: To scatter or spread out

Dissolution: The process of dissolving or disintegrating

Drag force: The force that resists or slows down motion through a medium such as air

Ecology: The field of science that concentrates on relationships between organism and their environments

Emulsion: A state in which one liquid is suspended in another because the liquids will not dissolve in one another

Equilibrium: A state of balance

Experimental Variables: Elements of an experiment that are changed (distinguished from constants, which are held the same in order to produce significant results

Fahrenheit: A temperature scale in which the boiling point of what is 212 degrees and the freezing point is 32 degrees

Fermentation: The chemical process of breaking down an organic substance into simpler substances, such as a fermentation of sugar to alcohol

Foliation: The alternating layers of different minerals compositions within solid rocks

Friction: The force resistant to motion

Galvanism: A direct electric current produced by chemical reactions

Gas: A substance (such as air) that possesses the quality of indefinite expansion

Gas chromatograph: A device used to detect the composition of an unknown material

Gastric emptying: The movement of food from the stomach to the small intestine, and finally into the colon.

Gravity: The force of attraction between two bodies of mass

Herbivorous: A plant-eating organism

Humidity: A measure of how damp air is

Hydrogen bonding: The chemical bonding of hydrogen atom with another electronegative atom

Igneous rock: Rocks that are formed by the cooling and solidification of molten magma

Indigenous: Native to or naturally existing in a certain area

Interstitial: Fluid outside of cells; in the small spaces between other things

Intracellular: Fluid in cells

Isotopes: Two or more atoms with an identical atomic number and differing electric charges

Lipd: An oily or waxy organic compound that cannot be dissolved in water

Liquid: A material that is neither a solid nor a gas; flowing freely

Lithosphere: The outer part of the Earth that includes the crust and upper mantle

Kelvin: A temperature scale in which 0 K is absolute zero, the freezing point of water is 273 K, and the boiling point of water is 373 K

Macrophages: Protective cells

Manometer: A device that measures the pressure of liquids and gases

Melting point: The temperature at which a solid softens into a liquid

Mesosphere: A layer of atmosphere 50 to 80 kilometers above the Earth's surface

Metamorphism: The process of altering solid rock by changing their temperature, pressure and chemistry

Meteorite: A meteor that reaches the surface of the earth before it is entirely vaporized

Microorganism: An organism of microscopic pr very small size

Mole: A unit of measurement for the molecular weight of a substance

Molecular weight: The weight of all the atoms in a molecule

Nanometer: One billionth of a meter

Newton: The amount of force needed to accelerate a 1-kilogram mass at a rate of 1 meter per second, per second

Organic Matter: Matter that is derived from living or formerly living organisms

Organism: A living thing, either plant or animal

pH A scale that measures how acidic or basic a substance is on a scale of 0-14. Lower numbers indicate acidity and higher numbers indicate increasing basicity.

Photophores: Organism that produce light

Photosynthesis: The process by which plants turn carbon dioxide and water into energy with the aid of sunlight

Pigmentation: Coloration

Protein: A compound that consist of amino acids and plays various structural, mechanical and nutritional roles within organisms.

Radioactive decay: A natural process by which an atom of a radioactive isotope spontaneously decays into another element

Saturdations: A state of being completely full or soaked

Solid: Neither gas nor liquid; of the same or coherent texture

Solute: A dissolved substance

Solution: A mixture of two substances

Specific gravity: The ratio of the weight of one substance to the weight of another substance

Stratosphere: A layer of atmosphere between the troposphere and the mesosphere

Supercooled: Below freezing but remaining a liquid

Suspension: The state of a substance when its particles are combined together but have not been dissolved in a fluid or solid

synthetic polymer: A man-man, repeating chain of atoms

Territorial: The protective behavior that is displayed when an animal is defending its area

Synthetic polymer: Man-made, repaint chain of atoms

Thermal degradation: A process of combustion in which materials in a fuel are broken down into several by products

Thermosphere: The outermost layer of the atmosphere

Vapor pressure: The pressure exerted by a vapor

Vaporize: The change into a cloud of diffused matter

Velocity: Speed of motion

Vertical Migrators: Marine species that travel toward the surface of the ocean to feed

Viscosity: A fluid resistance to flow

Wavelength: The distance between repeating crests of waves