

FOSS California Mixtures and Solutions Module
Glossary
2007 Edition

Alloy: A mixture of two or more metals.

Atom: The smallest particle of an element.

Atomic number: The number of protons in the nucleus of an atom.

Bends: A condition that causes pain in deep-sea divers' arms and legs after returning to the surface.

Caisson: A large box with no bottom. These boxes were used to provide environments for workers under water.

Carbohydrate: A group of carbon-based nutrients, such as sugars and starches.

Carbon-14 dating: A process used to find the age of carbon-based matter.

Carbon dioxide gas: A compound made from carbon and oxygen (CO₂)

Chemical equation: A model of a chemical reaction showing reactants and products.

Chemical formula: A code that tells how many and what kinds of atoms are in a substance.

Chemical reaction: The process in which two or more substances combine to make one or more new substances that have different properties than the original ones.

Chemical property: A characteristic that describes how a substance is changed when it reacts with other substances.

Compound: A substance made of two or more different kinds of atoms. Carbon dioxide (CO₂), sugar (C₆H₁₂O₆), and water (H₂O) are compounds. Oxygen (O₂) and hydrogen (H₂) are not compounds.

Crust: Earth's hard outer layer of solid rock.

Crystal: A natural form of a substance. Crystal shape is also a physical property that helps to identify a substance.

Cyclotron: An instrument used to create new elements.

Decompression: The change from higher pressure to lower pressure.

Diatomaceous earth: The skeletal remains of diatoms.

Dissolve: The process of a material becoming incorporated uniformly into another.

Electron: A subatomic particle with a negative charge.

Element: A fundamental substance that cannot be broken down by simple chemical and physical processes.

Evaporation: The change of state from a liquid to a gas.

Gas: Matter that is shapeless and expands to fill any closed container it is placed in.

Gaseous: Existing in the state of a gas (not a solid or liquid).

Global warming: Increase of average temperature worldwide.

Greenhouse gas: A gas, such as carbon dioxide, that contributes to global warming.

Insoluble: Not capable of being dissolved. Sand is insoluble in water.

Lipid: A group of nutrients that includes oils and fats.

Liquid: Matter that flows and takes the shape of the container it is in.

Mantle: The largest part of planet Earth which is found between Earth's core and crust.

Mass: A quantity of matter.

Matter: Anything that has mass and takes up space.

Metal: Elements that may be shiny, stretch and bend, but don't break, and conduct heat and electricity well.

Mixture: Two or more substances together.

Molecule: Particles made of two or more atoms that are held together with bonds. Carbon dioxide (CO₂), sugar (C₆H₁₂O₆), water (H₂O), oxygen (O₂), and hydrogen (H₂) are examples of molecules.

Neutron: A subatomic particle with no charge.

Nitrogen: A colorless, odorless, gaseous element that makes up about 78% of Earth's atmosphere.

Noble gas: A gas that does not react with other elements.

Nucleus: The center of an atom.

Octane: An eight-carbon molecule. Octane is one of the main ingredients in gasoline.

Ore: A rock or mineral that contains a valuable substance.

Oxidize: When oxygen reacts with a substance to make a new substance.

Particle: A very small piece or part.

Periodic table of the elements: A way to organize the elements based on atomic number.

Physical property: A characteristic that describes a substance, such as size, shape, and texture.

Potash: An impure form of potassium carbonate.

Predict: To make an accurate estimation of a future event based on knowledge.

Product: The substance(s) produced in a chemical reaction.

Protein: A group of nitrogen-containing substances produced by organisms.

Proton: A subatomic particle that has a positive charge.

Radiation: Energy sent out into space by an energy source.

Radioactivity: The radiation given off by the elements.

Reactant: The starting substance(s) in a chemical reaction.

Room temperature: How hot or cold it is in an indoor space like a classroom or a house. Often room temperature is around 21 °C (70 °F).

Salt: The product that forms when metals react with acid.

Saturated: When the solvent cannot dissolve any more solute.

Scanning tunneling microscope (STM): An instrument that can create images of arrays of atoms.

Solid: Matter that has a definite shape.

Solubility: The ability of one substance to spread out uniformly throughout another substance.

Soluble: Capable of being dissolved. Table salt is soluble in water.

Solute: A substance that dissolves in a solvent to form a solution.

Solution: A mixture formed when one or more substances dissolves in another.

Solvent: A substance in which a solute dissolves to form a solution.

Supersaturated solution: A solution that contains more solute than it normally would at a given temperature.

Transparent: Clear. Describes something through which you can see an image clearly.

Voltaic pile: Another name for an electric battery.

Volume: Three-dimensional space.

Well-ordered array: A repeating pattern.