

FOSS California Water Planet Module
Glossary
2007 Edition

Air: The mixture of gases surrounding Earth.

Asteroid: Small, solid objects that orbit the Sun. Most of the asteroids in the solar system are located between Mars and Jupiter.

Astronomy: The study of the universe and its celestial bodies.

Atmosphere: The layer of gases that surrounds a planet or star.

Atmospheric pressure: The force exerted on a surface by the mass of the air above it.

Atom: The smallest particle of an element that has the properties of the element and can exist either alone or in combination with a similar atom as a molecule.

Blizzard: A severe storm with low temperatures, strong winds, and large quantities of snow.

Bob: A mass at the end of a pendulum.

Chemical property: A characteristic of an element that relates to how it interacts with other elements.

Cloud: Tiny droplets of water, usually high in the air.

Cold front: The contact zone where a cold air mass overtakes a mass of warm, moist air.

Comet: A mass of ice and dust orbiting the Sun.

Condensation: The process by which water vapor changes into liquid water, usually on a surface.

Conserve: To use carefully and protect.

Controlled experiment: A scientific test where only one variable can change.

Controlled variable: Any variable in an experiment that is not allowed to change.

Convection current: A circular movement of fluid (such as air) that is the result of uneven heating of the fluid.

Crater: A hole formed by an object impacting a surface.

Cycle: A set of events or actions that repeats.

Data: Information collected and recorded as a result of observation.

Dependent variable: What you find out as a result of doing an experiment.

Dew: Water that condenses on surfaces when the temperature drops at night.

Diameter: The straight-line distance from one side to the other side of an object through the center.

Drought: Less-than-normal amount of rain or snow over a period of time.

Earth: The third planet from the Sun, known as the water planet.

Elevation: The distance above sea level.

Energy transfer: The movement of energy from one place to another, or the change of energy from one form to another.

Evaporate: To change from liquid to gas.

Evaporation: The process by which a liquid becomes a gas.

Extraterrestrial: Beyond Earth.

Fog: Water droplets that condense from the air close to the ground.

Forecasting: Predicting future events or conditions, such as weather.

Freezing point: The temperature at which a liquid turns into a solid (also the same temperature as the melting point).

Fresh water: Water without salt that is found in lakes, rivers, groundwater, soil, and the atmosphere.

Front: The leading edge of a moving air mass.

Frost: Frozen condensation.

Gas: A state of a substance with no definite shape or volume.

Gas giant: Any of the four planets that are made of gas. These are Jupiter, Saturn, Uranus, and Neptune.

Glacier: A huge mass of ice that moves slowly over land.

Gravitational attraction: The mutual force of attraction between all bodies that have mass.

Gravity: The force of attraction between two objects.

Hail: Precipitation in the form of small balls or pellets of ice.

Helium: A gas that makes up 26% of the Sun.

Humidity: Water vapor in the air.

Hurricane: A severe tropical storm or moving wind system that rotates around an eye.

Hydrogen: A gas that makes up 72% of the Sun.

Independent variable: The variable in an experiment that you control the value of in advance.

Intensity: How concentrated energy is.

Jupiter: The fifth planet from the Sun.

Kuiper Belt: A huge region beyond the gas giants made up of different-size icy chunks of matter.

Liquid: A state of a substance with no definite shape but definite volume.

Mars: The fourth planet from the Sun.

Mass: The amount of material in something.

Mercury: The planet closest to the Sun.

Meteorologist: A scientist who studies the weather.

Milky Way: The galaxy in which the solar system resides.

Moon: Earth's natural satellite.

Neptune: The eighth planet from the Sun.

Orbit: To travel in a curved path around something else.

Pendulum: A mass on one end of an arm that is free to swing back and forth in response to gravity.

Period: The length of time it takes for a pendulum to complete a cycle.

Planet: A large body orbiting a star. A celestial body.

Pluto: The ninth planet from the Sun.

Precipitation: Rain, snow, sleet, or hail that falls to the ground.

Predict: To estimate a future event based on data or experience.

Predictable: Possible to estimate a future event based on data or experience.

Radiosonde: An instrument sent into Earth's atmosphere to measure temperature, pressure, and humidity.

Rain: Liquid water that is condensed from water vapor in the atmosphere and fall to Earth in drops.

Recycle: To use again.

Reflected: Energy that bounces off an object and continues in a new direction.

Salt water: Ocean water.

Satellite: An object, natural or artificial, that orbits a larger object. Moons are satellites.

Saturated: When the air cannot hold any more water vapor.

Saturn: The sixth planet from the Sun.

Severe weather: Out-of-the-ordinary and extreme weather conditions.

Sleet: Precipitation in the form of ice pellets created when rain freezes as it falls to Earth from the atmosphere.

Snow: Precipitation in the form of ice crystals grouped together as snowflakes.

Solar energy: Heat and light from the Sun.

Solar system: The planet Earth, the Moon, the Sun, and eight other planets and their satellites, and smaller objects, such as asteroids and comets.

Solar wind: The regular flow of particles from the Sun.

Stationary front: When a warm air mass and a cold air mass come together and stop moving.

Sun: The star at the center of the solar system around which everything else orbits. Also called Sol.

Surface area: The amount of space covering the topmost layer of water or land.

Surface water: Fresh water on Earth's surface, such as that in lakes and rivers.

Star: A huge gas sphere that radiates light. The Sun is a star.

Terrestrial planet: One of the four small and rocky planets closest to the Sun. These are Mercury, Venus, Earth, and Mars.

Thermonuclear reactions: Reactions that change atomic structure and create heat and light energy, such as the reactions that occur on the Sun.

Thunderstorm: Severe weather that results from cold air flowing under a warm, humid air mass over the land.

Tornado: A rapidly rotating column of air that extends from a thunderstorm to the ground. Wind speeds can reach 417 kilometers per hour (260 mph) or more in a tornado.

Two-coordinate graph: A plot of the relationship between an independent variable on the x-axis and a dependent variable on the y-axis.

Uneven heating: The result of different amounts of energy being transferred to adjacent surfaces.

Uranus: The seventh planet from the Sun.

Variable: Anything you can change in an experiment that might affect the outcome.

Venus: The second planet from the Sun.

Warm front: The contact zone where a warm air mass overtakes a cold air mass.

Water cycle: The global water-recycling system. Water evaporates from Earth's surface, goes into the atmosphere and condenses. It returns to Earth's surface as precipitation in a new location.

Water molecule: Two hydrogen atoms and one oxygen atom bonded together.

Water vapor: Water in its gas form.

Weather: The condition of the atmosphere around us. Heat, moisture, and movement are the three important variables that describe weather.

Weather forecast: A prediction of future weather conditions.

Weather map: A map that shows weather data as a picture.

Weather variable: Data that meteorologists measure. These include temperature, wind speed and direction, air pressure, cloud cover, and precipitation.

Wind: Air in motion.

X-axis: The horizontal number line of a two-coordinate graph.

Y-axis: The vertical number line of a two-coordinate graph.