

FOSS Water and Climate Module

Glossary

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absorb when a liquid soaks into a material (SRB, IG)

air pressure the force exerted on a surface by the mass of the air above it (SRB)

anemometer a weather instrument that measures wind speed with wind-catching cups (SRB)

aquifer water that is underground in layers of rock or sediment (SRB)

barrier island a strip of narrow land a short distance from shore (SRB)

bead a dome-shaped drop of water (IG)

bead up when water drops, or beads, sit on top of a waterproof surface (IG)

blade the part of a waterwheel that the water pushes as it moves downward (SRB, IG)

blizzard a severe storm with low temperatures, strong winds, and large quantities of snow (IG)

boiling point (100°C) the temperature at which water changes to gas (SRB)

bulb the round end of a thermometer (IG)

climate the average or typical weather conditions in a region of the world (SRB, IG)

climatologist scientists who study climate (IG)

cloud tiny droplets of water, usually high in the air (SRB)

cold having a low temperature; cold water is more dense (IG)

compass a magnetic needle in a case. Compass needles on Earth point north. (SRB, IG)

condensation the process by which water vapor changes into liquid water, usually on a surface (IG)

condense when water vapor touches a cool surface and becomes liquid water (SRB)

conserve to use carefully and protect (SRB)

constraint the limitations that must be taken into account when working in the classroom, such as the materials available and the amount of time students have to work (IG)

contract to get smaller; to take up less space (SRB, IG)

criterion (plural **criteria**) a need or requirement (SRB, IG)

data information collected during an investigation (IG)

decomposing organic matter humus; dead or discarded parts of plants and animals (SRB)

degree Celsius (°C) the basic unit of temperature in the metric system. Water freezes at 0°C and boils at 100°C (SRB, IG)

density the amount of mass compared to the volume (SRB)

dew water that condenses on a surface when the temperature drops at night (SRB)

direction the course or line along which something moves, faces, lies or points (IG)

dome the shape a drop of water takes when it is on a flat surface. It is like a flattened hemisphere. (IG)

drainage the movement of water through soil (IG)

drought a less-than-normal amount of rain or snow over a period of time (SRB, IG)

earth material any natural material that makes up or comes from Earth (IG)

electricity energy that flows through circuits and can produce light, heat, motion, and sound (SRB)

embankment a raised bank or wall that is built to carry a roadway or hold back water (IG)

energy the ability to make things happen. Energy can take a number of forms, such as heat and light. (SRB, IG)

energy source a place where energy comes from, such as coal, petroleum, or natural gas (SRB)

engineer a scientist who designs ways to accomplish a goal or solve a problem (SRB)

evaporate when liquid water in a material dries up and goes into the air (SRB)

evaporation the process by which liquid water changes into water vapor (IG)

evidence data used to support claims. Evidence is based on observation and scientific data. (SRB, IG)

expand to get bigger; to take up more space (SRB, IG)

float to stay on the surface of water as a result of being less dense than water (SRB, IG)

flood a large amount of water flowing over land that is usually dry (SRB, IG)

floodplain the flat, low land area next to a river that may flood (SRB, IG)

force strength or power exerted on an object (SRB)

forecast to predict future events or conditions, such as weather (SRB, IG)

fossil fuel the preserved remains of plants and animals that lived long ago and changed into oil, coal, and natural gas (SRB)

freeze to change from a liquid to a solid state as a result of cooling (SRB, IG)

freezing point (0°C) the temperature at which water becomes a solid (ice) (SRB)

fresh water water that is in lakes, rivers, groundwater, soil, and the atmosphere (SRB)

gas a state of matter with no definite shape or volume; usually invisible (SRB, IG)

glacier a large mass of ice moving slowly over land (SRB)

gravel rocks that are smaller than pebbles and drain water quickly (IG)

gravity the natural force that pulls objects toward each other. On Earth, all objects are pulled toward the center of Earth. (SRB, IG)

groundwater water found in the spaces between rock particles (sand, gravel, pebbles), and in cracks in solid rock (SRB)

hailstorm precipitation in the form of small balls or pellets of ice; a type of severe weather (IG)

heat observable evidence of energy (SRB)

hot having a high temperature; hot water is less dense (IG)

humidity water vapor in the air (SRB)

humus bits of dead plant and animal parts in the soil (SRB, IG)

hurricane a severe tropical storm that produces high winds (SRB, IG)

ice the solid state of water (SRB)

iceberg a large mass of ice that has broken from a glacier and floats in the ocean (SRB)

less dense when an object floats in water, it is less dense than water (IG)

lightning the flashes of light that are produced in the sky during a storm; a type of severe weather (IG)

liquid a state of matter with no definite shape but a definite volume (SRB, IG)

Liter (L) the basic unit of liquid volume in the metric system (SRB)

load the weight that is carried or supported by something (IG)

mass the amount of material in something (SRB, IG)

matter anything that has mass and takes up space (SRB)

measure to compare the size, capacity, or mass of an object to a known object or known system (SRB)

melt to change from a solid to a liquid state as a result of warming (SRB, IG)

meteorologist a scientist who studies the weather (SRB, IG)

meteorology the scientific study of weather (IG)

mixture two or more substances together (SRB)

monsoon a wind system in Southeast Asia that brings heavy rains during certain seasons (IG)

more dense when an object has more mass for its size than another object. When an object sinks in water, it is more dense than water. (SRB, IG)

move to change place or direction; to put in motion (IG)

natural hazard a threat of a naturally occurring event that will have a negative effect on people or the environment (IG)

natural material any material that makes up or comes from the earth; earth material (IG)

natural resource a material such as soil or water that comes from the natural environment (SRB, IG)

nonrenewable resource a natural resource that cannot be replaced if it is used up (SRB, IG)

observation information obtained through your senses (sight, hearing, smell, touch, and taste) (IG)

opinion a claim based on belief, not on scientific data or observations (SRB, IG)

perpetual renewable resource a renewable resource that lasts forever (SRB)

polar zone a very cold climate with long winters (North and South Poles) (SRB)

precipitation rain, snow, sleet, or hail that falls to the ground (SRB, IG)

predict to estimate a future event based on data or experience (SRB)

property something that you can observe about an object or a material (SRB)

rain liquid water that is condensed from water vapor in the atmosphere and falls to Earth in drops (SRB)

rain gauge an instrument that measures how much rain has fallen in a given amount of time (IG)

recycle to use again (SRB)

relationship a connection or association (IG)

renewable resource a natural resource that can replace or replenish itself naturally over time (SRB, IG)

repel when a liquid does not soak into a material (IG)

reservoir a place where water is collected and stored (SRB)

retain to hold or continue to hold (SRB, IG)

runoff rain that does not evaporate or soak into the ground (SRB)

salt water ocean water (SRB)

scale something divided into regular spaces to use as a tool for measuring. Rulers and thermometers are both scales. (SRB)

season a time of year that brings predictable weather conditions to a region on Earth (IG)

shaft a rod or bar that rotates (SRB, IG)

sink to go under water as a result of being more dense than water (SRB, IG)

slope a slanted or tilted surface (IG)

sluice gate a wood or metal barrier sliding in grooves that are set in the sides of a waterway. Sluice gates can control water levels and flow rates in rivers and canals. (IG)

soak to be absorbed or move into another material (SRB)

soil a mixture of humus, sand, silt, clay, gravel, or pebbles (SRB, IG)

solar radiation light from the Sun (SRB)

solid a state of matter that has a definite shape and volume (SRB, IG)

speed the measure of an object's change in position over time (SRB)

state a kind or form of matter. The three common states of matter are solid, liquid, and gas. (IG)

storm surge when water piles up along a coast, rushing toward land faster than it can return to sea (SRB)

surface the outside of an object (IG)

surface area the area of liquid exposed to or touching the air (SRB, IG)

surface tension the skinlike surface on water (and other liquids) that pulls it together into the smallest possible volume (SRB)

system a collection of interacting parts that work together to produce a function (IG)

temperate zone the climate for the majority of Earth, which includes a wide range of temperatures (SRB)

temperature a measure of how hot or cold the air is (SRB, IG)

texture the feel or general appearance of an object or a material (SRB)

thermometer a tool used to measure temperature (SRB, IG)

tornado a rapidly rotating column of air that extends from a thunderstorm to the ground. Wind speeds can reach 400 kilometers (km) per hour or more in a tornado. (IG)

tropical zone a hot climate with no winter (SRB)

typical the average weather that is expected in a given area (IG)

volume three-dimensional space (SRB, IG)

water a liquid earth material made of hydrogen and oxygen (SRB)

water cycle the repeating sequence of condensation and evaporation of water on Earth, causing clouds and rain and other forms of precipitation (SRB, IG)

water quality a term used to describe the purity of water (SRB)

water retention the ability to soak up and hold water (IG)

water turbine a modern waterwheel (SRB)

water vapor the gaseous state of water (SRB, IG)

waterproof a nonporous or nonabsorbent surface on which water will bead up and flow off (IG)

waterwheel a wheel turned by the force of moving water (SRB, IG)

weather the condition of the air around us (SRB, IG)

weather balloon a balloon that carries weather instruments into the sky (SRB)

weigh to find the mass of. An object is weighed to find its mass. (SRB)

wetland an area of land close to a large body of water (SRB, IG)

wind meter a weather instrument that measures wind speed with a small ball in a tube (SRB)

wind vane a weather instrument that measures wind direction (SRB, IG)