

## FOSS Measuring Matter Module

### Glossary

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**air** the mixture of gases surrounding Earth (SRB)

**baking soda** a solid material in the form of a white powder; also called sodium bicarbonate (IG)

**balance** a measurement tool for finding the mass of objects (IG)

**balance base** the part of a balance that rests on the table and supports the balance (IG)

**balance beam** the part of a balance that rests on the fulcrum (IG)

**beaker** a tool used to measure volume (IG)

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

**bulb** the round end of a thermometer (IG)

**calcium carbonate** a solid material; powdered chalk (IG)

**capacity** the volume of fluid a container can hold when full (IG)

**carbon dioxide (CO<sup>2</sup>)** a gas made of carbon and oxygen (SRB, IG)

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

**centimeter (cm)** a unit in the metric system; one hundredth of a meter (SRB, IG)

**chalk** a solid material; one form of calcium carbonate (SRB, IG)

**change** to make different (SRB, IG)

**chemical reaction** an interaction between materials that produces one or more new materials that have different properties than the starting materials (SRB, IG)

**circumference** the measurement around a round object (IG)

**cloudy** not clear (SRB, IG)

**cold** a description of temperature (IG)

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

**conserve** to use carefully and protect (SRB)

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**cooling** decreasing the temperature; can change phase from liquid to solid (IG)

**data** information collected during an investigation (IG)

**dissolve** to mix a material uniformly into another (SRB, IG)

**distance** the amount of space between two points (SRB, IG)

**earth material** any natural resource that makes up Earth, including soil and water (IG)

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

**estimate** to make an educated guess about a measurement (SRB, IG)

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

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

**float** to stay on the surface of water because of being less dense than water (SRB, IG)

**freeze** to change from liquid to solid (SRB, IG)

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

**fulcrum** the pivot point on which a balance beam rests (IG)

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

**graduated cylinder** a transparent cylinder marked with evenly spaced lines for determining the volumes of liquids (IG)

**gram (g)** the basic unit of mass in the metric system (SRB, IG)

**heating** increasing the temperature; can change phase from solid to liquid or from liquid to gas (IG)

**hot** a description of temperature (IG)

**kilogram (kg)** a unit in the metric system; 1,000 grams, or the mass of 1 liter of water (IG)

**kilometer (km)** a unit in the metric system; 1,000 meters (SRB, IG)

**length** the distance of something from end to end, usually the longest dimension (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, IG)

**magnet** an object that sticks to or attracts iron or steel (IG)

**magnetism** a force that attracts iron and steel (SRB)

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

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

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

**measurement** the number description of a property of an object or system (SRB, IG)

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

**meter (m)** the basic unit of distance or length in the metric system (SRB, IG)

**metric system** a measuring system based on multiples of ten (SRB, IG)

**milliliter (mL)** a unit in the metric system; 1,000 milliliters equals 1 liter (IG)

**millimeter (mm)** a unit in the metric system; 1,000 millimeters equals 1 meter (IG)

**mixture** two or more materials together (SRB, IG)

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

**observation** data you collect with one of the five senses (IG)

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

**phase change** the change from a solid to a liquid, a liquid to a solid, a liquid to a gas, or a gas to a liquid (IG)

**pointer** the part of a balance that helps “zero” the balance (IG)

**property** something that you can observe about an object or a material. Size, color, shape, texture, and smell are properties. (SRB, IG)

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

**recycle** to use again (SRB)

**ruler** a tool, marked in standard units, used for measuring distance and length (SRB, IG)

**salt** a solid white material that dissolves in water; also known as sodium chloride (SRB, IG)

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

**screen** wire mesh used to separate large and small objects (SRB, IG)

**separate** to take apart (SRB, IG)

**shape** a property of an object (IG)

**sink** to go under water because of being more dense than water (SRB, IG)

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

**solution** a mixture formed when one or more substances dissolve in another (SRB, IG)

**span** the distance from one position to another position (IG)

**standard** something that is recognized and used in a measurement system (SRB, IG)

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

**suspend** to hang in a liquid or gas (IG)

**syringe** a cylinder and piston system used to draw up, measure, and transfer liquids (IG)

**temperature** a measure of how hot or cold matter is (SRB, IG)

**thermometer** a tool used to measure temperature (IG)

**transfer** to pass from one object to another. Heat energy transfers to make objects melt. (SRB)

**transparent** clear (SRB, IG)

**unit** a length, volume, or mass used as the basis for a measurement system (SRB, IG)

**vinegar** a clear liquid material (IG)

**volume** three-dimensional space (SRB, IG)

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

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

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

**width** the distance of something from end to end, usually the shortest dimension (IG)