

Nature of Matter vocabulary

Mass – the amount of matter in an object or substance

Volume – the amount of space that an object or substance takes up

Solid – a state of matter in which the substance has a definite shape and a definite volume

Liquid – a state of matter in which the substance has a definite volume but takes the shape of its container

Gas – a state of matter in which the substance take both the shape and the volume of its container

Physical property – a property that can be observed, measured, or change without changing the substance itself

Matter – the material or “stuff” that everything is made of

State of matter – a form that matter can take – solid, liquid or gas

Texture – the feel of something hard, soft, etc.

Temperature – the average speed of the particles in a substance

Additional Information

Matter will often change states when the **temperature** is changed.

Mass is measured in grams using a balance scale.

Volume of liquid is measured in liters or milliliters using beakers or graduated cylinders.

If you need to find the volume of an irregular solid, such as a rock, you can use a graduated cylinder. Fill it with liquid and record the volume. Add the rock and record the new volume. The difference between the new and the old volume (how much the water went up) is the volume of the object.

The colder the object the closer the particles are to each other and the slower they are moving. The warmer the object the farther away the particles are and the faster they are moving.

Objects that are the same size will have the same volume, but not necessarily the same mass or density.

End test 1 information – The above information will be tested first.

The following information will be on the unit test at a later date.

Mixtures are the combination of two or more substance that can be taken back apart. (fruit salad, trail mix, lucky charms, salt and pepper).

Solutions are combinations of two or more substances that are so evenly spread apart that you cannot see the individual parts. (These are special types of mixtures) Salt water is a solution; sand in water IS NOT because you can see the sand and water.

Substances can be dissolved more easily if they are heated or stirred.

Solubility is a measurement of “how much” material will dissolve in another material.

Not all mixtures can be easily taken apart. Salt water is a mixture, but the water will need evaporate in order for the mixture to be separated.

Physical changes are changes DO NOT create a chemically new substance. This could include a change in state. Examples are shredding, cutting and carving.

Chemical Changes create a chemically new substance. Clues that a chemical change has occurred are: change in color (bread baking), change in smell (eggs rotting), a new substance is given off, a new physical property (rust), substance given off (wood burning), heat given off (sulfur).

Examples of physical changes are: coloring paper, folding paper, cutting word,

Examples of chemical changes are rust and burning wood.