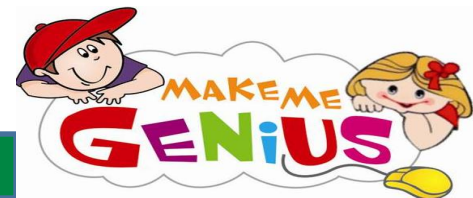
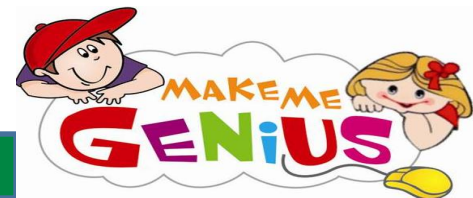


States of Matter



What is matter

Matter is anything that takes up space



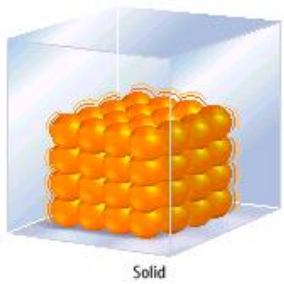
States of matter

The states of matter are :

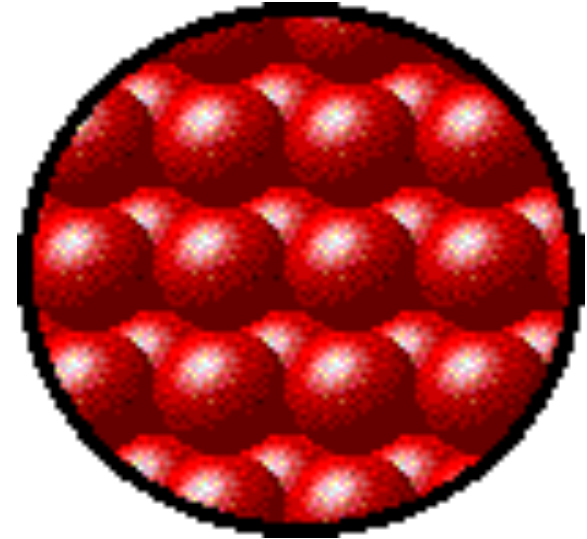
- Solid
- Liquid
- Gas



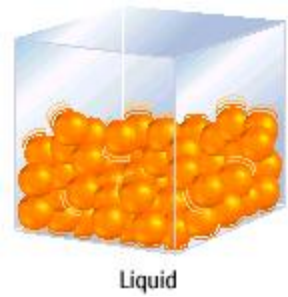
Solid



- Definite shape
- Definite volume
- Particles close together, fixed
- Particles move very slowly



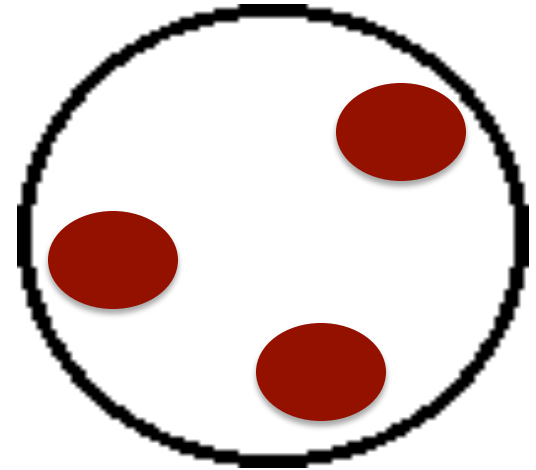
Liquid



- Indefinite shape, definite volume
- Take the shape of container
- Particles are close together, but mobile
- Particles move slowly



Gas

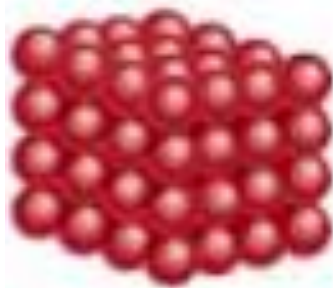


- Indefinite shape
- Indefinite volume
- Take the shape and volume of container
- Particles are far apart
- Particles move



States of Matter

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States of Matter



Gas



Liquid



Solid

Properties of matter

There are 2 types of properties

- Physical properties
- Chemical properties

Physical and chemical properties are used to identify, describe, and classify matter



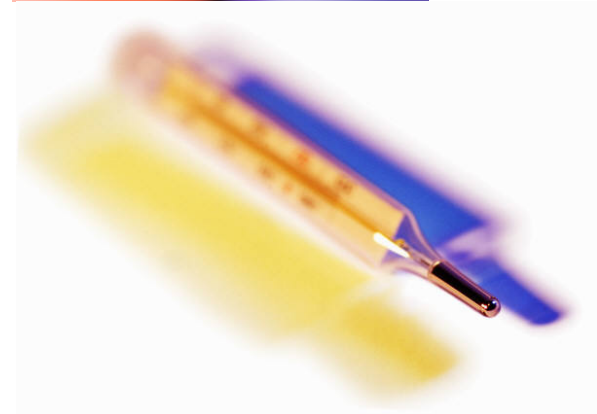
Physical properties

Observed without
changing the
substance into
something else

Examples

- *Color*
- *Density*
- *Shape*
- *Boiling Point*
- *Mass*

Can you name others?



Chemical Properties

Observed only when substance is changed and interacts with another substance

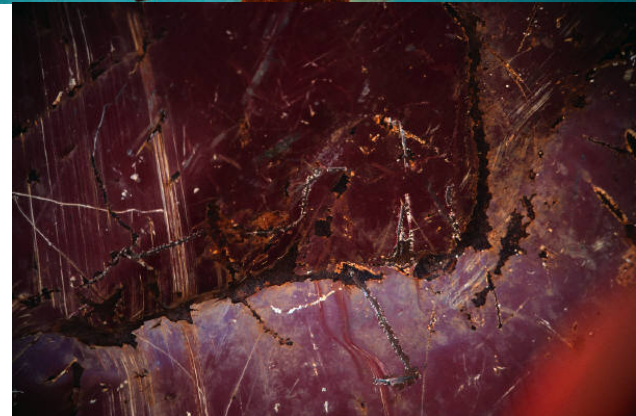
Examples

Flammability:

Able to burn

Rusting:

Combining with oxygen to form rust



Can you think of others?

Kinds of Matter

Basic kinds of matter
interact to form
everything around us



- Elements
- Compounds
- Mixtures



Elements



Substances that cannot be broken down into other substances chemically or physically

Examples

- Sodium
- Oxygen
- Carbon
- Aluminum



Compounds

Substances made of two or more elements combined chemically

Compounds have properties different from those of the original elements

Examples

- water: Hydrogen and Oxygen
- salt: Sodium and Chlorine



Mixtures



Combination of two or more substances that are not chemically combined

Examples

- Salad
- Frosted cake



Changes in matter

➤ Two kinds

- Physical changes
- Chemical changes

Energy is used anytime a change in matter occurs



Physical Change

Alters form or appearance of material, but does not change material into brand new substance

Examples

- chopping wood
- bending wire
- molding clay



Phase/State changes

Chemical Change



Produces new substances

Examples

- Wood burning
- Sour milk

