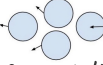


THE OF STATES

MATTER

LIQUIDS

- ~ Particles can move around
- ~ They slide off each other



SOLIDS

- ~ Particles are tightly packed together
- ~ They vibrate on spot



GASES

- ~ Particles are spread out far from each other
- ~ Gas has no fixed volume & fills the space



CHANGES OF STATE

PARTICLE THEORY

Scientists believe that everything is made up from very small particles

VISCOSITY

Term used to describe the flow rate of a liquid

PHYSICAL CHANGES

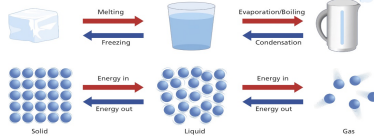
In a physical change, no new substance is formed, there is no change in mass and the reaction is easily reversed

MELTING POINT

Temperature at which a substance melts at. The melting point of ice is 0°C

KEY WORDS

Melting
Boiling
Physical change
Melting Point
Freezing
Evaporation
Boiling Point
Condensation
Sublimation
Properties



DIFFUSION

- ~ Diffusion is the spreading out of particles to fill the space they are in. Diffusion happens by itself e.g. perfume.
- ~ Three factors that affect the speed of Diffusion
 - Temperature
 - Size of particle
 - State of Diffusing Particle

COMPRESSING GASES

- ~ Compression happens when particles are forced closer to make them fit into a smaller space e.g. deodorant, hairspray

SUBLIMATION

When some substances are heated, they do not melt but turn straight to a gas. They do not form a liquid e.g. Carbon Dioxide & Dry ice.

EVAPORATION

In a liquid, some particles more energy than others. The particles with the most energy leave the surface, spread out and form a gas. This is evaporation. The liquid does not boil and happens at all temperatures.

PHYSICAL CHANGES

- ~ when solids are heated the particles gain energy and move apart. The particles break free and move past each other. The solid switches to a liquid. This is melting
- ~ when a liquid is heated it gains more energy and break free from each other the liquid switch to a gas. This is called boiling

FREEZING

Cooling a liquid takes energy from its particles, so they can only vibrate. The liquid changes into a solid. This is freezing. Water's freezing point is 0°C

BOILING

All particles have enough energy. The temperature at which water boils is the Boiling point.

MELTING

Heat cause the water particles vibrate faster. The solid ice cube changes to liquid water.

CONDENSATION

Cooling a gas takes energy from its particles so they slow down and move closer together. The gas condenses to a liquid.