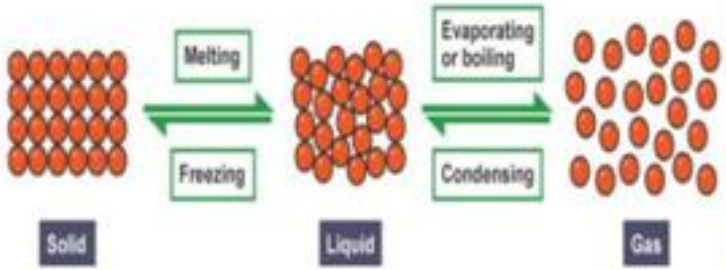
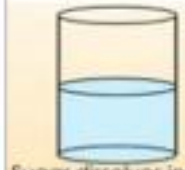
Year 5 – Properties and Changes of Materials

States of Matter





Sugar dissolves in the water making a sugar solution. You cannot see the sugar but it is still there in tiny particles.

The water evaporates. This means that it becomes water vapour. The process will be quicker if the water is heated.

Once all the water has evaporated, the sugar is left at the bottom of the beaker. This is because sugar cannot evaporate.

Separating Solids and Liquids

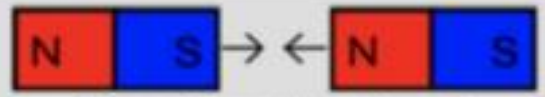
filtering	Separates an insoluble solid from a liquid.
sieving	Separates solids of different sizes
evaporation	Separating dissolved substances from liquids.

Reversible and Irreversible Changes

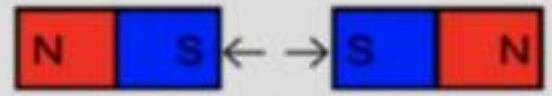
Reversible change	Changes that are not permanent. Dissolving, mixing, melting, freezing are reversible changes. E.g. water turning to ice or steam.
Irreversible change	Changes that are permanent and cannot be undone. Results in the making of a new material. e.g. burning wood, baking a cake.

How magnets work

Magnets have a North and a South Pole. North is often Red while South is often Blue. Arrows show the direction of the force in this diagram



Opposite poles **attract**



Same poles **repel**

Vocabulary

Conductor	A material or device which allows heat, sound or electricity to carry through easily
Dissolve	When something solid mixes with a liquid and becomes part of the liquid
Evaporation	The process of turning from liquid to vapour
Flexible	Capable of bending easily without breaking
Gas	An air-like fluid substance which expands freely to fill any space available
Insulator	A substance which does not readily allow passage of heat, electricity or sound
Liquid	A substance that flows freely but can be measured by volume.
Magnetic	Capable of being magnetised or attracted by a magnet
Opaque	Not able to be seen through at all; unable to let light be seen through it
Solid	Firm and stable in shape, not a liquid or fluid
Soluble	Able to be dissolved, especially in water
Transparent	allowing light to pass through so that objects behind can be distinctly seen
Thermal	Relating to heat