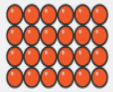
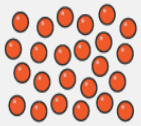
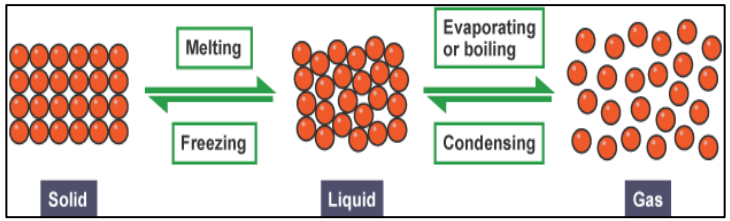
Year 5 Separating Mixtures and Changing Materials Knowledge Organiser

States Of Matter

State	Solid	Liquid	Gas
Diagram			
Arrangement of particles	Regular arrangement	Randomly arranged	Randomly arranged
Movement of particles	Vibrate about a fixed position	Move around each other	Move quickly in all directions
Closeness of particles	Very close	Close	Far apart

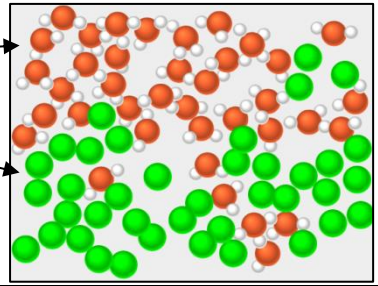
Changes of State



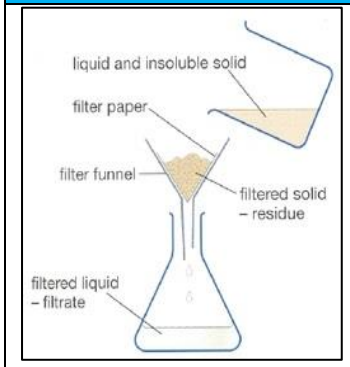
Dissolving

When the particles in a solid spread out in a liquid.
We call the liquid the SOLVENT
We call the solid the SOLUTE

We call the mixture of the solid and the liquid a SOLUTION.
A solid that will dissolve in a liquid is called SOLUBLE.
A solid that will not dissolve in a liquid is called INSOLUBLE.



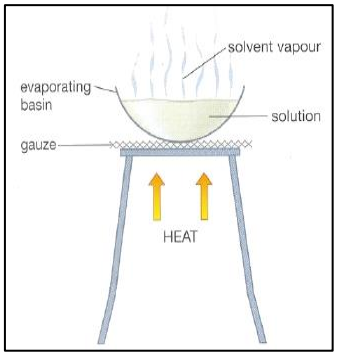
Filtration



Separates an insoluble solid from a liquid.

The solid pieces are too big to fit through the holes in the filter paper.

Evaporation



Separating a soluble solid from a liquid.

Crystallisation

Heat until almost all the water has evaporated.
Leave for the remaining water to evaporate slowly to form crystals.

Key Vocabulary

dissolve	Pass into a solution.
evaporate	Change into a vapour.
filter	Remove by passing through a filter.
non-reversible	Incapable of being reversed into a different state.
particle	A tiny piece of anything.
purify	Remove contaminants from.
reaction	Two or more materials mixed together change to produce new materials.
reversible	Capable of assuming or producing either of two states.
saturated	Being the most concentrated solution possible at a given temperature; unable to dissolve still more of a substance.
soluble	Capable of being dissolved in some solvent.
solution	A mixture of two or more substances; frequently (but not necessarily) a liquid solution.
suspension	A mixture in which fine particles are suspended in a fluid where they are supported by buoyancy.