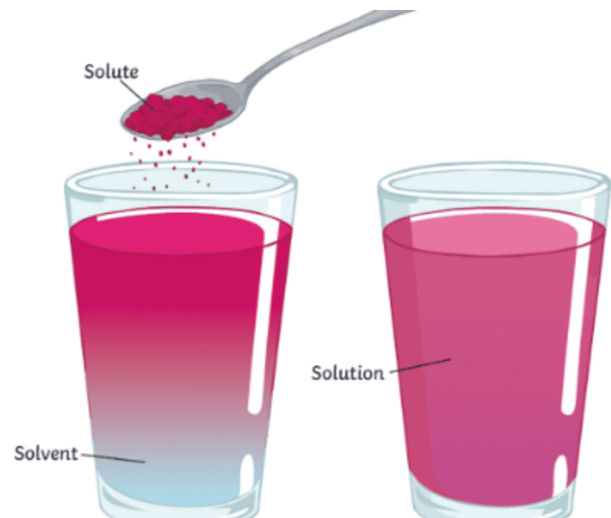


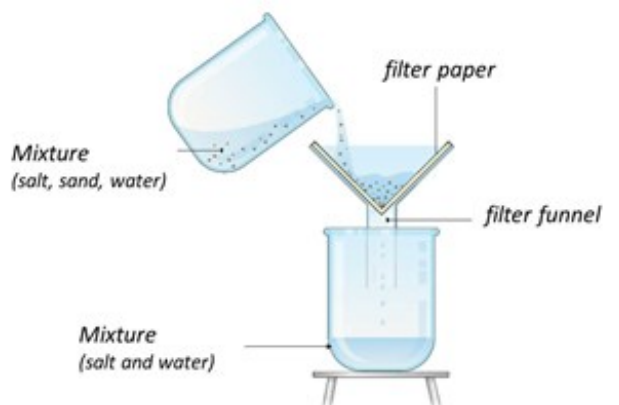
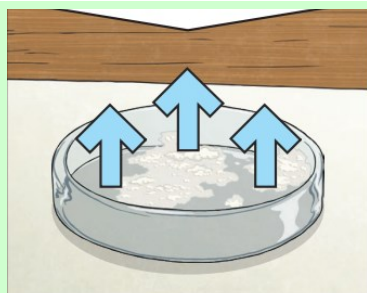

# What changes can materials go through?

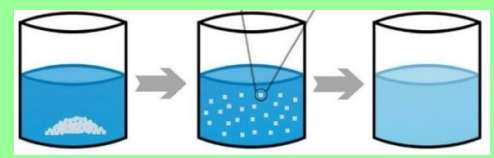

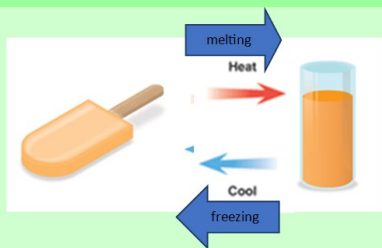

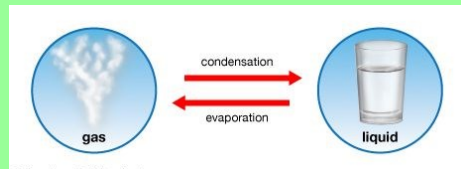
Vocabulary	Definition
<b>dissolving</b>	When a solid completely mixes in a liquid.
<b>soluble</b>	Solids that dissolve in liquids, so that you can no longer see any bits.
<b>insoluble</b>	Solids that do not dissolve in liquid.
<b>solution</b>	A mixture of a liquid with a dissolved solid.
<b>saturation</b>	when a liquid (solvent) cannot dissolve anymore of the solid (solute).
<b>thermal</b>	Relating to heat
<b>reversible change</b>	Changes that are not forever and can be switched back, e.g. dissolving, melting, freezing.
<b>non-reversible change</b>	Changes that cannot be reversed back to their original state e.g. burning, rusting and chemical reactions.
<b>conductor</b>	Allows heat or electricity to pass through
<b>insulator</b>	Doesn't allow heat or electricity to pass through

## Dissolving and solubility



- The solute is the solid that dissolves
- The solvent is the liquid that dissolves the solute
- They form a solution
- When a solvent cannot dissolve any more of the solute, the solution becomes **saturated**.
- Crystallisation is when a solute is separated from the solvent, leaving solid crystals behind.

Separating materials	Reversing the process to get back the original materials.
<b>Filtering</b> Separates insoluble solids from liquids. The solid particles get caught in the filter paper and the water goes through.	
<b>Evaporating</b> Separates soluble solids from liquids. Reverses the process of dissolving.	
<b>Sieving</b> Separates solids of different sizes.	

Reversible changes	Non-reversible changes
<b>Dissolving</b> 	<b>Burning</b> 
<b>Melting and freezing</b> 	<b>Rusting</b> 
<b>Evaporation and condensation</b> 	<b>Chemical reaction—mixing vinegar and bicarbonate of soda</b> 