

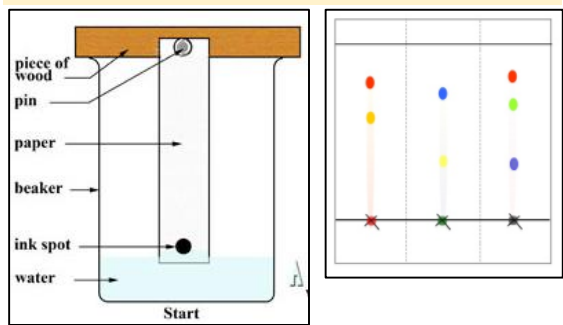
Keywords/ Definitions	
Keyword	Meaning
solvent	A substance, normally a liquid, that dissolves another substance.
Solute	The solid or gas that dissolves in a liquid.
Solution	Mixture formed when a solvent dissolves a solute
Soluble	A substance that will dissolve in a liquid.
Saturated	A saturate solution is one which no more solute can dissolve
Solubility	Maximum mass of solute that dissolves in a certain volume of solvent.
Mixture	Two or more pure substances mixed together, whose properties are different to the individual substances.
Distillation	Separating substances by boiling and condensing liquids.
Chromatography	A technique used to separate mixtures of liquids that are soluble in the same solvent.
Filtration	A way pf separating pieces of solid that are mixed with a liquid or solution by pouring through filter paper
Evaporate	A way to separate a solid dissolved in a liquid by the liquid turning into a gas.
Dissolving	The mixing of a substance (the solute) with a liquid (the solvent) to make a solution

# KS3 Chemistry: Mixtures and Separating Techniques

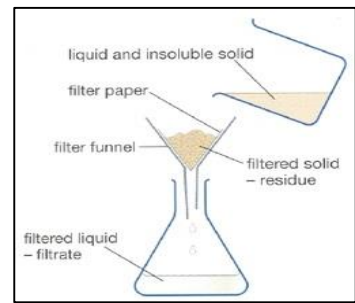
**Chromatography**  
**Method**

1. Draw pencil line.
2. Put dot of colour on line.
3. Hang bottom edge (below dot) in the water.
4. Leave until water soak up to almost the top of the paper.
5. Compare with known substances.

**Different colours contain different mixtures of inks. The different inks move at different speeds up the paper. This is because of different solubility.**



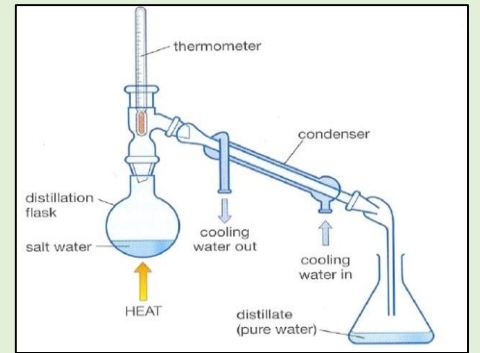
**Filtration**  
 Separates an insoluble solid from a liquid. The solid pieces are too big too fit through the holes in the filter paper.



## Distillation

**Separating substances with different boiling points.**

1. Salt water mixture is heated.
2. At 100°C water boils and the particles gain enough energy to become a gas (water vapour).
3. Boiling point of salt is 1413°C so it does not boil and stays in the flask.
4. Water vapour rises and travels past the thermometer into the condenser.
5. Condenser cools the water vapour so that it condenses back to liquid water.



## 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.

