



1. Key words and definitions

Dissolve	Becomes part of a liquid
Solvent	Liquid in which something dissolves
Solution	A solvent containing a dissolved solute
Soluble	Something that does dissolve
Mixture	A solvent containing solid particles that do not dissolve
Solute	The solid substance to be dissolved

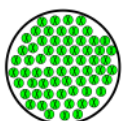
2. Separation methods

Distillation	Evaporation followed by condensation of a solvent from a solution
Filtration	Separation of insoluble solute particles from a mixture
Chromatography	Separation of dissolved solute particles. The most soluble solutes travel the furthest.
Crystallisation	Separation of soluble solid from a solvent.

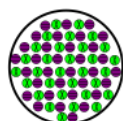
3. Water, key temperatures

1. Freezing/melting point:	0°C
2. Dew/boiling point:	100°C

Pure Substances

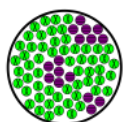
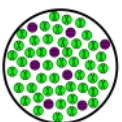


Element



Compound

Mixtures

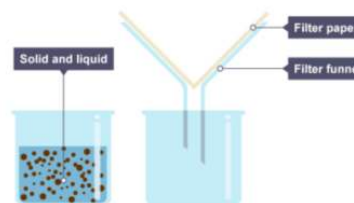


Pure or Impure

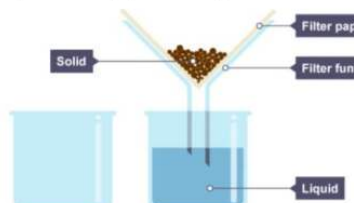
Pure	Only one type of particle
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4. Filtration

- A method for separating an insoluble solid from a liquid. A beaker containing a mixture of insoluble solid and liquid. There is filter paper in a filter funnel above another beaker.



- The mixture of insoluble solid and liquid is poured into the filter funnel.
- The liquid particles are small enough to pass through the paper as a filtrate. The solid particles are too large to pass through the filter paper and stay behind as the residue.



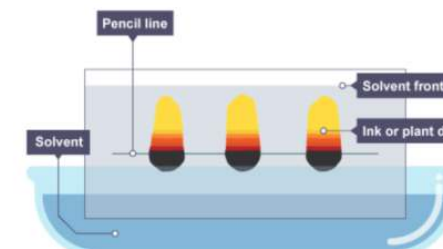
5. Crystallisation

- A method used to separate a soluble solid from a liquid.
- A solution is placed in an evaporating basin and heated with a Bunsen Burner.
- The water will begin to evaporate and solid particles will begin to form in the basin.
- Once the water has evaporated, it will leave solid crystals behind.



6. Chromatography

- Paper chromatography is a method for separating dissolved substance from one another. Often used when the dissolved substance are coloured such as inks, food colouring or plant dyes.
- A pencil line is drawn on the paper, and spots of ink are placed on the line.
- There is a solvent usually water or ethanol in a container/beaker.
- The paper is lowered into the solvent. The solvent travels up the paper, taking some of the substances with it.
- As the solvent travels up the paper, the different coloured substances are spread apart.



7. Distillation

- A method used for separating the solvent from a solution. E.g. water can be separated from a salt solution because the water has a much lower boiling point than the salt.
- Salt water is heated. The water evaporates and its vapours rise.
- The vapours rise and pass into the condenser, where they cool and condense.
- Liquid water drips into a beaker and the salt will be left in the round bottom flask.

