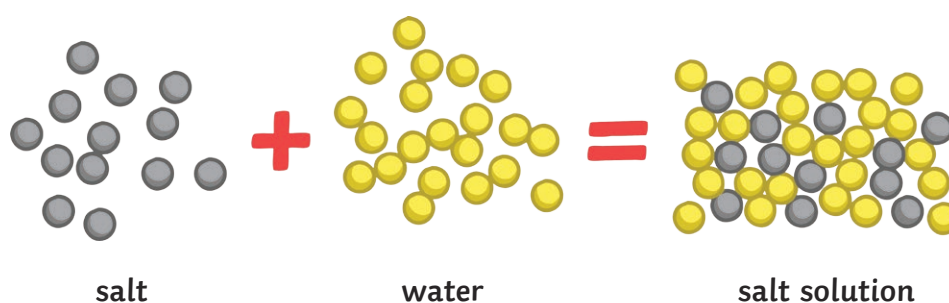


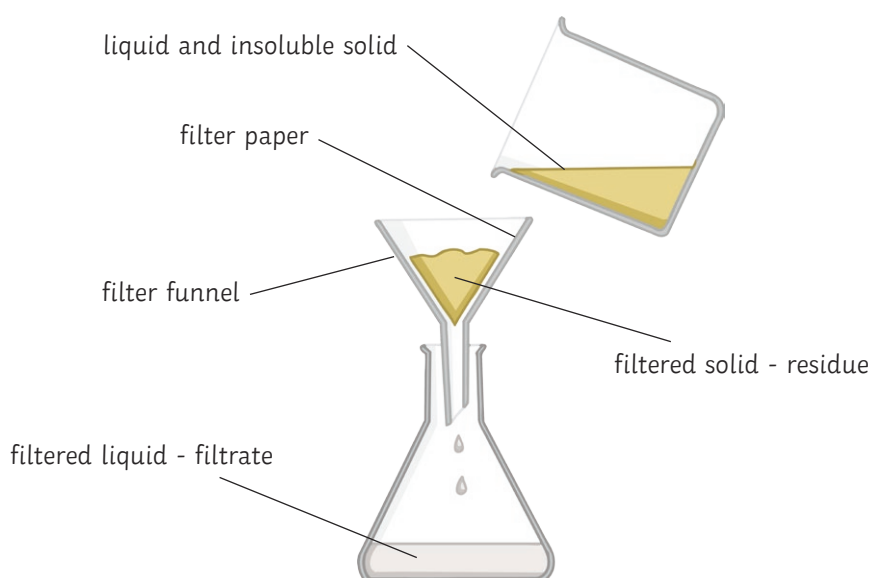
# Separation Techniques

## Key Revision Facts

- Mixtures contain several different substances, but they are not chemically combined.
- Pure substances can be identified by their boiling points.
- Solute – the solid that dissolves in a liquid.
- Solvent – the liquid the solute dissolves in.
- Solution – a mixture of the solute and solvent
- When salt is dissolved in water the particles mix with one another and do not disappear.

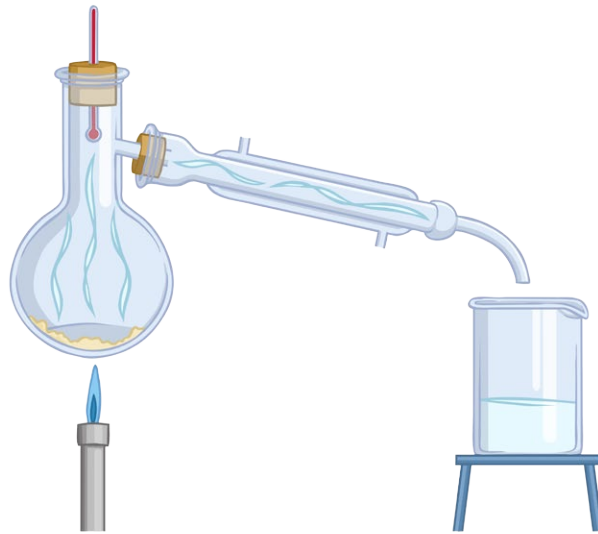


- Solubility is the mass of a solute that will dissolve in 100g of water.
- A saturated solution will not allow any more solute to dissolve.
- The apparatus for filtration is shown below.



- Filtration will separate insoluble solids from liquids.
- Evaporating involves heating a solution, the water evaporates and crystals are left behind.

- Distillation can be used to obtain pure water from salt water. The equipment is shown below.



Salt water is heated up until it starts to boil, it is then cooled, condensed and collected. The salt is left behind in the flask and the pure water is collected in the flask.

- Chromatography is a separation technique used to find out which dyes are in a certain colour. The equipment is shown below.

