



Topic: Particle model and separating mixtures

Date covered: 4/9/17 – 20/10/17


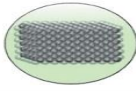

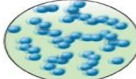


Key words:

- Particle
- Evaporate
- Condense
- Melting point
- Freezing point
- Solvent
- Solute
- Solution
- Insoluble
- Filtration
- Distillation
- Chromatography
- Evaporation

Key facts:

- The three states of matter covered in this topic are solid, liquid and gas.
- The properties of each state of matter are explained by the particle model.

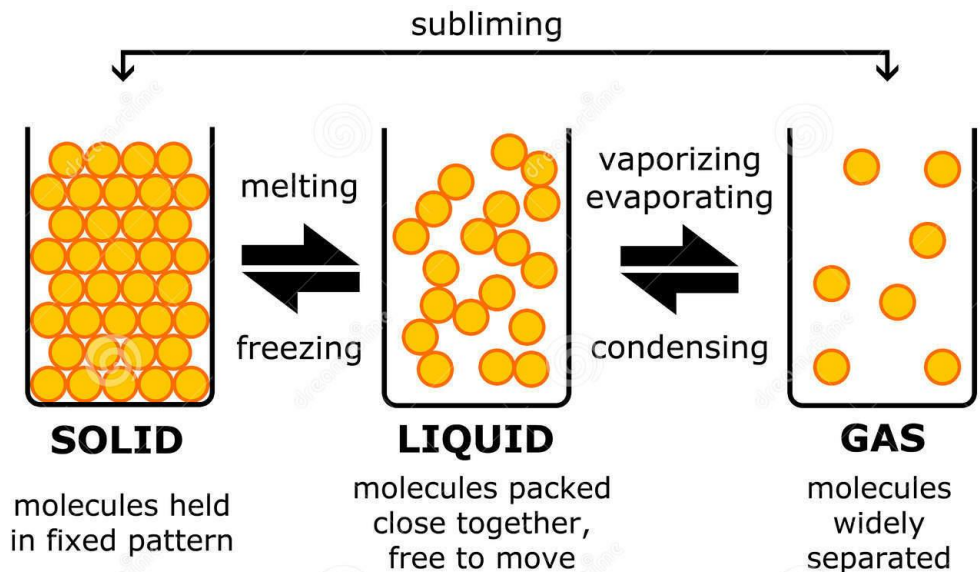
States of matter

 SOLIDS	They have a definite shape and a definite volume.	All particles are very close together.	
 LIQUIDS	Liquids have an indefinite shape and a definite volume.	Particles are not very close together.	
 GASES	Gases have an indefinite shape and an indefinite volume.	Particles of gases are very far apart and move freely.	

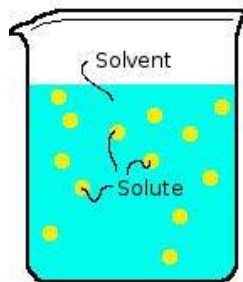
- The spacing and bonding between the particles is changed by adding or reducing heat.
- As energy is added to a substance the temperature increases.
- Pure is defined as something with only one type of substance; e.g pure water only contains H₂O molecules.
- A solution is defined as a solute dissolved in a solvent.
- Solute is what dissolves.
- Solvent is the substance in which the solute dissolves.
- Saturation point is the point at which no more solute can be dissolved in a solvent.
- Solids can be separated from liquids using a filter.
- A mixture of liquids can be separated using Chromatography or distillation.

Key diagrams:

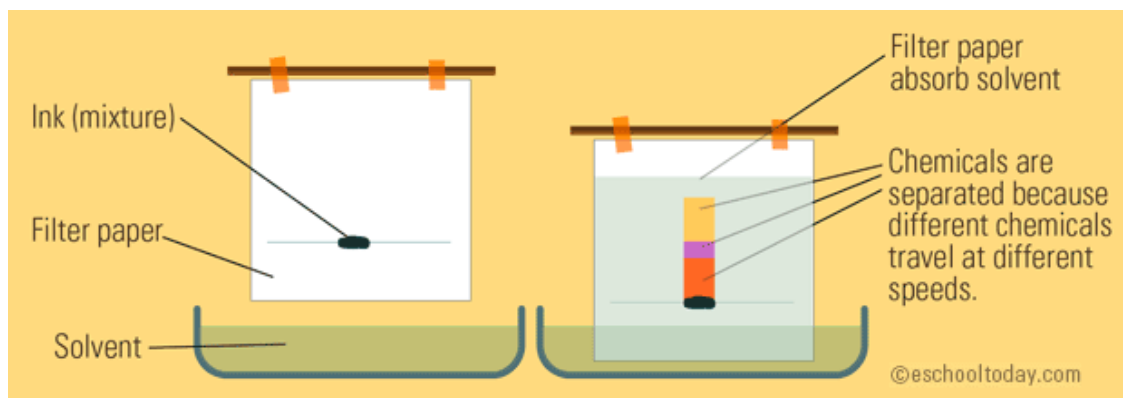
States of matter



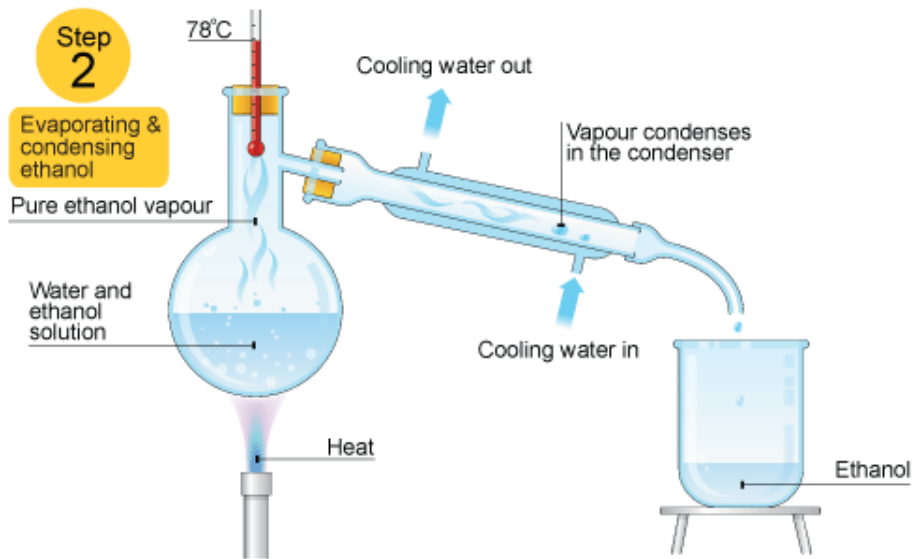
Dissolving:



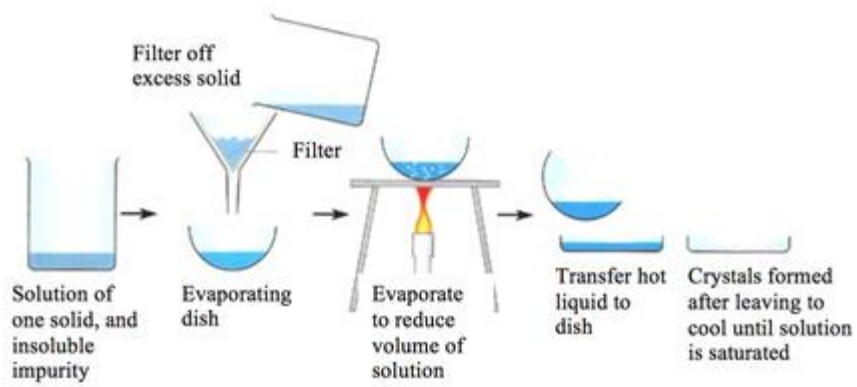
Chromatography:



Distillation:



Filtration and Crystallisation:



Additional information: