

1. Key Words		
1	Mixture	An insoluble substance in a liquid. It is opaque. They are very easy to separate.
2	Soluble	A substance that will dissolve
3	Insoluble	A substance that will not dissolve
4	Solute	The solid substance that dissolves into a liquid
5	Solvent	The liquid that a substance dissolves into
6	Solution	Formed when a solute dissolves in a solvent. It is transparent. They are harder to separate than mixtures.
7	Dissolving	When a solid breaks up into tiny pieces (particles) and interacts with the liquid particles.
8	Conserved	Remains constant/unchanged in total
9	Solubility	How much solute can be dissolved in a known volume of liquid
10	Saturated	When a solution can no longer dissolve any more solute.
11	Evaporation	The process of turning from a liquid into a gas (vapour)
12	Condensation	The process of turning from a gas (vapour) into a liquid
13	Filtration	Used to separate a insoluble substance from a liquid
14	Chromatography	Method to separate a mixture of liquids using differences in their solubility. The result is a Chromatogram.
15	Distillation	Method to separate a solution or two liquids using difference in boiling point.
16	Pure	A material that only contains one substance

**4. Chromatography**

**Separate a mixture of liquids e.g dyes/colours in pens**

1	A sample is added to a pencil line on paper
2	The bottom of the paper is suspended in solvent
3	Solvent absorbs/soaks up the paper
4	Each dye makes it's own spot on the paper
5	Very soluble colours travel to top of paper
6	Less soluble colours stay closer to the bottom

1. Command Words	
1 Name	Recall one or more pieces of information.
2 State	Write down what the term in the question means.
3 Give	Recall one or more pieces of information.
4 Describe	Give an account in words of someone or something including all of the relevant characteristics, qualities or events.
5 Explain	Make an idea, situation or problem clear by describing it in detail revealing relevant data or facts
6 How	Discuss the creation of something giving specific references to support.

**2. Dissolving**

**1.** Particles in a solid are held in a fixed arrangement.

**2.** The solid particles break up and mix with the liquid particles. The particles interact with one another.

**3.** All the particles in a solution are very small- they can all fit through the holes in filter paper and that is why filtering can't be used to separate a solution.

**The TOTAL mass is the SAME- CONSERVED**

**3. Evaporation**

**Separate 2 solids or a solution**

**1.** Add rock salt to water and stir to dissolve the salt. The grit is insoluble.

**2.** Filter. The grit (residue) gets trapped in the filter paper. The salty water (filtrate) goes through.

**3.** Heat the filtrate to evaporate the water. The salt will be left behind.

**5. Distillation**

**Separate a solution or two liquids**

1	Solution of ink in flask and heated
2	Water in the ink solution evaporates
3	Water vapour enters the condenser
4	Water vapour condenses into a liquid
5	Pure water collects in the beaker
6	Blue/Black solid ink remains in flask