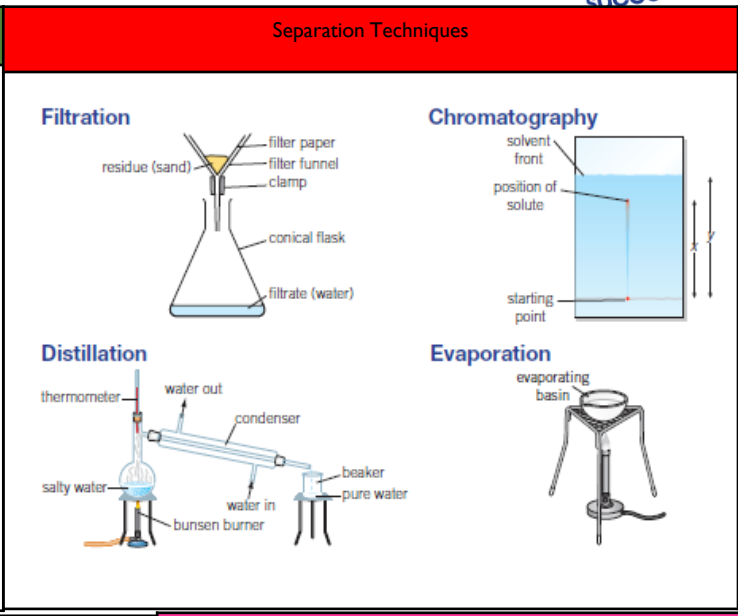
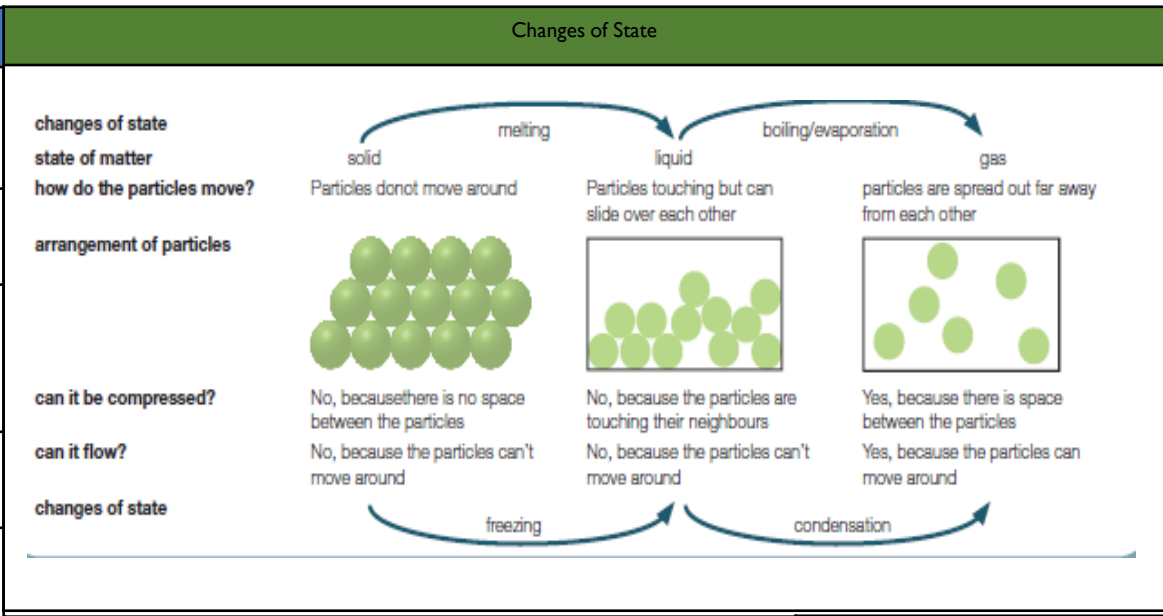


Elements, Atoms, Compounds & Mixtures		
1	Elements	A substance that only contains one type of atom. Each element has a unique chemical system. Elements are arranged in the Periodic Table.
2	Atoms	The smallest part of which an element can be broken down into. Elements contain one type of atom only.
3	Compounds	Formed when two or more different elements chemically bond together. They have different chemical properties to the elements in the compound.
4	Chemical Formulae	Tells us how many atoms of each element are in the compound in relation to each other.
5	Mixtures	More than one type of element or compound that are not chemically bonded together and are easy to separate.



The Periodic Table

1	Groups	Elements in the same group have the same number of electrons in their outer shell, therefore, they have similar reactivities and chemical properties.
2	Group 1: The Alkali Metals	Softer and have lower melting and boiling points than other metals. Boiling point decreases going down the group. Reactivity increases going down the group. They react with water to form alkaline solutions: metal + water → metal hydroxide + hydrogen.
3	Group 7: The Halogens	Low melting and boiling points. Don't conduct electricity. Boiling point increases down the group. Reactivity decreases down the group. A more reactive halogen displaces a less reactive one than its compound.
4	Group 0: The Noble Gases	Low melting and boiling points. Boiling point decreases down the group. All group 0 elements are unreactive. When electricity is passed through the gas, they emit a brightly coloured light.

Pure Substances

1	Definition	A substance that consists of one element or compound only.
2	Testing Purity	Melting and boiling point tests can be used to determine how pure a substance is.
3	Pure Substances Have Sharp Melting/Boiling Points	<p style="text-align: center;">Pure substance</p>
4	Impure substances Melt/Boil Over a Range of Temperatures	<p style="text-align: center;">Impure substance</p>

Solubility

1	Solution	A type of mixture which is made up of two parts.
2	Solvent	The liquid part which the solute has dissolved into.
3	Solute	The part which has dissolved in solution,
Solutions		
1	Solubility	The measure of how much of a substance will dissolve.
2	Soluble	Substances which do dissolve.
3	Insoluble	Substances which do not dissolve.
4	Increasing solubility	Can be increased by a) increasing the temperature b) stirring the solution.
5	Saturated Solution	One where the maximum amount of solute has dissolved in it, no more solute will be able to dissolve.

Key Vocabulary

1	Groups	Columns in the periodic table.
2	Periods	Rows in the periodic table.
3	Polymers	Long chains of groups of atoms which are repeated many times.