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Atoms , Elements and Compounds

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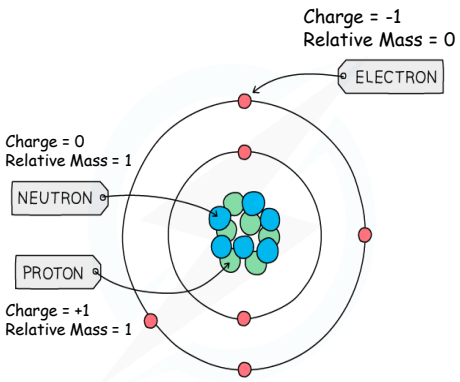
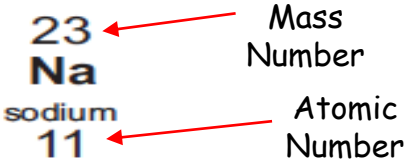
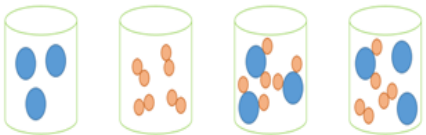
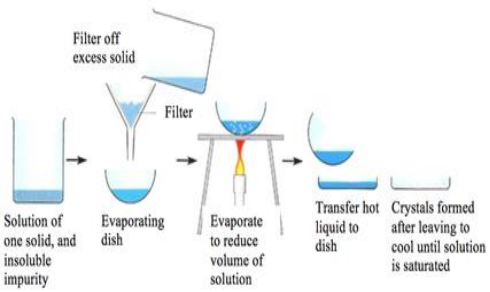
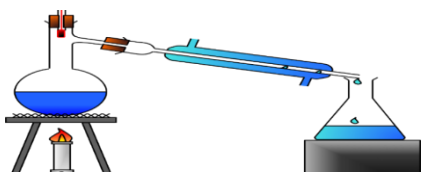
Rationale
The periodic table gives us a structured organisation of all known chemical elements to help us make sense of their physical and chemical properties. The periodic table and the model of atomic structure has been developed over time as new evidence has been found. We can use our knowledge of the structure of the atom to help us explain patterns in the arrangement of the elements in the periodic table. This is a fundamental topic in Chemistry.

Diagrams	Keywords	Definitions
	Atom Proton Neutron Electron	Smallest part of an element that can exist. A positively charged particle, found in the nucleus of the atom. A neutral particle, found in the nucleus of the atom. A negatively charged particle, found orbiting the nucleus of an atom.
	Mass Number Atomic Number	Tell us the number of protons added to the number of neutrons in an atom. Tells us the number of protons in an atom. This is the same as the number of electrons.
	Element Compound Mixture	Contains atoms of one element only. Two or more types of atom **chemically joined together**. Two or more types of atom **NOT chemically joined together**.
	Filtration Crystallisation	The separate of an insoluble solid from a liquid using a funnel and filter paper. Liquid passes through the filter paper whilst the solid is collected in the paper. Evaporation of a solvent to leave behind crystals of the solute (soluble solid).
	Distillation	Separation of liquids with different boiling points. Mixture is heated and some of the liquid evaporates. The gas travels up towards the condenser, where it cools to form a liquid, separated from the initial mixture.