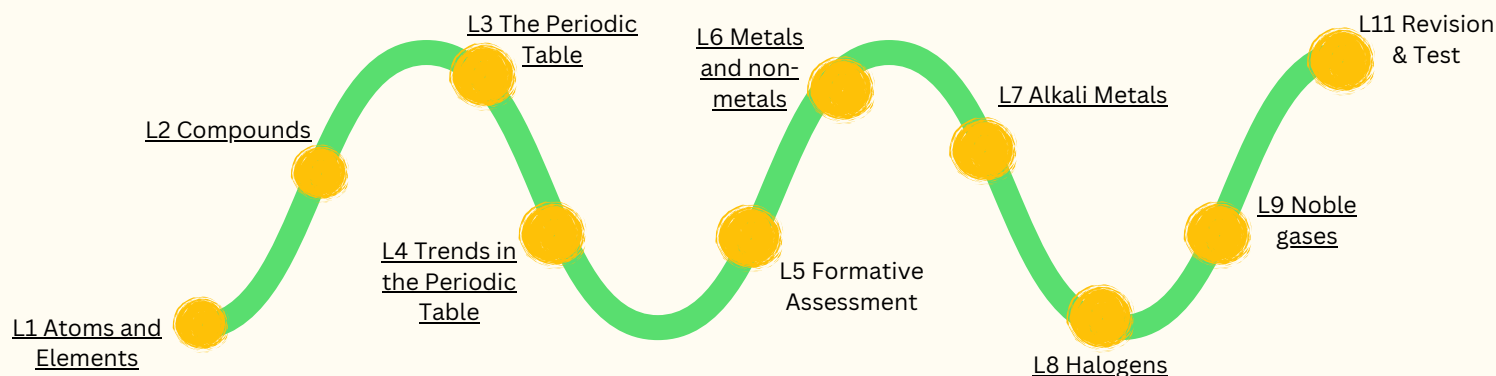


Yr7 Atoms & The Periodic Table

Chemistry

In this topic, you will learn that all substances are made of atoms, which are the smallest particles of an element. You will explore the structure of atoms, including protons, neutrons, and electrons, and understand how elements are arranged in the periodic table. You will also learn how to use the periodic table to identify elements, their properties, and patterns in their behaviour.



Prior learning link: KS1&2 Everyday materials and properties and changes of materials

Key words

- **Atom** – The smallest particle of an element that retains its properties.
- **Element** – A substance made of only one type of atom.
- **Periodic Table** – A chart that organizes all known elements by their properties and atomic number.
- **Proton** – A positively charged particle found in the nucleus of an atom.
- **Neutron** – A particle with no charge found in the nucleus of an atom.
- **Electron** – A negatively charged particle that orbits the nucleus of an atom.
- **Nucleus** – The central part of an atom containing protons and neutrons.
- **Atomic Number** – The number of protons in an atom; used to identify the element.
- **Mass Number** – The total number of protons and neutrons in an atom's nucleus.
- **Group** – A vertical column in the periodic table; elements in the same group have similar properties.
- **Period** – A horizontal row in the periodic table; shows how properties of elements change across a row.
- **Metal** – An element that is typically hard, shiny, and a good conductor of heat and electricity.
- **Non-metal** – An element that is usually not shiny, brittle, and does not conduct electricity well.
- **Compound** – A substance made from two or more different elements chemically joined.
- **Symbol** – A one- or two-letter code that represents an element (e.g. H for hydrogen, O for oxygen).

Revision Resources

[BBC KS3 The Periodic Table](#)

[BBC KS3 Atoms, Elements and Compounds](#)