Foxford Learning Plan

Year 8

Autumn 2

Atoms, Elements and the Periodic Table

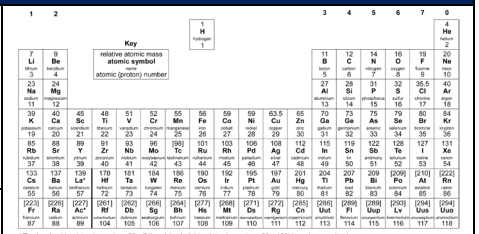
Key Vocabulary

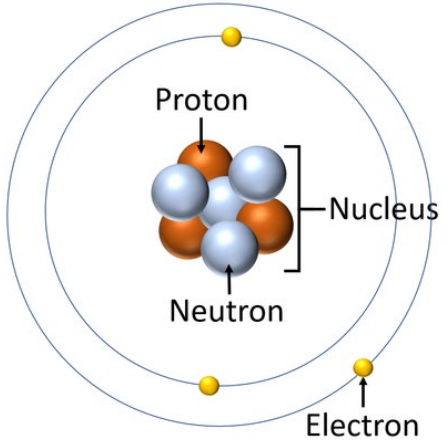
Atom	The smallest unit of a substance.
Molecule	Two or more atoms bonded together.
Element	A substance made up of identical atoms. They are located on the Periodic Table.
Compound	Two or more different elements chemically bonded together.
Metal	A substance located on the left of the Periodic Table. They are made up of tightly packed regular atoms.
Proton	A subatomic particle found in the nucleus of an atom. They have a positive charge.
Neutron	A subatomic particle found in the nucleus of an atom. They have no charge.
Electron	A subatomic particle found in the shells around an atom. They have a negative charge.
Periodic Table	An organised arrangement of every known element. Elements are sorted by their size and properties.
Alkali metal	A metal located in group 1 of the Periodic Table.
Halogen	A non-metal located in group 7 of the Periodic Table.
Bond	The interaction between two atoms that holds a substance together.

Over this course I will be able to

Key Skills

- Break information into manageable parts and explain my thinking clearly and confidently.
- Compare different pieces of information and decide which are the most reliable or useful.
- Use scientific vocabulary accurately to communicate my ideas with precision.
- Spot patterns, trends and changes in data and describe what they show.
- Work logically through a problem, choosing appropriate methods to reach a justified outcome.





I will understand

- I will be able to identify the differences between elements and compounds, and describe their structures.
- I will be able to describe the structure of an atom and calculate the number of protons, neutrons and electrons in an atom.
- I will be able to discuss the key properties of metals and non-metals and their applications in the wider world.
- I will be able to navigate the Periodic Table and discuss its history, purpose and how it is organised.
- I will begin to explore how certain substances react with others and predict these reactions based on their location in the Periodic Table.