



Key Stage 3 Science Curriculum Plan

Main Aims:

Our science curriculum allows pupils to develop a deeper understanding of a wide range of scientific ideas and skills across the science disciplines and increases knowledge of the 'big' ideas that underpin scientific understanding. This is achieved through exploring ideas, asking questions and finding relationships.

We promote the development of excitement and curiosity about natural phenomena and a love of investigating and asking questions. We support pupils in making connections between everyday observations and key scientific ideas and also in making connections between scientific disciplines. We want pupils to understand how science can be used to explain what is happening, predict how things will behave and analyse causes. We want pupils to understand that science has changed our lives and is vital to the world's future prosperity.

Year 7

Autumn 1

Energy resources and electrical circuits

- How electricity is made from fossil fuels, the problems with them and alternatives to their use.
- How an electrical circuit works and what different types of circuit there are.
- What current and resistance are and how we measure them.

Autumn 2

Forces and their effects

- The effects of forces on moving and stationary objects, including falling, floating and different kinds of friction.
- How to calculate and change the speed of moving objects.

Spring 1

Human body systems and cells

- Human organs and their functions.
- The skeleton and how it moves.
- How to use a microscope.
- What cells are and what are the parts of cells?

Spring 2

Human reproduction

- Specialised cells
- How humans reproduce.



Summer 1	Summer 2
Particle theory and acids and their reactions <ul style="list-style-type: none">• What solids liquids and gases and the theory of how particles are arranged.• What acids and alkalis are and how they react with each other and other materials.	Chemical reactivity <ul style="list-style-type: none">• Different chemical reactions, such as displacement, oxidation and combustion and the reactivity series.
Year 8	
Autumn 1	Autumn 2
Energy transfer and light <ul style="list-style-type: none">• Different types of energy and how energy is transferred.• How light behaves as it hits different materials.	Heat energy and sound <ul style="list-style-type: none">• How heat travels through different materials.• How sound travels, how sounds can change and how we hear sounds.
Spring 1	Spring 2
The periodic table, atoms and elements <ul style="list-style-type: none">• The arrangement of the periodic table and what atoms and elements are.	Compounds, mixtures and separations <ul style="list-style-type: none">• What compounds are and how they are formed.• What mixtures are and how they can be separated
Summer 1	Summer 2
Food and digestion <ul style="list-style-type: none">• Food groups and balanced diets.• How the human digestive system digests food for energy	Respiration and photosynthesis <ul style="list-style-type: none">• How cells release energy from digested food.• How humans obtain oxygen for respiration.• What photosynthesis in plants is, the importance of it and how plants are adapted to carry it out.