

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	<p>Topic: Cell structure Reproduction</p>	<p>Topic: Organisation of multicellular organisms Ecosystems</p>	<p>Topic: Energy stores and transfers Understanding waves</p>	<p>Topic: Atoms and elements Solids, Liquids and gases Acids and Alkalis</p>	<p>Topic: Current electricity Measuring density</p>	<p>Topic: Current electricity Measuring density Different forces Pressure</p>
	<p>Rationale of Learning: A fundamental understanding of the human anatomy to develop interest and intrigue into science as it's something familiar to them.</p>	<p>Rationale of Learning: Developing knowledge of cell structure further within mammals and plants to widen understanding.</p>	<p>Rationale of Learning: Fundamental principles of physics are introduced to understand underpinning principles of energy and transfers, needed to propel further in their study of physics.</p>	<p>Rationale of Learning: Transferring from biology to physics and chemistry, to engage in core principles within another discipline - highlights which realm of science students prefer.</p>	<p>Rationale of Learning: Generating interest in modern appliances and how the forces of nature work within an everyday appliance.</p>	<p>Rationale of Learning: Core understanding of human existence and how the Earth works. Creates a buzz and understanding of the mechanics of existence.</p>
	<p>Content taught:</p> <ul style="list-style-type: none"> STEM links through cell structure understanding of cell structure and function in living organisms similarities/differences in cell structure Human reproduction Plant reproduction Animal reproduction 	<p>Content taught:</p> <ul style="list-style-type: none"> Classification of cells Variety of living organisms Cell, tissue, organ systems Ecosystems Habitats Food chains Food webs 	<p>Content taught:</p> <ul style="list-style-type: none"> Combustion Energy at home Fuels and energy resources Features of waves Light waves Colours and sounds 	<p>Content taught:</p> <ul style="list-style-type: none"> Chemical symbols Periodic table Metals/non-metals Bases and alkalis Indicators and pH scale Neutralisation Reactions of acids with bases Reactions of acids with metal Naming salts 	<p>Content taught:</p> <ul style="list-style-type: none"> What is electricity? Static electricity Electric current Potential difference Generating electricity Density, mass and volume Expansion and contraction 	<p>Content taught:</p> <ul style="list-style-type: none"> Motion (speed, distance, time) Forces Balanced forces Force diagram Pressure Momentum Calculating pressure Pressure in the atmosphere Pressure in fluids Gravity Magnetism
Year 8	<p>Topic: Organ systems Plants and uses</p>	<p>Topic: Metals and their uses Earth's atmosphere</p>	<p>Topic: Earth's atmosphere Energy and efficiency</p>	<p>Topic: Biological reactions Chemical reactions</p>	<p>Topic: Magnets and electromagnets Electromagnetic spectrum</p>	<p>Topic: Sound Light</p>
	<p>Content taught:</p> <ul style="list-style-type: none"> Nervous Circulatory Respiratory Variety of plants and uses Plant anatomies 	<p>Content taught:</p> <ul style="list-style-type: none"> Enzymes Catalysts Photosynthesis Respiration Types of reactions Reactants and products Chemical equations Combustion Oxidation Thermal decomposition 	<p>Content taught:</p> <ul style="list-style-type: none"> Conduction Convection Radiation Life on Earth Oxygen and carbon dioxide Energy transfers Sankey diagrams Energy efficiency Calculating efficiency Wasted energy Temperature Thermal energy Absorption 	<p>Content taught:</p> <ul style="list-style-type: none"> The reactivity series Reactions with acids and metals Displacement reactions Metals and oxides 	<p>Content taught:</p> <ul style="list-style-type: none"> Bar magnets Attract and repel Magnetic fields The Earth's magnetism The compass Electromagnets DC motors Electric bell Wavelength: transverse and longitudinal Radiowaves, microwaves, infrared, visible light, ultraviolet, x-rays and gamma rays 	<p>Content taught:</p> <ul style="list-style-type: none"> Transverse waves Vacuum Transparent Translucent Speed of light The law of reflection Refraction Scattering Imaging in mirrors Convex/concave/focus Colour/The spectrum Detecting light