

	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
Key focus	-Introduction -Organisation and health	-Energy, particles and radiation -Periodic table and materials	-Adaptations and inheritance -Chemical reactions	-Waves	-Earth and atmosphere -Electricity and magnetism	-Respiration and photosynthesis -Forces and pressure
Key knowledge and skills	a) Practical Skills b) Density investigation c) Breathing rates d) Digestion and enzymes	a) Doing 'work' b) Heating, energy and temperature c) Atomic models and atomic structure d) Elements and the periodic table e) Simple chemical reactions	a) DNA b) Variation and adaptation c) Genetic disorders d) Practical Skills e) Reactions of acids and metals f) Reaction rates	a) Wave types b) Understand how waves behave c) Uses of waves	a) Understanding the current composition of the atmosphere and how it is changing b) How humans impact the carbon cycle c) Practical Skills d) Series and parallel circuits e) Power f) Electricity in the home	a) Photosynthesis b) Aerobic and anaerobic respiration c) Practical skills: Hooke's Law d) Exploring and calculating pressure
Key words/ vocabulary	Density Mass Volume Breathing Alveoli Diffusion Digestive System Enzymes	Thermal Conduction Convection Radiation Proton Nucleus Electron Element	DNA Genes Chromosomes Fossils Selective breeding Compound Exothermic Endothermic Conservation of Mass Bonds Reactants and Products	Transverse Longitudinal Wavelength Frequency Peak Trough	Atmosphere Combustion Carbon cycle Current Potential Difference Resistance Ohms Series Parallel	Photosynthesis Chlorophyll Respiration Aerobic and anaerobic Fermentation Drag Friction Streamlined Resultant Force
Assessment method	Assessment Point 1 – Paper 1	Assessment Point 1 - Paper 2	Assessment Point 2 - Paper 1	Assessment Point 2 - Paper 2	MCQ's Extended Writing	MCQ's
Wider links	P.E/BTEC Sport – Respiratory System/Exercise Health and Social care – Health and lifestyle choices	Maths – mean, mode, median, inequalities, change subject of equation Technology – plastics/different materials	Maths – orders of magnitude	Maths – calculations and rearranging formula Working with standard form	Maths – significant figures, means, $y=mx+c$, gradients/tangents Geography – Geology/Rocks/Geological Activity Geography – Sustainability and climate change	P.E/BTEC Sport – Respiratory System/Exercise Music – Forces and elasticity tension and how this affects pitch

<p>Enrichment opportunities</p>		<p>Atoms, elements and compounds - KS3 Chemistry - BBC Bitesize Periodic table - KS3 Chemistry - BBC Bitesize Graphene: Bend and flex for mobile phones - BBC Future</p>	<p>BBC Two - Bitesize Secondary, Darwin, Animal adaptations to a hot climate BBC Two - Science Clips, Reversible and Irreversible Change, Chemical reactions in cooking food BBC Two - Science Clips, Reversible and Irreversible Change, What is rust?</p>	<p>How to make a loudspeaker - BBC Bitesize How to play a record with a £5 note guide for KS3 physics students - BBC Bitesize</p>	<p>Circuit Construction Kit: DC - Series Circuit Parallel Circuit Ohm's Law - PhET Interactive Simulations (colorado.edu)</p>	<p>FIVE FEET APART - Trailer #2 - HD (Haley Lu Richardson, Cole Sprouse) - YouTube How Tall Buildings Tame the Wind - YouTube</p>
<p>Careers links</p>	<p>Nurse Dietitian Health Care Assistant</p>	<p>Builder Lift engineer Chemical Engineer</p>	<p>Hazard evaluation chemist Chef/ Baker Hairdresser Epidemiologist Biotechnologist Farmer</p>	<p>Electronic engineer Seismologist Oceanographer Physicians</p>	<p>Electrician Electrical engineer</p>	<p>Farmer Personal Trainer Paramedic Brewer Baker Builder Architect</p>