

	Half term 1			Half term 2		
<b>Key focus</b>	B1a Cell Structure and Transport	B1b Cell Division	P1a Energy	C1a Atomic Structure	C8 Chemical Analysis	P1b Energy Transfer by Heating
<b>Key knowledge and skills</b>	a) Animal, plant and bacterial cell organisation and structures b) Microscopy c) Transport d)	a) Cell Division b) Differentiation of cells c) Stem Cells	a) Energy stores and changes b) Energy calculations	a) Atoms, Elements, Compounds and Mixtures b) Separating Mixtures c) Structure of the Atom	a) Purity of substances b) Chromatography c) Testing for gases	a) Conduction, Convection, Radiation b) Specific Heat Capacity c) Heating and Insulation
<b>Key words/ vocabulary</b>	Eukaryote Prokaryote Diffusion Osmosis Active Transport	Mitosis Stem Cells Differentiation	Efficiency Kinetic Thermal Chemical Elastic potential	Proton Neutron Electron Compound Mixture Element	Purity Melting Point Boiling Point	Conduction Convection Radiation
<b>Assessment method</b>	HT1 Assessment Practical element (Microscopes) Extended Writing Tasks	HT1 Assessment Extended Writing	HT1 Assessment Extended Writing	HT2 Assessment Extended Writing Practical (Separation techniques)	HT2 Assessment Extended Writing Practical (Chromatography)	HT2 Assessment Extended Writing
<b>Wider links</b>		PER – Cloning and stem cell issues	Maths - Equations		Geography – Desalination to produce drinking water	Geography – Energy resources
<b>Enrichment opportunities</b>	<a href="#">Cell Biology - BBC Bitesize</a>	<a href="#">Cell Biology - BBC Bitesize</a>	<a href="#">Energy - BBC Bitesize</a>	<a href="#">Atomic Structure and the Periodic Table - BBC Bitesize</a>		<a href="#">Energy - BBC Bitesize</a>
<b>Careers links</b>	Biomedical scientist Forensic scientist	Genetic engineering Lab grown meat and meatless alternatives.	Physicist Product testing (efficiency)	Chemist Pharmacologist	Lab Chemical Analysis Forensics	Chemical engineer

	Half term 3			Half term 4		Half term 5	
<b>Key focus</b>	B2 Organisation	C4ai Chemical Changes	P2a Electrical Circuits	B3 Infection and Response	C1b Periodic Table	B4a Photosynthesis	Revision
<b>Key knowledge and skills</b>	a) Cells, Tissues and Organs b) Digestive System c) Enzymes	a) Reactivity Series b) Displacement Reactions c) Extracting Metals	a) Current b) Resistance c) Potential Difference d) Series and Parallel Circuits	a) Types of diseases b) Human response to disease	a) Development of the periodic table b) Characteristics of the periodic table	a) Photosynthesis b) Limiting Factors c) Uses of Glucose	a) Cell Structure (B) b) Cell Transport (B) c) Organisation and Digestive System (B) d) Infection and Response (B) e) Atomic Structure (C) f) Periodic Table (C) g) Energy Changes (C) h) Energy stores (P) i) Energy transfers (P) j) Electrical Circuits (P)
<b>Key words/ vocabulary</b>	Digestion Enzymes Food test Surface Area		Current Resistance Potential difference Series circuit Parallel circuit	Communicable disease Pathogen Bacteria White blood cells Phagocytosis	Electron Shells Groups Periods	Photosynthesis Limiting Factor	
<b>Assessment method</b>	End of Topic Assessments Extended Writing Tasks	End of Topic Assessments Extended Writing Tasks Practical (Extracting metals from ores)	End of Topic Assessments Extended Writing Tasks Practical Element (Building Circuits)	End of Topic Assessments Extended Writing	End of Topic Assessments Extended Writing Tasks	End of Topic Assessments Extended Writing Tasks Practical Element (Factors that affect Photosynthesis)	Assessment Point 2

<b>Wider links</b>	P.E. - How exercise affects the body		Maths – Use of equations	Food technology – Food hygiene and disease	ICT – Presenting information	Geography – Habitats and Biomes	General – Revision techniques
<b>Enrichment opportunities</b>	<a href="#">Organisation - BBC Bitesize</a>		<a href="#">Electricity - BBC Bitesize</a>	<a href="#">Infection and Response - BBC Bitesize</a>	<a href="#">Atomic Structure and the Periodic Table - BBC Bitesize</a>	<a href="#">Bioenergetics - BBC Bitesize</a>	
<b>Careers links</b>	Dietician Epidemiologist	Chemist Pharmacologist	Electrician Lineworker	Epidemiologist Doctor	Chemist	Personal trainer Physiotherapist	

	Half term 6	
<b>Key focus</b>	B7a Ecology	C5 Energy Changes
<b>Key knowledge and skills</b>	a) Adaptation b) Interdependence c) Competition	a) Energy in reactions b) Reaction profiles
<b>Key words/ vocabulary</b>	Communities Ecosystem Abiotic and Biotic Factors Sampling Quadrats and Transects	Exothermic Endothermic Reaction profile
<b>Assessment method</b>	End of Topic Assessments Extended Writing Tasks Practical Element (Sampling Techniques)	End of Topic Assessments Extended Writing Tasks Practical Element (Variables affecting temperature change)
<b>Wider links</b>	Geography – Habitats and Ecosystems	Maths – Significant figures, means, graphs
<b>Enrichment opportunities</b>		<a href="#">Energy Changes - BBC Bitesize</a>
<b>Careers links</b>	David Attenborough Conservation of animals and ecosystems	Nuclear scientist