

(Science) Curriculum Overview 2018 - 2019

	Aut1	Aut2	Spr1	Spr2	Sum1	Sum2
Year 7	Safety in the laboratory Acids & alkalis	Atoms, elements & molecules Forces	Muscles & bones Energy	The Particle model Ecosystems	Cells, tissues & Systems Sound	Reproduction in plants & animals Full investigations
Year 8	Food & nutrition Earth & space	Plants & reproduction The Periodic Table	Light Metals & their uses	Energy transfers Unicellular organisms	Rocks Combustion	Breathing & respiration Fluids Full investigations
Year 9	Transition to GCSE 9 - 1 Biology I	Transition to GCSE 9 - 1 Chemistry I - Atomic structure; relative atomic mass; particle model & states of matter	Transition to GCSE 9 - 1 Physics I	Transition to GCSE 9 - 1 Biology II	Transition to GCSE 9 - 1 Chemistry II - Reactions of metals; displacement reactions; acids	Transition to GCSE 9 - 1 Physics II
Year 10 Combined Science	DNA, chromosomes and genes.	Natural selection and genetic modification	Health, disease and the development of medicines	Radioactivity Electrolytic processes	Combined Science mock exam revision	Plant structures and their functions

	<p>Mitosis and meiosis.</p> <p>Genetics</p> <p>Atomic structure</p> <p>The Periodic table</p> <p>Bonding</p>	<p>Conservation of energy</p> <p>Bonding</p> <p>Acids and Alkalis</p>	<p>Waves</p> <p>Light and EM spectrum</p>	<p>Obtaining and using metals</p> <p>Reversible reactions and equilibria</p> <p>Combined Science mock exam revision</p>	<p>Plant structures and their functions</p> <p>Calculations involving masses</p>	<p>Calculations involving masses</p>
Y10 Biology	<p>DNA, chromosomes and genes.</p> <p>Mitosis and meiosis.</p> <p>Genes and inheritance.</p>	<p>Natural selection and evolution</p> <p>Artificial & natural selection, genetic engineering & use of microbes.</p>	<p>Health, disease and the development of medicines</p>	<p>Animal coordination, control and homeostasis</p>	<p>Animal coordination, control and homeostasis II</p>	<p>Exchange and transport in animals</p>
Y10 Chemistry	<p>Atomic structure</p> <p>The Periodic table</p> <p>Bonding</p>	<p>Bonding</p> <p>Acids and Alkalis</p>	<p>Calculations involving masses</p> <p>Electrolytic processes</p> <p>Obtaining and using metals</p> <p>Reversible reactions and equilibria</p>	<p>Obtaining and using metals</p> <p>Reversible reactions and equilibria</p> <p>Chemistry mock exam revision</p>	<p>Chemistry mock exam revision</p> <p>Quantitative Analysis</p> <p>Dynamic Equilibria, Calculations involving volumes of gases</p>	<p>Chemical cells and fuel cells</p> <p>Groups in the periodic table</p> <p>Rates of reaction</p>
Y11 Physics	<p>Radioactivity and particles; forces</p>	<p>Waves and energy</p>	<p>Energy resources and transfer</p>	<p>Magnetism and electromagnetism</p>	<p>Motors and generators</p>	

	and motion; astronomy	Electricity and charge		Solids, liquids and gases		
Y11 Additional Science	C2 - Atomic structure & the periodic table Ionic compounds and analysis Covalent compounds and separation techniques Groups in the periodic table (Alkali metals and halogens only)	B2 - Building blocks of cells P2 - Controlling and using electric currents P2 - motion and forces	C2 - displacement reactions - topic 5 Chemical Reactions C2 - Quantitative Chemistry B2 - Organisms and energy P2 - momentum, energy, work and power	B2 - Common Systems P2 - Nuclear fission and fusion C2 - Quantitative Chemistry	P2 - Advantages and disadvantages of using radioactive materials B2 and C2 revision	
Y11 Chemistry	Chemistry calculations: Empirical/molecular formula, reacting masses, moles.	Chemistry calculations: Gas volumes, titrations. Energetics	Equilibria Industrial manufacture of chemicals. Electrolysis calculations	Organic chemistry: Crude oil, alkanes, alkenes, ethanol, polymers and polymerisation.	Chemistry revision and exam practice.	