

Curriculum Overview – Science

Subject	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Year 7	Practical Skills Health and Safety, Cells, Particles	Energy Resources, Levels of Organisation	Atoms, Elements and Compounds, Forces.	Human reproduction, Electricity	Ecology, Separation Techniques, Waves and Light	Plants and Photosynthesis, Acids and Alkalis
Year 8	Health and fitness and Metals	Moments, Disease and Atoms	Natural Selection and The Atmosphere	Magnets and The Importance of Community	The Rock Cycle, Water Treatment and Energy and Temperature	Maths in Science, Separation Techniques and Electromagnetic Spectrum
Y9 Biology	Microscopy and cells	Cell division and differentiation	Digestive system, enzymes and food tests	Heart, blood vessels and health	Communicable diseases and human defence systems	Plant tissues and organs
Y9 Chemistry	Atoms	The periodic table	Bonding: Ionic compounds	Bonding: Covalent & metallic structures	Acids & salts	Temperature changes in reactions
Y9 Physics	Energy	Energy (Heating)	Energy Resources	Radiation	Particle Model of Physics	Electricity
Y10 Biology	Photosynthesis & respiration	The nervous system & homeostasis	Reproduction	Genetic inheritance	Evolution	Ecology

Curriculum Overview – Science

Y10 Chemistry	Electrolysis/Energy Changes	Quantitative Chemistry	Chemical Analysis	Organic Chemistry/Chemistry of the Atmosphere	Using Resources	Rates of Reaction
Y10 Physics	Electricity	Forces in balance	Forces and Motion 1	Forces and Motion 2	Waves	Electromagnetic Spectrum

Y11 Biology	Ecology	Cells and Organisation	Disease and Bioenergetics	Homeostasis and Inheritance	Targeted revision based on Unit 4 mock results	
Y11 Chemistry	Using Earth's resources	Rate of reaction	Bonding structure and properties of matter	Chemical changes	Targeted revision based on Unit 4 mock results	
Y11 Physics	Waves Electromagnetic spectrum	Magnetism & Electromagnetism	Electricity	Forces	Targeted revision based on Unit 4 mock results	

Y12 Bio	Cell structure & Biological molecules	Biological molecules, Biological Membranes & Enzymes	Biological Membranes cont. , Enzymes cont., Cell division, cell diversity and cell	Exchange surfaces cont., Transport in animals, Communicable diseases	Transport in animals cont., Transport in plants, Communicable diseases cont.,	Transport in plants cont., Biodiversity, Ecosystems
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Curriculum Overview – Science

			differentiation, Exchange surfaces		Classification and evolution	
Y12 Chem	Atomic structure Bonding	Amount of substance Kinetics Introduction to organic chemistry	Energetics Alkanes Halogenoalkanes	Equilibria Redox Alkenes	Group 2 and 7 Alcohols	Periodicity Organic analysis
Y12 Phys	Measurements and their errors Waves	Waves Particles and radiation	Electromagnetic radiation and quantum phenomena Force, energy and momentum	Force, energy and momentum Materials	Electricity	Electricity
Y13 Bio	Communication and homeostasis, Excretion as an example of homeostatic control, Neuronal communication	Excretion as an example of homeostatic control cont., Plant and animal responses	Plant and animal responses cont., Hormonal Communication, Nucleic acids, Cellular control, Patterns of inheritance	Patterns of inheritance cont., Populations and sustainability, Manipulating genomes, Cloning and biotechnology	Cloning and biotechnology cont., Photosynthesis, Respiration	

Curriculum Overview – Science

<p>Y13 Chem</p>	<p>AS CPACs</p> <p>Thermodynamics</p> <p>Optical isomers</p> <p>Aldehydes and ketones</p>	<p>Acids and bases</p> <p>Carboxylic acids</p> <p>Rate equations</p>	<p>Electrode potentials</p> <p>Aromatic chemistry</p> <p>Amines</p> <p>Polymers</p> <p>Amino acids</p>	<p>Transition metals</p> <p>Reactions of ions in aqueous solutions</p> <p>Equilibrium constant</p> <p>NMR</p> <p>Chromatography</p> <p>Organic synthesis</p>	<p>Exam preparation</p> <p>Exam skills/strategies</p> <p>Revision</p>	
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