



Curriculum Overview - Science 2023/24

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7	Introduction to Science Particles Cells	Energy Organisation ROA 1	Forces Human Reproduction	Human Reproduction Atoms, Elements and the Periodic Table	Electricity and Magnetism Interdependence Separating Mixtures	Separating Mixtures Plant Reproduction Space ROA 2
Year 8	Bioenergetics Acids and Alkalis Forces	Particle Theory Transport ROA 1	Electronic Structure Health and Disease	Rate and Reaction Electricity	Electricity Biodiversity Reactivity	Waves ROA 2
Year 9	Genetics Bonding Forces	Bioenergetics Quantitative Chemistry	ROA (KS3) Cell Biology	Atomic structure and the periodic table.	Energy - Bioenergetics	Particle model of matter Infection and response ROA 2
Year 10 Combined Science	Bonding Organisation	Quantitative Chemistry Electricity	Chemical changes ROA	Energy changes Interventions based on paper	Forces Inheritance, variation and evolution.	Inheritance, variation and evolution. Ecology ROA 2



Y10 Separate Science	Bio Cells Infection and Response	Infection and response Bioenergetics	ROA Bioenergetics	Organisation	Organisation	ROA 2 Ecology
	Chem Bonding	Quantitative Chemistry	ROA Chemical Changes	Chemical Changes Energy Changes	Rate and Extent of Chemical Change	ROA 2 Organic Chemistry
	Phys Energy Atomic Structure	Particle Model of Matter	ROA Electricity	Electricity	Forces	ROA 2 Forces
Year 11	- Rate of chemical change. Waves	Mock Exams - Organic Chemistry. - Homeostasis	Chemistry of the atmosphere - Chemistry of the - Using resources electromagnetic forces	Mock exams 2 Preparation for Exams	Preparation for Exams	
Y11 Separate Science	Bio Ecology Inheritance, variation and evolution.	Mock Exams Inheritance, variation and evolution.	- Inheritance, variation and evolution. - Homeostasis	Mock exams 2 - Homeostasis Preparation for Exams	Preparation for Exams	
	Chem – Chem Analysis	Mock Exams Organic Chemistry.	Chemistry of the atmosphere Using resources	Mock exams 2 Preparation for Exams		
	Phys Forces	Mock Exams Waves	Electromagnetism Space	Mock exams 2 Preparation for Exams		



<p>Bio Year 12</p>	<p>3.1 Biological molecules</p> <p>3.2 Cells</p>	<p>3.1 Biological molecules</p> <p>3.2 Cells</p> <p>3.3 Organisms exchange substances with their environment</p> <p>3.4.1-3.4.3 DNA, protein synthesis and genetic diversity (mutation and meiosis)</p>	<p>Mock Exams</p> <p>3.3 Organisms exchange substances with their environment</p> <p>3.4.1-3.4.3 DNA, protein synthesis and genetic diversity (mutation and meiosis)</p>	<p>3.3 Organisms exchange substances with their environment</p> <p>3.7.1 Inheritance</p> <p>3.4.4 Genetic diversity and adaptation</p>	<p>3.6 Organisms respond to changes in their internal and external environments</p> <p>3.4.5 Species and taxonomy</p> <p>3.7.2 - 3.7.4 Populations, evolution and ecosystems</p>	<p>Mock Exams</p> <p>3.6 Organisms respond to changes in their internal and external environments</p> <p>3.4.6 Biodiversity within a community</p> <p>3.4.7 Investigating diversity</p> <p>Field course</p>
<p>Bio Year 13</p>	<p>3.5.1 Photosynthesis</p> <p>3.5.2 Respiration</p> <p>3.5.3 Energy and ecosystems</p> <p>3.6 Organisms respond to changes in their internal and external environments</p>	<p>Mock Exams</p> <p>3.6 Organisms respond to changes in their internal and external environments</p> <p>3.8 Control of gene expression</p>	<p>3.8 Control of gene expression</p> <p>Required practical review</p> <p>Revision - Linking and AO3 questions</p>	<p>Required practical review.</p> <p>Revision - Linking and AO3 questions</p> <p>Mock Exams</p>	<p>Revision</p>	<p>Public Exams</p>



Chem Year 12	3.1.1 - Atomic structure 3.1.2 - Amounts of substance 3.1.3 - Bonding 3.1.5 - Kinetics	3.1.4 - Energetics 3.3.1 - Introduction to Organic Chemistry 3.3.2 Alkanes	Mock exams 3.1.6 Equilibria 3.1.7 Oxidation and Reduction 3.3.3 Halogenoalkanes 3.3.4 Alkenes	3.2.2 Group 2 3.2.3 Group 7 3.2.1 Periodicity 3.3.5 Alcohols 3.3.6 Organic Analysis	3.1.9 Acids and Bases 3.1.8 Thermodynamics	Revision Mock Exams 3.1.11 Electrode Potentials 3.1.10 - Equilibrium
Chem Year 13	3.1.11 Electrode Potentials 3.2.4 Properties of Period 3 3.2.5 – Transition metals 3.1.10 - Equilibrium Kp	Mock Exams 3.3.7 - Optical Isomerism 3.3.8 - Aldehydes and Ketones 3.1.9 - Rate equations	3.3.10 Aromatics 3.3.11 Amines 3.3.9 Carboxylic Acids and Derivatives 3.3.13 Amino Acids and DNA	3.3.12 Polymers 3.3.14 Organic Synthesis 3.3.15 NMR 3.3.16 Chromatography Mock Exam	Revision	Public Exams



Phys Year 12	3.2 Particles and Radiation, 3.4 Mechanics and Materials	3.3 Waves 3.1 Measurements and their errors 3.4 Mechanics and Material	Mock Exams 3.3 Waves 3.5 Electricity 3.4 Mechanics and Materials	3.5 Electricity 3.4 Mechanics and Materials	3.4 Mechanics and Materials	Mock Exams 3.6 Further mechanics and thermal physics
Phys Year 13	3.6 Further mechanics and thermal physics	Mock Exams 3.7 Fields and their consequences	3.7 Fields and their consequences 3.8 Nuclear physics	3.8 Nuclear physics 3.9 Astrophysics Mock Exams	3.9 Astrophysics Revision	Public Exams



AppSci Year 12	Unit 1: Science fundamentals (Ex) Unit 8: Cell Biology (Cw) Unit 2: Laboratory techniques Unit 6: Control of Hazards (Cw) Unit 3: Scientific analysis and reporting (Ex) Unit 4: Human Physiology (Cw)	Unit 1: Science fundamentals (Ex) Unit 8: Cell Biology (Cw) Unit 2: Laboratory techniques Unit 6: Control of Hazards (Cw) Unit 3: Scientific analysis and reporting (Ex) Unit 4: Human Physiology (Cw)	Mock Exams Unit 1: Science fundamentals (Ex) Unit 8: Cell Biology (Cw) Unit 2: Laboratory techniques Unit 6: Control of Hazards (Cw) Unit 3: Scientific analysis and reporting (Ex) Unit 4: Human Physiology (Cw)	Unit 1: Science fundamentals (Ex) Unit 8: Cell Biology (Cw) Unit 2: Laboratory techniques Unit 6: Control of Hazards (Cw) Unit 3: Scientific analysis and reporting (Ex) Unit 4: Human Physiology (Cw)	Unit 1: Science fundamentals (Ex) Unit 2: Laboratory techniques (Ex) Unit 3: Scientific analysis and reporting (Ex)	Unit 1: Science fundamentals (Ex) Unit 2: Laboratory techniques (Ex) Unit 3: Scientific analysis and reporting (Ex) Public exams Unit 13: Environmental surveying (Cw) Unit 14: Environmental management (Cw) Unit 16: Waste management (Cw)
AppSci Year 13	Unit 13: Environmental surveying (Cw) Unit 14: Environmental management (Cw)	Mock Exams Unit 16: Waste management (Cw) Unit 22: Global scientific information (Ex)	Unit 22: Global scientific information (Ex) Unit 23: Scientific research techniques (Ex)	Unit 22: Global scientific information (Ex) Unit 23: Scientific research techniques (Ex)	Unit 22: Global scientific information (Ex) Unit 23: Scientific research techniques (Ex)	Public exams



	<p>Unit 16: Waste management (Cw)</p> <p>Unit 22: Global scientific information (Ex)</p> <p>Unit 23: Scientific research techniques (Ex)</p> <p>Unit 18: Microbiology (Cw)</p> <p>Unit 7: Human Nutrition (Cw)</p> <p>Unit 5: Genetics (Cw)</p>	<p>Unit 23: Scientific research techniques (Ex)</p> <p>Unit 18: Microbiology (Cw)</p> <p>Unit 7: Human Nutrition (Cw)</p> <p>Unit 5: Genetics (Cw)</p>	<p>Unit 11: Drug Development (Cw)</p> <p>Unit 18: Microbiology (Cw)</p> <p>Unit 5: Genetics (Cw)</p>	<p>Unit 11 - Drug Development (Cw)</p> <p>Unit 18: Microbiology (Cw)</p> <p>Unit 5: Genetics (Cw)</p>	<p>Course work catch-up.</p> <p>Revision: U1, 2, 3, 22, 23</p>	
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