



Curriculum Overview - Science 2024/25

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7	Introduction to Science Particles Cells	Cells (cont) Energy ROA 1	Human Body Forces	Human Reproduction Atoms, Elements and the Periodic Table	Electricity and Magnetism Interdependence	Separating Mixtures Plant Reproduction ROA 2
Year 8	Respiration Acids and Alkalis Forces	Particles Transport ROA 1	Electronic Structure Health and Disease	Rates of Reaction Electricity	Photosynthesis Reactivity	Reactivity (cont) ROA 2 Space
Year 9	Genetics Bonding Forces	Photosynthesis Quantitative Chemistry Cosmology	Cosmology (cont) ROA (KS3) 4.1 - Cell Biology	5.1 - Atomic structure and the periodic table.	6.1 - Energy 4.4 - Bioenergetics	6.3 Particle model of matter 4.3 - Infection and response ROA 2 (GCSE)
Year 10 Combined Science	5.2 - Bonding 4.2 Organisation	5.3 - Quantitative Chemistry 6.2 - Electricity	5.4 - Chemical changes ROA	5.5 - Energy changes Interventions based on paper	6.5 - Forces 4.6 - Inheritance, variation and evolution.	4.6 - Inheritance, variation and evolution. 4.7 - Ecology ROA 2



Year 10 Biology	4.1: Cell Biology	4.3: Infection and Response	4.3: Infection and Response; and ROA 1	4.2: Organisation	4.2: Organisation; and 4.4 Bioenergetics	4.4: Bioenergetics; and 4.6: Inheritance, Variation and Evolution; and ROA 2
Year 10 Chemistry	5.1 Atomic Structure and 5.2 Bonding	5.3 Quantitative Chemistry and 5.4 Chemical Changes	5.4 Chemical Changes and ROA 1	5.5 Energy Changes and 5.6 Rates	5.6 Rates	5.7 Organic Chemistry and ROA 2
Year 10 Physics	6.1 Energy and 6.3 Particle Model of Matter Triple Content, 6.2 Electricity	6.2 Electricity	6.4 Atomic Structure and ROA 1	6.5 Forces	6.5 Forces	6.5 Forces and ROA 2
Year 11 Combined Science	5.6 - Rate of chemical change. 6.6 - Waves	Mock Exams 5.7 - Organic Chemistry. 4.5 - Homeostasis	5.8 - Chemistry of the atmosphere 5.9 - Chemistry of the 5.10 - Using resources 6.7 electromagnetic forces	Mock exams 2 Preparation for Exams	Preparation for Exams	



Year 11 Biology	4.6: Inheritance, Variation and Evolution; and 4.7: Ecology	4.7: Ecology; 4.5: Homeostasis and Response; and mock exams	7.5: Homeostasis and Response; and mock exams	Preparation for Exams and mock exams	Preparation for Exams	
Year 11 Chemistry	5.7 Organic Chemistry and 5.8 Chemical Analysis	5.9 Chemistry of the Atmosphere and 5.10 Using Resources and mock exams	5.10 Using Resources and mock exams	Preparation for Exams and mock exams	Preparation for Exams	
Year 11 Physics	6.6 Waves	6.6 Waves and 6.7 Magnetism and Electromagnetism	6.7 Space Physics and mock exams	Preparation for Exams and mock exams	Preparation for Exams	

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



Chem Year 13	3.1.11 Electrode Potentials 3.2.4 Properties of Period 3 3.1.12 - Acids and Bases 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	Exams
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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
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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
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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) Public exams Unit 13: Environmental surveying (Cw) Unit 14: Environmental management (Cw)	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)
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						Unit 16: Waste management (Cw)
AppSci Year 13	Unit 13: Environmental surveying (Cw) Unit 14: Environmental management (Cw) Unit 16: Waste management (Cw) Unit 22: Global scientific information (Ex) Unit 23: Scientific research techniques (Ex) Unit 18: Microbiology (Cw) Unit 11 - Drug Development (Cw)	Mock Exams Unit 22: Global scientific information (Ex) Unit 23: Scientific research techniques (Ex) Unit 18: Microbiology (Cw) Unit 11 - Drug Development (Cw) Unit 7: Human nutrition Unit 8: Cells	Unit 22: Global scientific information (Ex) Unit 23: Scientific research techniques (Ex) Unit 11 - Drug Development (Cw) Unit 7: Human nutrition Unit 8: Cell biology	Unit 22: Global scientific information (Ex) Unit 23: Scientific research techniques (Ex) Unit 11 - Drug Development (Cw) Unit 18: Microbiology	Unit 22: Global scientific information (Ex) Unit 23: Scientific research techniques (Ex)	Public exams