



Curriculum Overview - Science 2021/2022

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7	Introduction to Science 7B1 Cells 7P2 Energy	7C3 Particles 7S4 Working Scientifically ROA	7B5 Organisation 1 7C6 Atoms	7P7 Forces 1 7B8 Organisation 2	7C9 Elements 7P10 Electricity and Magnetism	7B11 Interdependence 7C12 Separating Mixtures ROA 2
Year 8	8B1 Bioenergetics 8C2 Acids and Alkalis 8P3 Forces 2	8B4 Transport ROA 8C5 Particle Theory	8C6 Electronic Structure 8C7 Atoms and Bonding 8B8 Health and Disease	8C9 Rate and Reaction 8P10 Electricity	8P10 Electricity 8B11 Biodiversity	8C12 Reactivity 8P13 Waves ROA 2
Year 9	8B11 Biodiversity 9C2 Bonding 9B1 Genetics	9P3 Forces 3 9B4 Bioenergetics 9C5 Quantitative Chemistry	ROA (KS3) 4.1 - Cell Biology	5.1 - Atomic structure and the periodic table. 6.1 - Energy	4.2 - Organisation	5.2 - Chemical bonding 6.3 Particle model of matter ROA 2 (GCSE)
Year 10	6.2 - Electricity 5.3 - Quantitative Chemistry	6.3 - Particle model of matter 4.4 - Bioenergetics 6.4 - Atomic structure.	4.3 - Infection and disease. 5.4 - Chemical changes	ROA 5.4 - Chemical changes 5.5 - Energy Changes	6.5 - Forces	4.6 - Inheritance, variation and evolution. 4.7 - Ecology ROA 2



Year 11	4.5 - Homeostasis and control 6.5 - Forces	Mock Exams 5.6 - Rate of chemical change. 5.7 - Organic Chemistry. 6.6 - Waves	4.6 - Inheritance, variation and evolution. 6.7 - Magnets and Electromagnets.	Mock exams 2 5.9 - Chemistry of the atmosphere. 5.10 - Using resources	Preparation for Exams	
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Bio Year 12	Induction Core task 3.1 Biological molecules 3.2 Cells	3.1 Biological molecules 3.2 Cells	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	3.4.5 Species and taxonomy 3.7.2 - 3.7.4 Populations, evolution and ecosystems	Mock Exams 3.4.6 Biodiversity within a community 3.4.7 Investigating diversity Field course
Bio Year 13	3.5.1 Photosynthesis 3.5.2 Respiration 3.5.3 Energy and ecosystems	Mock Exams 3.6 Organisms respond to changes in their internal and external environments	3.8 Control of gene expression Required practical review.	Mock Exams Required practical review. Revision	Revision	Public Exams



	3.6 Organisms respond to changes in their internal and external environments	3.8 Control of gene expression				
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	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	Revision Mock Exams 3.1.9 Acids and Bases 3.1.8 Thermodynamic s	3.1.9 Acids and Bases 3.1.8 Thermodynamics 3.1.11 Electrode Potentials 3.1.9 Rate Equations
Chem Year 13	3.2.5 Transition Metals 3.2.6 Reactions of Ions 3.1.8 Thermodynamics 3.1.11 Electrode Potentials	Mock Exams 3.2.4 Properties of Period 3 3.1.10 Equilibrium Kp 3.1.11 Electrode Potentials 3.1.9 Rate Equation	3.3.10 Aromatics 3.3.11 Amines 3.3.12 Polymers 3.3.9 Carboxylic Acids and Derivatives 3.3.13 Amino Acids and DNA	3.3.14 Organic Synthesis 3.3.15 NMR 3.3.16 Chromatography Mock Exam	Revision	Exams
Phys Year 12	3.4.1 Force, Energy and Momentum	3.4.2 Materials	3.2.1 Particles	3.2.2 Electromagnetic Radiation and Quantum	3.3.2 Refraction, diffraction and interference, 3.5.1 Current Electricity	3.6.1 Periodic motion, 3.6.2 Thermal physics



				Phenomena, 3.3.1 Progressive and Stationary Waves		
Phys Year 13	3.7.1 Fields, 3.7.2 Gravitational fields, 3.7.3 Electric fields	3.7.4 Capacitance, 3.7.5 Magnetic Fields	3.8.1 Radioactivity	3.9.1 Telescopes, 3.9.2 Classification of Stars, 3.9.3 Cosmology	Revision	Public Exams

AppSci Year 12	Induction Unit 1: Science fundamentals Unit 2: Laboratory techniques Unit 3: Scientific analysis and reporting	Unit 1: Science fundamentals Unit 2: Laboratory techniques Unit 3: Scientific analysis and reporting	Public exams Unit 4: Human Physiology Unit 5: Genetics Unit 6: Laboratory safety	Unit 4: Human Physiology Unit 5: Genetics Unit 6: Laboratory safety	Unit 1: Science fundamentals Unit 2: Laboratory techniques Unit 3: Scientific analysis and reporting	Public exams Unit 13: Environmental surveying Unit 14: Environmental management Unit 16: Waste management
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AppSci Year 13	Unit 13: Environmental surveying Unit 14: Environmental management Unit 16: Waste management	Unit 22: Global scientific information Unit 7: Human nutrition Unit 8: Cells	Public exams Unit 22: Global scientific information Unit 7: Human nutrition Unit 8: Cell biology	Unit 23: Scientific research techniques Unit 11: Drug development Unit 18: Microbiology	Unit 23: Scientific research techniques Unit 11: Drug development Unit 18: Microbiology	Public exams
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