

Year 11 Science Curriculum Plan 2025-2026

	Rate of Reaction	Inheritance, Variation and Evolution	Energy Review and Waves	
Cycle 1	<ol style="list-style-type: none"> Calculating rate and introduction to Collision theory Surface area RP 11- Gas collection Marble Concentration/ pressure RP 11- Disappearing cross <p>Revision lessons for PPE 1</p>	<ol style="list-style-type: none"> Sexual and asexual reproduction Meiosis DNA and the genome Genetic inheritance Inherited disorders Sex determination <p>Revision lessons for PPE 1</p>	<ol style="list-style-type: none"> Energy stores and transfers Calculations of energy in stores Specific heat capacity and latent heat IV characteristics Series and parallel circuits <p>Revision lessons for PPE 1</p>	End of cycle 1 assessment
	Rates and Mixtures	Inheritance, Variation and Evolution	Waves	
Cycle 2	<ol style="list-style-type: none"> Temperature Catalyst Graphing and links to exam questions Reversible reactions- CuSO₄ Equilibria- Concentration Equilibria- Temperature, pressure and catalyst Pure substances and formulations. RP 12 - Chromatography Analysis of chromatography Gas tests 	<ol style="list-style-type: none"> Embryo screening Variation and mutation Evolution by natural selection. Evolution, speciation & extinction Evidence for evolution- fossils (incl evolutionary trees) Evidence for evolution- antibiotic resistance Selective breeding Genetic engineering Classification 	<ol style="list-style-type: none"> Longitudinal and transverse waves Wave properties inc $T=1/f$ Wave speed calculation - determining speed of sound Wave speed calculation Ripple tank RP Waves on a string RP EM Spectrum Use of EM waves Dangers of EM waves <p>Reflection - transmission/absorption/reflection</p>	End of cycle 2 assessment
	Using Resources	Ecology	Waves and Magnetism	
Cycle 3	<ol style="list-style-type: none"> Finite and renewable resources Potable water- Desalination RP- Distillation demo RP -Water treatment, pH, mass of dissolved solid Waste water treatment Alternative methods of extracting metals (phyto-mining/ Bioleaching) LCA Reduce, Reuse, Recycle 	<ol style="list-style-type: none"> Communities and competition Biotic and abiotic factors Adaptation Feeding Relationships Required practical-sampling abundance Required practical -sampling distribution Water cycle and decay Carbon cycle Global warming Impact of population change Types of pollution- land and air Water pollution, bioaccumulation and eutrophication Deforestation and Destruction of Peat bogs Maintaining biodiversity 	<ol style="list-style-type: none"> Refraction IR Radiation RP More on IR radiation Magnetic fields Induced magnetism Field around a wire Solenoids and electromagnets Motor effect - left hand rule $F=BIL$ and current balance <p>Structure of a motor/how to work out direction/change speed etc</p>	End of cycle 3 assessment