



Curriculum Plans – Year 9 - Science – Academic Year 2023/24

Please find below a detailed outline of the curriculum covered in *Science* through Year 9 in *Key Stage 3*.

BLOCK	1	2	3	4	5	6	7
Dates	28th August - 27th September (5 weeks)	2nd October - 27th October (4 weeks)	6th November - 15th December (6 weeks)	3rd January - 2nd February (5 weeks)	12th February - 22nd March (6 weeks)	2nd April - 26th April (4 weeks)	6th May - 21st June (7 weeks)
Topics	Plants (Bio Unit 13) <ul style="list-style-type: none"> • Photosynthesis • Plant growth • Flowers • Pollination • Seed dispersal • Germination • Practical skills Material Properties (Chem Unit 8) <ul style="list-style-type: none"> • Atomic structure • The nucleus • Protons, electrons and the periodic table • Group 1 elements • Group 2 elements • Group 7 elements • Periodic trends • Practical skills 	Adaptation and Survival (Bio Unit 14) <ul style="list-style-type: none"> • Adaptation • Extreme adaptations • Survival • Studying the natural world Forces (Phy Unit 8) <ul style="list-style-type: none"> • Pressure • The effects of pressure • Pressure in liquids • Using pressure in liquids • Pressure in gases • Density • Explaining density • Levers • Calculating moments • Centre of mass and stability • Practical skills 	Energy Flow (Bio Unit 15) <ul style="list-style-type: none"> • Food webs • Energy flow • Decomposers • Changing populations • Facing extinction • Maintaining biodiversity Energy Changes (Chem Unit 9) <ul style="list-style-type: none"> • Energy changes in chemical reactions • Endothermic and exothermic chemical reactions • Practical skills Electricity (Phy Unit 9) <ul style="list-style-type: none"> • Electrostatic phenomena • Dangers of electrostatic phenomena • Digital sensors • Electric circuits • Current • Parallel circuits • Models of electric circuits • How components affect the current • Voltage • Energy and Power • Practical skills 	Human Influences (Bio Unit 16) <ul style="list-style-type: none"> • Air pollution • Water pollution • Saving rainforests The Reactivity Series (Chem Unit 10) <ul style="list-style-type: none"> • The reactions of metals with oxygen • The reactions of metal with water • The reactions of metal with acid • The reactivity series • Metal displacement reactions • Extracting metals from their ores • Practical skills 	Variation and Classification (Bio Unit 17) <ul style="list-style-type: none"> • Using keys • What makes us different? • Chromosomes • Investigating inheritance • Selective breeding • Darwin's theory of evolution • Moving genes • Using genes Making Salts (Chem Unit 11) <ul style="list-style-type: none"> • Making salts - acids and metals, acids and carbonates, and acids and alkalis • Fertilisers • Practical skills Energy (Phy Unit 10) <ul style="list-style-type: none"> • Hot and cold • Conduction, Convection and Radiation • Cooling by evaporation • The world's energy needs • Fossil fuels • Generating electricity • Renewable energy sources • Energy for the future 	Rates of reaction (Unit 12) <ul style="list-style-type: none"> • Concentration and reaction rate • Temperature and reaction rate • Surface area and reaction rate • Catalysts and reaction rate • Practical skills Revision of KS3 <ul style="list-style-type: none"> • Revision of Y7 topics • Revision of Y8 topics • Revision of Y9 topics 	Revision of KS3 <ul style="list-style-type: none"> • Revision of Y7 topics • Revision of Y8 topics • Revision of Y9 topics End of KS3 Assessment Practical Skills, Measurements, Units and Exam Technique
Assessments	Block 1 topics assessment	Block 1 and 2 topics assessment	Block 1-3 topics assessment	Block 1-4 topics assessment	Block 1-5 topics assessment		End of KS3 Assessment