



Curriculum Plans – Year 9 - Science

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	August - September (5 weeks)	October (4 weeks)	November - December (6 weeks)	January - February (5 weeks)	February - March (6 weeks)	April (4 weeks)	May - June (7 weeks)
Topics	<p>Plants (Bio Unit 13)</p> <ul style="list-style-type: none"> • Photosynthesis • Plant growth • Flowers • Pollination • Seed dispersal • Germination • Practical skills <p>Material Properties (Chem Unit 8)</p> <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 	<p>Adaptation and Survival (Bio Unit 14)</p> <ul style="list-style-type: none"> • Adaptation • Extreme adaptations • Survival • Studying the natural world <p>Forces (Phy Unit 8)</p> <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 	<p>Energy Flow (Bio Unit 15)</p> <ul style="list-style-type: none"> • Food webs • Energy flow • Decomposers • Changing populations • Facing extinction • Maintaining biodiversity <p>Energy Changes (Chem Unit 9)</p> <ul style="list-style-type: none"> • Energy changes in chemical reactions • Endothermic and exothermic chemical reactions • Practical skills <p>Electricity (Phy Unit 9)</p> <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 	<p>Human Influences (Bio Unit 16)</p> <ul style="list-style-type: none"> • Air pollution • Water pollution • Saving rainforests <p>The Reactivity Series (Chem Unit 10)</p> <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 	<p>Variation and Classification (Bio Unit 17)</p> <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 <p>Making Salts (Chem Unit 11)</p> <ul style="list-style-type: none"> • Making salts - acids and metals, acids and carbonates, and acids and alkalis • Fertilisers • Practical skills <p>Energy (Phy Unit 10)</p> <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 	<p>Rates of reaction (Unit 12)</p> <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 <p>Revision of KS3</p> <ul style="list-style-type: none"> • Revision of Y7 topics • Revision of Y8 topics • Revision of Y9 topics 	<p>Revision of KS3</p> <ul style="list-style-type: none"> • Revision of Y7 topics • Revision of Y8 topics • Revision of Y9 topics <p>End of KS3 Assessment</p> <p>Practical Skills, Measurements, Units and Exam Technique</p>
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