



Year 7 Curriculum				
Autumn Term		Spring Term		Summer Term
Autumn 1 and 2		Spring 1 and 2		Summer 1 and 2
<p>Introduction to Science</p> <ul style="list-style-type: none"> • Safety in Science • Investigations in the lab • Stretching a Spring • Bunsen burner safety • Using Microscopes 	<p>Cells</p> <ul style="list-style-type: none"> • Animal Cells • Plants Cells • Microscopy • Specialised Cells • Cells, Tissues and Organs <ul style="list-style-type: none"> • Mitosis 	<p>Separating Techniques</p> <ul style="list-style-type: none"> • Pure and impure substances • Separating techniques • Simple distillation • Fractional Distillation • Chromatography 	<p>Reproduction</p> <ul style="list-style-type: none"> • Reproductive systems • Puberty • The Menstrual Cycle • Fertilisation • Pregnancy • Reproduction in plants 	<p>Acids & Alkalis</p> <ul style="list-style-type: none"> • Introduction to compounds and mixtures • Making compounds • Introductions to acids and bases • Uses of indicators • Neutralisation • Naming Salts
<p>Food & Digestion</p> <ul style="list-style-type: none"> • Food groups • Testing for different nutrients • The digestive system • Digestive enzymes • Respiration • Balanced diets 	<p>Magnetism</p> <ul style="list-style-type: none"> • Attraction and Repulsion • Poles • Earth's magnetic field • Magnetic effect of current • Identifying magnetic field lines • Electromagnets 	<p>Forces</p> <ul style="list-style-type: none"> • Naming forces • Friction • Force diagrams • Speed • Distance-time graphs • Moments and turning forces • Stretching and compression • Hooke's law 	<p>Variation</p> <ul style="list-style-type: none"> • Inherited variation • Environmental variation • Continuous variation • Discontinuous variation • Selective breeding 	<p>Chemical Equations</p> <ul style="list-style-type: none"> • Word equations • Symbol equations • Balancing equations • Acids and metals • Displacement • Oxidation • Precipitation reactions • Thermal decomposition

<p>The Particle Model</p> <ul style="list-style-type: none"> • States of matter • The Particle Model • Changes in state • Modelling the particle model 	<p>Atoms & Elements</p> <ul style="list-style-type: none"> • Laboratory safety • Scientific equipment • The Periodic Table • Elements and symbols <ul style="list-style-type: none"> • Chemical Formula 	<ul style="list-style-type: none"> • Pressure, including fluids 		<p>Light</p> <ul style="list-style-type: none"> • Reflection • The camera and the eye • Mirrors • Lenses • Colours <p>Research Project</p>
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Year 8 Curriculum					
Autumn Term		Spring Term		Summer Term	
Autumn 1 and 2		Spring 1 and 2		Summer 1 and 2	
<p>Energy Stores</p> <ul style="list-style-type: none"> • Energy stores Introduction • Energy stores and pathways • Energy in fuel • Calculating work • Power and appliances • Fuel bills, use and costs • Simple machines <p>Gravitational Forces</p> <ul style="list-style-type: none"> • Newton and gravity • Weight and mass <p>Waves</p>	<p>The Skeleton and Muscles</p> <ul style="list-style-type: none"> • Bones of the skeleton • Types of Muscle • Joints • Chicken Wing Dissection <p>Respiration</p> <ul style="list-style-type: none"> • The Respiratory System • Lung Dissection • The Circulatory System • The heart and heart dissection 	<p>The Periodic table</p> <ul style="list-style-type: none"> • Properties of metals • Structure of metals • Group 1 metals • Metals reacting with water • Metals reacting with acid • Reactivity series of metals • Displacement Practical • Extraction of copper • Extraction of iron • Non-metals 	<p>Rock Cycle</p> <ul style="list-style-type: none"> • Sedimentary rocks • Igneous rocks • Metamorphic rocks • Identifying rocks <p>The rock cycle</p> <p>Space</p> <ul style="list-style-type: none"> • Earth, Sun and Moon • The Solar System • Changing Ideas • Galaxies 	<p>Photosynthesis</p> <ul style="list-style-type: none"> • Photosynthesis • Testing a leaf for starch • Limiting factors • Impact of light intensity investigation <p>Environment</p> <ul style="list-style-type: none"> • Habitats • Adaptations • Food webs • Pyramids • Decomposers and decay • Carbon Cycle • Nitrogen cycle 	

<ul style="list-style-type: none"> • Echoes • The Ear • Reflection • Refraction • Speed of light • Transmission of light • Transferring energy • Colour 	<ul style="list-style-type: none"> • Anaerobic respiration • Fermentation 	<p>Chemistry Fundamentals</p> <ul style="list-style-type: none"> • Word Equations • Symbol Equations • Conservation of mass • Explaining mass change • Compounds and mixtures 		<p>Research Project</p>
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Year 9 Curriculum			
Autumn Term		Spring Term	
Autumn 1 and 2		Spring 1 and 2	
Summer 1 and 2		Summer 1 and 2	
<p>Rates of Reaction</p> <ul style="list-style-type: none"> • Collision Theory • Effect of Surface Area and concentration • Effect of temperature • Interpretation of graphs • Catalysts • Activation energy <p>Electricity</p> <ul style="list-style-type: none"> • Circuits • Circuit symbols • Investigating current • Investigating voltage 	<p>Exchange Substances</p> <ul style="list-style-type: none"> • Diffusion • Factors affecting diffusion • Osmosis • Active Transport <p>Examples of osmosis, active transport and diffusion in living things</p> <p>Pathogens and Disease</p> <ul style="list-style-type: none"> • Disease • Communicable diseases 	<p>Biology Subject Content: B1 Cell Biology</p> <p>Cell structure</p> <ul style="list-style-type: none"> • Eukaryotes and prokaryotes • Animal and plant cells • Cell specialisation • Cell differentiation • Microscopy <p>Cell Division</p> <ul style="list-style-type: none"> • Chromosomes • Mitosis and the cell cycle • Stem cells <p>Transport in cells</p> <ul style="list-style-type: none"> • Diffusion • Osmosis • Active Transport 	<p>Physics Subject Content: P1 Energy</p> <p>Energy changes in a system, and the ways energy is stored before and after such changes</p> <ul style="list-style-type: none"> • Energy stores and systems • Changes in energy • Energy changes in systems • Power Conservation and dissipation of energy: • Energy transfers in a system • Efficiency • National and global energy resources

<ul style="list-style-type: none"> • Investigating resistance • Static electricity • Uses of static electricity • Dangers of static electricity • Electric fields • Current and voltage in series • Current and voltage in parallel <p>Thermal Physics</p> <ul style="list-style-type: none"> • Energy and temperature • Changing state • Density and heating • Conduction • Insulation • Convection • Internal energy 	<ul style="list-style-type: none"> • Defence mechanism • Treatment of Communicable Diseases • Non-communicable diseases 	<p>Chemistry Subject Content: C1 Atomic Structure and the Periodic Table</p> <p>A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes</p> <ul style="list-style-type: none"> • Atoms, elements and compounds • Mixtures • The development of the model atom • Relative electrical charges of subatomic particles • Size and mass of atoms • Relative atomic mass • Electronic structure <p>The Periodic Table</p> <ul style="list-style-type: none"> • Introduction to the Periodic Table • Development of the Periodic Table • Metals and non-metals • Group 0 • Group 1 	
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