



## Key Stage 3 Curriculum Map Science

Year 7	Autumn Half Term 1	Autumn Half Term 2	Spring Half Term 1	Spring Half Term 2	Summer Half Term 1	Summer Half Term 2
	<b>Knowledge acquired</b>					
	Base line assessment	Chemical and Physical changes	Energy – simple changes and types of	Interactions and Interdependencies	Acids & Alkalis	Space
	Key Skills from working scientifically	Cells & Organisms <i>Ensuring that plants and animals from KS1&amp;2 is concrete</i>	Materials and their properties (solubility and conductivity etc.)	Living things Habitats and food chains etc  Forces <ul style="list-style-type: none"> <li>• Push and Pull</li> <li>• Balanced/non balanced</li> <li>• Types of forces</li> <li>• Floating and Sinking</li> </ul>	Electrical Circuits	Changing state
	<b>Skills acquired</b>					
	<ul style="list-style-type: none"> <li>• <b>Observing</b> – Observation requires students to note the “big picture” and the fine details.</li> <li>• <b>Classifying</b> – This skill builds upon observation. Students can learn to separate and sort objects based on properties.</li> <li>• <b>Quantifying</b> – One of the most valuable skills needed for science study is the ability to measure accurately.</li> <li>• Using a ruler and a measuring cup and acquiring more complex measuring skills using mathematical equations and advanced equipment.</li> <li>• <b>Predicting</b> – This skill derives from your students being able to spot patterns in past experiments or existing evidence</li> <li>• Before performing any experiment, students should be asked what they think will happen.</li> <li>• <b>Controlling variables</b> – Many different factors can affect the outcome of an experiment.</li> <li>• <b>Interpreting</b> – This skill is closely related to inferring, which means coming to a conclusion after analysing information. Interpreting, is inferring, from a point of view. Students should try to understand results, based on the records they keep.</li> <li>• <b>Communicating</b> – Students must be able to transmit information through words, charts, diagrams, and other mediums.</li> <li>• <b>Forming conclusions</b> – This skill is connected to interpreting. Students cannot make conclusions hastily; they must be reached through careful reasoning. When forming conclusions, students should look back at their predictions and compare them with the actual results.</li> </ul>					
	<b>Key Assessments taking place</b>					
	<ul style="list-style-type: none"> <li>• End of unit tests</li> <li>• Retrieval tasks</li> <li>• Extended writing</li> </ul>			<ul style="list-style-type: none"> <li>• Comprehension tasks</li> <li>• Multiple choice tests</li> <li>• Verbal feedback</li> </ul>		

Year 1 8/9	<b>Autumn Half Term 1</b>	<b>Autumn Half Term 2</b>	<b>Spring Half Term 1</b>	<b>Spring Half Term 2</b>	<b>Summer Half Term 1</b>	<b>Summer Half Term 2</b>
	Knowledge acquired					
	Reproduction	Light	Digestion and Nutrition	Static Electricity	Separating Mixtures	Cells and organisation
	Atoms, Elements Compounds	Sound	Structure of the Earth	Health	Magnetism (1)	Acid and Alkalis (2)
	Skills acquired					
	<ul style="list-style-type: none"> <li>• <b>Application of key concepts from the big ideas –</b> <ul style="list-style-type: none"> <li>○ All material in the Universe is made of very small particles.</li> <li>○ Objects can affect other objects at a distance.</li> <li>○ Changing the movement of an object requires a net force to be acting on it.</li> <li>○ The total amount of energy in the Universe is always the same but energy can be transformed when things change or are made to happen.</li> <li>○ The composition of the Earth and its atmosphere and the processes occurring within them shape the Earth's surface and its climate.</li> <li>○ The solar system is a very small part of one of millions of galaxies in the Universe.</li> <li>○ Organisms are organised on a cellular basis.</li> <li>○ Organisms require a supply of energy and materials for which they are often dependent on or in competition with other organisms.</li> <li>○ Genetic information is passed down from one generation of organisms to another.</li> <li>○ The diversity of organisms, living and extinct, is the result of evolution.</li> </ul> </li> <li>• <b>Developing links across the three sciences and understanding of how science works</b></li> </ul>					
	Key Assessments taking place					
	<ul style="list-style-type: none"> <li>• End of unit tests</li> <li>• Multiple choice questions</li> </ul>		<ul style="list-style-type: none"> <li>• Quizzes</li> <li>• Retrieval practice</li> </ul>		<ul style="list-style-type: none"> <li>• Comprehension activities</li> <li>• Verbal feedback</li> </ul>	
	<b>Autumn Half Term 1</b>	<b>Autumn Half Term 2</b>	<b>Spring Half Term 1</b>	<b>Spring Half Term 2</b>	<b>Summer Half Term 1</b>	<b>Summer Half Term 2</b>
	Knowledge acquired					
Types of Chemical Reactions	Respiration	Space Physics	Conservation of mass	Photosynthesis	The Periodic Table	
Current Electricity & Magnetism (2)	Carbon cycle (environmental Chemistry)	Skeletal and Muscular System	Energy Calculations	Genetics and Evolution	Pressure and Moments	
Skills acquired						
<ul style="list-style-type: none"> <li>• <b>Application of key concepts about science</b> <ul style="list-style-type: none"> <li>○ Science is about finding the cause or causes of phenomena in the natural world.</li> <li>○ Scientific explanations, theories and models are those that best fit the evidence available at a particular time.</li> <li>○ The knowledge produced by science is used in engineering and technologies to create products to serve human ends.</li> <li>○ Applications of science often have ethical, social, economic and political implications</li> </ul> </li> </ul>						
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