



Science Curriculum Statement

		Curious	Creative	Confident
Intent	<p>At Montpelier, we believe that a high-quality Science education provides the foundations for our pupils to understand the world around them. Pupils will recognise the power of curiosity through the introduction of famous scientists, who will provide a historical context for their learning. Our aim is to equip pupils with the scientific knowledge and enquiry skills they need to deepen and extend their understanding. We aim for pupils to feel inspired and confident in becoming the scientists of the future.</p>			
Implementation	What (For further information on the programmes of study please refer to the Science curriculum overview document)	KS1	Lower KS2	Upper KS2
		<p>During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: asking simple questions and recognising that they can be answered in different ways of observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions. Within the following programmes of study:</p> <ul style="list-style-type: none"> ● Animals including humans ● Plants ● Living Things ● Seasonal Changes ● Materials 	<p>During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: asking relevant questions and using different types of scientific enquiries to answer them setting up simple practical enquiries, comparative and fair tests making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers gathering, recording, classifying and presenting data in a variety of ways to help in answering questions recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions identifying differences, similarities or changes related to simple scientific ideas and processes using straightforward scientific evidence to answer questions or to support their findings.</p>	<p>During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments. Within the following programmes of study:</p> <ul style="list-style-type: none"> ● Animals including humans ● Properties and changes of materials ● Electricity ● Forces

		<ul style="list-style-type: none"> Animals including humans Rocks Sound Plants Electricity Light States of Matter Forces and Magnets Living things and their habitats 		<ul style="list-style-type: none"> Light Living things and their habitats Earth and Space Evolution and Inheritance 		
	How	<p>Quality teaching of science each week</p> <p>Pupils have the opportunity to participate in partial scientific enquiry in each unit of learning Through the modelling and specific teaching of the working scientifically skills</p> <p>Teaching with a cross-curricular approach wherever possible (Maths- data handling, History- introduction and study of famous scientists, English- writing of a formal experiments)</p> <p>Pupils have access to and regularly use a range of quality equipment</p> <p>Lessons are taught both indoors and outdoors</p> <p>Specialist visitors to inspire and enhance learning</p> <p>Pupils have access to a range of quality books about Science both fiction and non-fiction</p> <p>Pupils have the opportunity to take part in local and national Science competitions</p> <p>Pupils have the opportunity join a Science club</p>				
	Fingertip Knowledge					
Assessment	<p>Regular formative assessment: A floorbook used in each unit to capture learning over time and the application of the skills they know .</p> <p>Quality questioning</p> <p>Feedback provided on written outcomes</p> <p>Moderation of summative judgements in years groups and against PLAN examples of work</p>					
Impact	Quality of education	Behaviour and attitudes		Personal development		
	Pupils can name and talk about famous scientists.	Pupils are excited about Science and engage in activities with enthusiasm.		Pupils are able to make connections between their world and Science learning in school.		

	<p>Pupils can identify the uses of Science within our world.</p> <p>Pupils are able to carry out fair testing.</p> <p>Pupils can recall some topical facts.</p> <p>Pupils know when and how to use scientific equipment (where appropriate, to a good degree of accuracy).</p> <p>Pupils can identify and model the 'working scientifically' skills.</p> <p>Pupils can engage in discussion using appropriate Scientific vocabulary.</p> <p>Pupils can record results in an appropriate format.</p> <p>Pupils can explain scientific concepts.</p>	<p>Pupils ask enquiry-lead questions</p> <p>Pupils ask 'Why?' 'How?' and 'What if?'</p> <p>Pupils engage in discussion around scientific concepts/theories.</p>	<p>Generate opinions on some scientific concepts.</p> <p>Pupils are motivated to continue their Science learning at home (researching, testing, exploring).</p>
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