



Our curriculum is focused on the development of every child's knowledge and skills, across all primary subjects, with the aim of ensuring pupils are ready for the next stage of their learning. We encourage our children to: Be Curious, Be Knowledgeable, Be Adventurous, Be Creative, Be Collaborative, Be Reflective, Be Positive.

Curriculum statement for the teaching and learning of Science 2021/22

INTENT	<p>In our rapidly changing world, Science is a vital part of our curriculum at Mullion CP. Our intent is for children to be excited about Science, curious about the phenomena and events in the world around them, and to never stop asking questions.</p> <p>Through systematic, high-quality teaching, enquiry based learning, and real-life experiences in our coastal setting, it is our intent for all children:</p> <p>To harbour a curiosity about the world around them, and have opportunities to explore it.</p> <p>To learn through Working Scientifically, by thinking and learning like real scientists.</p> <p>To learn by exploration and investigation.</p> <p>To have a secure knowledge of age appropriate scientific concepts.</p> <p>To learn both independently and in cooperation with others.</p> <p>To relate scientific learning to relevant and real-life situations.</p> <p>To use scientific language and vocabulary confidently.</p> <p>To encourage critical and creative thinking, perseverance and a sense of achievement.</p>			
	Underpinned By	<p>The teaching of skills</p> <p>We implement a progressive approach to teaching Science, ensuring learning builds on prior skills and knowledge each year. In KS1 and KS2, teachers use the National Curriculum objectives, alongside the Chris Quigley Milestones, to ensure children develop key scientific knowledge and concepts, through the disciplines of biology, chemistry and physics. Through different types of enquiries, children are taught to develop their 'working scientifically' skills and answer scientific questions about the world around them.</p> <p>Children in Nursery and Reception follow the Early Years Foundation Stage Curriculum for Understanding the World, as they make progress towards, and where appropriate beyond, the Early Learning Goals.</p>	<p>The application of skills</p> <p>Pupils are given regular opportunities to develop and apply the concepts and skills that they have been taught in Science to support their understanding of the world around them. They are able to transfer their science learning to other areas of the curriculum, (eg design and technology), as well as apply skills from other curriculum areas (eg. maths), into their science learning.</p> <p>They are taught how science is a vital part of our lives and essential to the world's development, through exploring STEM research, careers and professions.</p> <p>Children are also taught about how Science has contributed to the history, culture and development of their local, Cornish environment, the British Nation and the wider World.</p>	<p>Vocabulary</p> <p>Pupils will understand and use appropriate technical vocabulary precisely and accurately.</p> <p>High quality, contextual vocabulary is developed through each scientific concept. Scientific, technical vocabulary is taught explicitly within each strand, building on prior learning and extending specialist vocabulary.</p>
IMPLEMENTATION	<p>Curriculum Approach</p> <p>Our school's Curriculum Overview ensures each year group's knowledge and concepts are positioned throughout the year in a well-sequenced and meaningful way, with relevant links made to other areas of the curriculum. We ensure that all children cover all objectives by the end of each Key Stage, and that there are opportunities to revisit, reuse and consolidate key learning facts.</p>		<p>Working Scientifically</p> <p>The key skills of 'working scientifically' are woven into each concept within biology, chemistry and physics. Children are provided with regular opportunities for exploration, to ask enquiry-based questions, make predictions, careful observations, carry out comparative and fair tests, analyse data, draw conclusions and follow further lines of enquiry.</p>	
	<p>Resources</p> <p>We use a wide range of resources to ensure an engaging, relevant and enquiry based learning experience. Some key resources used are:</p> <p>Explorify - STEM learning - The Ogden Trust - EnquiringScience4All 5 enquiry types - PLAN - CLEAPS - Milo and Marvin - Primary Science Teaching Trust.</p> <p>We also have a wide range of scientific equipment to enable meaningful exploration and investigation.</p>		<p>Health and Safety</p> <p>Children will develop responsibility and autonomy, following important safety procedures when taking part in practical scientific activities. They will learn how to use a wide variety of equipment safely, and made aware of correct procedures before a practical session begins.</p> <p>Guidance is taken from CLEAPSS Primary, and risk assessments carried out as necessary.</p>	
	<p>Recording, Assessment and Achievement</p> <p>Children complete basic, advanced or deep learning activities, working individually, in pairs or small groups.</p> <p>Children's learning is recorded in their books or on their Google Classroom platform. It may be through note-taking, diagrams, photographs, tables and charts, flow diagrams, or more formal investigations and explanations.</p> <p>Assessment takes place through</p> <ul style="list-style-type: none"> ✓ informal judgements by staff during lesson in relation to the success criteria ✓ formal checklists and feedback ✓ pupil and peer assessments <p>At the end of a lesson or unit, teachers make a summary judgement about the learning of each pupil in relation to the success criteria outlined at the beginning of the unit, and records these judgements termly.</p>		<p>Key Principles of Teaching Science</p> <p>In consultation with the staff and children, we have developed a 'Key Principles for teaching Science' at Mullion, to ensure every science lesson is the best it can be.</p> <p>At Mullion, SCIENCE is successful when:</p> <ul style="list-style-type: none"> we explore and discover for ourselves; we ask questions and find ways to answer them; we carry out practical activities; we work scientifically when investigating; we relate our science learning to the real world and have time to ask ...What if ...? 	<p>The Ogden Trust</p> <p>As part of the Southerly Point Multi-Academy Trust, we work with The Ogden Trust, to raise the quality of teaching and learning in physics. We have access to expert training and high-quality resources to enable the teaching of the 'big ideas' in physics with a 'working scientifically' focus.</p>
	<p>SEND</p> <p>The curriculum is adjusted with additional and different provision for all children who have identified SEND and have an Individual Provision Map (IPM)</p>			
IMPACT	<p>The impact of our Science curriculum is that all children are equipped with the scientific skills and knowledge for the next stage of their education and for life in the world outside the classroom.</p>			
	<p>PUPIL VOICE</p> <p>Pupils talk enthusiastically about their learning in Science, imparting key facts and concepts and using technical vocabulary accurately and confidently.</p> <p>They are able to share examples of their learning, and relate their learning to real-life experiences.</p> <p>They understand the importance of science to the world around them.</p>	<p>EVIDENCE IN KNOWLEDGE</p> <p>Teachers have high-expectations and quality examples of the children's learning in a variety of forms.</p> <p>Pupils can build on prior learning to propel their scientific learning to the next stage of a concept.</p>	<p>EVIDENCE IN SKILLS</p> <p>Children's 'working scientifically' skills build year on year. They use the acquired vocabulary to convey their understanding of investigative testing.</p> <p>They are able to record data in a variety of ways, and can prove or disprove a hypothesis in a fair and safe manner.</p>	<p>BREADTH AND DEPTH</p> <p>Teachers plan opportunities for pupils to study across concepts and deepen their conceptual understanding in a particular scientific aspect. Pupils have the confidence and are inspired to further their knowledge, asking probing questions and suggesting new lines of enquiry,</p>

