



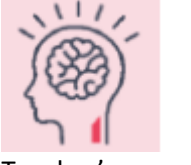













Science Curriculum

We teach science in order to learn about doubt, to ask and answer questions. To have a body of key knowledge and concepts, along with a sense of excitement and curiosity to be able to explain, predict and analyse.

INTENT		IMPLEMENTATION		IMPACT	
 <p>Alignment to National Curriculum</p>	<p>The school uses the National Curriculum as the basis of its curriculum planning. Science is brought to life through using the children's prior learning and questioning as a starting point. Following Pupil Voice, we have planned and designed a more practical based Science curriculum.</p>	 <p>Pedagogical Approaches</p>	<p>Science teaching focuses on enabling children to think as scientists. We place an emphasis on working scientifically. Throughout every topic, pupils are given the opportunity to work scientifically. Each year groups MTP details the focus skill (observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching secondary sources).</p>	 <p>Approach to Assessment</p>	<p>In Science, formal assessment is used throughout the unit that is being taught.</p> <p>Linked to each year groups MTPs, ongoing formative assessment monitors pupil performance and progress during learning; the outcomes of which we will use to ensure that work matches the individual needs and abilities of pupils.</p>
 <p>Sequencing and end points</p>	<p>In EYFS, St Anne's aims to offer our children real-life experiences in understanding the world.</p> <p>In KS1, we build on the foundations that EYFS have embedded whilst developing Knowledge and understanding and working scientifically skills. We offer our children opportunities in learning visits that not only embed learning sequences but also bring learning to life.</p> <p>In KS2, we continue to embed and develop the work of KS1 and the EYFS. We encourage our children to ask and answer scientific questions about the world around them and to develop their scientific knowledge and understanding.</p> <p>Our pupils will be well equipped with the scientific knowledge and skills required to understand the uses and implications of science, today and for the future.</p>	 <p>Teacher's Expert Knowledge</p>	<p>Staff will check for common misconceptions, correcting them when necessary. Teachers will use 'overlearning' to embed essential vocabulary and concepts. They present the topics clearly and facilitate detailed discussions through a variety of engaging activities.</p> <p>All teachers have access to CPD sessions before starting to teach a unit on ReachOut CPD. The MTPs also support this as it enables the teacher to prepare for the core knowledge, previous knowledge and further knowledge needed.</p>	 <p>Performance Data</p>	<p>The school tracks foundation subjects very broadly to ensure that pupils are working within the curriculum expectations for their year group. This is reported to parents within the end of year reports. Children are recorded as ARE if they have remembered the knowledge, vocabulary and concepts planned out for that unit of work as per the MTP.</p>

 <p>Communication Aims</p>	<p>Through our hands-on, enquiry-based curriculum, with a focus on vocabulary, children are encouraged to explore the wider world. We aim for all children to become scientifically literate citizens in a rapidly changing modern world.</p>	 <p>Promoting Discussion and Understanding</p>	<p>In all lessons, discussion is integral in order to deepen thinking and promote understanding around the key concepts. The core knowledge, vocabulary and concepts are the entry point and our aim is to connect this knowledge to real-world scenarios. Different viewpoints and perspectives are actively encouraged.</p>	 <p>Pupil's Work</p>	<p>Children's work will be evident in their individual books and the working scientifically objectives will be evidenced in class books. An emphasis is also placed on removing barriers that SEND children have in demonstrating their scientific knowledge, thereby preventing a narrowing of the curriculum for those learners.</p>
 <p>Addressing Social Disadvantage</p>	<p>At St Anne's, our curriculum engages all children and entitles them to the same quality of teaching and learning opportunities, striving to achieve their potential, as they belong to our school community.</p>	 <p>Knowing More and Remembering More</p>	<p>The teaching actively promotes recall and retrieval strategies to commit knowledge to long term memory and this is part of a wider suite of metacognition tools and strategies used in all lessons. All units of work begin with pre-learning assessments based on prior learning. Ongoing lessons refer back to MTPs in prior year groups which are sequentially created.</p>	 <p>Monitoring and Evaluation</p>	<p>The Science curriculum leader triangulates monitoring through book looks, lesson observations and pupil talks as part of the monitoring cycle to gauge their attitudes towards the Science curriculum. The Science lead is looking for children to demonstrate that key concepts and skills are mastered and can be explained and demonstrated.</p>
 <p>Local Context</p>	<p>Visits and Visitors are integral to Science to emphasise to pupils the links with the real world and expose pupils to scientific careers. We purposely have chosen to use the Plymouth Science scheme to support our lessons as the scheme encourages the development of working scientifically and reading throughout the lesson.</p>	 <p>Teacher Assessment</p>	<p>Assessment informs the teaching and learning sequence, and children work on the objectives they are assessed as being at. Feedback is given on children's learning in line with our feedback policy. Formative assessment within every lesson helps teachers to identify the children who need more support to achieve the intended outcome and who are ready for greater stretch and challenge through planned questioning or additional activities.</p>	 <p>Actions</p>	<p>Develop and embed our new scheme to support teacher knowledge of science.</p>
 <p>Enrichment</p>	<p>Visitors are planned to come in and speak to the children about their roles such as dentists, vets, nurses etc. The role of women within Science is a big focus to inspire and motivate our White British girls and in particular FSM children. Planned trips to Martin Mere and the pet shop support learning further. Links with the local university are taking place to offer our children to experience to visit a real science laboratory. Themed weeks such as British Science Week and Conservation week are planned through the year to further develop our children's understanding of the wider world.</p>				

