



# Science Curriculum

Intent			
At Staining, we believe Science is a core part of every child's learning journey. Science holds the key to unlocking a lifelong curiosity and wonderment about the world around us, in line with our whole school vision "Learn to Wonder" We aim to provide children with an enquiry-based curriculum, based on Big Questions that cover a wide range of topics. A pupil's Science journey begins in EYFS, where children have the opportunity to explore a range of topics through a play-based approach. This ignites children's scientific discovery and allows them to begin to question and investigate their ideas. This inquisitiveness continues throughout their time at Staining, as children begin to apply theoretical knowledge to their discoveries. The practical nature of Science runs as a continuous theme throughout both Key Stages, encouraging children to form, investigate and draw conclusions for their own scientific questions.			
Enjoyable	Engaging	Science Capital	Scientific Knowledge and Content
Develop pupils' interest in, and enjoyment of, Science.	Ensure Science lessons are purposeful, accurate and engaging. By building on children's curiosity, the Science curriculum will help to instil a positive attitude towards Science in pupils.	Develop pupil's Science Capital by recognising and valuing their contributions, existing knowledge and life experiences and making them aware of and alert to links between Science and other school subjects, as well as their lives more generally.	Ensure pupils complete a range of Science topics covering aspects of Biology, Chemistry and Physics, in line with the National Curriculum.
Working Scientifically and Enquiry Types	Topic Specific Vocabulary	Communication	Life-long Scientists
Alongside curriculum content, pupils are also exposed to a range of enquiry types and working scientifically skills. These allow pupils to gain a well-rounded understanding of Science and the skills and enquiry types involved within the subject.	During science lessons, pupils will be exposed to and encouraged to use a wide range of scientific vocabulary that relates to their scientific topics.	Use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including I.C.T., diagrams, graphs and charts.	Give children the confidence and motivation to continue to further develop their skills into the next stage of their education and life experiences.

Implementation			
Teachers create a positive attitude to Science learning within their classrooms, emphasise its importance in all aspects of everyday life and reinforce an expectation that all children are capable of achieving high standards in science.			
Planning	Big Questions	Working Scientifically Skills	Previous skills and knowledge
Planning will be carefully planned over a two-year cycle, with consideration given to how each unit builds upon previous skills and knowledge. Some units will be taught to both year groups simultaneously where this is appropriate and links to the class topic and some will be year group specific and taught discretely.	Through our planning, we encourage pupils to wonder about 'The Big Question' and facilitate problem solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom.	Working Scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and planned on the whole school Science plan to ensure progression.	We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.
External Stimuli	Practical work	Vocabulary	Thinking and Discussion time
Science units are planned to engage the children, with experience days, British Science Week activities, outside trips, visitors into school, expert videos or online workshops.	Practical elements in all science lessons, using high quality resources to aid understanding of concepts, help to ensure that pupils are engaged and motivated to discover more about scientific topics.	During science lessons, pupils will be exposed to and encouraged to use a wide range of scientific vocabulary that relates to their scientific topics. Scientific vocabulary will be on display in the classroom and referred to throughout the lesson/ unit.	Thinking and discussion time is built in to lessons and allow pupils the time needed to develop these vital skills.
Real-life Scientists	Collaborative learning	Recording Work	Assessment
Pupils will learn about the work of real life scientists and how their work has impacted our world	Pupils are encouraged to work collaboratively, using the ABC (Agree, Build, Challenge) approach when discussing ideas and drawing conclusions.	In KS2, children will record their work in topic books. Floor books and/or SeeSaw should also be used throughout school to allow for a creative and flexible approach to the recording of Science. This allows pupils take a greater ownership of their learning during the lesson and ensures that the focus remains on Science.	Pupils are given numerous ways to demonstrate their understanding of science topics by completing a range of different assessment tasks, including individual online assessments through Developing Experts, Kahoot quizzes, written tests and oral questioning by the teacher to assess understanding.

**Impact**

The science curriculum at Staining is based on an enquiry based approach. At the end of their science learning journey pupils will be able to use a range of scientific and topic related vocabulary to describe their understanding as well as discuss their findings to a range of investigations. Pupils will have a sound understanding of the different enquiry types and how these can be used to investigate and test their own scientific questions. Children will develop their skills in analytical thinking and questioning and be able to use these in discussions about their learning. Throughout the science curriculum at Staining, pupils will be exposed to a wide range of topics which will provide them with a wide breadth and depth of knowledge to support them in their future learning.

**Pupil voice**

Pupils speak positively about their science learning and are able to discuss their learning through the aid of floor books. Children show a natural curiosity and enjoy researching and investigating their own questions.

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