



Curriculum Intent, Implementation and Impact

Science 2023-2024



Curriculum Intent

St Cuthbert's school aims to provide a science curriculum that enables children to confidently explore and make discoveries in order to develop a deeper understanding of the world in which we live.

Our curriculum is planned to develop specific skills and knowledge, which help children to think scientifically and gain an understanding of scientific processes, and an understanding of the uses and implications of science today, and for the future.

Scientific enquiry skills are embedded in each topic and are re-visited and developed throughout our pupils' time at school. Topics such as 'Electricity' and 'Animals including Humans,' are taught in lower KS2, and studied again, in greater depth in upper KS2. This allows children to build upon their prior knowledge and increases their enthusiasm for the topic, whilst embedding procedural knowledge into the long-term memory. Specialist vocabulary for topics is introduced and progresses throughout topics and across the key stages.

Through the provision of exciting, hands on, practical experiences in a range of contexts, children are encouraged to develop and use the key elements of scientific enquiry: pattern seeking; observations over time, research, identifying and classifying and fair testing. Consistent modelling and exposure of these elements will provide children with the skills and confidence to become more independent learners in upper KS2, when they will experience opportunities to pose their own scientific questions and identify an enquiry which will best solve their questions, before planning their investigation and recording their observations.

Throughout the delivery of our science curriculum, we aim to instil within the children of St Cuthbert's school, a passion for learning about the world around us, encouraging a future generation of independent scientific thinkers. We aim to equip the children, with a bank of core skills to help build on and acquire ever evolving knowledge and enable children to think scientifically about some of the challenges we may face in the future.



Curriculum Intent, Implementation and Impact Science 2023-2024



Curriculum Implementation

At St Cuthbert's school, science topics are taught within each year group in accordance with the National Curriculum. Each year group builds upon the learning from prior year groups, therefore developing depth of understanding and progression of skills. Children are encouraged to explore, question, predict, plan, and carry out investigations and observations, as well as conclude their findings. We model how to present their learning and findings, using science specific language, reports, diagrams, explanations, and presentations.

Effective teaching and guidance from teachers ensure children achieve their learning intention with differing elements of independence. At the start of each topic, children review previous learning and have opportunity to share and embed what they already know. Misconceptions are identified and addressed.

Continuous assessment throughout lessons, and at the end of each unit, inform planning and the preparation of differentiated tasks and outcomes. Appropriate and meaningful cross-curricular links are made where possible, providing context and wider learning experiences within both science, and other subjects, including English, maths, geography, and computing.

Regular work scrutiny is conducted to ensure high expectation of pupils' learning and presentation. Monitoring through 'Pupil Voice', class drop ins and discussion with teachers provides evidence to ensure progression and application of knowledge and skills across single and multiple lessons; consistency of topic delivery across classes and year groups; and appropriate differentiation for SEND and children working at greater depth.

The school has identified and prioritised specific areas for focus which are: to ensure appropriate support in achieving national curriculum objectives for SEND children; using an agreed and consistent approach for the recording of scientific enquiry tasks; using agreed progressive scientific vocabulary; and ensuring that teaching, learning and recording evidence the progression of key skills and knowledge.



Curriculum Intent, Implementation and Impact Science 2023-2024



Curriculum Impact

Children make good progression in science as a result of high expectations for teaching and learning, delivered through a range of approaches and experiences including: scientific investigations; presentations; discussions; workshops; trips and visits.

Our science curriculum encourages pupils' curiosity, enjoyment and enthusiasm in order to become life-long learners. We strive to develop their understanding that science has changed lives, and that it is vital to the world's future prosperity and empower them to understand they have the capability to make positive changes in the world.

This is evidenced in a range of examples including: children's work; assessments; pupil voice; photographs and displays.