



Science at St Bartholomew's CE (VC) Primary School

"The scientist is not the person who gives the right answers; they are the ones who ask the right questions." **Claude Levi-Strauss**

Science teaching at St Bartholomew's CE Primary School aims to give all children a strong understanding of the world around them whilst acquiring specific skills and knowledge to enable them to think scientifically, gain an understanding of scientific processes and also the understanding of the uses and implications of science today and for the future.

The teaching of science follows the National Curriculum and is taught discretely as part of a broad and balanced curriculum. Emphasis is placed on both the acquiring of knowledge and the development of the key scientific skills. A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

We ensure that all children are provided with rich learning experiences that aim to provide them with:

- The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings.
- Confidence and competence in the full range of practical skills, taking the initiative in, for example, planning and carrying out scientific investigations.
- Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings.
- High levels of originality, imagination or innovation in the application of skills.
- The ability to undertake practical work in a variety of contexts, including fieldwork.
- A passion for science and its application in past, present and future technologies

Early Years Foundation Stage and Preschool

At St Bartholomew's CE Primary School, the children love learning about their environment right from Preschool and the Early Years Foundation Stage. They begin by looking at their school environment and noticing patterns and changes. They begin to make observations of animals and plants and discuss why changes occur. They will develop an understanding of living things, growth and change over time. Additionally, they will begin to identify properties of materials and suggest some of the purposes they are used for.

Key Stage 1

In Key Stage 1, children explore the world around them and expand on their natural curiosity through asking scientific questions and using observation and simple tests to find answers. Where possible science is taught through themes and the science topics are all relevant to the world around the child, therefore being tangible and meaningful to their experiences. Children learn how to plan simple investigations and how to interpret collected data to answer science questions.

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Key Stage 2

In Key Stage Two, children will continue to gain an understanding of the world around them: becoming independent thinkers who ask questions and seek answers. Building on the skills developed in KS1, children continue to ask relevant questions and begin to use different types of scientific enquiries to answer them. They will learn to set up simple, practical tests to answer these questions and make systematic and careful observations. They will begin to use results to draw simple conclusions, make reasonable predictions, suggest improvements and ask further questions.

Progressing through KS2, children deepen their previous learning and gain a strong understanding of the world around them. Where possible science is taught through themes and these are revisited and developed with the children building on prior knowledge and developing scientific enquiry skills as well as specialist vocabulary. They will ask questions based on their knowledge and observations and use different types of scientific enquiry to answer them. They will be able to use a range of scientific equipment to take measures and record their results. Additionally, they will use test results to make predictions and set up further comparative and fair tests. In addition to recording and presenting their own findings, they will begin to identify scientific evidence that has been used to support or refute ideas or arguments.

Impact

At St Bartholomew's CE Primary School, children will develop a love of Science and an eagerness to observe and question the world. Children will be equipped with the knowledge and skills to enable them to contribute positively to their community. They will learn to communicate their ideas and knowledge using appropriate scientific language. As they progress through the school, they will become confident in using a variety of scientific investigations to learn about our world and answer questions. They will be able to use graphs and tables to record their results, reaching scientific conclusions and discussing ways in which their investigation could be improved.