

Crosscrake CE Primary School

Our School promotes 'Friendship & Learning' underpinned by the Christian values of kindness, perseverance & hope.

Jesus said, "I have come that you may have life; life in all its fullness"
John 10:10.

Science Policy

Science is taught in accordance with the National Curriculum. [click here for NC Science](#)

Intent

To ensure that children:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future
- develop a sense of awe and wonder.

Implementation.

This is achieved by helping children to:

- Develop knowledge and understanding of important scientific ideas by:
- Being curious about things they observe and experience and exploring the world about them with all their senses.
- Using this experience to develop their understanding of key scientific ideas, making links between different phenomena
- Begin to think about models of things they cannot directly experience
- Make sense of phenomena, seeking explanations and thinking critically and creatively about claims and ideas.
- Develop process and skills and relate these to every day experiences by:
- Acquiring and refining practical skills needed to investigate questions safely and efficiently
- Developing and using skills of predicting, asking questions, making inferences, concluding and evaluating based on evidence and understanding
- Learning why numerical and mathematical skills are useful to understanding and to practice these skills in real contexts.

Learn ways of thinking and finding out about ideas and communicating these ideas to others by:

- Thinking creatively and constructively about science and enjoy trying to make sense of phenomena
- Developing language skills through talking about their work and presenting their own ideas using sustained and systematic writing of different kinds
- Using scientific and mathematical language, including technical vocabulary and conventions and drawing diagrams and charts to communicate scientific ideas
- Reading non-fiction and extracting information from sources such as reference books and the Internet

We aim to foster development of the key thinking skills of:

- Information processing, Reasoning, Enquiry skills, creative thinking and evaluation.

Explore Values and Attitudes through Science by:

- Working with others, listening to their ideas and treating them with respect
- Developing respect for evidence and evaluate critically ideas which may or may not fit the evidence available
- Developing a respect for the environment and living things and for their own safety

In EYFS; children are developing the crucial knowledge, skills and understanding that help them to make sense of the world. This forms the foundation for later work in Science, D&T, History,

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Geography and ICT. To give all children the best opportunities for developing effectively their knowledge and understanding of the world practitioners should give particular attention to: Activities based on first hand experiences that encourage explanation, observation, problem solving, prediction, critical thinking, decision making and discussion.
An environment with a wide range of activities that stimulate children's interest and curiosity.
Opportunities that help children to become aware of, explore and question issues of differences in gender, ethnicity, language, religion and culture and of special educational needs and disability issues.

During Key Stage 1 pupils observe, explore and ask questions about living things, materials and phenomena. They begin to work together to collect evidence to help them answer questions and to link this to simple scientific ideas. They share their ideas and communicate them using scientific language, drawings, charts and tables.

As children move through Key Stages 1 and 2 we aim to provide opportunities to progress from:

Using everyday language to increasingly precise technical vocabulary, notation and symbols

Personal scientific knowledge in few areas to understanding in a wider range of areas and of links between them

Describing events and phenomena to explaining events and phenomena

Explaining phenomena in terms of their own ideas, to explaining phenomena in terms of accepted ideas or models

Involvement in practical activities to building increasingly abstract models of real situations

Unstructured exploration to more systematic investigation of a question

Using simple drawings to more conventional diagrams and graphs.

During Key Stage 2 pupils learn about a wider range of living things, materials and phenomena. They begin to make links between ideas and to explain things using simple models and theories. They apply their knowledge and understanding of scientific ideas to familiar phenomena, everyday things and their personal health. They begin to think about the positive and negative effects of scientific developments on the environment and in other contexts. They carry out more systematic investigations, working on their own and with others. They use a range of reference sources in their work. They talk about their work and its significance and communicate ideas using a wide range of scientific language, conventional diagrams, charts and graphs.

Children are offered opportunities to work individually and collaboratively in groups using a wide range of resources including natural and manmade objects, apparatus and equipment, videos, books, visits, visitors, wherever possible starting with materials familiar to pupils and then extending experiences.

Impact

Marking and observation which provides ongoing, informal assessment in lessons

Summative end of unit teaching assessments are recorded on planning to inform next steps of learning.

Through various workshops, trips and interactions with experts our Science curriculum will lead pupils to be enthusiastic Science learners and understand that science has changed our lives and that it is vital to the world's future prosperity. We want to empower our children so they understand they have the capability to change the world.