

Gosforth C of E Primary School Curriculum Statement for Science



Intent

At Gosforth, we strive to inspire our children to develop a passion and natural curiosity for the world around them. We encourage our children to ask questions and investigate their curiosities. We aim to harness a love of learning and inquisitiveness to allow our children to develop into young adults with the skills to consider careers in our local industries, including local STEM opportunities and the main employer in the area, Sellafield Ltd. We intend to make these industries accessible to all our children through the high-quality, vocabulary-rich, practical science curriculum offered at Gosforth.

Aims

Science teaches an understanding of natural phenomena. It aims to stimulate a child's curiosity in finding out why things happen in the way they do. It teaches methods of enquiry and investigation to stimulate creative thought. Children learn to ask scientific questions and begin to appreciate the way science will affect their future on a personal, national, and global level.

Our curriculum for science aims to ensure that all pupils:

- 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.

Implementation

The curriculum map for science at Gosforth follows the progression laid out in the National Curriculum, allowing our pupils to build on their understanding of scientific concepts because as each discipline is revisited in each year group, further, more challenging concepts enrich the curiosities and understanding of our pupils. This approach allows progress to be made between year groups and across each Key Stage. The sequencing and progression of our science curriculum allows children to make links to their previous learning and build upon their understanding of scientific concepts. All children develop their analytic and reasoning skills through working scientifically and are given the opportunity to record their findings in challenging, age-appropriate ways which demonstrates progress.

We have two-year cycles in our mixed-age classes to ensure continuity and progression can be maintained. From EYFS onwards, there is emphasis placed on the importance of spoken language, allowing our young scientists to become confident and competent with age-appropriate scientific explanations from a young age. All our children are encouraged to discuss and engage first-hand in their experiences of the world from Early Years Foundation Stage, progressing through Key Stage One and into Key Stage Two. Rich, challenging, scientific vocabulary is at the heart of our

science teaching. Children are given the confidence to build upon their own vocabulary through high-quality teaching to develop fluency and accuracy with technical scientific terms, which can be used precisely to benefit understanding of scientific concepts and investigations. Age-appropriate vocabulary is displayed in each classroom and knowledge organisers are used to enhance vocabulary.

Science is a subject based in curiosity and the wonders of the world, the children are provided with opportunities to make enquiries into their questions and develop their own personal experience using a range of scientific enquiries, investigations and questions. These include observing changes over time; noticing pattern; grouping and classifying; carrying out simple comparative tests and finding things out using secondary sources of information. Working scientifically is embedded into carefully planned and sequenced exciting lessons, allowing children to become skilled scientists and embed scientific knowledge and conceptual understanding.

Impact

By the time our children reach the end of their schooling at Gosforth they have developed a deep curiosity for nature and the processes and methods of science. They can use rational explanation to make sense of the world around them and have the confidence to follow up their own interests and devise their own questions. They have a thorough understanding of the importance of science as well as the implications and uses of science, today and for the future. Our children leave Gosforth with the skills to work scientifically and use rich, technical vocabulary accurately.