

**Science Curriculum Statement**

**Intent**

**The national 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.

At Fowey School , our use of the PZAZ scheme allows us to fulfil the national curriculum aims as it covers both the knowledge and methods of working scientifically which are required. It is designed to allow the children to build their knowledge and skills cumulatively.

At Fowey Primary School, we recognise the importance of Science in every aspect of daily life. As one of the core subjects taught in Primary Schools, we give the teaching and learning of Science the prominence it requires and ensure that it is taught weekly.

Where possible, our curriculum has been designed to complement the termly topic but is taught as discrete units and lessons where needed to ensure full coverage. Our long term plans are outlined in our Curriculum Maps and medium term plans for each year group reference the national curriculum programmes of study and opportunities which the children have to work scientifically.

The science curriculum we use in our school aims to foster children’s ideas and ways of working, enabling them to make sense of the world in which they live through investigation, as well as using and applying processing skills. The staff at Fowey School ensure that all children are exposed to high-quality teaching and learning experiences, which allow them to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. Our curriculum is designed to ensure that children are able to acquire key scientific knowledge through practical experiences; using equipment, conducting experiments, building arguments and explaining concepts confidently. They are immersed in scientific vocabulary, which aids children’s knowledge and understanding not only of the topic they are studying, but of the world around them.

Science teaching at Fowey School involves adapting and extending the curriculum to match all pupils’ needs. Where necessary, scaffolding and differentiated resources are provided for those with additional needs whilst more able children are encouraged to further explore links between the taught content and their knowledge and observations of the world around them. All children participate in practical experiments with assistance where necessary.

Knowledge is retained by checking the children’s ‘sticky knowledge’ at the start of each lesson.

We intend to provide all children with a broad and balanced, exciting and enticing science curriculum.

**Implementation**

To ensure high standards of teaching and learning in Science at Fowey Primary, we implement a Science curriculum that is progressive throughout the school, building on prior skills and knowledge year on year.

In the EYFS as part of their Seven Areas of Learning, the children will be presented with opportunities to explore the Understanding the World strand and science will be a particular focus of the Natural World aspect. Through their topics, the children will explore the natural world around them and make observations and drawings of plants and animals. They will discuss some of the similarities and differences of different environments, seasons and changing states of matter that they experience in books and through experiences.

In Key Stages 1 and 2 existing knowledge is checked at the beginning of each topic and a Knowledge Organiser outlining the knowledge required throughout the topic is provided. This ensures that teaching is informed by the children’s starting points and that it takes account of pupil voice, incorporating children’s interests.

Each topic must have elements that challenges the “Thinking Scientifically” part of the curriculum and focuses on building different aspects of enquiry skills.

During Key Stage 1 children observe, explore and ask questions about living things, materials and physical phenomena. They begin to work together to collect evidence to help them answer questions and to link this to simple scientific ideas. They begin to evaluate evidence and use reference materials to find out more about scientific ideas. They share ideas and communicate them using scientific language, drawings, charts and tables, with the help of ICT if it is appropriate.

At Key Stage 2 pupils learn about a wider range of living things, materials and physical phenomena. They make links between ideas and 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 think about the effects of scientific and technological 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, using a wide range of scientific language, conventional diagrams, charts and graphs, with the help of ICT if it is appropriate.

These two distinct areas of the science curriculum (‘scientific knowledge and conceptual understanding’ and ‘the nature, processes and methods of science’) are carefully crafted together by teachers to ensure that there is an interplay between the substantive knowledge and disciplinary knowledge.

**Impact**

An active approach to science at Fowey Primary School results in a fun, engaging, high-quality science education, that provides children with the foundations for understanding the world. Our engagement with the local environment ensures that children learn through varied and first-hand experiences of the world around them.

The impact and measure of this ensures children not only acquire the appropriate age-related knowledge linked to the science curriculum, but also skills which equip them to progress from their starting points, and within their everyday lives.

By the time they leave Fowey Primary School, all children will have gained a wider variety of skills linked to both scientific knowledge and understanding, and scientific enquiry/investigative skills and a rich vocabulary which will enable them to articulate their understanding of taught concepts and high aspirations, which will see them through to further study, work and a successful adult life.

*Updated: June 2022*