Curriculum Statement

Intent

At Boyton we want our children to be naturally curious about the world around them. We want to embrace their sense of wonder about natural phenomena and to guide them into becoming enquiry-based learners. The science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live. We want our children to develop an understanding of the uses and implications of Science, how it has changed and shaped our lives and how vital it is to the world's future prosperity.

Scientific enquiry skills are embedded in each topic the children study and these topics are revisited and developed throughout their time at school - thus allowing the children to grow in their understanding, building upon their prior knowledge and increasing their enthusiasm for the topics whilst embedding this procedural knowledge into the long-term memory.

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

- Prepare our children for life in an increasingly scientific and technological world today and in the future.
- Help our children acquire a growing understanding of the nature, processes and methods of scientific ideas.
- Help develop and extend our children's scientific concept of their world.
- Build on our children's natural curiosity and developing a scientific approach to problems.
- Encouraging open-mindedness, self-assessment, perseverance and developing the skills of investigation – including: observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Develop the use of scientific language, recording and techniques.
- Develop the use of computing in investigating and recording.
- Make links between science and other subjects..

Implementation

The delivery of Science at Boyton is based on the Plymouth Science Scheme, which is delivered on a two year rolling programme. It involves adapting and extending the curriculum to match all pupils' needs to ensure they are challenged and achieve success, regardless of their starting point.

When teaching science, teachers ensure to create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science. Vocabulary is taught throughout the block of work and revisited frequently to empower children to use this themselves. Through the progressive nature of our rolling programme, prior knowledge is built upon and misconceptions are addressed to ensure a secure understanding for all children. Assessments are carried out as we teach and at the end of each unit. During Key Stage one, pupils observe, explore and ask questions about living things, materials and the world around them. They begin to work together to collect evidence to help them answer questions, find patterns, classify and group objects, research using a variety of sources and carry out fair testing. Pupils use reference materials to find out more about scientific ideas. They share their ideas and communicate them using scientific language, drawings, charts and tables. Science lessons in Key Stage one are either taught discretely or where possible connected to other curriculum areas. The resources used include TigTag, Explorify, and TAPS Working Scientifically focused assessment activities.

Children are encouraged to extend the scientific questions that they ask and answer about the world around them. Pupils carry out a range of scientific enquiries including: observations over time, pattern seeking,

classifying, grouping and researching using other sources (including computing resources). Children in Key Stage Two learn to plan science investigations by only changing one variable to make it a fair test. We ensure that suitable adjustments are made for children with SEND.

Impact

Learners at Boyton are enthusiastic and passionate about science, asking questions to deepen their understanding. Throughout the school, learners are proactive and apply a range of investigative skills not only in science but to other aspects of the curriculum. They develop a detailed knowledge of the world in which they live and feel empowered to challenge and ask questions to further their understanding. Progress is at least good with children showing a secure understanding of key concepts and it is clear where misconceptions have been addressed. Our engagement with the local environment where appropriate to the topic ensures that children learn through varied and first-hand experiences of the world around them. Through workshops, trips and interactions with experts and local companies, children have the understanding that science has changed our lives and that it is vital to other world's future prosperity.