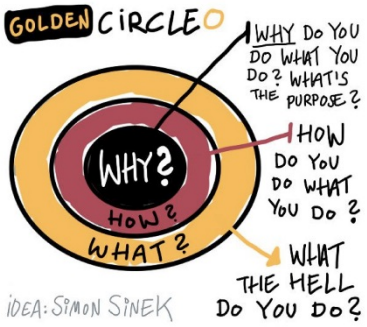
HIMBLETON CE PRIMARY SCHOOL AND NURSERY

Nurture, Nature, Knowledge:
Enabling inquisitive thinkers and inspired learners with kind hearts.

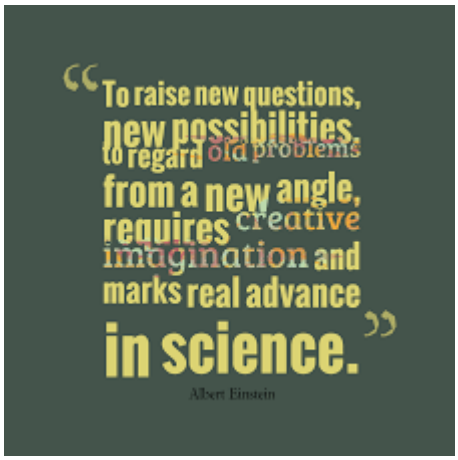
The Himbleton Approach to the Teaching of Science



SCIENCE

Intent

"To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science." - Albert Einstein



Why do we do what we do?

A high quality science education provides the foundations for understanding the world and is of fundamental importance in every aspect of daily life. Through building up a body of key foundational knowledge and concepts, pupils are encouraged to recognise the importance of explanation and develop a sense of excitement and curiosity about natural phenomena. Children are encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. 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 through investigation, as well as using and applying process skills. We ensure that all children are exposed to high quality teaching and learning experiences, which allow children to explore their outdoor environment and locality, thus developing their scientific enquiry and investigative skills. Children 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.

Implementation

Teachers 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. Our whole school approach to the teaching and learning of science involves the following;

● Science is taught discretely, following a two year rolling programme in EYFS, KS1, Lower KS2 and Upper KS2. Science is delivered in units following the guidance from the National Curriculum programmes of study for science 2014. These are reviewed regularly.

● We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.

● Working Scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching.

● Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning.

● Encouraging open-mindedness, self-assessment, perseverance and developing the skills of investigation – including: observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.

Impact

What are the outcomes for our children?

A fun, engaging, high-quality science education, that provides children with the foundations and knowledge 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. Frequent, continuous and progressive learning outside the classroom is embedded throughout the science curriculum. Through various workshops, trips and interactions with experts and local charities, children have the understanding that science has changed our lives and that it is vital to the world's future prosperity. Children learn the possibilities for careers in science, as a result of our community links and connection with national agencies including the STEM association. They learn from and work with professionals, ensuring access to positive role models within the field of science from the immediate and wider local community. From this exposure to a range of different scientists from various backgrounds, all children feel they are scientists and capable of achieving. Children enjoy science and this results in motivated learners with sound scientific understanding.

How do we know that we have achieved these outcomes?

- All pupils make links between science and other subjects
- We use scientific language, recording and techniques
- Children are prepared for life in an increasingly scientific and technological world today and in the future
- Children acquire a growing understanding of the nature, processes and methods of scientific ideas
- Children show a natural curiosity and develop a scientific approach to problems

"Enabling inquisitive thinkers and inspired learners with kind hearts."

Building on these themes, we believe that our Science curriculum contributes to the outworking of our whole school vision as it has an invaluable part to play in developing awareness of the wider world and preparing our children for life beyond Himbleton.