



Science at Hopton CEVC Primary School



“With God all things are possible” Matthew 19:26

We raise aspirations and encourage perseverance to reach goals in life and learning.

INTENT

Our aim at Hopton Primary School is that the Science curriculum pupils receive gives all children a sound understanding of the world around them. This understanding is underpinned by skills and knowledge pupils develop during their time with us which will enable them to think scientifically, appreciate how science has changed our lives and understand the importance of Science for our future.

We understand and ensure that science learning has a skills based focus and through this knowledge can be taught. Scientific enquiry skills are embedded in each topic the children study and these topics are revisited and developed throughout their time at school. This allows children to build upon their prior knowledge, consolidate concepts and vocabulary and deepen their understanding.

As set out by the National Curriculum, we aim for all children to:

- 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
- be equipped with the scientific skills required to understand the uses and implications of science, today and for the future.

During children’s time at Hopton we strongly believe that children’s natural curiosity and confidence should be nurtured and they should be inspired and excited to find out about how the world works through exploring, questioning and investigating.

Our programme of study details when the National Curriculum units for each year group will be taught during our two year cycle and how they closely link and fit within the over-arching half-termly topics for each class. In turn, this enables the children to acquire and develop specific knowledge linked to each unit and year group and have the opportunities to apply scientific skills. The skills identified in Working Scientifically are built upon as children move through the school so that all children have the opportunity to apply their scientific knowledge when conducting experiments, discussing and explaining concepts and asking scientific questions.

We believe the science curriculum has an important role to play in helping to ensure our pupils leave Hopton as respectful, independent individuals who have a thirst for learning, are open-minded and embrace new ideas, challenges and experiences and understand that with hard work anything is possible.

“The important thing is not to stop questioning; curiosity has it’s own reason for existing” Albert Einstein



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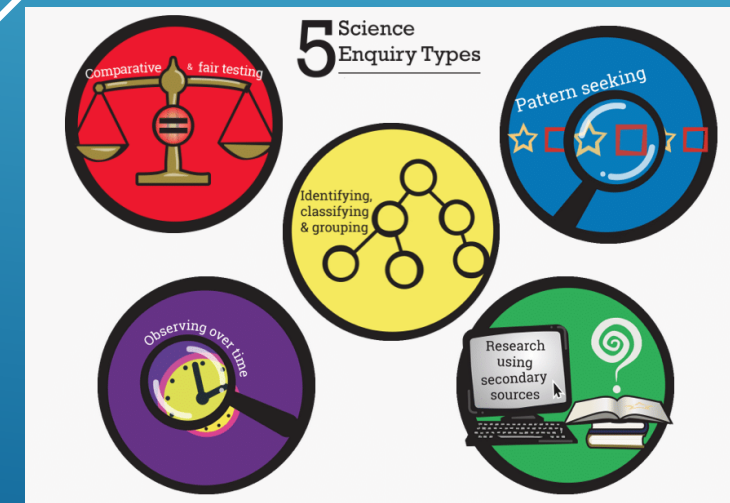
IMPLEMENTATION

At Hopton, in line with our vision, teachers encourage and support all children to achieve learning goals within science and create a learning environment where children are enthusiastic and engaged with their science learning. By teaching science through planned topic blocks which link closely to the over-arching half termly class topic, science learning can be put within a more meaningful context, providing opportunities for scientific vocabulary and concepts to be explored and revisited within other subject lessons and support the achievement of scientific knowledge and understanding at a greater depth.

We use the Cornerstones Maestro topic planning tool and online resources in conjunction with the National Curriculum to plan weekly science lessons and ensure that we provide a comprehensive and creative science curriculum intertwined within each class's two year rolling programme of topics. Teachers plan weekly science lessons, maintaining a focus on scientific skills and knowledge and providing opportunities for children to ask their own questions, develop and use a range of skills and investigate their own lines of enquiry. The use of resources both visual and practical support children's understanding of new or more abstract concepts and high quality discussion and questioning encourages the use of age appropriate scientific vocabulary and helps to establish children's scientific understanding within a series of lessons.

As children progress through the school, we build upon the learning and skill development of the previous years and key stages so that they become more confident and skilled when planning and conducting experiments and recording and interpreting the results from these experiments. The coverage and progression of scientific knowledge is mapped of in the school's Science Programme of Study and the Working Scientifically skills are embedded into lessons to ensure that these skills are being developed throughout a child's journey through Hopton. As a school, we embrace opportunities to challenge ourselves as teachers and teach science in different ways, catering for the learning needs of children, offering a range of learning styles and allowing children's natural curiosity to flourish.

Using outdoor learning environments, organising visits and trips with a science focus, celebrating National Days with a STEM focus or taking part in annual Science Week activities all help to develop children's understanding and appreciation of science within the wider world and in turn, broadens and enhances children's learning in science.





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IMPACT

The Science Curriculum at Hopton is engaging, high quality and carefully mapped out to ensure progression of skills and knowledge so that children gain knowledge of the world around them, an enthusiasm to find out more about the world, an awareness and appreciation of the achievements of different scientists and a view that they are scientist in their own right. The effectiveness and impact of the curriculum is monitored through a variety of methods:

- Book looks
- Learning Walks
- Pupil voice
- End of unit quizzes and vocabulary activities
- Regular feedback each lesson

Children’s knowledge, understanding and application of skills are assessed against the objectives set out in the National Curriculum. Through tracking children’s attainment and progress any gaps in their scientific knowledge can be identified so that steps can be taken to ensure that all children leave Hopton with a secure understanding of science and approach experiences with a scientific and questioning mind.

