Science

Flourish and grow with responsibility, respect and resilience.

"As I have loved you, so you must love one another."

John 13:34

Our school is very proud to have been awarded the Bronze Primary Science Quality Mark, recognising our schools dedication to Science.

Curriculum Intent

What better way to capture the imagination of children than through the subject of science! At Harleston C.E Primary Academy, we recognise the influence and importance of Science in everyday life and as a prominent subject taught within our school.

Within our Science curriculum, we aim for children to understand and use specific scientific knowledge and vocabulary related to different areas of Science, and to be able to recognise and apply this in other areas of the curriculum and their wider life.

We aim for Science to stimulate the children's curiosity and interest in the world around them. Our School vision is for children to flourish and grow with responsibility, respect and resilience, and this vision is reflected clearly within our Science curriculum, within which Scientific concepts are developed through the children's own investigations, enquiries and experiences. This also supports and encourages clear communication, patience and perseverance. The school has conservation and pond areas, which cultivate biodiversity, respect living organisms and help to inspire individuals through positive outdoor learning experiences. We also enjoy yearly participation in British Science Week, with the British Science Association, and have observed the children's Scientific thinking thrive in their participation within yearly school Science competitions.

Our Principles of Science are as follows:

- Children's curiosity is encouraged with questioning praised and valued
- Science is regularly incorporated and highlighted in a variety of subjects creating cross curricular activities
- Science is valued as is the need for a variety of equipment and resources

- Children engage in practical, hands on and interactive science lessons, encouraging both excitement and enquiring minds
- Teachers share and observe good practice using different teaching and assessment strategies

Curriculum 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 in planned and arranged topic blocks by the class teacher based upon the National Curriculum Programmes of Study. This enables the achievement of a core expectation of knowledge and vocabulary.

  The Science curriculum builds upon the knowledge acquisition 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. To help support the acquisition of this core knowledge, we are in the process of developing knowledge organisers.
- The skills of working scientifically are embedded into lessons to ensure they are being developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching.
- Through our planning, we involve problem solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom.
- Teachers are expected to use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning, so that all children keep up.
- 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 and workshops with experts.

Children are given opportunities to experience Science in a variety of ways to embed and extend their learning:

- Pupil's engagement with the local environment and programmes such as 'Harleston's Future Group' ensures that children learn through varied and first hand experiences of the world around them. So much of science lends itself to outdoor learning and so we provide children with opportunities to experience this.
- Through various workshops, trips and interactions with experts, children have the understanding that science has changed our lives and that it is vital to the ever changing world around us.
- Children learn the possibilities for careers in science as a result of our community links and connection with national agencies such as the STEM association.
- In school Science competitions.

Curriculum Impact

The Science curriculum is progressive and children are seen to be making expected progress if they are keeping up with the curriculum.

We also evaluate success and progress through other methods:

- Pupil voice is used to evaluate understanding and to further develop the Science curriculum, through the questioning of pupil's views and attitudes to Science to support the children's enjoyment of science and to motivate learners.
- Teacher observation and recording on success ladders.
- Book scrutiny.
- Informal quizzes


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