

SCIENCE POLICY 2024

Intent

It is important that children are given the opportunity to explore and understand the world in which they live. Science at Holbeach Primary Academy is about giving children the tools to develop their ideas and ways of working that enable them to understand the world through investigation with independence, resilience and enjoyment.

At Holbeach Primary Academy, we believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic, origin, gender, class, aptitude or disability.

Aims

- Preparing our children for life in an increasingly scientific and technological world.*
- Fostering concern about, and active care for, our environment.*
- Helping our children acquire a growing understanding of scientific ideas.*
- Helping develop and extend our children's scientific concept of their world.*
- Developing our children's understanding of the international and collaborative nature of science.*

Attitudes

- Encouraging the development of resilient and positive attitudes to science.*
- Building on our children's natural curiosity and developing a scientific approach to problems.*
- Encouraging open-mindedness, self-assessment, perseverance and responsibility.*
- Building our children's self-confidence to enable them to work independently.*
- Developing our children's social skills to work independently and cooperatively with others.*
- Providing our children with an enjoyable experience of science, so that they will develop a deep and lasting interest and may be motivated to study science further.*

Skills

- Giving our children an understanding of scientific processes.*
- Helping our children to acquire practical scientific skills.*
- Developing the skills of enquiry - including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.*
- Developing the use of scientific language, recording and techniques.*

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- *Developing the use of computing in investigating and recording.*
- *Enabling our children to become effective communicators of scientific ideas, facts and data.*
- *Using different types of scientific enquiry to answer their own questions, including: observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources.*
- *Allow children to use scientific skills across the curriculum.*

Our teaching aims

- *Teaching science in ways that are imaginative, purposeful, well managed and enjoyable.*
- *Giving clear and accurate teacher explanations and offering skilful questioning.*
- *Making clear links between science and other subjects. In particular, PE, maths and computing.*
- *Ensuring children are given enough time to study the four main areas of the science curriculum. These are: Working scientifically, Life and living processes, Materials and their Properties and Physical Processes.*
- *Offering ample opportunity for practical investigation and enquiry.*
- *Teaching science outdoors as well as in the classroom.*

Implementation

Children at Holbeach Primary Academy learn through a thematic curriculum, with the teaching and learning of science being based on investigation, observation and application. The theme is changed each half term to ensure children are exposed to many different scientific topics throughout their time at school.

Children in the foundation stage are taught the science elements as indicated in the statutory framework under the Early Years Goal of the Natural World where they explore the natural world around them, making observations and drawing pictures of animals and plants and understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Links to other areas of the curriculum that enhance their understanding of science are identified and incorporated into planning. Each topic is taught as a block of work

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each half term. The curriculum overviews are available on the shared file, or can be found with the relevant year group teachers. Science books and medium term plans are monitored by the science team on a termly basis, and support given where required.

In addition to the knowledge and understanding aspects of the National Curriculum, emphasis needs to be put on scientific investigation and enquiry, including the correct use and care of scientific apparatus. When planning the learning experiences, the pupils' previous experiences and present understanding should be taken into account.

Science is taught in a cross curricular way, particularly with clear links to PE, maths and computing. As an academy, we use theme curriculum but some areas of the Science curriculum are taught as stand-alone topics. Our children experience science outside of the classroom as much as possible.

Teachers are encouraged to actively teach science skills, and reinforce learning with selected enquiry stimulations. We encourage children to ask and answer their own questions as often as they like. Children should complete at least one investigation per half term. These investigations should be based on their current topic but have a focus on developing the children's scientific skills.

Assessment and recording

We use assessment to inform and develop our teaching.

- Within the classroom, topics commonly begin with an assessment of what children already know. The learning objective for the lesson is always shared with the children. However, this may not always be at the beginning of the lesson. For example, if the investigation or enquiry leads the children to discovering the learning objective for themselves.
- For Assessment, teacher's use the Assessment activities provided by the Primary Science Trust and Bath University. These are used through as formative assessment tool. After a topic, the teacher uses Target Tracker and fill in the relevant statements, using the coding system Working Towards, Achieved and Mastered. This is used to assess the children within the Band. The Science and Humanities Curriculum Team will also monitor the attainment and progress of the children in the school.
- Children are involved in the process of self-improvement, recognising their achievements and acknowledging where they could improve on a short term basis when assessing their understanding against the learning target of a lesson. Learning

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objectives will be highlighted in green to indicate if a child has met it. Any questions used to further challenge children will be presented as a 'pink pen question'.

- EYFS knowledge and understanding of the world may be evidenced using photographs of the children working scientifically. Any oral evidence can be recorded by teachers during their observations.*
- The Science Team monitors progress through the school with the recently introduced science assessment procedure. Science medium term plans are monitored termly to ensure that all areas of the curriculum are adequately covered. The Science Team will also conduct a termly book scrutiny to ensure all objectives are covered and offer support where necessary. Also carry out learning walks and pupil interviews.*
- Reports to parents are written once a year, describing each child's attitude to science, his/her progress in scientific enquiry and understanding of the content of science.*

Impact

The successful approach at Holbeach Primary Academy 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. 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 and local charities, children have the understanding that science has changed our lives and that it is vital to the world's future prosperity. Pupil voice is used to further develop the Science curriculum, through questioning of pupil's views and attitudes to Science to support the children's enjoyment of science and to motivate learners.

Health and safety

Children should be taught the correct and safe use of equipment and the carrying out of simple safety procedures as an intrinsic part of their science lessons. A risk assessment should be carried out in line with academy policy in regards to any school trips or experiments out of academy grounds. Safety equipment is available in the science cupboard. It is the teacher's responsibility to ensure any investigations carried are done so in a safe way for the protection of their class.

Review

This policy will be reviewed annually by The Science Team

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