

Hook C of E Primary School intent, implementation and impact statements

Intent

At Hook C of E Primary School, Science primarily takes a very hands-on approach. In line with our school vision statement, children work in a challenging learning environment and are encouraged to use their independence, to be inquisitive, ask questions, be creative, develop independent thinking and discuss their learning. Science lessons reflect the vision and ethos of the school and are designed to engage, inspire, promote independence and build upon previous skills and knowledge. 'Working scientifically', which involves the understanding of the sorts of questions that are key to science, is carefully considered and planned with care and thought into lessons. The creative approach of our curriculum ensures that the design of experiments, reasoning and arguing with scientific evidence, as well as analysing and interpreting data, is intertwined throughout and clearly related to the appropriate objectives. Ultimately, we aspire to ensure that our children become confident and successful learners, enjoying the process of exploring values and ideas through science. To ensure that a high-quality curriculum is being taught, the Science subject leader will:

- Look at Science work completed by the children
- Speak to children
- Carry out learning walks and observations during lessons
- Monitor planning from teachers
- Audit resources

Implementation

KS1

Our curriculum focus is to enable the children to experience, observe and explain what is occurring, to predict how things will behave and analyse the results. Planned lessons will develop a sense of excitement and curiosity about natural phenomena, through the use of first-hand practical experiences and also the use of appropriate secondary sources, such as books, photos and videos. Throughout their work, children will be encouraged to work scientifically. This will include observations, pattern-seeking, identifying, classifying and grouping, comparative and fair testing and using research. Children will be encouraged to read and spell scientific vocabulary, appropriate to the task and their increasing word reading and spelling knowledge.

Lower KS2, Years 3 and 4

Our curriculum focus in Years 3 and 4 is to further build upon the children's experiences in KS1. The children will be encouraged to broaden their scientific views of the world around them. Carefully planned lessons will encourage the children to gradually become more independent in their use of scientific enquiry, such as asking their own questions and deciding the best way to answer them through the most appropriate method of scientific enquiry. The children will be encouraged to independently arrive at simple conclusions and use some scientific language, first to talk about and, later, to write about what they have found out. Discussion will be promoted to generate further questions, following their investigations and conclusions. Children will be encouraged to build upon

previous scientific vocabulary from KS1. They will be asked to read and spell scientific vocabulary, correctly and with confidence, using their growing word reading and spelling knowledge.

Upper KS2, Years 5 and 6

Our curriculum focus in Years 5 and 6 is to continue to further develop and build upon previous skills and knowledge, that has been taught earlier in the children's education. The children will be encouraged to make links with their previous learning and lessons are planned to further develop a deeper understanding of a wide range of scientific ideas and concepts. Children will be encouraged to become much more independent with their discussions, explorations, questioning and analysis. Lessons will be planned that allow children to encounter more abstract ideas, and begin to recognise how these ideas help them to understand and predict how the world operates. These lessons will also enable the children to recognise that scientific ideas change and develop over time. Carefully planned lessons will also encourage the children to be independent in their selection of the most appropriate method of scientific enquiry, to answer science questions. The pupil-led investigations will enable them to arrive at conclusions, based on their data and observations, using evidence to justify their ideas and their scientific knowledge and understanding to explain their findings. Pupils should read, spell and pronounce scientific vocabulary correctly, within context.

Impact

We believe that our science curriculum is progressive and challenging, whilst remaining relevant. It is carefully planned to demonstrate progressions. We measure the impact of our curriculum in several ways, which includes: learning walks, pupil voice, lesson observations and identifying key skills to aid teacher assessment.

Through our science curriculum we envisage that:

- Children will become resilient, independent and curious scientists who ask questions and find things out for themselves.
- Science will be a high-profile subject throughout the school
- Children will be enthusiastic and motivated scientific learners
- Parents and the wider community will support science learning through trips and visitors
- Children will have an awareness of the full range of scientific careers and pathways available to them, and will be keen to pursue STEM subjects at secondary school
- Children will leave for secondary school equipped with the scientific knowledge and skills needed to succeed in their further education