

Beetham C of E Primary School - Science Intent, Implementation & Impact

Intent

At Beetham C of E Primary School we intend to recognise the importance of Science in every aspect of daily life. We give the teaching and learning of Science the prominence it requires. The scientific area of learning is concerned with increasing pupil's knowledge and understanding of our world and with developing the skills associated with Science as a process of enquiry. It will develop the natural curiosity of our children, encourage respect for living organisms and the physical environment and provide opportunities for critical evaluation of evidence. We intend to build a Science curriculum which develops learning and results in the acquisition of knowledge and enables children to become enquiry based learners.

Implementation

Our implementation is developed through secure understanding of the curriculum and subject area.

- We have a clear and comprehensive program in line with the National Curriculum where teaching and learning show progression across all key stages within the strands of Science.
- Children have access to key language and meanings in order to understand and readily apply to their written, mathematical and verbal communication of their skills.
- Children will use a range of resources to develop their knowledge and understanding that is integral to their learning and will develop their understanding of working scientifically.
- Teaching and learning should enable pupils to take part in practical investigative opportunities within Science lessons.
- Children will reflect on previous learning and cross curricular links will be made wherever possible.
- Children will be able to build on prior knowledge and link ideas together, enabling them to question and become enquiry-based learners.

Planning

In EYFS early Science skills and knowledge are developed through the areas of

- Understanding of the World - The Natural World.
- Communication & Language - eg. learning to ask 'How', 'Why' questions to further understanding.
- Physical development - through using the senses to explore.

Topics are planned to cover all areas of learning, additionally there are opportunities for learning to be directed by children's interests.

In Key Stages 1 and 2 topic teaching is used to progress children's knowledge and skills so that children can achieve depth in their learning. Each Key Stage has a long-term plan with a Science topic planned for every half term over the course of the year. At the beginning of each topic children are able to convey what they know already as well as what they would like to find out. This informs the program of study and also ensures that lessons are relevant and take account of children's different starting points.

Throughout all year groups the school grounds and the local area are fully utilised to provide extensive opportunities for first hand experiences and learning outside of the classroom.

Assessment and Feedback

- Assessment informs the teaching and learning sequence and children work on the objectives they are assessed as being at.
- 'In the moment' feedback is given on children's learning where possible otherwise written feedback is given as outlined in the Marking Policy.
- Formative assessment within every lesson helps teachers to identify the children who need support to achieve the intended outcome and those who are ready for greater stretch and challenge through planned questioning or additional activities.
- Every term KS1 & KS2 teachers make an assessment of pupil's progress and add this information to the school tracking system. EYFS assess as part of their on-going practice and observation, assessments are made against the Development Matters/Birth to 5 Matters age bands, this then feeds into the Tapestry program.
- Results are reported to parents in the end of year report.

Impact

- Most children will achieve age related expectations in Science at the end of their cohort year.
- Children will retain knowledge that is pertinent to Science with a real life context.
- Children will be able to question ideas and reflect on knowledge.
- Children will work collaboratively and practically to investigate and experiment.
- Children will be able to verbalise the process they have taken and be able to reason scientifically using the scientific vocabulary.

In EYFS, achievements are evidenced through the individual children's Tapestry Learning Journals. In Key Stages 1 and 2 outcomes in books evidence a broad and balanced curriculum and demonstrate children's acquisition of identified key knowledge. The children also develop an appreciation of their local area and its place within the wider scientific context.

Children's knowledge and skills will develop progressively as they move through the school, not only to enable them to meet the requirements of the EYFS and National Curriculum but also to prepare them to be competent, inquisitive scientists beyond primary education.

