Benthal Primary School

Science Policy

Approved by:	Chair of Governors
Approval date:	November 2022
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SCIENCE POLICY

Aims

Science at Benthal is about developing children's ideas and ways of working to enable them to make sense of the world in which they live, through investigation and application of skills.

Through teaching Science we aim to:

- Prepare our children for life in an increasingly scientific and technological world.
- Foster an awareness and concern for our environment.
- Help our children acquire a growing understanding of scientific ideas and concepts of their world.

Through teaching Science we promote positive attitudes which:

- Encourage open-mindedness, self-assessment, perseverance and responsibility.
- Build our children's natural curiosity and self-confidence to enable them to work independently.
- Develop our children's social skills to work cooperatively with others.
- Provide our children with an enjoyable experience of science, so that they develop a deep and lasting interest and may be motivated to study science further.

Through teaching Science we develop skills which:

- Give our children an understanding of scientific processes.
- Help our children to acquire scientific approaches to problem solving.
- Develop the skills of investigation - including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Develop the use of scientific language and recording techniques, including the use of IT.
- Enable our children to become effective communicators of scientific ideas, facts and data.

Curriculum Planning

We use 'Snap Science' to follow the National Curriculum to teach relevant topics and scientific enquiry through a variety of contexts.

Children in the foundation stage – the nursery and reception classes - are taught the science elements of the foundation stage document through the Development Matters learning which is called 'Knowledge and Understanding of the World.'

We also promote cross-curricular links between science and other subject areas and use gardening and other outdoor activities were children learn about conditions for plant growth, seasonal changes, habitats and reduce, re-use and recycle. (See appendix)

Spoken language

The national curriculum for science reflects the importance of spoken language in pupils' development across the whole curriculum –cognitively, socially and linguistically. The variety of language that pupils hear and speak is a key factor in developing their vocabulary and articulating scientific concepts and questions clearly and precisely, which is why at Benthal we aim to teach children a range of scientific words.

How Science is structured through the school

Science teaching in the school is about excellence and enjoyment. We adapt and extend the curriculum to match the unique circumstances of our school, such as the use of our planting and gardening areas to explore plant and seed growth, composting and recycling. We also use our close proximity to parks and museums to promote and enhance our pupils' scientific experiences.

EFYS teachers, teach science for a minimum of one hour each week.
KS1 and KS2 teachers, teach science in blocked weeks.
In KS2, a minimum of 50% of overall lessons will include practical scientific enquiry.

Our approach to Science

We encourage children to ask and answer their own questions as far as practicable.
Children complete at least one fair test each half term, taking increasing responsibility for their planning, carrying them out and recording/interpreting the results.
We use home learning projects to support school and class activities. This relates to the school's overall homework policy.

Recording in Science

Children's recording will take many forms according to the nature of the activity:

- Verbal
- Pictorial
- Graphical
- Written
- I.C.T.
- Photographic

Assessment in Science

Topics commonly begin with an assessment of what children already know through a 'Knowledge Harvest' which then informs the starting point for the topic. At the end of the topic, children are given the opportunity to evaluate their learning journey.
We mark each piece of work according to the school's marking policy. Through AFL strategies children are involved in the process of self-improvement, recognising their achievements and acknowledging how their work could be further improved.
Pupils are also assessed in how well they can carry out investigations and conduct their own scientific enquiries. This is done through assessment in 'Working Scientifically' where teachers track the progress of individual pupils.

SEND in Science and Equal Opportunities

At Benthal, we ensure that science is taught within the guidelines of the school's SEN and Equal Opportunity policies. Through adaptive teaching, we provide support and cater to the needs of SEN children and, in particular, those who have specific requirements.

Our expectations do not limit pupil achievement and assessment does not involve cultural, social, linguistic or gender bias. We recognise that science may strongly engage our gifted and talented children, and we aim to challenge and extend them.

The Role of the Science Leader

- Reviews changes to the National Curriculum requirements and advices on their implementation
- Leads in policy development and its impact on practice
- Monitors and reviews the teaching of science through regular formal and informal observations of teachers.
- Carries out regular planning checks to monitor the quality of planning in science and coverage of curriculum
- Provides guidance and feedback on teaching, planning, marking, work in books and learning outcomes in each year group.
- Promotes Science in its links to other subject areas.
- Maintains consistent tracking data on progress for KS1 & KS2 and identify trends, using this to inform action planning and feedback to SLT.
- Regularly conducts pupil interviews to monitor Pupil Voice and consider the outcomes for improving provision in the subject.
- Leads staff training and CPD, orders and manages resources and, crucially, champions the subject across the school, raising its profile and ensuring that initiatives are shared with all staff and modelled to the highest of standards.
- Attends regular CPD courses for Science as appropriate in line with the School Development plan.