Broadbent Fold Primary School

and Nursery

Science Policy

November 2025

Rationale

In-line with the Equalities Act (2010) we aim to ensure that any child, irrespective of protected characteristics (age, gender including intersex and transgender, ethnicity or sexuality including gay, lesbian, bisexual, transsexual and transvestite) is treated fairly and with respect. The law states that the public sector equality duty includes a general duty to, "Foster good relations between people who share a protected characteristic and those who do not."

Science stimulates and excites a child's curiosity of phenomena and events in the world around them. Science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live through investigation, as well as using and applying process skills. Science can also be a collaborative activity where ideas and suggestions are shared and investigated together. Through Science, children understand how major scientific ideas contribute to technological change impacting on industry, business and medicine and improving the quality of life. Children recognise the cultural significance of science and trace its world-wide development. They learn to question and discuss science-based issues that may affect their own lives, the direction of society and the future of the world.

Aims

Our aims in teaching Science include:

- preparing our children for life in an increasingly scientific and technological world.
- fostering concern about, and active care for, our environment.
- acquire a growing understanding of scientific ideas.
- helping children develop, model and evaluate explanations through scientific methods of collecting evidence using critical and creative thought.
- developing and extending children's scientific concept of their world.
- developing children's understanding of the international and collaborative nature of science.

Our Curriculum

Science is a core subject in the National Curriculum. The table below outlines the long-term planning overview in accordance with the National Curriculum.
Science planning ensures progression between year groups and guarantees topics are revisited. Teachers adapt and modify plans to suit children's interests, current events and their own teaching style, utilising all available resources.

Spoken language

The Science National Curriculum recognises the importance of spoken language in a child's development. The quality and variety of language children hear and speak are key factors in developing their scientific vocabulary. Teachers use 'Vocabulary Ninja' resources to develop key scientific vocabulary and through 'Word of the Day' activities.

Children are encouraged to make their thinking clear; both to themselves and others, teachers ensure that children build on secure foundations by using probing questions and remedying misconceptions.

How Science is structured throughout the school

Planning for Science is a process in which all teaching staff are involved in. Delivering a broad and balanced Science education to our children is a core principle of our 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. Teachers use the 'Knowledge Matrices' from the 'Plan Assessment' resources to build on previous learning; use key science vocabulary; provide progression' and address common misconceptions in science.

EYFS

Children work towards the ELGs (Early Learning Goals) to help them learn about living things, materials and physical phenomena. They use first hand experiences to help them make sense of scientific ideas. Science makes a significant contribution to the ELGs in developing a child's knowledge and understanding of the world, looking at areas of technology, the world, people and communities. At the end of EYFS a judgement is made as to whether a child is Emerging, Expected or Exceeding ELGs. Teachers use the Plan EYFS matrices as a guide to introduce children to the foundational knowledge of science that they will need in order to be well-placed to access the science National Curriculum at Key Stage 1. The content in these matrices is from 'Development Matters'.

Key Stage 1

Science Topics Key Stage 1	
Year 1	Year 2
Plants	Plants
Animals including humans	Animals including humans
Everyday materials	Living things and habitats
Seasonal changes	Uses of everyday materials

In Key Stage 1 children observe, explore and ask questions about living things, materials and physical phenomena. They begin to work together to collect evidence to help them answer questions and to link this to simple scientific ideas. They observe changes over time, notice patterns, group and classify, carry out simple comparative tests and find things out through secondary resources such as books, photographs and videos.

Key Stage 2

In Key Stage 2 children learn about a wider range of living things, materials and physical phenomena. In Lower Key Stage 2 they broaden their scientific view of the world around them and in Upper Key Stage 2 they develop a deeper understanding of a wide range of scientific ideas.

They make links between ideas and explain things using models and theories. They apply their knowledge and understanding of scientific ideas to familiar phenomena, everyday things and their personal health. They think about the effects of scientific and technological developments on the environment and in other contexts. They carry out more systematic investigations, working on their own and with others. They use a range of reference sources in their work. They talk about their work and its significance, using a wide range of scientific language, conventional diagrams, charts, graphs and ICT to communicate their ideas.

Science Topics Key Stage 2			
Year 3	**Year 4**	**Year 5**	**Year 6**
Plants	Animals including humans	Animals including humans	Animals including humans
Animals including humans	Living things and habitats	Living things and habitats	Living things and habitats
Forces and magnets	States of matter	Properties of materials	Electricity
Light	Electricity	Forces	Light
Rocks	Sound	Earth and Space	Evolution and inheritance

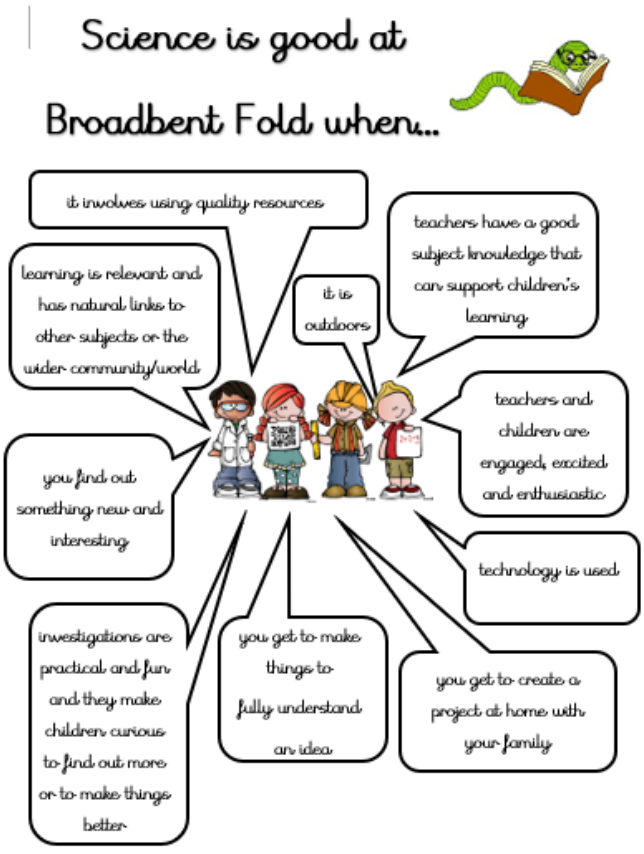
Our approach to science

- We use the 'Plan assessment' and 'Teacher Assessment in Primary Science' (TAPS) resources as a guide to teaching science across the school.
- We strive to use enquiry-based learning in science using the 5 scientific enquiry types: identifying, classifying and grouping; pattern seeking; comparing and fair testing; observing over time; and research using secondary sources.
- We plan activities which inspire the pupils to experiment and investigate the world around them and to help them raise their own questions such as "Why...?", "How...?" and "What happens if...?"
- We ensure lessons make effective links with other curriculum areas and subjects, especially English, Maths, Design Technology and Physical Education. Science teaching incorporates many of the skills used in English such as reading, writing, speaking and listening. Children enhance their Maths skills by developing their ability to problem solve, measure, and represent and analyse information in charts and graphs.
- ICT is widely used in science. Children are given the opportunity to practice science skills using carefully chosen software. ICT is used for research and enquiry work with equipment such as iPads and data loggers.
- Homework is used to support school and class activities which relates to the school's overall homework policy.
- Trips and visitors are linked to science with an aim to promote STEM (Science, Technology, Engineering and Mathematics) in the community and beyond.

Teaching staff have an agreed set of principles to ensure consistency throughout school. These are as follows:

Principles of Practice

- All new science units begin with the class topic overview to identify the unit of work being covered with other curriculum links.
- Science work can be taught weekly in a set lesson or can be blocked together. All work must be dated.
- The school's marking and feedback policy must be adhered to and all work should be marked to science (e.g. good use of scientific vocabulary). Self and peer assessment should be evident where appropriate.
- Different strands of Working Scientifically should be applied as often as possible where relevant.
- At least 2 practical investigations should be taught every half term. These can be evidenced in various ways: photographs on the See-saw app; using diagrams; or written explanations.
- Worksheets should be kept to a minimum. If used they should be current, dated and adapted accordingly. Any reference to a scheme of work has to be removed.
- within the half term of teaching there should be evidence of at least two links to mathematics.
- Writing and presentation in science books should be comparable to work in English and maths books.
- Classroom displays should be updated to represent the current theme with relevant vocabulary shown.



Assessment and recording in science

We use assessment to inform and develop our teaching.

- We Assess for Learning (AfL). Children are involved in the process of self-improvement, recognising their achievements and acknowledging where they could improve. Activities during, and at the end of, each topic record achievement and celebrate success.
- We mark work positively, making it clear verbally, or on paper, where work is good and how it could be further improved. Children's work is compared with age-appropriate exemplification. The 'Plan assessment' examples of work and 'TAPS' resources are used to aid assessment in science and as a basis for moderating ARE work in science. The Subject Leader moderates' children's work regularly to ensure consistency. Assessment records are reviewed regularly.
- We have a tracking system to follow children's progress. The school Science leader monitors progress through the school by sampling children's work at regular intervals. Children who are not succeeding, or children who demonstrate high ability in science, are identified and supported.
- Assessment data is used to highlight areas where intervention or catch-up work is needed. Equally important is the continuous assessment of children's work, much of which is informal. This assessment is used to inform teaching throughout the school.
- The Year 2 and Year 6 staff assess children's attainment and progress at the end of each Key Stage. This is based on assessment records and work samples from across the Key Stage and is supported by the Science leader and previous class teachers if needed.
- Written reports to parents are completed once a year, describing each child's attitude to science, his/her progress in scientific enquiry and understanding of the content of science. Interim parents' meeting also discuss children's level of achievement in science.

Review

This Science policy will be reviewed by the Science leader and the Senior Leadership Team.

Date for next review of this document November 2027.