SCIENCE POLICY

BUTTSBURY
PRIMARY SCHOOL
AN ACADEMY SCHOOL

Approved by:	Full Trust Board
Last reviewed on:	Summer 2025
Next review due by:	Summer 2028

Aims

- To develop pupils' enjoyment and interest in science.
- To develop pupils' understanding of key scientific concepts and scientific skills.
- To enable pupils to effectively communicate scientific ideas by using scientific vocabulary.
- To develop positive attitudes which encourage collaborative learning and perseverance.
- To develop pupils' awareness of how science influences and affects our everyday lives.
- To prepare pupils for life in an increasingly scientific and technological world, both today and in the future.

Attitudes

- Encouraging the development of 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 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.
- Providing opportunities for pupils to think deeper into the subject and use what has been learnt in a new situation.

Statutory Requirements

Statutory requirements for the teaching and learning of Science are laid out in The National Curriculum in England Framework Document, September 2013.

Intention, Implementation and Impact

Intention

At Buttsbury Primary School the **intent** of our Science curriculum is to encourage children to be knowledgeable and inquisitive about the world around them, to ask questions through a variety of tasks that include practical scientific enquiry, make and record observations, apply their learning to the 'real world', form reasonable conclusions based on observations and results (both orally and in written form) and build upon their previous learning. This is conducted with consideration to keeping safe in Science.

Implementation

We have a broad and balanced science curriculum where children are given rich, vibrant and meaningful opportunities, both inside and outside of the classroom, within a curriculum that is ambitious for all learners.

Units of learning are blocked, well sequenced and build on previous learning both within KS1 and KS2 and through the area of Understanding the World in EYFS.

Lessons ensure that progress is achieved through small steps, allowing children to develop their subject knowledge, consolidate skills and apply their learning.

Strands in Science include:

- for EYFS science is covered under the Understanding the World, The Natural world area of the curriculum. A sample of the themes for focus are: observation, asking questions, plants, animals and natural objects, seasonal changes, growth and decay, contrasting environments and changing states of matter.

- for KS1: Working Scientifically, Animals including Humans, Everyday Materials, Properties and Change of Materials, Plants, Weather and Seasonal Changes, Living Things and their Habitats.

- for KS2: Working Scientifically, Animals Including Humans, Rocks, Light, Forces and Magnets/Forces, Living things and their habitats, States of Matter/Properties and changes of materials, Sound, Electricity, Earth and Space and Evolution and Inheritance.

Impact

Our curriculum encourages children to be inquisitive and enthusiastic about the world around them. By learning about the wider world, children will have a greater scientific understanding of the world they live in. As a result of our Science curriculum, children are equipped with the necessary knowledge and skills for the next stage of their education at secondary school.

Scientific Enquiry

Science is taught with an emphasis on the pupils engaging in practical enquiry to support and develop their understanding of scientific concepts and skills. Teachers use a range of strategies including: exploration, investigative enquiry and illustrative enquiry. Teachers try to ensure that the children's ideas are used as a basis for enquiry.

Early Years Foundation Stage (EYFS)
During the Early Years Foundation Stage, young children are given opportunities to develop their scientific skills within the Early Learning Goals for Understanding the World. Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding in science.

Key Stage 1
After carrying out class and group investigations in Year 1, children are taught how to record their scientific findings using different methods, these are all initially modelled by the teacher in order to develop these skills for more independent recording in Year 2. The use of scientific vocabulary when recording is encouraged and reinforced during lessons and through teacher modelling.

Key Stage 2
Children are encouraged to record their investigations using the relevant process skills which are introduced in Year 3, further developed in Year 4 and fully utilised in Years 5 & 6. This is essential if children are to be enabled to show their knowledge and understanding of a scientific concept, using the correct scientific vocabulary.

Equal Opportunities in Science

- Science is taught within the guidelines of the school's equal-opportunities policy.
- We ensure that all our children have the opportunity to gain science knowledge and understanding regardless of gender, race, class, physical or intellectual ability.
- Our expectations do not limit pupil achievement and assessment does not involve cultural, social, linguistic or gender bias.
- We aim to teach science in a broad global and historical context, using the widest possible perspective and including the contributions of people of many different backgrounds.
- We value science as a vehicle for the development of language skills, and we encourage our children to talk constructively about their science experiences.
- In our teaching, science is linked with English, computing, mathematics and DT.
- We recognise the particular importance of first-hand experience for motivating children with learning difficulties.
- We recognise that science may strongly engage our gifted and talented children, and we aim to challenge and extend them through high level questioning and deeper thinking using Blooms taxonomy and extension tasks.

Assessment and Recording in Science

- We use assessment to inform and develop our teaching.
- Areas commonly begin with an assessment of what children already know.
- End of unit quizzes are utilised to judge children's understanding and retainment of key knowledge within a particular topic.
- 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 where work is good by using ticks and smiley faces, in line with the school's marking policy.
- We track the children's progress and work is monitored at regular intervals.
- All children's needs are met through appropriate differentiation (including extension materials where appropriate).
- Informal assessment is continuous and used to inform teaching throughout the school.

Mastery

Effective mastery in Science encourages all pupils to think about the world around them and explain how and why things work, regardless of their ability.

Through higher order questioning in lessons and Bloom's questions in teacher feedback, this ensures that pupils are thinking and applying their understanding to new and increasingly more complex situations.

Pupils are given opportunities to apply their understanding of Science in practical activities in which they investigate an open-ended question. They will generate data and try to explain what it means and compare their data with others. Pupils who demonstrate Mastery, will be able to develop a question and consider ways in which it could be investigated.

In conclusions, pupils give well thought out reasons based on their results and consideration is given to how accurate and reliable the results are. The use of other curriculum areas will be used to develop ideas (e.g. mathematics is used to compare data or present the data as a graph when appropriate).

As a result of this, pupils have developed a deep understanding of the concepts covered including the social, moral, spiritual and cultural aspects as appropriate to the topic. Additionally, pupil will develop a resilient attitude towards Science and apply their understanding to new and different situations.