

John Blandy Primary School



Science Policy September 2025

Belong. Believe. Brilliant

Statements of Intent

At John Blandy Primary School, our science teaching and learning aims to provide rich opportunities for children to explore ideas and questions through working scientifically. We encourage children to see themselves as scientists, developing and deepening their conceptual understanding while building a toolkit of practical skills and scientific vocabulary that grows over time.

In teaching Science, we are developing:

- A positive attitude towards science and an appreciation of its fascination;
- Understanding through enquiry, investigation, and exploration;
- Confidence and competence in scientific knowledge, concepts, and skills;
- An ability to reason, predict, think logically and to work systematically and accurately;
- Clear and effective scientific communication;
- Initiative to work both independently and collaboratively;
- The ability to apply scientific understanding across the curriculum and in real-life contexts.

Implementation: Teaching and Learning

Science principles for science learning

Science is thriving at John Blandy Primary School when:

- Children apply their 'working scientifically skills' to solve problems, explore, observe, and investigate;
- They ask questions and collaborate to discover answers;
- Lessons spark curiosity and promote a sense of awe and wonder;
- Learning is enriched through outdoor learning, specialist visitors, and we have access to a range of resources;
- The children are involved in designing and carrying out investigations and can confidently share and explain their ideas and conclusions;
- Teachers foster enquiry by encouraging pupil-led questions and guiding research-based discovery.
- Thoughtful questioning supports inclusive participation and deepens understanding.
- Planning involves teachers creating engaging lessons, often involving a range of resources that build conceptual knowledge;
- Teachers use questioning, sticky learning and quizzes in class to test conceptual knowledge and skills and assess pupils regularly to identify gaps and inform teaching to support progress.
- Vocabulary and challenging concepts are introduced progressively, aligned with National Curriculum units;
- Working scientifically skills are embedded into lessons across all year groups.
- Scientific knowledge and understanding are revisited and reinforced at the end of each unit;
- Units follow a clear sequence, ensuring secure understanding before progression.

Scientific enquiry processes

The types of scientific enquiry include:

- Observing over time;
- Pattern seeking;
- Identifying, classifying, and grouping;
- Comparative and fair testing (controlled investigations)
- Research using secondary sources.

Pupils are given regular opportunities to seek answers to their own questions by collecting, analysing, and presenting data, developing both their scientific thinking and communication skills.

Spoken language

At John Blandy Primary School, science lessons provide a rich variety of subject specific language to support the development of children's confident and accurate use of scientific vocabulary. We aim to enable children to articulate scientific concepts clearly and precisely, strengthening both their understanding and communication skills.

Planning, resources, and recording

Planning is a collaborative process involving all teachers. Teachers use a range of high-quality online resources to support their planning, including Grammarsaurus, Twinkl, the Primary Science Teaching Trust, and Hamilton.

Evidence of effective science teaching includes:

- Children being encouraged to ask and answer questions and discuss their work and ideas;
- Children devising and conducting their own investigations within the context of the relevant curriculum content, as well as being given opportunities to develop their working scientifically skills;
- Children recording their findings in a variety of ways;
- Children showing enjoyment and engagement in the science learning and activities;
- Cross-curricular links that enrich science learning.

Science resources are used to support all units throughout all year groups. These are stored centrally, labelled and sorted into units, and easily accessible to staff. EYFS classrooms also contain a range of resources for child-led exploration. The school library holds a good selection of science books to support independent research.

At John Blandy Primary School, science learning is recorded and showcased in personal learning journeys in EYFS, class floor books in Key Stage 1, and individual science books in Key Stage 2.

Organisation

Science at John Blandy Primary School is taught weekly throughout Key Stage 1 and 2, using various programmes of study and high-quality resources to support learning. In addition to regular lessons, children benefit from enrichment opportunities, including participation in the annual Trust Science Fair.

Cross-curricular links with subjects such as maths, DT, and geography are actively encouraged, helping children to apply their scientific understanding in broader contexts and deepen their learning.

These science units will be covered for each phase		
KS1 – Year 1 and 2 <ul style="list-style-type: none">• Animals including humans• Plants• Living things and their habitats• Seasonal changes• Everyday materials	LKS2 - Year 3 and 4 <ul style="list-style-type: none">• Forces and magnets• Animals including humans• Rocks• Light• Plants• Living things and their habitats• Sound• States of matter• Electricity	UKS2 – Year 5 and 6 <ul style="list-style-type: none">• Living things and their habitats• Animals including humans• Properties and changes of materials• Earth and space• Forces• Evolution and inheritance• Light• Electricity

EYFS

In the Foundation Stage, science is primarily delivered through the ‘Understanding of the World’ strand of the EYFS curriculum. This involves guiding children to make sense of their physical world and their community through opportunities to explore, observe and find out about people, places, technology, and the environment.

Children’s progress is assessed against the Early Learning Goals, ensuring a strong foundation for scientific thinking and enquiry as they move into Key Stage 1.

Role of the Subject Coordinator

The science subject coordinator at John Blandy Primary School is responsible for monitoring the standards of children’s work across the school. They support colleagues in their teaching by sharing best practices, offering guidance, and staying informed about current developments in science education. The coordinator provides strategic leadership and direction for the subject, ensuring a consistent and progressive approach to science teaching.

They also oversee science resources, ensuring they are well-organised and accessible; suggest relevant trips, workshops, and enrichment opportunities to enhance learning; and provide ideas and support for embedding working scientifically skills into lessons across all year groups, ensuring these skills are developed progressively and meaningfully.

Impact

Science at John Blandy Primary School is progressive, challenging, and planned to meet the needs of all learners. We are ambitious in our approach, and we strive for the best possible outcomes in science for every child. Pupil feedback tells us that our children are enthusiastic, independent, and reflective scientists who engage confidently with a wide range of topics.

Assessment

Children's progress is continually monitored throughout their time at John Blandy Primary School and is used to inform future teaching and learning. By the end of each key stage, pupils are expected to know, apply, and understand the matters, skills and processes specified in the relevant units of study as set out in the National Curriculum. These are set out as statutory requirements. We also draw on the non-statutory requirements to extend our children and provide an appropriate level of challenge.

Children receive effective feedback through teacher assessment, both orally and through written feedback and questioning in line with the school marking policy. Each lesson begins with whole class feedback from the previous lesson, allowing teachers to address misconceptions, celebrate successes, and guide the next steps in learning.

Assessment for learning is continuous throughout the planning, teaching, and learning cycle and is carried out through a variety of methods, including:

- Observing children at work - individually, in pairs, in a group, and as a whole class.
- Questioning, talking with, and listening to children
- Reviewing work, materials, and investigation produced by children, alongside discussion.
- End of unit quizzes and assessments.

At the beginning of each unit the children identify what they know already about each topic. The path the unit of study takes is responsive to the children's starting points, as well as their specific interests. It also ensures a focus on the key identified knowledge of each topic. This key knowledge is revisited and checked at the end of each lesson and throughout the unit using assessment for learning strategies.

Children are also encouraged to reflect on their own learning, helping them to become more independent and aware of their progress as scientists.