



Science at Bibury C of E Primary School

Intent

At Bibury, one of the values underpinning our school vision is curiosity. This is key in science, where we aim to foster curious, enquiring minds and provide the means with which pupils can seek answers to their own questions.

We teach specific scientific concepts alongside skills and knowledge which will help them to think and act scientifically. We aim to develop an understanding of the uses and implications of Science, today and for the future.

Our science is planned carefully on a 2-yearly cycle so that the requirements of the National Curriculum are taught at an age-appropriate stage, with scientific topics revisited and developed throughout a pupil's journey through school so that there is clear progression in their understanding and skills.

Implementation

Our science teaching is planned using the Rising Stars 'Switched on Science' resources. This takes a practical and investigative approach to learning, whilst also ensuring that misconceptions are addressed and correct vocabulary is embedded in learning. This resource exceeds the requirements of the National Curriculum, including non-statutory units which engage pupil's curiosity and develop scientific thinking. Knowledge organisers identify the key skills, knowledge and vocabulary for each unit. Our progression of skills document ensures that teachers plan carefully to ensure an appropriate level of challenge.

We recognise the importance of science as a core subject and science lessons are timetabled weekly in each class. We also schedule scientific trips, and arrange for visiting experts where appropriate

Pupils are encouraged to continue their learning in their own time, for example, all pupils have produced a piece of work for entry into the science fair held annually (under normal circumstances) at Fairford Primary School.

Implementation – Acorns Class

In the early years, science is very much part of the children's experiential learning. They are encouraged to observe, question and suggest possible answers.

In years 1 and 2, science is taught as specific subject area within the context of their topic learning. This means that they will visit different areas of the science curriculum during each term in order to make this learning meaningful in relation to other concepts and experiences. Knowledge and understanding is taught alongside relevant vocabulary and pupils are encouraged to engage in practical and investigate activities to begin to experience how a scientist works. Careful questioning ensures that misconceptions are addressed and pupils are encouraged to deepen their conceptual understanding.

Implementation – Oaks Class

In order to ensure that scientific topics are taught within the key stage set out in the National Curriculum, Oaks Class are divided into two groups for science lessons (lower key stage 2 – Oaks and upper key stage 2 – Mighty Oaks). Lessons include a mix of teaching (knowledge and understanding) and practical investigative activities. We ensure that investigations are only carried out once pupils have a sound grasp of the concepts involved.

Pupils are encouraged to suggest their own ways of finding answers to questions they have posed, including carrying out fair testing, recording, interpreting and drawing valid conclusions. They are also encouraged to share their findings in different ways.

Impact

The high priority given to science in our school and the quality of the curriculum ensures that pupils have opportunities to gain understanding of all areas indicated in the National Curriculum as well as enrichment units which deepen their knowledge, skills and interest in the subject.

We measure progress and attainment regularly using

- Pupil discussions about their learning
- Assessment for learning during lessons
- End of unit assessments (written at KS2)
- Annual formal assessments using GL resources for KS2

The subject leader and governors monitor impact by book scrutiny, discussions with pupils and lesson observations.

As a result, our pupils are enthusiastic, confident and competent scientists, ready to engage with and question the world around them, making sense of their experiences by recognising links with the concepts they have learned at school.