

## Bow Community Primary School Science Vision Statement



The 2014 National Curriculum aims to ensure that all children:

- develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics
- develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the **uses and implications of science**, today and for the future.

At Bow Community Primary School, we aim to prepare our pupils for life in an increasingly scientific and technical world by providing them with a high-quality Science education through the specific disciplines of biology, chemistry and physics. When planning and delivering the science curriculum at Bow Community Primary School, we aim to foster and develop our pupils' curiosity in this subject by encouraging them to be inquisitive and asking questions about what they notice to broaden their scientific view of the world around them. Our progressive science curriculum enables pupils to experience and observe phenomena whilst acquiring and developing the key knowledge identified across the year groups. We ensure that the 'Working Scientifically' skills are built-on and developed throughout a child's time at the school and that these skills are taught through and clearly related to the teaching of substantive science. We make sure that in our science lessons, teachers use a variety of science specific language and encourage pupils to articulate scientific concepts clearly and precisely. We intend to provide all children regardless of ethnic origin, gender, class, aptitude or disability, with a broad, balanced and exciting science curriculum.

### Implementation

- In ensuring high standards of teaching and learning in science, we implement a curriculum that is progressive throughout the whole school.
- Planning for science is a process in which all teachers are involved to ensure that the school gives full coverage of, 'The National Curriculum programmes of study for Science 2014' and, 'Understanding of the World' in the Early Years Foundation Stage.
- Due to mixed age year groups in our school, our Science units are carefully mapped out to build on prior knowledge whilst ensuring that our pupils cover the relevant topics by the end of their particular key stage.
- Where possible, Science is linked to class topics, but will also be taught as discrete units and lessons where needed to ensure coverage.
- Each teacher has an excellent knowledge of the prior learning required for each topic, and knows what learning will follow. This enables children to develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage.
- Science teaching at Bow Community Primary School involves adapting and extending the curriculum to match all pupils' needs.
- The quality and variety of language that pupils hear and speak are key factors in developing their scientific vocabulary and articulating scientific concepts clearly and precisely. With this in mind, teachers are provided with the vocabulary needed for each

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key area and this will be displayed in the classroom throughout the duration of the area being taught.

### **Language in Science**

The national curriculum for science reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their scientific vocabulary and articulating scientific concepts clearly and precisely. They must be assisted in making their thinking clear, both to themselves and others, and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

Pupils should be able to describe associated processes and key characteristics in common language, but they should also be familiar with, and use, technical terminology accurately and precisely. They should build up an extended specialist vocabulary:

- Key stage 1: Pupils should read and spell scientific vocabulary at a level consistent with their increasing word reading and spelling knowledge.
- Lower key stage 2: Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge.
- Upper key stage 2: Pupils should read, spell and pronounce scientific vocabulary correctly.