



Reviewed July 2024

## **St Bertoline's Church of England Primary School**

### **Science Curriculum Statement**

#### **Intent**

The 2014 National Curriculum for Science aims to ensure that all children:

- Develop scientific knowledge and conceptual understanding through 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 skills required to understand the uses and implications of science, today and for the future
- We understand that it is important for lessons to have a skills-based focus, built on foundation of supporting knowledge

Through Developing Experts and the teaching of science, children are encouraged to be inquisitive throughout their time at school and beyond. The Science curriculum fosters a healthy curiosity in children about our universe and promotes respect for the living and non-living. We believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes. Throughout the programme of study, the children will acquire and develop the key knowledge that has been identified within each unit and across each year group, as well as the application of scientific skills. We ensure that the 'Working Scientifically' skills are built-on and developed throughout children's time at the school so that they can apply with knowledge of science when using equipment, conducting experiments, building arguments and explaining concepts confidently which enable them to continue to ask questions and be curious about their surroundings.

#### **Implementation**

Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science. Our whole school approach to the teaching and learning of science involves the following;

- Science will be taught, planned and arranged in topic blocks using the Developing Experts scheme of work, as well as adaptations by the class teacher. This is a strategy to enable the achievement of a greater depth of knowledge. Resources including 'Stretch Activities' and 'Rocket Thinking'.
- Through our planning, we involve problem-solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom. Planning involves teachers creating engaging lessons, involving high-quality resources to aid understanding of conceptual knowledge.  
Teachers use precise questioning in class to test conceptual knowledge and skills and assess children regularly to identify those children with gaps in learning, so that all children keep up.
- We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.
- 'Working Scientifically' skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years in keeping with the topics. As the scheme has incorporated a range of science investigations in the planning, children are being taught the range of skills required to 'work scientifically' in addition to the knowledge coverage.
- Teachers demonstrate how to use scientific equipment, and the various 'Working Scientifically' skills in order to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning and workshops with experts including local high school, visits from experts and residential school trips.
- End of unit assessments enable children to celebrate their learning and ensure that misconceptions are addressed to enhance their knowledge and understanding across the curriculum.

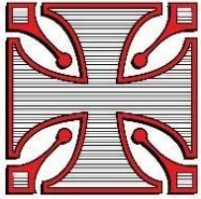
## **Impact**

The successful approach at Developing Experts results in a fun, engaging, high-quality science education that provides children with foundations and knowledge for understanding the world. Our engagement with the local environment ensures that children learn through varied and first-hand experiences of the world around them. Frequent, continuous and progressive learning outside the classroom is embedded throughout the science curriculum. Through various workshops, trips and interactions with experts, children have the understanding the science has changed our lives and

that it is vital to the world's future prosperity. Children learn the possibilities for careers in science, as a result of expert films and curriculum links to industry. This ensures that children have access to positive role models within the field of science from a range of science disciplines and Stem related industries. From this exposure to a range of different scientists from various backgrounds, all children feel they are scientists and capable of achieving. The use of Developing Experts aims to ensure every child enjoys science which results in motivated learners with sound understanding.

Useful links:

[Developing Experts](#)



## **St Bertoline's Church of England Primary School**

### **Science Curriculum Statement in EYFS**

In EYFS, Science is covered through the 'Understanding the World' area of the EYFS curriculum. It is introduced indirectly through activities that encourage every child to explore, problem solve, observe, predict, think, make decisions and talk about the world around them. Early Years teachers create a positive attitude to science within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science. The EYFS Curriculum Overview outlines what children will learn throughout the year.

Developing Experts may be used in EYFS to engage children using images, videos and key vocabulary according to the children's interests or to link with other topics being taught in the provision.