



St Mary Magdalene C of E School  
with  
Christ Church C of E Primary School

# Science Policy

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“A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.”

## **National Curriculum Statement: Science 2014**

### **Science National Curriculum**

We aim in teaching to ensure 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

### **Organising and Planning for Science**

The school makes use of the new curriculum scheme of work for Science as the basis of its curriculum planning. We plan the learning in science so that it builds upon prior knowledge and learning. It ensures that there are opportunities for children of all abilities to develop their skills and knowledge so that the children are increasingly challenged as they move up through the school.

### **Teaching and Learning Style**

We use a variety of teaching and learning styles in science lessons. Our principle aim is to develop children's knowledge, skills and understanding. Sometimes we do this through whole-class teaching, but wherever possible we engage the children in an inquiry-based research activity. We encourage the children to ask, as well as answer scientific questions. They have the opportunity to complete and use a variety of data, such as statistics, graphs, pictures and photographs. They use ICT in science lessons where it enhances their learning. They take part in discussions and they present reports to the rest of the class.

They engage in a wide variety of problem-solving activities. Wherever possible, we involve the pupils in 'real' scientific activities.

We recognise that there are children of widely different scientific abilities in all classes. Therefore we ensure that we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child.

We achieve this in a variety of ways by:

- Setting common tasks which are open-ended and can have a variety of responses
- Setting appropriately matched tasks that are accessible but still motivate and challenge children's knowledge and learning
- Providing resources of different complexity, matched to the ability of the child
- Using classroom assistants to support the work of individual children or groups of children.

### **Early Years Foundation Stage**

We teach science in the EYFS through our learning themes. Science makes a significant contribution to developing a child's knowledge and understanding of the world. We aim to support children in developing the knowledge; skills and understanding that help them make sense of the world. We offer opportunities for them to use a range of tools safely, encounter creatures, people, plants and objects in their natural environments and in real-life situations, undertake practical 'experiments' and work with a range of materials.

We plan activities based on first-hand experiences that encourage exploration, experimentation, observation, problem solving, prediction, critical thinking, decision-making and discussion. Skills and knowledge are taught in the context of practical activities, for example; learning about the characteristics of liquids and solids by involving children in melting chocolate or cooking eggs. We encourage children to tell each other what they have found out, to speculate on future findings or to describe experiences. This enables them to rehearse and reflect upon their knowledge and to practice new vocabulary.

### **Monitoring and Assessment**

We assess children's work in science by making informal judgements as we observe them during lessons. At the end of a unit of work a summary judgement is made about the work of each pupil in relation to the National Curriculum level of attainment. The teacher records whether the child has achieved, excelled or has not reached the expected attainment targets for the unit.

### **Responsibilities of Healthy Living Team Leader**

- Provide a strategic lead and direction in Science
- Monitor standards of children's work and quality of teaching in science
- Support colleagues in the teaching of science

- Being informed about current developments in the subject
- Ensure children moving to up KS3 are suitable equipped for the developing curriculum

### **Every Child Matters**

Every Child Matters is a set of values, which underpin the school curriculum and the work of our school. We aim to provide a high standard of science teaching and learning regardless of gender, race, cultural background or any physical or sensory disability. Through setting suitable learning challenges and responding to pupils' diverse needs, we would overcome the barriers to learning and ensure all children have full access to science opportunities available at Christ Church CE Primary School.

### **Resources**

We have resource boxes for all of the science topics taught in the school. These are centrally stored in the Resource cupboard, on the ground floor. There is also a selection of topic books and posters to support children's individual research. All classes have a range of scientific non-fiction or reference books within their classroom to be utilised throughout the year. All laptops and classroom computers can access the Internet for online resources.