

Science – Curriculum Design

"If I have seen further it is by standing on the shoulders of Giants." – Issac Newton

Purpose of Study

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.

What are the aims of the subject?

The national curriculum for science aims to ensure that all pupils:

- 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.

Science At Rodbourne Cheney Primary School

At Rodbourne Cheney we believe that Science teaches an understanding of natural phenomena. It aims to stimulate a child's curiosity in finding out why things happen in the way that they do. It teaches methods of enquiry and investigation to stimulate creative thought. Pupils learn to ask scientific questions and begin to appreciate the way that Science will affect their future on a personal, national, and global level.

We use a variety of teaching and learning styles in Science lessons. Our principal aim is to develop pupil's knowledge, skills and understanding. We achieve this through whole-class teaching and enquiry-based research activities. Children are supported to remember more through vocabulary starters, which give children the opportunity to learn new vocabulary and recap vocabulary learned previously.

We encourage pupils to ask, as well as answer, scientific questions. They have the opportunity to use a variety of data such as statistics, graphs, pictures and photographs. We make cross-curricular links to other subjects, such as computing, providing opportunities to enhance learning. We ensure that pupils are enthused about Science though giving them the chance to take part in 'real' scientific activities. For example, children may research a local environmental problem or carry out a practical experiment, analysing the results. When possible, we endeavour to provide Science-based educational visits as well as seeking out a range of exciting and engaging Science activities to take place in school.