



Muxton Primary School

Science Curriculum

At Muxton Primary School, 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 children are taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, children are encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They are encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

Aims

The curriculum for science 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 Muxton School, children will be taught to describe associated processes and key characteristics in common language, but they will also become familiar with, and use, technical terminology accurately and precisely. They will build up an extended specialist vocabulary. They will also apply their mathematical knowledge to their understanding of science, including collecting, presenting and analysing data. The social and economic implications of science are important but, generally, they are taught most appropriately within the wider school curriculum: teachers use different contexts to maximise children's engagement with and motivation to study science.



Key Stage One

At Muxton School, the principal focus of science teaching in key stage 1 is to enable children to experience and observe phenomena, looking more closely at the natural and humanly-constructed world around them. They are encouraged to be curious and ask questions about what they notice. They will be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They will begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about science will be done through the use of first-hand practical experiences, but there will also be some use of appropriate secondary sources, such as books, photographs and videos.

	Autumn Term	Spring Term	Summer Term
Year 1	Ourselves & Our Senses Light & Dark Weather	Forces (Push and Pull) Materials (Space) Weather Forest Schools	Plants Habitats Weather
Year 2	Humans and Other Animals Everyday Materials Weather	Forces and Motion Building Materials Weather Forest Schools	Plant Growth Habitats Weather

Key Stage Two

Years 3 and 4

At Muxton School, the principal focus of science teaching in Year 3 and Year 4 is to enable children to broaden their scientific view of the world around them. They will do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They will ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They will learn to draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.



	Autumn Term	Spring Term	Summer Term
Year 3	Magnets Light and Shadows Forest Schools	Rocks and Soils	Animal and Human Systems Plant Systems
Year 4	Sound Animals and Habitats Cold Climates Forest Schools	Electricity	States of Matter Animals, including Humans Hot, Hot, Hot! (Rainforests)

Years 5 and 6

At Muxton School, the principal focus of science teaching in Year 5 and Year 6 is to enable children to develop a deeper understanding of a wide range of scientific ideas. They do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. Children will encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They also begin to recognise that scientific ideas change and develop over time. They select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information. Children will be taught to draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.

	Autumn Term	Spring Term	Summer Term
Year 5	Earth and Space Forces	Habitats and Living Things Animals including Humans Water	Properties of Materials Changing Materials Forest Schools
Year 6	Light Electricity	Materials Life and Living Processes	Changing Materials Earth and Space Forest Schools

