

Science at Ashmole Primary School



‘At Ashmole Primary School we believe that the science of today is the technology of tomorrow.’

Intent

At Ashmole Primary School we believe that 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. 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 importance 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.

Science in our school is about developing children’s ideas and ways of working that enable them to make sense of the world in which they live through investigation, as well as using and applying process skills. All children are exposed to high quality teaching and learning experiences thus developing their scientific enquiry and investigative skills. They are immersed in scientific vocabulary, which aids children’s knowledge and understanding not only of the topic they are studying, but of the world around them. We intend to provide all children with a broad and balanced science curriculum.

We ensure that all children are provided with rich learning experiences that aim to:

- 🎬 Prepare our children for life in an increasingly scientific and technological world today and in the future.
- 🎬 Help our children acquire a growing understanding of the nature, processes and methods of scientific ideas.
- 🎬 Help develop and extend our children’s scientific concept of their world.
- 🎬 Build on our children’s natural curiosity and developing a scientific approach to problems.

- 🎬 Encouraging open-mindedness, self-assessment, perseverance and developing the skills of investigation – including: observing, measuring, predicting, hypothesizing, experimenting, communicating, interpreting, explaining and evaluating.
- 🎬 Develop the use of scientific language, recording and techniques.
- 🎬 Develop the use of computing in investigating and recording.
- 🎬 Make links between science and other subjects.

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 the World' in the Early Years Foundation Stage. Science teaching at Ashmole Primary School involves adapting and extending the curriculum to match all pupils' needs. A variety of resources are used to support teachers in their planning and implementation of the science curriculum for their year. They plan so that they engage their children's interests, use support staff effectively and include current events where appropriate. Science is taught as discrete units and lessons where needed to ensure coverage. Science is taught as a blocked subject to ensure children develop the skills and knowledge from that topic. Ashmole Primary School also encourages all year groups to participate in Science Week every year giving the children an opportunity to focus on making science creative and to raise its profile, by exploring ideas and investigating scientific concepts.

Impact

The pupils at Ashmole Primary School develop a rich and deep subject knowledge of Biology, Chemistry and Physics. They are able to explore the breadth and depth of the National Curriculum by the time they complete Year 6 through our coherent and progressive framework of learning. The children are able to build on their understanding of previous topics to value what they have learnt and see its relevance to their past, present and future. Our pupils experience the challenge and enjoyment of learning through carrying out different investigations which allows them to not only develop scientific skills, but also to develop and demonstrate their creativity.

Science Week is a time where children are able to develop their skills in Science through different contexts and apply their learning in unfamiliar contexts.

Science naturally enables and fosters children's curiosity. At Ashmole Primary School we have enhanced this through the exploration of 'KWL' boards. This allows the children to focus their ideas and express their predictions and understanding of what the answers could be.

We encourage enrichment opportunities beyond the classroom by going on trips, to help give children first-hand experience of Science. We also have a Wildlife garden which can be used by all year groups and offers a great space for planting vegetables and mindfulness sessions.