



Esh Winning Primary School

Science Policy

Introduction

At Esh Winning Primary School, we believe that Science is a group of skills-based processes, as well as a collection of facts and ideas. These skills are the ones that all children need to discover in order to learn more about the world around us. Science is one of the core subjects in the National Curriculum. The school policy for Science reflects the opinion and high-quality teaching and learning of the staff, who ensure that they are delivering broad scientific experiences for every child.

Aims and Objectives

A high-quality Science education provides foundations for understanding the world. Through building key knowledge and understanding of concepts, pupils should be encouraged to recognise the power of explanation and develop a sense of curiosity about natural phenomena.

- For staff to work cooperatively and together with outside agencies to deliver a broad and balanced Science education which incorporates a range of learning styles to suit individual needs.
- For children to become curious about the world around them and the things that they observe, experience and explore.
- For children to use their experiences to develop understanding of key scientific ideas through enquiry.
- For children to develop skills of sorting, classifying, planning, predicting, questioning and drawing conclusions from a range of activities.
- For children to acquire and refine practical skills necessary to investigate ideas and questions safely.
- For children to use progressively technical scientific vocabulary and draw diagrams and charts to communicate scientific ideas.
- For children to use a range of media including ICT to extract and present scientific information.
- For children to develop an understanding of how to respect the environment and living things, including themselves and each other.
- For children to develop responsibility for their own health and safety and that of others when undertaking scientific activities.

Cross-curricular Skills and Links

Science pervades every aspect of our lives and we will relate it to all areas of the curriculum. We will also ensure that pupils realise the positive contribution of both men and women to science and the contribution from those of other cultures. We will not only emphasise the positive effects of science on the world but also include problems, which some human activities can produce.

National Curriculum Coverage



All staff in Key Stage 1 and Key Stage 2 will access science following the National Curriculum guidelines and programmes of study. Children in Reception will follow the Early Years Foundation Stage curriculum. Coverage by Key Stage 1 and 2 classes is planned to include major areas from each of the programmes of study

Early Years Foundation Stage: Science is an integral part of topic learning and should be embedded throughout activities. At this stage, the 'understanding the world' area of learning commands at least one hour of structured time per week and is evident throughout other learning tasks. Cross-curricular links will also be made to other subjects so that pupils can develop and apply their scientific skills.

Key Stage 1: The main focus of science teaching in Key Stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should 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 should 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.

Lower Key Stage 2 – Years 3 and 4: The main focus of Science teaching in Lower Key Stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments and relationships and interactions. They should 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 fair tests and finding things out using secondary sources of information.

Upper Key Stage 2 – Years 5-6: The focus of Science teaching in Upper Key Stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. At Upper Key Stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. They should 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 fair tests and finding things out using a wide range of secondary sources of information. Pupils should 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.

Health and Safety

All teaching staff are conversant with the Health and Safety Policy and relevant regulations and plan accordingly. Teachers follow guidelines and take appropriate precautions. As a member of CLEAPSS, staff have access to up to date information to ensure that all children are safe during Science lessons. CLEAPSS advice and guidance, contained in publications such as Hazards and the Recipe book, is recognised by Ofsted and the HSE as the definitive basis for safe practice for practical work in schools.

Assessment and Progress



It is the responsibility of the class teacher to maintain an overview of each child's progress in Science. Throughout the school, teachers will assess whether children are working at/above or below the expected level for their age based on their understanding and application of the content of the National Curriculum 2014. Progress and attainment are reported to parents through parents' evenings and end of year reports.

Coordinators Role

The Science Coordinator's role is as follows:

- To be enthusiastic about Science and demonstrate good practises.
- To work alongside colleagues in planning where needed (progress and activities).
 - To work alongside teachers in the classroom (this will depend on release time and other available help), monitoring the planning and delivery of lessons.
- To coordinate and arrange staff in-service training as required.
- To audit resources, identify needs and order equipment in school after consultation with colleagues.
- To "sample" the work of children across the age range (curriculum monitoring).
- To review and evaluate the effectiveness of teaching and learning of Science, including opportunities for children to develop their spiritual, moral, social and cultural well-being.
- To provide guidance on the implementation of the Science policy.
- To suggest appropriate assessment activities where needed.
- To provide support to those colleagues who request/require it, including help with planning and organisation.