Edinburgh Primary School

Science Policy

Agreed Governors; 7 July 2026
Review date July 2028

Introduction:

This policy outlines the teaching, organisation and management of the Science taught and learnt at Edinburgh Primary School. The school's policy for Science follows The National Curriculum and the Early Years Foundation Stage Framework and 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 a variety of different scientific enquiries that help them to answer 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.
- are encouraged to understand how Science can be used to explain what is occurring, predict how things will behave, analyse causes and evaluate outcomes.

Aims:

A high-quality Science education provides the 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 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 practise mathematical skills and enhance literacy skills within real life contexts.
- For children to develop language skills through talking about their work and presenting their findings.
- For children to use progressively technical scientific and mathematical 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 work collaboratively with others, listening to their ideas and treating these with respect.
- 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.

Teaching and Learning:

To provide adequate time for developing scientific knowledge, skills and understanding, each teacher will provide weekly Science lessons. Teachers base their planning on the programmes of study for their relevant year groups and identify the most appropriate teaching strategy to suit the purpose of each particular learning situation.

Our school aims to strongly encourage learning through investigation, with an emphasis on first-hand experience. Science lessons will typically contain some of the following elements: discussion; whole class, group or individual learning; practical, investigative tasks; recording; communicating.

Foundation Stage: Science is an integral part of learning and is embedded throughout learning related to understanding the world.

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. Children 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 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 is done through the use of first-hand practical experiences but there is also some use of appropriate secondary sources, such as books, photographs and videos.

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 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. Children 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. They draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out. 'Working scientifically' is always taught through and clearly related to substantive Science content in the programme of study.

Upper Key Stage 2 – Years 5-6: The main 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 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 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. Children 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 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.

School Overview of Science

The programmes of study for Science are set out in our long-term overview and corresponding curriculum maps on our website.

Assessment

Class teachers use both formative and summative assessment to check on each child's progress in Science.

Marking

Refer to the Whole School Marking Policy.

Resources

The school holds a central bank of teachers' resource books and frequently used resources including hand lenses, magnets, thermometers and measuring equipment. Children are encouraged to choose from a range of equipment and are trained in the safe and considerate use of animals, plants and consumable materials.

Health and Safety

The safe use of equipment and consideration of others is promoted at all times. The Association for Science Education publication, "Be Safe!", is used by staff as a point of reference for issues regarding health and safety. Risk assessments are carried out for any activities that are not usual school practice. When planning activities, safety issues are identified in detail in the weekly plans and acted upon accordingly. Children are made aware of safety issues and, where appropriate, the reasons behind them. Activities which take place away from the school's premises will require a separate risk assessment form to be filled in.

Monitoring and Evaluation

- The science leader monitors and evaluates pupil progress, teaching and learning. The leader provides support to those colleagues who request/require it, including help with planning and organisation.