



SCIENCE POLICY

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Purpose

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

Aims

We believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability. Our aims in teaching science include:

- building on children's natural curiosity and developing a scientific approach to problems;
- encouraging open-mindedness, self-criticism, perseverance and responsibility;
- foster concern about, and appreciation of, our environment;
- building children's self-confidence to enable them to work independently and developing their social skills to work co-operatively with others;
- helping children acquire a progressive understanding of scientific processes;
- helping children to acquire practical scientific skills;
- provide children with an enjoyable experience of science.

Teaching and Learning

We use a variety of teaching and learning styles in science lessons. Our principal aim is to develop children's knowledge, skills and understanding. This is mainly through whole-class teaching, and engaging the children in enquiry-based research through practical activities. Talking partners are frequently used to encourage children to explore and develop their ideas through discussion with a partner. We encourage the children to ask, as well as answer, scientific questions. They have an opportunity to use a variety of data, such as statistics, graphs, pictures and photographs. Science provides a perfect opportunity for children to consolidate their maths skills. I.C.T. is used to enhance learning.

We teach a broad, balanced topic based curriculum to all children, whatever their ability and individual needs. We strive to meet the needs of those pupils with special educational needs, disabilities, special gifts and talents, and English as an additional language. We recognise that in all classes children have a wide range of scientific abilities, and we ensure that we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this in a variety of ways:

- setting tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty;
- grouping children by ability, and setting different tasks for each group;
- providing resources of different complexity, matched to the ability of the child;
- Using TA's to support the work of individual children or groups of children.

Science will be resourced as comprehensively as possible within the financial constraints of the school budget. During a lesson science resources need to be accessible and organised where children can see them and be stimulated by what is available.

Pupils may work in the classroom individually, in small groups or on whole class activities, as appropriate. Any group working outside the classroom must be supervised. Science is taught by the class teachers, assisted by TAs, other adults or specialists as appropriate. Children will be encouraged to work in an economical, responsible, safe and hygienic way. Children will be made aware of health and safety procedures relevant to the task they are undertaking by the class teacher and will be supervised appropriately.

Homework is set as required but is not an essential part of the science curriculum.

Foundation Stage

We teach science, in Foundation Stage as an integral part of the topic work covered during the year. We relate the scientific aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five.

The contribution of science teaching to other curriculum areas:

Literacy

Science actively promotes the skills of reading, writing, speaking and listening. The children develop oral skills in science lessons through discussions and through recounting their observations of scientific experiments. The use of talking partners during lessons allows children to discuss, share and develop their ideas with a partner. They develop their writing skills through writing reports and recording information.

Numeracy

Science allows opportunities to use and apply number when using weights and measures. Through working on investigations they learn to estimate and predict. They develop accuracy in their observation and recording of events. Often recording involves numbers. It also allows opportunities for data handling when recording results from investigations.

Personal, Social and Health Citizenship Education (PSHCE)

The subject matter raises issues of citizenship and social welfare. There are also many opportunities to debate and discuss.

Spiritual, moral, social and cultural development

Science enables children to examine many of the fundamental principles in life and encourages them to develop a sense of awe and wonder regarding the nature of our world. It raises many social and moral questions, allowing opportunity for discussion. We give them the chance to reflect on the way people care for the planet, and how science can contribute to the way we manage the earth's resources. Science teaches children about the reasons why people are different and, by developing the children's knowledge and understanding of physical and environmental factors, promotes respect for other people.

Management Support

The Science Leader will ensure that all staff are conversant with the school's Health and Safety Policy and is responsible for updating risk assessments linked to science teaching.

Monitoring of the standards of children's work and of the quality of teaching in science is the responsibility of the science leader. This involves observing lessons, monitoring planning and children's work and discussion with teachers and pupils. The work of the science leader also involves supporting colleagues in the teaching of science, being informed about current developments in the subject, providing a strategic lead and direction for the subject in School and being aware of standards in science across the School. Where areas for development are identified, appropriate training will be given.

Equal Opportunities

Scott Lower School is committed to working towards equality of opportunity for all children regardless of age, ability, gender, race and social circumstances. All pupils are of equal value and have the same right to take part in the varied activities and opportunities wherever possible. All opportunities for learning should be offered in a way which allows all children access and the ability to progress at their stage of understanding.

Disability Discrimination

Scott Lower School is committed to having due regard to the following

The Equality act 2010 places a duty on all public authorities, including schools, when carrying out their functions, to have due regard to the need to:

- Promote equality of opportunity between disabled persons and other persons
- Eliminate discrimination that is unlawful under the Act
- Eliminate harassment of disabled persons that is related to their disabilities
- Promote positive attitudes towards disabled persons
- Encourage participation by disabled persons in public life
- Take steps to take account of disabled persons' disabilities, even where that involves treating disabled persons

more favourably than other persons.