

Science Policy

‘Together we unlock potential and learn for life’



Moor First School

**This policy was approved by the Governing Body of Moor
First School at their meeting on:**

Signed Chair of Governors

Signed Co-Head Teacher

Signed Co-Head Teacher

SignedCurriculum Leader

Review Frequency
Every 3 years

Next review
November 2025

Introduction

This policy outlines the teaching, organisation and management of science taught at Moor First School. The school's policy for science is based on the primary curriculum. The implementation of this policy is the responsibility of all teaching staff.

Teaching Science

At Moor First we believe that the best science teaching fosters and develops children's curiosity in the subject whilst also helping them to fulfil their potential. To achieve in science, our children need to acquire scientific knowledge but also enjoy the experience of engaging and purposeful scientific enquiry, which will help them to ask and answer scientific questions about the world around them.

The National Curriculum states why we teach science in schools:

'A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics...Through building up a body of key foundational knowledge and concepts, children should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena.'

Aims & Vision

At Moor First School we hold the vision that through high quality science teaching, we will:

- Develop children's sense of enquiry & extend their skills, concepts and knowledge.
- Give children first hand experiences and the chance to investigate and develop their enthusiasm for science so that they can understand the uses and implications of science, today and for the future.
- Encourage children to develop a sense of awe and wonder about how the world works and give them the opportunity to ask and answer scientific questions about the world around them.

We aim to do this by:

- Delivering high quality, interesting and engaging science lessons;
- Using scientific contexts to develop and consolidate learning across the curriculum (including English, maths and ICT) and link science to class topics where possible;
- Developing and extending children's scientific knowledge and understanding;
- Developing children's ability to work scientifically and involve children in planning, carrying out and evaluating investigations;
- Developing children's scientific vocabulary and ability to articulate scientific concepts clearly and precisely;
- Ensuring that all children are appropriately challenged to make good progress in science.

Planning, Teaching and Learning

At Moor First School, teachers plan and deliver high-quality and engaging science lessons incorporating a range of teaching and learning styles. Teachers will provide opportunities for children to:

- Learn about science, where possible, through first-hand practical experiences;
- Build on their prior knowledge as they progress through the school;
- Develop their research skills through the appropriate use of secondary sources;
- Work collaboratively in pairs, groups and/or individually;
- Plan and carry out investigations with an increasing systematic approach as they progress through the school;
- Ask their own questions and answer them through research or practical enquiry;
- Develop their questioning, predicting, observing, measuring and interpreting skills;
- Record their work in a variety of ways e.g. writing, diagrams, graphs, tables;
- Use, read and spell scientific appropriate for their age;
- Learn about science using the outdoor learning environment;
- Access science across the curriculum, through cross curricular learning;
- Take part in science enrichment activities, including trips, visitors to school, whole school science days etc.

Science in the Early Years Foundation Stage is planned using the Early Years Foundation Stage framework 'Understanding of the World'. Understanding of the World covers; Past and Present, People, Culture and Communities and The Natural World but has a main focus on The Natural World.

The children will be given lots of opportunities to construct and use simple tools and techniques appropriately, to explain their own knowledge and understanding and to ask questions about why things happen and how things work.

Key Stage 1 and 2 teachers plan science lessons using the National Curriculum (2014). The science topics planned for cover the disciplines of biology, chemistry and physics and are in line with the programme of study outlined in the National Curriculum, with the key assessment criteria being used to support lesson planning and give learning objectives. 'Twinkl', 'Hamilton Trust', 'Plan Bee' and 'Espresso' are also used to support science planning. Science is taught in two mixed classes, KS1 (year one and two) and KS2 (year three and four). Science topics are taught through a two year rolling programme, ensuring that the full National Curriculum programme of study for each key stage is covered over two years. 'Working scientifically' is described separately in the National Curriculum programme of study, but is taught through and clearly related to the teaching of our science topics.

Areas of Study

The following topics are covered through the two year rolling programme:

The following areas of learning are covered through the two year rolling programme:

KS1

Plants

Animals including humans

Everyday Materials

Seasonal changes.

Living things and habitats

KS2

Plants

Rocks

Light

Animals including humans

Forces & magnets

States of matter

Sound

Electricity

Living things and habitats

Some topics will be revisited in the two year rolling programme to cover additional content and to embed knowledge.

Working Scientifically (KS1 & 2):

'Working scientifically' specifies the understanding of the nature, processes and methods of science for each year group. 'Working scientifically' focuses on the key features of scientific enquiry, so that children learn to raise their own questions and to use a variety of approaches to answer relevant scientific questions. These types of scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources (with children being taught to analyse the reliability of their research when using online sources). Children should seek answers to questions through collecting, analysing and presenting data.

Inclusion

At Moor First School, teachers ensure that they adopt an inclusive approach to their science planning and teaching so that children have the same experiences, irrespective of culture, race, gender or disability. Children of all abilities and backgrounds have an equal opportunity to participate in science lessons, make good progress and enjoy

science. Activities will be differentiated to match children's needs and abilities and extension activities will be planned to stretch higher achieving children. Attainment of greater depth in reading, writing or maths may be achieved and evidenced through cross curricular science work.

Assessment

Science is assessed through ongoing Assessment for Learning (AfL) so that those responsible for delivering science lessons can gather information to inform their further teaching and planning. Children's science work will be marked before the following science lesson, so that any misconceptions or corrections can be dealt with promptly. Teachers provide quality feedback to children (verbal or written) which clearly identifies how they might need to improve and celebrates their successes.

Children's progress in science is recorded on our school assessment grids, which monitor children's progress alongside the key assessment criteria. These grids are used by teachers to monitor attainment in science and by the science subject leader to monitor science progression across the school.

In EYFS teachers assess science against the 'Development Matters' statements in the 'Understanding of the world' area of the Early Years Curriculum. The statements go from birth through to the Early Learning Goals at the end of Reception.

Children's attainment in science will be reported to parents in their summer term reports.

Further details of assessment are set down in the School's Assessment Policy.

Monitoring

Science at Moor First School is monitored through the following methods (undertaken by the science subject leader):

Short and medium term planning scrutiny.

Book scrutiny.

Science assessment grids.

Learning walks.

Child/ school council interviews.

Feedback from these will be given to teachers either verbally or through subject monitoring reports (which are completed termly).

Health and safety

- Teachers must plan safe activities for science and complete a risk assessment if necessary.
- Teachers and teaching assistants need to be aware of health and safety procedures when using equipment/food in science lessons.

- Children will be taught the required Health and Safety issues and how to carry out experiments safely. They must be aware of the need for personal safety and the safety of others during science lessons.
- Science taught at Moor First School complies with the A.S.E. 'Be Safe' Document (as recommended by the L.E.A.).
- Additional guidance can be found in the schools Health and Safety Policy.

Resources

- Science resources are stored in the science cupboard, located outside the foundation stage cloakroom.
- It is the responsibility of staff to take and return resources from the science cupboard.
- The subject leader must be informed of any changes regarding science resources i.e. missing or broken resources and/or when new or replacement resources are required.
- The school library contains books which support many different science topics. Children should be encouraged to use these to support their own research. Laptops, iPads and class computers are also an important resource for children to develop their scientific knowledge and understanding.

Review

The Head and staff will review this policy every three years.

Any suggested amendments will be presented to the governors for discussion at their first meeting following the review.

Next review date: November 2025