



Killamarsh Infant and Nursery School

Science Policy 2025-2026

Policy Details	
Last Updated by:	Sarah McMordie
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Next review date:	Summer 2026

Aims and Objectives.

At Killamarsh Infant and Nursery School we believe that Science is a body of knowledge built up through experimental testing of ideas. It is a practical way of finding reliable answers to questions we may ask about the world around us. Science in our school is about developing children's ideas and ways of working that enables them to make sense of the world in which they live through investigation, as well as using and applying scientific skills. We aim to stimulate a child's curiosity in finding out why things happen in the way they do and appreciate the way Science will affect their future on a personal, national and global level.

In teaching Science, we 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 knowledge of the world.
- Build on our children's natural curiosity and developing a scientific approach to problems.
- Encourage an open mind, self-assessment, perseverance and developing the skills of investigation.
- Encourage the development of a positive attitude to Science by providing our children with enjoyable experiences that help to develop a deep and lasting interest in the subject.
- Develop the use of scientific language, recording and techniques.
- Encourage our children to ask, as well as answer, scientific questions.
- Develop the use of computing in investigating and recording.
- Make links between Science and other subjects.

Statutory Requirements:

This policy is based on government documentation for statutory and non-statutory programmes of study. The statutory requirements for the teaching and learning of Science are laid out in The National Curriculum in England Programmes of Study and the Statutory Framework for the Early Years Foundation Stage,

January 2024. To remain in line with new initiatives that are introduced and guidance updates, it is recommended that this policy is reviewed before the start of every academic cycle as a minimum.

Intent.

At Killamarsh Infant and Nursery School, we recognise the importance of science in every aspect of daily life. As one of the core subjects taught in school, we give the teaching and learning of Science the prominence it requires through topic based teaching. In Early years, science is taught through the children learning about the world around them in their learning through play. We endeavour to ensure that the science curriculum we provide will give children the confidence and motivation to continue to further develop their skills into the next stage of their education and life experiences. The Scientific area of learning is concerned with increasing pupils' knowledge and understanding of our world, and with developing skills associated with science as a process of enquiry. It will develop the natural curiosity of the child, encourage respect for living organisms and the physical environment and provide opportunities for critical evaluation of evidence.

Our Science teaching offers opportunities for children to:

- 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 different types of science enquiries that help them to answer scientific questions about the world around them.
- Be equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.
- Develop the essential scientific enquiry skills to deepen their scientific knowledge.
- Use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including I.C.T., diagrams and charts.
- Develop a respect for the materials and equipment they handle with regard to their own, and other children's safety.
- Develop an enthusiasm and enjoyment of scientific learning and discovery.

Implementation

Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high

standards in science. Our whole school approach to the teaching and learning of science involves the following;

- Science will be taught in planned and arranged topic blocks by the class teacher. This is a strategy to enable the achievement of a greater depth of knowledge.
- We use the Plymouth Science scheme of work to support our planning which includes problem solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom through displays and topic/floor books. Planning involves creating and adapting lessons to match our topics, using resources to aid understanding of conceptual knowledge. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning, so that all are supported children to keep up.
- We build upon previous learning and skill development by carrying out a brief assessment of what we know already. As the children's knowledge and understanding develops, and they become more proficient in selecting, using scientific equipment, collating, and interpreting results, they become increasingly confident in their growing ability to draw conclusions based on real evidence.
- Teachers demonstrate how to use scientific equipment, and the various working scientifically skills to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning on a regular basis.
- Working scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed throughout KS1, in-keeping with our topics.

Impact

The successful approach at Killamarsh Infant and Nursery School results in a fun, engaging science education that provides children with the foundations for understanding our world. Our engagement with the local environment ensures that children learn through varied and first hand experiences of the world around them. So much of science lends itself to outdoor learning and so we provide children with opportunities to experience this. Through their learning children are developing an understanding that science has changed our lives.

Teaching and Learning – How Science is structured through our school

Planning for Science is a process in which all teachers are involved to ensure that there is full coverage of the 'The National Curriculum programmes of study for Science 2013' and the 'Understanding the World' strand of the Early Years Foundation Stage Framework (2024).

Science is taught through a topic based approach where Science is a lead subject which allows us to ensure that it has a high profile within our school. We use the Plymouth Science scheme to structure our learning and teachers adapt this where appropriate to allow lessons to link more closely to our topics. Content is taught thoroughly, and coverage is carefully tracked to ensure that all content is being delivered effectively.

Assessment

Assessment is an integral part of teaching and learning and is a continuous process.

Teachers make assessments of children through;

- regular marking of work
- analysing errors and picking up on misconceptions
- asking questions and listening to answers
- facilitating and listening to discussions
- making observations

Pupils are very much encouraged to be involved in the process and opportunities are provided for peer-talk, self-reflection, and teacher-pupil feedback. These ongoing assessments inform future planning and teaching. Lessons are adapted readily, and short term planning evaluated considering these discussions.

Assessment is undertaken in line with our school assessment cycle (See Assessment Policy). Judgements are made from class work to support teachers in making an assessment for each child which is then recorded onto O-track.

Role of the Science Lead

- To lead in the development of Science throughout the school.
- To monitor the planning, teaching and learning of science throughout the school.
- To help raise standards in science.
- To provide teachers with support in the teaching of science.
- To provide staff with CPD opportunities in relation to science within the confines of the budget and the School Improvement Plan.
- To monitor and maintain the provision of high quality resources.

- To keep up to date with new developments in science.
- To update and maintain the science content within the curriculum area of the school website.

Resources

All science resources, such as pipettes, goggles and magnets are stored centrally and are located within the Science Resource cupboard in one of the KS1 classrooms. Some resources within individual classrooms are accessible to all children who should be encouraged to be responsible for their use.

SEN and Inclusion

We are an inclusive school where we focus on the wellbeing and progress of every child. All of our children share an entitlement to a high quality science curriculum, which is delivered in a variety of ways to meet the needs of all learners. We recognise the fact that we have children of differing special educational needs, disabilities, and of those learning English as an additional language in our school, and so we provide suitable learning opportunities for all children by adapting the resources and tasks where necessary to allow access for all.

Links with Parents.

We celebrate our high-quality science work by sharing our achievements both in class and at home in our weekly Scientist of the Week assemblies. Our school recognises that parents and carers have a valuable role to play in supporting their child's learning. Documents regarding progression of knowledge and skills and useful websites for home learning are all available on our school website for families to access.

Enrichment

In addition to our science curriculum, we aim to provide extended learning opportunities and challenges to our children through an extra-curricular science club. This additional opportunity allows our children to explore different areas of science through fun activities that helps them learn new things and develop skills they will find helpful in real life.