

Science Policy - 2023/2024



St. Michael's Nursery and Infant School

Subject Lead - Miss. Laura Swinburne

Introduction

Throughout Science, children begin to ask questions about the world around them and we aim to provide opportunities to challenge and satisfy children's curiosity. They will begin to understand and appreciate how Science will influence their lives, especially with the changes arising in the future. Science enables children to develop and discuss their ideas and aims to make sense of the world in which we live in through use of investigation and enquiry skills.

Aims

At St. Michael's Nursery and Infant School, we believe that high quality teaching of Science is:

~ To prepare children for a life in an increasingly scientific and technological world.

~To provide opportunities for the children to gain a hands on, practical experience.

~To encourage the children to ask and answer scientific questions.

~To develop scientific enquiry skills, including asking questions, making predictions, setting up tests, observing and measuring, recording data, interpreting and communicating results and evaluating.

~To encourage PSHE, thinking about issues around us such as caring for the environment.

~To develop scientific knowledge, understanding and vocabulary through all areas of Science.

~To develop knowledge and awareness of the importance of Science and begin to understand how it affects us today and how it will affect the future.

~To build on children's curiosity about the world around them.

~To develop skills of sorting, classifying, planning, predicting, questioning, inferring,

concluding, communicating and evaluating through investigative activities.

Curriculum

Children follow the 2014 National Curriculum for Science which sees them undertake a broad and balanced programme that takes account of abilities, aptitudes and physical, emotional and intellectual development.

Children of all abilities have the opportunity to develop their skills and knowledge in each unit and, through planned progression built into the scheme of work, we offer them an increasing challenge as they move through the year groups.

The Science curriculum is part of the school long-term plan where Scientific areas are covered termly and re-visited when applicable.

Science at Foundation Stage is covered in the 'Understanding the World' area of the EYFS Curriculum. It is introduced indirectly through activities that encourage every child to explore, problem solve, observe, predict, think, make decisions and talk about the world around them.

Teaching and Learning

The curriculum is delivered exclusively in KS1 each week, as well as through cross-curricular topics and is integrated within English and Maths where appropriate.

At St. Michael's Nursery and Infant School, we aim to teach high quality Science around our creative topics (although some learning objectives may need to be taught explicitly).

Science is taught through practical, hands on experiences where appropriate and opportunities are provided for the children to develop their use of enquiry and questioning based skills and exploration of the world.

Early Years

Science is taught in Nursery and Reception as an integral part of the topic work covered during the year. We relate the Science aspects of the children's work to the objectives set out in the Early Years curriculum which underpin the planning for children aged three to five.

Science makes a significant contribution to the ELG objectives of developing a child's understanding of the world, communication and language and physical development. This is taught through activities such as exploring the world around them using their senses and exploring how things work.

Key Stage 1

During Key Stage 1, pupils experience and observe phenomena, looking closely at the natural and humanly-constructed world around them. They are encouraged to develop their understanding of scientific ideas by using different types of scientific enquiry. They begin to use scientific vocabulary to talk about what they have found out and communicate their ideas.

Science is taught exclusively once a week in KS1 for 90 minutes as well as through topic teaching where appropriate.

Science curriculum planning

For Science, please see the long-term plan which shows objectives which are covered each term, based on the scientific area which is being covered specifically. Please see the progression map where the scientific skills are listed to understand how teaching of Science at St. Michael's School is progressive.

Assessment, Recording and Reporting

Pupils' work and progress are assessed during lessons and on completion of a full term of work using a range of formative assessment processes e.g. questioning, discussion, marking (as per the marking policy). In Key Stage One, the Science rockets are used as an assessment tool based on scientific enquiry. Attainment is assessed at the end of each year against the requirements of the National Curriculum. This is reported to the next teacher, Subject Lead and Headteacher. Pupils' achievements in the subject are reported to parents on the end of year report.

Monitoring and Support

- ~ The Subject Lead will support colleagues in teaching the subject content and developing their skills in planning, teaching and assessing Science using a 'coaching culture'.
- ~ They will renew, update and oversee the audit of resources needed to deliver the curriculum.
- ~ The Lead will monitor and evaluate the teaching and learning of Science.
- ~ They will develop assessment and record keeping ensuring progression and continuity.
- ~ Keep informed of developments in the teaching and learning of Science and disseminate this information to all teaching staff.

Resources

In Key Stage One, there are specific Science boxes which contain resources linked to each scientific area. The library contains a good supply of topic books. The resources are reviewed and added to when needed.

Health and Safety

When using scientific equipment, the pupils will be made aware to ensure health and safety of themselves and others.

All visits that are planned would expect the the class teacher, or leader to plan the visit meticulously, with the pupils' safety and welfare paramount. A full risk assessment will be carried out for each visit and reviewed by the Education Visits Co-ordinator and Head teacher before any visit. Please see the Policy for Educational Visits for detailed information.

Equal Opportunities, Inclusion & Differentiation

All children regardless of race, culture, religion, social background, gender or academic ability, have equal access to Science in order to develop their personal, scientific capability.

We carefully plan, monitor and assess to ensure all of our pupils feel valued.

Fieldwork may be adapted to consider individual requirements.

Learning is challenging, yet achievable by all children, whatever their abilities and differentiation. It is achieved by both the work that is set and the outcome of the children.

We aim to teach children to up hold where applicable, British Values and a mutual respect and tolerance of those with different faiths and beliefs through the study of Science.

Review date: 11/09/23

Next review date: 10/09/24

Signed; Miss. L Swinburne

