



'Dream, Believe, Achieve!'

'With God, all things are possible.' Matthew 19:26

Psalm 25:4 'Show me your ways, LORD, teach me your path'.

CURRICULUM POLICY

SCIENCE

Policy Date:	November 2022
Policy Review:	November 2025
Signature of Headteacher:	

Why we teach science?

It is important that children are given the opportunity to explore and understand the world in which they live. Science at St Mary's C of E Primary School is about giving children the tools to develop their ideas and ways of working that enable them to understand the world through investigation with independence, resilience and enjoyment.

At St Mary's C of E Primary, we believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic, origin, gender, class, aptitude or disability.

Aims

- Preparing our children for life in an increasingly scientific and technological world.
- Fostering concern about, and active care for, our environment.
- Helping our children acquire a growing understanding of scientific ideas.
- Helping develop and extend our children's scientific concept of their world.
- Developing our children's understanding of the international and collaborative nature of science.

Attitudes

- Encouraging the development of resilient and positive attitudes to science.
- Building on our children's natural curiosity and developing a scientific approach to problems.
- Encouraging open-mindedness, self-assessment, perseverance and responsibility.
- Building our children's self-confidence to enable them to work independently.
- Developing our children's social skills to work independently and cooperatively with others.
- Providing our children with an enjoyable experience of science, so that they will develop a deep and lasting interest and may be motivated to study science further.

Skills

- Giving our children an understanding of scientific processes.
- Helping our children to acquire practical scientific skills.
- Developing the skills of investigation - including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Developing the use of scientific language, recording and techniques.
- Developing the use of computing in investigating and recording.
- Enabling our children to become effective communicators of scientific ideas, facts and data.
- Enabling our children to work scientifically, conducting fair tests.
- Allow children to use scientific skills across the curriculum.

Our teaching aims

- Teaching science in ways that are imaginative, purposeful, well managed and enjoyable.
- Giving clear and accurate teacher explanations and offering skilful questioning.
- Making clear links between science and other subjects. In particular, PE, maths and computing.

- Ensuring children are given enough time to study the four main areas of the science curriculum. These are: Scientific enquiry, Life and living processes, materials and their properties and physical processes.
- Offering ample opportunity for practical investigation and enquiry.
- Teaching science outdoors as well as in the classroom.

How science is structured at St Mary's Primary School

Children at St Mary's C of E Primary School learn through a thematic/subject based curriculum, with the teaching and learning of science being based on investigation, observation and application. The topic is changed each half term to ensure children are exposed to many different scientific topics throughout their time at school. Children in the foundation stage are taught the science elements as indicated in the Early Years Foundation Stage Curriculum. Links to other areas of the curriculum that enhance their understanding of science are identified and incorporated into planning. Each topic is taught over the half term. The curriculum overviews are available on the shared file for all members of staff to access. Science books and medium term plans are monitored by the science coordinator on a half-termly basis, and support given where required. In addition to the knowledge and understanding aspects of the National Curriculum, emphasis needs to be put on scientific investigation and enquiry, including the correct use and care of scientific apparatus. When planning the learning experiences, the pupils' previous experiences and present understanding should be taken into account. Opportunities are made where possible to make cross curricular links. Teachers are encouraged to actively teach science skills and consolidate prior learning and knowledge on a regular basis. We encourage children to ask and answer their own questions as often as they like. Children should complete at least one investigation per half term. These investigations should be based on their current topic whilst also developing the children's scientific enquiry skills.

Assessment and recording

We use assessment to inform and develop our teaching.

- Within the classroom, topics commonly begin with an assessment of what children already know. The learning objective for the lesson is always shared with the children. However, this may not always be at the beginning of the lesson. For example, if the investigation or enquiry leads the children to discovering the learning objective for themselves.
- Children are involved in the process of self-improvement, recognising their achievements and acknowledging where they could improve on a short term basis when assessing their understanding against the learning target of a lesson.
- Within EYFS science is often taught through practical group tasks, staff use questioning to assess and challenge the children's thinking. Evidence is often photo based.
- The science coordinator will also conduct a termly book scrutiny to ensure all objectives are covered and offer support where necessary.
- Reports to parents are written once a year, describing each child's attitude to science, his/her progress in scientific enquiry and understanding of the content of science.

Health and safety

Children should be taught the correct and safe use of equipment and the carrying out of simple safety procedures as an intrinsic part of their science lessons. A risk assessment should be carried out in line with school policy in regards to any school trips or experiments out of school grounds. Safety equipment is available in the science cupboard. It is the teacher's responsibility to ensure any investigations carried are done so in a safe way for the protection of their class.

