

St Joseph's Catholic Primary School Science Policy



Statement:

St Joseph's Roman Catholic Primary School understands the need for all pupils to develop their Scientific ability as an essential component of all subjects and as a subject in its own right. A good understanding of scientific knowledge and conceptual understanding helps to support pupils work across the curriculum.

Aims:

At St Joseph's Roman Catholic Primary School we believe that Science is a body of knowledge built up through experimental testing of ideas. Science is also 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 enable them to make sense of the world in which they live through investigation, as well as using and applying process skills.

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

- Preparing our children for life in an increasingly scientific and technological world today and in the future.
- Helping our children acquire a growing understanding of the nature, processes and methods of scientific ideas.
- Helping develop and extend our children's scientific concept of their world.
- Building on our children's natural curiosity and developing a scientific approach to problems.
- Encouraging open-mindedness, self-assessment, perseverance and 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.
- Making links between science and other subjects.

St Joseph's Catholic Primary School Science Policy

Statutory Requirements:

Statutory requirements for the teaching and learning of Science are laid out in, The National Curriculum in England Framework Document for Teaching, September 2014 and the Statutory framework for the Early Years Foundation Stage, September 2021. Further information can also be found on the school network which includes details of yearly expectations for science in each year group.

How Science is structured through the school:

Planning for science is a process in which all teachers are involved to ensure that the school gives full coverage of, 'The National Curriculum programmes of study for Science 2014' and, 'Understanding of the World' in the Early Years Foundation Stage.

Science teaching at St Joseph's Roman Catholic Primary School involves adapting and extending the curriculum to match all pupils' needs. Science will also be taught as discrete units and lessons where needed to ensure coverage. This will be done using the whole school curriculum map, to find out which topics are covered where. Then using the medium term skills plans made for each year group up to year 4, for each topic taught.

Then in year 5 & 6 due to the mixed year groups, Science units are taught on a two year rolling programme. This ensures progression between year groups and guarantees topics are covered. Teachers plan to suit their children's interests, current events, their own teaching style, the use of any support staff and the resources available. Teachers are expected to teach science for 2 hours a week in KS1 and 2.

Foundation Stage (nursery & reception pupils):

Pupils explore science topics through making predictions, using their senses and investigating materials and their properties. Science is taught through the strand of, 'Understanding the World'. Science teaching and learning is also linked to the other strands of The EYFS framework for learning, 2021. Teachers and teaching assistants support pupils to develop a solid understanding of things occurring around them in their day-to-day lives. Children are encouraged to be creative and inquisitive as they participate in activities. Pupils are encouraged to use their natural inquisitiveness, while taking part in exploratory play in specific scientific areas as well as areas that link across the EYFS framework.

Key Stage One (year one and two):

During Key Stage one, pupils observe, explore and ask questions about living things, materials and the world around them. They begin to work together to collect evidence to help them answer questions, find patterns, classify and group objects, research using a variety of sources and carry out fair testing. Pupils use reference materials to find out more about scientific ideas. They share their ideas and communicate them using scientific language, drawings, charts and tables. Science lessons in Key Stage one are either taught discretely or where possible connected to other curriculum areas. Pupils often use the outdoor areas in their science learning.

St Joseph's Catholic Primary School Science Policy

Key Stage Two (years three and four):

The main focus of Science teaching in Lower Key Stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

Key Stage Two (years five and six):

The main focus of Science teaching in Upper Key Stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. At Upper Key Stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. They should select the most appropriate ways to answer Science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out fair tests and finding things out using a wide range of secondary sources of information. Pupils should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings. Pupils should read, spell and pronounce scientific vocabulary correctly.

Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing reading and spelling knowledge.

St Joseph's Catholic Primary School Science Policy

Health and safety:

General health and safety guidelines are given in the school Health and Safety Policy. For further advice see CLEAPSS "Model Health and Safety Policy for Science in Primary Schools" and Be safe publication which can be found on the school network in the Science Folder.

Assessment:

EYFS assess science through observations added to tapestry and can make a judgement on their own knowledge of the children's ability for understanding of the world.

KS2 complete assessment tasks at the end of each unit which are scored and then retrieval questions are made for the next lessons to make sure all learning is achieved. Skills are assessed each lesson based on the teacher's observation and knowledge of the children.

KS1 children complete a short quiz at the end of the unit in year 2 to focus on what knowledge they have remembered.

Policy introduced: 16 th April 2016
Policy reviewed: 16 th December 2024
Science Subject Leader: Emily Darbyshire