



Science – Intent, Implementation and Impact

"Great are the works of the Lord; they are pondered by all who delight in them."
Psalm 111:2

Intent

At St Mark's Catholic Primary School, we believe that Science provides children with opportunities to explore, question and understand God's wonderful world. Through Science, we aim to inspire curiosity, develop a sense of awe and wonder and encourage children to become confident, inquisitive learners who are excited to discover more about the world around them.

Our Science curriculum is designed to provide all pupils with the knowledge, skills and vocabulary needed to understand biological, chemical and physical processes. Through engaging practical experiences and scientific enquiry, children develop their ability to ask questions, make observations, investigate, analyse evidence and communicate their ideas effectively.

Science is underpinned by our school values:

Respect

Children learn to respect living things, the environment, scientific equipment and the views of others.

Resilience

Pupils understand that investigations do not always go to plan and develop perseverance when solving scientific problems.

Resourcefulness

Children learn to think creatively, make predictions, solve problems and use scientific knowledge to answer questions.

Responsibility

Pupils work safely, care for resources and develop an understanding of their responsibility to protect and care for God's world.

Reflection

Children evaluate investigations, consider evidence and reflect on how scientific discoveries help us understand creation.

We intend for pupils to:

- Develop curiosity and a love of learning about the world around them.
- Ask questions and investigate scientifically.
- Build a secure understanding of scientific concepts and processes.
- Develop scientific vocabulary and communicate their ideas clearly.
- Make observations, gather evidence and draw conclusions.
- Work collaboratively and respectfully with others.
- Develop resilience and confidence when solving problems.
- Recognise the importance of Science in everyday life.
- Appreciate and care for God's creation.
- Understand how scientific discoveries have shaped the world around us.
- Apply their knowledge and skills across the wider curriculum.

By the time they leave our school, pupils will have developed a secure foundation of scientific knowledge and enquiry skills, alongside the confidence, curiosity and enthusiasm needed to continue their scientific learning.

Implementation

Science is taught through a broad, balanced and progressive curriculum that develops pupils' knowledge, skills and understanding across the disciplines of biology, chemistry and physics. Teaching is carefully planned to ensure clear progression from EYFS to Year 6 and is aligned with the National Curriculum and the Developing Experts scheme of learning.

Pupils develop their understanding through the study of a wide range of topics including animals including humans, living things and their habitats, plants, materials, seasonal changes, rocks, states of matter, light, forces, sound, electricity, Earth and space and evolution and inheritance.

Children are provided with regular opportunities to work scientifically through observing, identifying and classifying, asking questions, planning investigations, gathering and recording data, identifying patterns, drawing conclusions and

evaluating findings. Scientific enquiry is embedded throughout the curriculum and enables pupils to develop independence, curiosity and confidence as young scientists.

Teachers use a range of teaching strategies including direct instruction, modelling, discussion, practical investigations, outdoor learning and collaborative activities. Scientific vocabulary is explicitly taught and revisited to support children's understanding and communication of scientific ideas.

Science is taught through meaningful cross-curricular links where appropriate whilst maintaining the integrity of the subject's knowledge and skills. Assessment is ongoing and formative, informing future planning and ensuring that all pupils make progress.

All pupils are supported to access the curriculum through adaptive teaching, appropriate scaffolding and high expectations. Science lessons promote curiosity, resilience, responsibility and reflection, enabling every child to experience success and develop confidence in their scientific abilities.

Impact

The impact of our Science curriculum is evident in the curiosity, confidence and scientific understanding demonstrated by our pupils. Children leave each year group with a growing knowledge of scientific concepts and an increasing ability to work scientifically.

Pupils are able to:

- Demonstrate progression in their scientific knowledge and understanding.
- Ask relevant questions and investigate scientifically.
- Make observations and gather evidence accurately.
- Use scientific vocabulary appropriately and confidently.
- Record, present and interpret findings in a variety of ways.
- Draw conclusions and explain their thinking using evidence.
- Demonstrate resilience when solving problems and carrying out investigations.
- Show respect for living things, the environment and the views of others.
- Understand the importance of caring for God's creation.
- Apply their scientific knowledge to everyday life and the wider world.

The impact of the curriculum is monitored through ongoing formative assessment and the quality of outcomes produced by pupils. Progress is evident in children's developing knowledge, skills and understanding as they move through the school.

By the end of Key Stage 2, pupils are equipped with the scientific knowledge, enquiry skills and confidence needed for the next stage of their education. They leave St Mark's as curious, reflective and responsible learners who appreciate the wonder of God's creation and understand the important role Science plays in the world around them.