

**ST MARY MAGDALENE CATHOLIC
PRIMARY SCHOOL**

SCIENCE POLICY



'Growing Together in Faith & Love'

February 2024

MISSION STATEMENT

“Growing together in faith & love”

As a Christian community school life is based on the Gospel and the teachings of the Catholic Church and consequently to fostering a commitment to justice and the equality of all people in the eyes of God. Every child is encouraged to high ideals and equal opportunity is given to all pupils to develop their talents to the full.

Intent

Science teaching and learning at St Mary Magdalene Catholic School aims to give all children a strong understanding of the world around them and building on their natural curiosity, as they gain the skills and knowledge to help them think Scientifically. Our children will take part in lessons which encourage them to answer and investigate various scientific questions using the Scientifically Working skills to prove or disprove knowledge gained. Children can make links to prior learning and develop depth in key skills within Science that are rich, stimulating, challenging and real life with the aim of enabling children to master learning with skills, knowledge and experiences that will remain with them for the rest of their lives. We should all champion primary science and our intent is to make sure that every child has a positive experience of science throughout their primary school education

Our Science curriculum is designed to allow each pupil to:

- Achieves the best possible standards and achievements, whatever their starting point.
- Has high levels of engagement, enjoyment and personal development in Science
- Accesses a rich, broad and wondrous science curriculum that allows high levels of personalisation that plays to their strengths and develops specialisms.
- Connects and builds on prior knowledge leading to progression and depth

Our Children’s Charter

- Feel confident and successful in their Science learning.
- Have the attitude that learning is ‘hard’ and mistakes are necessary for learning to happen.
- Enjoy learning and experience ‘the BUZZ of Science’
- Have a voice and be able to choose how they wish to learn and think like a scientist– the resources and maths they feel are most appropriate.
- Understand that Science is relevant to everyday living and a lifelong skill, by solving problems that are set in a real life context.
- To develop critical thinking and the confidence to question ideas in order to deepen their understanding.
- To become interdependent as well as independent learners.

- To become metacognitive learners, understanding their own abilities, what they need to do that will enable them to develop their abilities and the skill to review their learning accurately.

Implementation

- The schools Medium term planning and coverage of key scientific skills will be used by teachers to plan, this will drive the journey of Science for every year group, building on from prior learning and develop progressively key skills and developing depth.
- Provide opportunities for children to develop the process skills associated with science education as well as develop a greater knowledge and understanding of life processes and living things, materials and their properties and physical processes as described in the National Curriculum for science.
- Promoting enjoyment and enthusiasm for learning through real, first –hand and rich science experiences so that all children explore, question, predict, plan, carry out and make observations and conclusions about their scientific tests.
- Allowing children to discuss and present their work using scientific language, observations, diagrams, jottings and charts.
- To foster positive attitudes such as curiosity, perseverance, willingness to use and appraise evidence, willingness to tolerate uncertainty, critical reflection and enthusiasm.
- Developing an understanding of the importance of Science in everyday life.

Matching Learning to the Needs of the Children

Learning opportunities for all children will be matched to ability, this will be achieved through a range of differentiated group learning opportunities throughout all lesson, matched to the children's relative starting points, working interdependently to support each other through peer learning and challenging children with open-ended investigative opportunities. We use classroom assistants to support children across all ability groups and to ensure that learning is matched to the needs of individuals.

Continuity and Progression

In foundation stage pupils will work from the Knowledge and Understanding of the world planning from the Early Years scheme of work. This planning aims to develop in pupils the crucial knowledge, skills and understanding that help them make sense of the world. It provides opportunities for pupils to carry out activities based on first hand experiences that encourage exploration, observation, problem solving, prediction, critical thinking, decision making and discussion. It provides the foundations for the science KS 1 and then the KS 2 curriculum. The scheme of work (Plymouth Science) for KS 1 and 2 continues building on concepts and process skills in a spiral way, ensuring that all knowledge and understanding programmes of study are covered at least once in Key Stage 1 and at least twice at Key Stage 2, and that all the process skills programmes of study are constantly being visited and developed as each science unit of work is taught.

Assessing

Assessment is inextricably linked to planning and all assessments in science are used to inform future planning in order to impact on future teaching and learning.

Children also undertake an end of unit assessment which allows the teacher to identify any gaps in all children's learning and address these at the beginning of the next topic.

Resources

A wide range of equipment is stored in science resource cupboard. Each class also receives a library topic box which includes box relevant to the current topic.

Health and Safety

When working with science equipment and materials during practical activities teachers should ensure that children understand the hazards and learn how to control them, ensuring the safety of themselves and others.

Impact

We believe our children will:

- Follow a progressive science curriculum that meets the needs of all pupils.
- Develop a broad vocabulary of science which will enable them to articulate their understanding of taught concepts.
- Develop their scientific knowledge, conceptual understanding and ability to think and act scientifically.
- Use a range of investigations and practical activities giving them a greater understanding of the concepts and knowledge of science.
- Be equipped with the knowledge required to appreciate and understand science's contribution to all aspects of everyday life.
- Build on their curiosity and sense of awe of the natural world.