



**God Shines within our heart,
Jesus walks by our side,
The Holy Spirit gives us strength.**

Science Curriculum

Intent:

The intent of our Science curriculum at St Mary's is to foster a deep-rooted curiosity and love for the subject, inspiring our pupils to develop scientific knowledge, skills, and understanding. We aim to provide our children with a strong foundation in scientific principles and processes, as well as nurturing their ability to think critically, analyse data, and ask meaningful questions. It will develop the natural curiosity of the child, encourage respect for living organisms and the physical environment, provide opportunities to work scientifically and critically evaluate evidence. The understanding of key vocabulary will be at the forefront of our curriculum: regular topic recaps throughout the academic year will embed procedural knowledge into long-term memory.

Our overarching goal is to prepare our pupils to become scientifically literate individuals with the skills necessary to succeed in further education and beyond.

Implementation:

Our science curriculum is designed to be engaging, rigorous, and relevant to the lives of our pupils. We follow the National Curriculum guidelines, ensuring that all key concepts and scientific knowledge areas are covered at an age-appropriate level. We have structured our curriculum to provide a progressive sequence of learning, building upon prior knowledge and allowing children to develop a deep understanding over time. Teachers have a secure and up-to-date knowledge of the Science curriculum and pedagogical approaches. Lessons are well-planned and sequenced, making effective use of resources, practical activities, and technology to engage learners. Teachers adopt a variety of teaching strategies, promoting active participation, discussion, and critical thinking. Differentiation is employed to cater to the needs of all learners, ensuring no pupil is left behind.

Outstanding implementation of science involves making meaningful connections between science and other subjects within the curriculum. Opportunities are created for pupils to apply their scientific knowledge and skills across different subjects. For example, mathematical skills can be reinforced through data analysis and measurement in science experiments, and literacy skills can be developed through scientific report writing. Assessment focuses on both knowledge and skills, providing opportunities for pupils to demonstrate their understanding and application of scientific concepts. Assessment data is used to inform planning, identify gaps in learning, and adapt teaching strategies to meet individual needs. Pupils are encouraged to self-assess and reflect on their own learning in science.



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**St Ralph
Sherwin**
Catholic Multi Academy Trust

Impact:

Through our outstanding Science provision, we aim to consistently achieve high academic standards within the subject. Our students will demonstrate deep knowledge and conceptual understanding across a range of scientific areas, and they will be able to apply this knowledge in different contexts. They will develop the skills necessary to conduct scientific investigations, critically analyse data, and draw evidence-based conclusions.

Pupils make substantial progress in their scientific knowledge, skills, and understanding, reflecting the secure foundations laid in EYFS. Attainment is high for all groups of pupils regardless of their starting points.

Disadvantaged and SEND pupils should close any attainment gaps. Progress should be measured not only in terms of content knowledge but also scientific skills, critical thinking, and problem-solving abilities.

Our outstanding Science provision ignites pupils' curiosity, enthusiasm, and passion for the subject. They relish opportunities to explore and investigate scientific concepts through practical activities and hands-on experiences. Pupils exhibit keenness to contribute, ask questions, and take ownership of their learning. Their positive attitude towards science is evident both inside and outside the classroom.

At St Mary's pupils develop an understanding of how scientific concepts apply to the real world. Pupils transfer their scientific knowledge and skills to everyday situations, other subjects, and future learning. The development of transferable skills such as critical thinking, problem-solving, and scientific literacy equip pupils with a solid foundation for secondary education and beyond.

We ensure that all pupils, regardless of their background or individual needs, have equal access to high-quality teaching and opportunities to excel in science. Any barriers to learning are identified and effectively addressed, ensuring inclusive teaching strategies and resources are employed. Excitement and enthusiasm for science should be fostered in a diverse pupil population, promoting equal opportunities, and celebrating the achievements of all learners.

By implementing an ambitious and inspiring Science curriculum, delivering high-quality teaching, and fostering a positive learning environment, St Mary's achieves outstanding outcomes, enables pupils to develop a deep understanding of science and its applications in the world around them.