



St Marys Catholic Voluntary Academy, New Mills



Science Curriculum

God shines within our hearts. Jesus walks by our side. The Holy Spirit gives us strength.

Intent

At St Mary's we want our children to be naturally curious about the world around them and to recognise and challenge the importance of Science in every aspect of daily life. As one of the core subjects taught in Primary School, we give the teaching and learning of Science the prominence it requires. Our curriculum has been developed to foster a sense of awe and wonder about the world around them. Learning is concerned with increasing pupils' knowledge and understanding of our world, and with developing skills associated with Science as a process of enquiry. It will develop the natural curiosity of the child, encourage respect for living organisms and the physical environment and provide opportunities for critical evaluation of evidence. Understanding of vocabulary is key and is built on as topics are revisited through year groups and across key stages, embedding procedural knowledge into long term memory.

Through quality first teaching we will ensure that children develop the following characteristics of scientists:

- develop scientific knowledge and conceptual understanding through the specific disciplines of Biology, Chemistry and Physics;
- develop understanding of the nature, processes and methods of Science through different types of science enquiries that help them to answer scientific questions about the world around them;
- be equipped with the scientific knowledge required to understand the uses and implications of Science, today and for the future.
- develop the essential scientific enquiry skills to deepen their scientific knowledge.
- Use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including I.C.T., diagrams, graphs and charts.
- Develop a respect for the materials and equipment they handle with regard to their own, and other children's safety.
- Develop an enthusiasm and enjoyment of scientific learning and discovery.

Implementation

Through our creative curriculum children will encounter scientific knowledge, vocabulary and enquiry in topic areas in order to bring their learning to life using questions to stimulate enquiry.

The 'Developing Experts' online scheme of work is used across the school to plan and deliver the science curriculum. Knowledge organisers highlight learning through 'Sticky' knowledge, subject specific vocabulary, books of interest and key questions. These will be available to families on the school website before topics begin to encourage parents and children to form discussion and questions. Staff will revisit and build upon prior knowledge highlighted on

progression grids throughout each year group. Sufficient time will be given to each topic area every half term to ensure a deep understanding of the scientific knowledge and working scientifically skills through investigations. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence. Trips and visits from experts will enhance their learning experience, demonstrating how science is relevant in everyday life, in the past, present and in the future.

Impact

Our Science Curriculum is high quality, well thought out and planned to demonstrate progression across the school, in a fun and engaging manner. Science will have equal importance to other core subjects which should be evident in the presentation and depth of work.

All children will have:

- A wide variety of skills linked to both scientific knowledge and understanding, and scientific enquiry/investigative skills.
- A rich vocabulary which will enable them to articulate their understanding of taught concepts.
- High aspirations, which will see them through to further study, work and a successful adult life.