

Our Lady's Catholic Primary School

'Living and Learning in Faith'

Intent

At Our Lady's Primary we understand that Science is integral to our daily lives and will be of paramount importance for our children's future. Our aim is to empower pupils to ask challenging questions, think creatively and resolve problems. We build upon children's natural curiosity of the world around them to develop their knowledge and inspire them to nurture a passion for Science and its many applications.

Divided into the specific disciplines of biology, chemistry and physics, our teaching, in line with National Curriculum objectives, ensures that children develop scientific knowledge and conceptual understanding. We place scientific enquiry and experimentation at the heart of our approach and plan lessons to enable pupils to build the skills and resilience required to design and execute their own investigations.

Implementation

Teachers create a positive attitude to Science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in Science. We do this through the following:

- Science is taught in carefully planned topic blocks by the class teacher. In
 order to deliver inspiring and investigative lessons, we draw upon Hamilton
 Trust planning and Explorify. This is supplemented with specially created
 knowledge organisers which summarise the key information and vocabulary
 that teachers need.
- We endeavour to maximise problem solving opportunities that allow children to learn and discover for themselves. Children are encouraged to ask questions and are given opportunities to use their scientific skills to research and discover the answers. This curiosity is celebrated within the classroom.
- Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify misconceptions and gaps in learning.
- Teaching builds upon the learning and skill development of the previous years. 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.
- "Working Scientifically" skills are embedded into lessons to ensure these skills are being developed throughout the children's school career. Teachers model how to use scientific equipment and small group work in the classroom

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ensures that all children learn how to use this equipment and interpret the results.

- Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning and linking classroom learning to real life.
- British Science Week is celebrated each year, encouraging them to think more broadly about where they encounter Science in their everyday lives, and building confidence to communicate with their peers and the rest of the school community.
- During the summer term, the children enjoy participating in a STEM project. The aim is to bring together the children's substantive scientific knowledge, their scientific skills and their DT skills to solve a challenging and engaging problem and helps them to understand the positive impact of Science in the world around them.

Impact

Our Science Curriculum is high quality, well thought out and is planned to demonstrate progression. If children are keeping up with the curriculum, they are deemed to be making good or better progress. In addition, we measure the impact of our curriculum through the following methods:

- Book looks
- Pupil voice
- Regular feedback each lesson

The successful approach at Our Lady's results in a fun, engaging, high-quality Science education that provides children with the foundations and knowledge for understanding the world. Our engagement with the local environment ensures that children learn through varied and first hand experiences of the world around them. Frequent, continuous and progressive learning outside the classroom is embedded throughout the Science curriculum. This, combined with exposure to a diverse range of scientists, ensures that all children feel they are capable of achieving in Science. Children overwhelmingly enjoy Science and this results in motivated learners with sound scientific standing.

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