



Science Curriculum

Intent

At St Francis of Assisi Catholic Primary School, we recognise the importance of Science in every aspect of daily life. As one of the core subjects taught in primary schools, we give the teaching and learning of Science the prominence it requires.

The Scientific area of 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 whilst providing opportunities for questioning.

At St Francis of Assisi Catholic Primary School, in conjunction with the aims of the National Curriculum, our Science teaching offers opportunities for children to:

- Develop scientific knowledge and conceptual understanding
- 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
- Learn about famous scientists and inventors and their impact on the world
- Develop the essential scientific enquiry skills to deepen their scientific knowledge
- 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

The use of the Collins Connect Science scheme provides a progressive structure in which children can develop their scientific knowledge and understanding, as well as their enquiry skills. PLAN assessment materials are used alongside this to support assessment judgements.

At St Francis of Assisi Catholic Primary School:

Children have weekly lessons in Science throughout Key Stage 1 and 2, using the Collins programme as their basis. In the Foundation Stage, Science is taught through the children learning about the world around them in their learning through play and adult led activities. Additional opportunities are provided in Science, such as theme days, visiting speakers and off-site educational visits. This forms part of our cultural capital; more information about this can be found in the Science folder.

We endeavour to ensure that the Science curriculum we provide will give children the confidence and motivation to continue to further develop their skills into the next stage of their education and life experiences.

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. Our whole school approach to the teaching and learning of Science involves the following:

- Science will be taught in planned and arranged topic blocks, as set out by the Collins Snap Science programme. Opportunities for extension are also provided in each topic to enable the achievement of a greater depth of knowledge.
- Children are encouraged to ask their own questions and are given opportunities to use their scientific skills, along with research, to discover the answers. This curiosity is celebrated within the classroom. Planning involves teachers creating engaging lessons, involving high-quality resources to aid understanding of conceptual knowledge. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning, so that all children keep up.
- We build upon the learning and skill development from 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 time at St Francis; new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in-keeping with the topics.
- Teachers demonstrate how to use scientific equipment, and the various working scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning and workshops with experts.

Impact

The successful approach at St Francis of Assisi results in a fun, engaging, high-quality Science education, that provides children with the foundations 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. So much of Science lends itself to outdoor learning and we provide children with opportunities to experience this. Through various workshops, trips and interactions with experts, children have the understanding that Science has changed our lives and that it is vital to the world's future prosperity. Children learn the possibilities for careers in Science as a result of our connection with national agencies such as the STEM association and UCLAN. Pupil voice is used to further develop the Science curriculum, through questioning of pupil's views and attitudes to Science to support the children's enjoyment of science.