

St Brendan's Catholic Primary School

Science Rationale

The aim of the science curriculum in our school is to equip children with the foundations needed to understand the world around them whilst developing an enjoyment and enthusiasm for the subject. Science is about nurturing a natural curiosity and the power of rational explanation, giving children the opportunity to explore and make sense of the ever-changing world they live in. Our curriculum enables children to see the relevance of their learning to their own lives and to imagine how science might affect their further studies and adult life.

Through high quality teaching and varied learning experiences, children are encouraged to be curious and to ask questions about what they notice and observe. They are guided to develop their understanding of scientific ideas through different types of enquiry and development of disciplinary knowledge. Science forms an integral part of our everyday lives and therefore it is important for children to be scientifically literate. Throughout the school, children are immersed in rich scientific vocabulary, which aids their knowledge and understanding and allows them to articulate their understanding of taught concepts.

Our curriculum is designed to challenge prior knowledge in order to develop a secure, new understanding of knowledge and concepts. Children are given the opportunity to build on their previous learning and to develop a core knowledge progressively. Teachers create a positive attitude to science learning and develop an ethos that all children are capable of achieving high standards.

Our curriculum enables children to see the relevance of their learning and is designed over a two-year cycle which allows children to build a deeper understanding of their substantive knowledge in different ways. Disciplinary knowledge is developed through the understanding of different scientific methods; these skills are mapped out to ensure progression across the school. As children's knowledge and understanding increases, they become more proficient in selecting equipment, collating and interpreting results and become increasingly confident in their growing ability to draw conclusions based on secure evidence.

We follow an enquiry based approach to learning where substantive knowledge is taught prior to or through practical activity ensuring purposeful and knowledge based learning is taking place. Through accurate assessment, we ensure teaching is delivered to meet the needs of all pupils and additional time is given to address any gaps or misconceptions within classes, groups or with individuals.

Science is a way of life. Science is a perspective. Science is the process that takes us from confusion to understanding in a manner that is precise, predictive and reliable – a transformation, for those lucky enough to experience it, which is both empowering and emotional.

Brian Greene, American theoretical physicist