
Science Summary -Intent, Implementation and Impact

Intent

Our Science Curriculum is based upon the National Curriculum Primary Science programmes of study as well as *Laudato Si': On Care for our Common Home*. As part of our Catholic mission, *Laudato Si'* is the appeal from Pope Francis to 'every person living on this planet' for an inclusive dialogue about how we are shaping the future of our planet and acknowledging the urgency of our environmental challenges.



Science teaching at St Augustine's therefore aims to give all children a strong understanding of the world around them whilst acquiring specific skills and knowledge to help them to think scientifically, to gain an understanding of scientific processes and also an understanding of the uses and implications of Science, today and for the future. This includes learning about the positive AND negative effects and impact of scientific and technological advances on a local, national and global scale.

Implementation

At St Augustine's, children have weekly lessons in Science throughout Key Stage 1 and 2, using a variety of programmes of study and resources. In the Early Years, Science is taught through the children learning about the world around them through active play and daily extensive, well planned outdoor provision, including Forest School sessions. Throughout the school, additional enrichment opportunities are provided; Science Week is held annually and organised primarily by our Science prefects and the older children. In addition, we often invite visitors into school, as well as taking the children on educational visits linked to the Science curriculum - Monkey World, RSPB Radipole Nature Reserve, and the Year 4 residential visit to Minstead in the New Forest being just a few!



At our school, scientific enquiry skills are embedded in each topic the children study and these topics are revisited and developed throughout their time at school. Topics, such as Plants, are taught in Key Stage One and studied again in further detail throughout Key Stage Two. This model allows children to build upon their prior knowledge and increases their enthusiasm for the topics whilst embedding this procedural knowledge into the long-term memory.



All children, whatever their ability, are encouraged to develop and use a range of skills including observations, planning and investigations, as well as being encouraged to question the world around them and become independent learners in exploring possible answers for their scientific based questions. Specialist vocabulary for topics is taught and developed, and effective questioning enables children to communicate their ideas. Concepts taught are reinforced by focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions.

Teachers are provided with a wealth of high quality resources to enable them to plan their Science curriculum to the highest possible standard. As part of this planning process, teachers include the following:

- A cycle of lessons for each subject, which carefully plans for progression and depth;
- A key list of vocabulary which builds upon prior learning;
- Regular low stakes quizzes to deepen learning;
- Challenge questions for pupils to apply their learning in a philosophical/open manner;
- Trips and visits from experts to enhance the learning experience.

The successful approach at St Augustine's results in a fun, engaging, high-quality Science education that provides children with the foundations for understanding our complex 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 so we provide children with opportunities to experience this, especially with our dedicated Forest School area in the school grounds. Through various workshops, trips and interactions with experts and local charities, children have the understanding that science has changed our lives. Children learn the possibilities for careers in science as a result of our community links and connection with national agencies such as the STEM Association. 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 and to motivate learners.

Impact

At St Augustine's we measure the impact of our Science curriculum through the following methods:

- Assessment of standards achieved against the planned outcomes
- Tracking of knowledge in pre and post learning quizzes;
- Our Science curriculum is monitored by the Science Subject lead who carries out lesson drop-ins, book looks and pupil voice feedback discussions about learning. The curriculum is evaluated with teachers to ensure that the children gain the best Science provision that we can give them.