

Intent

At St Weonards Academy, it is our vision to instil a lifelong love of science within our pupils through the use of engaging and practical lessons. Science has changed our lives and is vital to the world's future prosperity. We recognise the importance of Science in every aspect of daily life and we aim to give all children a clear 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. The scientific area of learning is concerned with increasing pupils' knowledge and understanding of our world, with developing skills associated with science as a process of enquiry.

All children 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 built up over time, and effective questioning to communicate ideas is encouraged. 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. Concepts taught should be 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.

When carrying out scientific investigations children are encouraged to promote our school values, for example, teamwork and co-operation. Emphasis is placed on the children as scientists 'growing together and learning together.'

Implementation

At St Weonards Academy, teachers plan and teach work based on knowledge and skills set out in the National Curriculum. Teachers strive to build upon the learning and skill development of the previous years to ensure progression. 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.

At St Weonards teaching staff maintain a high level of subject knowledge of science by regular training and professional development opportunities, provided externally through HMFA training, online courses or at staff meetings. Any information received on courses will be shared with other teaching staff at staff meetings. Teachers use assessment for learning to tailor lessons around our children and help us plan for next steps – ensuring children are both making progress and are being challenged appropriately. Teachers strongly encourage all pupils to use specific topic related vocabulary and in KS2 we use knowledge organisers to assist with the consolidation of new knowledge.

Impact

All Science lessons are therefore engaging and high-quality across all age groups. We have the aspiration that all children will achieve age-related expectations in Science at the end of their academic year based on our rolling programmes. All children at St Weonards will retain scientific knowledge taught and will be able to question ideas and reflect on their knowledge. Children will also be able to ask their own scientific questions and work collaboratively and practically to investigate and experiment.