

Science Intent Statement

Intent

At Silverdale Primary Academy, it is our intent that for every child we awaken within them a sense of excitement and curiosity about natural phenomena and human achievements, which shape their lives. We wish to also promote a respect for the living and non-living.

We want 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.

Scientific enquiry skills are embedded in each scientific theme the children study and these themes (e.g. plants) are revisited and developed throughout their time at school. Themes are taught in Key Stage One and studied again in further detail throughout Key Stage Two. This allows children to build upon their prior knowledge and increases their enthusiasm for the topics whilst embedding this knowledge into the long-term memory.

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, and effective questioning to communicate ideas is encouraged. 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.

Implementation

The key knowledge identified by each class is informed by the national curriculum and builds towards identified phase 'end points' in accordance with NC expectations. Given the size of our school, the organisation of the curriculum takes into account each child's journey through the school.

The curriculum is designed to ensure that children are able to acquire key scientific knowledge through practical experiences; using equipment, conducting experiments, building arguments and explaining concepts confidently. We seek to ensure that these experiences are phase appropriate.

Tasks are selected and designed to provide appropriate challenge to all learners, in line with the school's commitment to inclusion and mastery.

The school's approach to science takes account of the school's own context, ensuring access to people with specialist expertise and places of scientific interest as part of the school's commitment to learning outside the classroom.

Cross curricular opportunities are also identified, mapped and planned to ensure contextual relevance. Children are encouraged to ask questions and be curious about their surroundings and a love of science is nurtured through a whole school ethos and a varied science curriculum.

Regular events, such as Science Week and Super Learning Days, allow all pupils to come off-timetable, to provide broader provision and the acquisition and application of knowledge and skills. These events often involve families and the wider community.

At the end and throughout each topic, key knowledge is reviewed by the children and rigorously checked by the teacher and consolidated as necessary

Impact

The successful approach at Silverdale Primary Academy 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.

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. They learn from and work with professionals, ensuring access to positive role models within the field of science from the immediate and wider local community.

From this exposure to a range of different scientists from various backgrounds, all children feel they are scientists and capable of achieving. Children at Silverdale Primary Academy overwhelmingly enjoy science and develop into motivated learners with sound scientific understanding.