



Science Curriculum Offer

Intent:

Science teaching at Lawrence View Primary and Nursery School 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.

Through our fully equipped science laboratory, children at Lawrence View Primary School will have access to high-quality resources which enhance their learning experience.

At Lawrence View Primary and Nursery School, scientific enquiry skills are embedded in each topic the children study, as well as scientific knowledge. These topics are revisited and developed throughout their time at school. We provide opportunities to develop and maintain working memory. 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 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 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.

Implementation:

Teachers create a positive attitude to science learning within their classrooms and in our science laboratory 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 by the class teacher and skills will be taught through this. This is a strategy to enable the achievement of a greater depth of knowledge.

Through our planning, we involve problem solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom. Planning involves teachers creating engaging lessons, often 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 can achieve their potential.

We build upon the learning and skill development of 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. Children have knowledge mats with key vocabulary, facts and diagrams to inform their learning.

Working scientifically and enquiry skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and 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. We use PLAN to develop lessons.

Children are offered a wide range of extra-curricular activities, visits, trips and visitors to complement and broaden the curriculum. These are purposeful and link with the knowledge being taught in class.

Regular events, such as Science Week or Green Day, 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.

Impact:

Our Science Curriculum is high quality, well thought out and is planned to demonstrate progression. In addition, we measure the impact of our curriculum through the following methods:

A reflection on standards achieved against the planned outcomes (KPI's);

A celebration of learning for each term which demonstrates progression across the school;

Tracking of knowledge in pre and post learning quizzes;

Pupil discussions about their learning.