Intent

At Thorndon Primary School, we understand that children are naturally curious and we encourage this inquisitive nature throughout their time with us and beyond. Science fosters a healthy curiosity in children about our universe and promotes respect for the living and non-living. We believe Science encompasses the acquisition of knowledge, concepts, skills and positive attitudes. Through the programmes of study in the National Curriculum science document children will acquire and develop these skills throughout their Primary years. We ensure that the Working Scientifically skills are built-on and developed throughout their school career so that they can use equipment, conduct experiments, build arguments and explain concepts confidently and continue to ask questions and be curious about their surroundings.

Implementation

Teachers create a positive attitude to science learning within their classrooms 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 is planned through the Cornerstones Maestro Curriculum. 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.
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.
Working Scientifically 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.

Impact

Each lesson starts with a 'green knowledge question' from the previous lesson to check their knowledge and understanding.
At the end of each topic children take a 'knowledge and skills quiz' so the teacher can assess where they are.
The successful approach at Thorndon Primary results in a fun, engaging, high-quality science education, that provides children with the foundations 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. So much of Science lends itself to outdoor learning and so we provide children with opportunities to experience this. Through various workshops, trips and highly engaging hook days children have the understanding that science has changed our lives and that it is vital to the world's future prosperity.