



Science at Downview

Intent: This is why we teach what we teach:

At Downview Primary, science is fully inclusive to every child. Our aims are to: fulfil the requirements of the National Curriculum for science, provide a broad and balanced curriculum and ensure the progressive development of knowledge and skills.

The teaching of Science aims to give all children a secure understanding of the world around them whilst developing core scientific knowledge and investigative skills. Through building up a body of key foundational knowledge and concepts, children are encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. This will support all children to understand the uses and implications of science, today and for the future.

Implementation: This is what we do:

To ensure high standards of teaching and learning in science, we implement a curriculum that is progressive throughout the whole school.

Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all pupils 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 involving high quality resources with numerous opportunities, both inside and outside, to experiment and investigate.
- Through our planning, we involve problem solving opportunities that allow children to apply their knowledge, and find out answers 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 and home learning about the world of science is championed. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess pupils regularly to identify those children with gaps in learning, so that all pupils keep up.
- We build upon the knowledge 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 and knowing the importance of fair testing.
- Children learn to think and study scientifically with these skills being developed throughout the children's scientific journey. New topic-based vocabulary and challenging concepts are introduced through direct teaching and this new vocabulary is displayed throughout the topic.

- Events, such as British Science Week, provide a broader provision encouraging the acquisition and application of knowledge and skills. These are purposeful, linking with the knowledge being taught in class and where appropriate involve the wider community.
- Trips and works, such as the year 1 reptile visit and the year 6 Planetarium day, provide contextual learning opportunities and reinforces class-based learning.

Impact: By the time children leave our school, they will:

Within science, we strive to create a supportive and collaborative ethos for learning by providing investigative and enquiry based learning opportunities to help children gain a coherent knowledge and understanding of each unit of work covered throughout the school.

The approach at Downview Primary 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. Through various workshops, trips and interactions, 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, from a range of different scientists from various backgrounds, allowing all children to feel they are scientists and capable of achieving. Through a positive caring environment, we provide the opportunity for children to reach their full potential.