SCIENCE AT WILLAND SCHOOL

INTENT

At Willand School, we aim 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.

We will deliver a science curriculum that:

- builds upon prior knowledge and a progression of skills to ensure all children have a secure understanding and knowledge of key science concepts;
- develops creativity and challenges all;
- inspires and excites our children through engaging practical sessions which are enriched where appropriate with visits and visitors;
- encourages our children to be self-motivated, independent, curious and resilient learners by developing inquiry-based skills;
- builds science capital for all our children, regardless of their background and starting point, so that they are inspired to continue to use science in their everyday life, future education and careers.

IMPLEMENTATION

The curriculum is led and overseen by the science lead, who regularly monitors, evaluates and reviews science teaching and learning, celebrating and sharing good practice.

The National Curriculum provides the basis for our science curriculum, which is then tailored to meet the learning and developmental needs of the children in our school.

Teachers plan science using the curriculum map and the long term plan. This is based on the ASE (Association of Science Education) PLAN Progression in Knowledge Matrices which highlight prior learning, key learning outcomes and key vocabulary. PLAN Progression in Working Scientifically documents outline the working scientifically skills, which teachers use to plan a range of enquiry-based lessons which support children's journeys to become independent and resilient learners.

The pupils' knowledge and understanding is assessed before each unit of work by question, discussion and observation. Individuals and groups complete 'cold tasks' which summarise knowledge and understanding. The results of these are then used to refine the starting points and the level of challenge for the activities that follow.

Throughout topics, formative assessments are integrated into every day science teaching to ensure teachers have an in-depth knowledge of the children's learning and to inform their next steps. Hot tasks are used to inform termly assessments and to allow for long term memory development and secure understanding of skills. These are recorded on Insight Tracker.

Science is taught discretely through weekly sessions although these may occasionally be blocked and applied in theme weeks.

IMPACT

The successful approach at Willand School results in a fun, engaging, high-quality science education, that will equip children with the scientific knowledge and skills that they need to succeed.

Children will become resilient, independent and curious scientists who ask questions based on their scientific understandings and who are able to find things out for themselves.

By the end of KS2, children will have developed inquisitive minds, critical thinking skills and a thirst for knowledge. They will be able to work scientifically and use problem solving skills in a variety of situations with increasing proficiency, including in unfamiliar contexts and to model real-life scenarios.

Children will have the understanding that science has changed our lives and that it is vital to the world's future prosperity. They will have an awareness of the full range of scientific careers and pathways available to them and will be keen to pursue STEM subjects at secondary school.

The school's science provision is recognised by the achievement of the nationally recognised 'Primary Science Quality Mark', which the school currently holds at gilt level.

SCIENCE IN EYFS

In the EYFS, Science is encompassed in 'Understanding of the World' and incorporates children's understanding of the 'Natural World'. Through the EYFS topics of 'Amazing Animals', 'Come Outside' and 'Fun at the Seaside' we capitalise on children's fascination and interest in their surroundings and the world in which they live.

Learning in the outside environment is key to enhancing child-led learning. We provide opportunities for children to question, wonder, explore, discover, experiment and observe through direct experiences. The children are introduced to scientific vocabulary to help them further their understanding and are asked open-ended questions, so that they can make predictions and give them opportunities to question.

Our Early Years provision ensures that children have access to a range of materials that work in different ways for various purposes. Children can use resources and the environment around them to notice similarities and differences, changes over time such as a growing plant in our raised beds and discuss their point of view with their peers.

Our science lead is: Amy Leather
Our science governor is: Dr Eduarda Santos