

Oulton Primary School

Science Curriculum Intent:

Intent

At Oulton Primary School, we aim to prepare our children for the amazing world of science and technology and help them to recognise the implications of using Science in everyday life. We want the children to become passionate Scientists who will approach new learning experiences with fascination and resilience and apply their skills to make informed choices. We place scientific enquiry at the core of our curriculum to ensure children acquire fundamental scientific knowledge, skills and the vocabulary that they need. We hope this will allow our children to think scientifically, understand scientific processes and to communicate their understanding across a range of contexts and in a variety of ways. We aim to provide ample opportunities for our children to experience a range of scientific enquiry methods whilst working on their own or collaboratively with their peers. We want our children to use their inquisitive nature to build upon prior learning, ask questions to extend their scientific understanding and to suggest ways to move their learning on.

Implementation

Our Science Curriculum is engaging, challenging and of a high quality. Science units are planned and taught following the National Curriculum which ensures the content is suitable and learning is pitched at an appropriate level. KS2 use 'Explore, Engage, Extend' activities to assess prior knowledge and understanding in a fun and motivational way and to identify common misconceptions children have acquired before planning new learning experiences.

In Early Years, the curriculum is responsive to the children's interests which helps staff to provide incidental learning opportunities to allow children to participate in awe and wonder experiments, explore changing states of matter and to understand some natural processes around them. Close links are always made to the characteristics of effective learning such as being an inquisitive learner, making links and problem solving. During Autumn 2, they have a 'Beyond the World' topic, to expose them to the concept of the wider world which also prepares them for further learning in UKS2. We have a wonderful nature area they visit regularly to explore the natural world them, make observations and compare contrasting environments. The nature area is also used by KS1 and KS2 when appropriate. To capture the children's learning in the Early Years, evidence is collected and used to create floor books. The children in Early Years and KS1 are also provided with opportunities to observe seasonal changes on our school grounds or locally. During these times, they are encouraged to identify the changes they have observed and discuss the similarities and differences between the seasons.

In KS1 and KS2, the children have a science week each half term but are given additional time to cover the full curriculum content, if necessary. Teachers promote curiosity and participation within lessons by providing children with opportunities to pose questions and suggest ways to answer a hypothesis. Teachers model enquiry skills and help children to develop good exploratory techniques by teaching them how to observe over time and how to use a range of equipment carefully and with precision. Teachers model the use of scientific vocabulary to help children articulately discuss their work, draw appropriate conclusions and relate their findings to the scientific concepts studied. Children in KS2 have more enquiry-based research which encourages them to plan their own scientific experiments to answer questions and to control variables.

The six components of working scientifically are displayed in each classroom using concept cartoons, such as Billy Book Head, Spy Magnus and Commander Classify. This has allowed teachers to emphasise the scientific

Oulton Primary School

skills they are going to use within a lesson and to encourage the children to make direct links to previous learning.

To promote Science across school, we have a whole school Science week/fair at the end of each year. Scientists are invited into school to lead investigations; work is displayed around school and children are encouraged to set up their own investigative stations. We offer educational trips to various sites including Eureka, Magna, Teaching Trees and an observatory visit. An after-school Science Club is also available for children in KS1.

Impact

Our Science curriculum motivates children to learn about the world around them, including the influential Scientists who have positively impacted upon our lives. Therefore, children have a broad understanding of the career paths they could take later in life.

Pupils' attainment will be in line with National and they make at least expected progress from their individual starting points. Our children can apply their scientific thinking and adapt their science practice to a range of situations. They build on their prior knowledge as they progress through school and are confident in using scientific vocabulary. They can also make observations, record and present their findings and draw their own conclusions.