

Science at Hawley

At Hawley, we want all our pupils to grow up with the scientific knowledge, skills and enthusiasm to become educated citizens in our global society. We value science as a core subject. We build on our pupils' scientific capital in order to ensure that they can benefit from the widening opportunities offered in the world today. We want them to understand that they too can be successful scientists.

Intent

We love to teach science through **real experiences** and frequently take the children on trips that have a scientific focus. We make use of our garden, and other aspects of our local environment, to enhance the children's understanding of the world. Science lessons are a very enjoyable part of the school day. Hawley is fortunate to be a short walk away from the Kings Cross Knowledge Quarter and London Zoo. We take full advantage of all the opportunities offered in the **local community** and beyond to enable children to see how science works in the real world.

We want all our pupils to have a positive attitude towards science and to understand that science is exciting, useful, **creative** and challenging. Furthermore, we want children to gain specific scientific knowledge and a secure understanding of scientific concepts. As children move through the school, we carefully ensure that their scientific skills progress in line with National Curriculum requirements.

Our curriculum map is designed so that each term, where possible, we link the science component with learning in other subject areas. We believe that by making connections between subject areas, learning is reinforced. However, in order to cover all aspects of the science curriculum, we also teach some aspects of scientific knowledge discreetly. Through our science lessons, pupils will also develop the cognitive skills that they need in order to extend their learning. We focus on the Hawley Habits of curiosity, imagination, self-discipline, resilience and collaboration.

As global citizens, our science curriculum is **relevant** in today's world. We have a focus on environmental issues within our curriculum and, where relevant, respond to 21st Century news and events in our science lessons.

Implementation

We follow the National Curriculum for Science, teaching each key strand of science across the three disciplines of biology, chemistry and physics. Each year group follows our carefully planned topic-based curriculum.

- **At Hawley every child is entitled to meaningful opportunities and real experiences.** We ensure that when we teach science, we relate it as much as possible to what is happening in the local environment and in the wider world. Children learn the Scientific knowledge set out for each year group in the National Curriculum as they progress through the school. We aim for every science lesson to contain a practical element.

- Children learn the skills required to carry out a range of scientific enquiries including pattern seeking; comparative and fair testing; identifying, classifying and grouping; observation over time and researching using secondary sources. Teachers plan to teach scientific knowledge through these different types of enquiry, building a progression of scientific skills throughout the year.
- It is important to build on the children's previous knowledge. Teachers always begin a new science topic by finding out what the children already know and building from there. Teachers plan carefully to ensure that the science curriculum can be accessed by all our pupils.
- In the curriculum plan, the vocabulary to be covered within a topic is made explicit.
- The science lead supports teachers and monitors standards.

Impact

We carefully monitor how well children are learning, observing whether knowledge is embedded and used.

We aim to ensure that children are interested in the world around them and have a set of key skills and a scientific vocabulary which they can use in investigations. Teachers assess pupils' retention of knowledge through Teacher Assessment in Primary Science (TAPS). At the beginning of a science topic, teachers investigate children's retention of prior knowledge in that area and ensure that they plan according to the needs of the children in their class.

We constantly review our curriculum through regular subject reviews to ensure sequential, layered knowledge acquisition, to check that pupil outcomes are of a high quality and that their learning is relevant and inspiring.