



Science

Rational

At Pens Meadow we understand that science teaching begins in the EYFS and enables pupils to explore the world around them, build foundations and develop a sense of curiosity. In EYFS and lower phase, we introduce our pupils to simple scientific vocabulary which enables them to start building scientific schemas that can be built upon as they progress through school.

Our science curriculum is a conceptualised curriculum based upon up-to-date research about how children learn as well as how to meet the ranging needs of learners with complex difficulties. It builds upon the expectations of Birth to Five Matters and the National Curriculum whilst reflecting the views of all school stakeholders at Pens Meadow School. These documents have been carefully broken down into meaningful components and carefully sequenced to enable pupils to revisit and review previous learning and build upon their developing understanding.

Curriculum coverage has been planned to ensure that as a core subject, science is taught regularly throughout the year both as a stand-alone subject and contextually within other subjects up to key stage four. At key stage five, pupils continue to build on scientific knowledge particularly related to staying healthy, animal care, conditions for growing plants and changes to materials through preparation for adulthood, horticulture, catering and work-related learning.

Our cyclic approach, to science curriculum coverage, ensures that all pupils have opportunities to develop their knowledge progressively as they move through school, whilst revisiting key content ensuring learning is embedded.

Our science progression document enables learning to be pitched at individual pupil's zone of challenge in line with their development level enabling the planning of accurate end points and targeted progress.

Intent

At Pens Meadow School we aim for our pupils to develop a natural curiosity and an understanding of the world around them whilst preparing them for life beyond school. Beginning with scientific experiences and vocabulary development, in the EYFS, our curriculum enables pupils to explore and make sense of the world in which they live. They are given a range of opportunities to discover and think about the uses and implications of science today and in the future across the curriculum.

Pupils are supported to develop specific scientific skills and knowledge which will provide the foundation for their scientific understanding. We do this by ensuring scientific learning is meaningful for our pupils and that this is chunked and revisited over pupil's time in school to support them to make links and develop long term learning. Procedural, disciplinary learning has been matched to the most appropriate knowledge based, substantive contexts to support pupils understanding the skills needed to be an effective scientist. Pupils are then given opportunities to contextualise these skills across other areas.

We ensure that our pupils are provided with rich, high-quality learning that aims to:

- Enable pupil to communicate their understanding and interest in science through carefully adapted experiences supported by a total communication environment.
- Support our pupils to make links in the world around them and prepare them for life beyond school in an increasingly scientific and technological world.
- Explicitly teach scientific vocabulary alongside new knowledge.
- Give our pupils an increasing understanding of scientific approaches to solving problems.
- Encourage problem solving and independence.
- Make links between science and other areas of learning across school.
- Develop the use of technology to support pupil's scientific enquiry.

