

Science

The science curriculum at Pye Bank has been designed to ensure that pupils progressively develop a wide range of scientific knowledge and skills as they move through the year groups. Along with covering the National Curriculum objectives, we have also developed our own approach to breaking complex units and objectives into smaller steps, teaching geology within the primary curriculum and having a focus on key scientists to help Pye Bank pupils develop into competent, well informed young scientists. All pupils have weekly science lessons which enable them to explore scientific concepts in chemistry, biology and physics, while building a range of investigative skills. Practical and investigative work is key throughout the curriculum and ensures that the ‘invisible is made visible’ to all pupils.

The fundamentals for scientific understanding begin in our Foundation Stage. During FS1 and FS2, pupils learn about and experience the world through play. Our pupils have opportunities to explore and discover concepts practically and develop an understanding of our world. Ideas such as ‘push and pull’ are discussed in relation to their own understanding, such as through playing on scooters, with play dough. They are also encouraged to verbalise their learning using key scientific vocabulary. Learning in Key Stage One focuses on pupils developing a scientific understanding of the world around us. This includes: plants, animals, humans and uses of everyday materials. Pupils are introduced to the concepts of making predictions, fair testing and drawing conclusions to allow them to work as scientists from an early age. Pupils are encouraged to be curious and ask questions about what they notice.

Key Stage Two builds upon these ideas and then also begins to focus more on forces through physics, and chemistry. Pupils continue to develop their working scientifically skills as they progress through Years 3-6, focusing upon asking and answering questions, making careful observations, setting up and performing simple investigations, gathering and recording data, drawing conclusions and making well thought evaluations. As they work through Key Stage Two, pupils increasingly have carefully planned opportunities to apply their learning from other areas of the curriculum, such as maths, computing and design and technology.

We believe that at Pye Bank School, all pupils are potential scientists and we ensure that they are exposed to scientific culture through trips, studies of significant individuals and visits from people in industry: this has previously included Rolls-Royce, forensic scientists and people working in the medical field. Although not all of our pupils will go on to become scientists, all of our pupils will need to go on to be good scientifically aware citizens. With the vast range of news and media available, working and thinking scientifically helps pupils to be make sense of it all and to think critically about the world around them.

