

Science Intent



Our science curriculum aims to equip children with the foundations for understanding the world through a scientific lens. Pupils will build a body of key foundational science knowledge as they work through the curriculum, asking questions and developing a sense of curiosity about the world around us.

We believe the PKC curriculum is right for our children because of its core values around developing children's knowledge and vocabulary as well as being ambitious in its content. We want all our children to have the opportunities to experience the wider world and develop their language and knowledge to support their ambitions for the future. The structure of the lessons also includes a clear focus on oracy through talk tasks, which mirrors the core subjects of maths and literacy.

Pupils will encounter people who have made significant contributions to the field of science over time, understanding that science has been a quest for understanding for many years, and will continue to be so in the future. This is critical for our children in particular as it is important for them to see successful thinkers over-coming obstacles in their life which builds some of our Trust's values, tenacity, curiosity and scholarship.

Pupils will be encouraged to use the knowledge they learn in Science and apply it to investigations that test a theory or set out to answer a question. Importantly, substantive scientific knowledge is taught first, before pupils are asked to undertake enquiry. This helps them to fully understand the elements of the enquiry first, and to make informed observations about the processes they see. Gathering information, recording data, graphing data and interpreting findings are all essential skills that pupils will apply to new contexts as they work through the curriculum. This also promotes an inter-discipline approach as it will draw on skills they have learned from maths, reading and writing.

Our science curriculum builds knowledge incrementally. The curriculum builds on the Early Years Foundation Stage Understanding of the World where children have been exposed to scientific thinking and experimentation when exploring creatures, people, plants and objects in their natural environments. Pupils have multiple opportunities to secure and build on their knowledge and understanding as subject content is revisited at points throughout the curriculum. Knowledge will also build on previous learning and gradually become more sophisticated as they reach upper KS2. Each lesson will dedicate some time recapping key vocabulary and ideas to reinforce learning. Knowledge organisers with key vocabulary, scientists and concepts will also punctuate each unit which children can access throughout their lessons. This helps our children to master the knowledge and concepts whilst building up an extended specialist vocabulary through repetition and over-learning. This allows our children to make accelerated progress and lessen the language gap ('word gap') that we know affects our children disproportionately.