



Science Curriculum Intent

In science we aim to build our children's knowledge and understanding of themselves and of the world they live in. We want to enthuse their natural awe and wonder and encourage their curiosity for natural phenomena and the science all around them. They will learn to question and discuss science based issues that may affect their own lives, the directions of society and the future of the world. Pupils will understand how major scientific ideas and specific scientists in the past have contributed toward societal change – impacting on industry, medicine, business and improving quality of life. We will ensure that our children have a meaningful conceptual understanding of the essential aspects of the knowledge, methods, processes and uses of science. We encourage children to raise their own questions for exploration and develop transferable skills such as observation, communication and teamwork.

We will ensure that science is taught meaningfully and effectively through focusing on building their knowledge, developing their skills to work scientifically, giving them the opportunities to ask questions through a focus on scientific enquiry and building their science capital so that they have the opportunities to become the scientists of the future.

Knowledge

Science helps our children develop and understand the scientific vocabulary and concepts that will be important for them to understand the world and thrive in their daily lives, now and in the future.

We will therefore explicitly teach the knowledge statements set out in the National Curriculum and its associated vocabulary, using real-life contexts that our children can relate to and providing them with experiences outside the classroom, including outdoor learning. We aim to ensure that all our children are secure in the required knowledge for their year-group and any that are not will be given opportunities to revisit it.

Working Scientifically skills

Science is an opportunity for our children to learn that making mistakes is part of answering scientific questions and that science skills allow them to learn from them and find the right answers.

We will therefore explicitly teach the working scientifically skills set out in the National Curriculum and encourage our children to use the skills they learn to answer scientific questions that emerge from exploration of the world around them. As they progress through the school, we will support our children to use these skills with greater independence to answer their own scientific questions. We aim to ensure that our children are secure in the working scientifically skills for their phase and any that are not will be given opportunities to revisit them.

Scientific Enquiry

Science provides opportunities for our children to develop their curiosity about the world and, through first-hand experiences, explore and answer their own questions about it.

Scientific curiosity is 'a level playing field' which provides an opportunity for all our children to develop and use their science knowledge and skills to answer their own questions, as well as practice skills learnt in other subjects.

We will therefore use first-hand experiences, wherever possible, to encourage our children to be curious about the world around them. We will give them time and support to use their developing science skills and knowledge to answer the questions they have about the world through scientific enquiry. We will make explicit the skills they use in science that they also use in other subjects.

Science Capital

Scientific skills are important for an increasing number of exciting and rewarding jobs that our children might want to do in the future that they may not currently be aware of. Because our children come from diverse backgrounds with different experiences of science and scientists, we will provide them with opportunities to be scientists themselves, learn about the range of different jobs that require scientific knowledge and skills, and engage with real scientists both male and female and from diverse backgrounds, to learn about their work.

In addition we will increase their knowledge of the scientific world by ensuring they are aware of current scientific programmes, e.g. International Space Station/Tim Peake, Kew Gardens Seedbank, and broadening their knowledge of names of common animals, trees, flowers etc. which they may come across in daily life.