Science at Bridges Federation

Vision

Our vision is to develop pupils' understanding of key scientific concepts and skills, fostering a curiosity about the world and a passion for scientific inquiry. We aim to equip pupils with the knowledge, methods, processes, and uses of Science, enabling them to think critically, solve problems, and make informed decisions. We provide engaging and challenging learning experiences that build upon prior knowledge and promote independent thinking.

Intent

We recognise the importance of Science in everyday life. As one of the core subjects, we aim to give Science the prominence it requires.

Learning in Science prioritises the increasing of children's knowledge and understanding of the world. Scientific skills and concepts are developed through a process of enquiry and observation. We aim to develop the natural curiosity of our children, the confidence to question a process or theory, a respect for living organisms and the environment. We also provide opportunities for the children to critically evaluate the evidence presented to them or gathered through their own enquiries.

Implementation, Content and Sequencing

Science is taught utilising the Hamilton Trust scheme and following our whole school overview. The units are designed to provide a breadth of study across the three scientific fields in a way that will engage, excite and enthuse the children. A different Science unit is taught every half term, with lots of opportunities for practical activities.

Across the three schools we plan each unit of work together which allows teachers to support each other.

Throughout their primary school journey, children are encouraged to develop their critical thinking skills, curiosity, and scientific literacy, preparing them for further study in secondary school and beyond.

Impact

We monitor the impact of learning each lesson through teacher observations and questioning.
The expected impact of the Science curriculum is that children will: Develop scientific knowledge and understanding of concepts, answering scientific questions about the world around them through different types of enquiries. Develop and use a range of skills including observations, planning and carrying out investigations. To evoke an enthusiasm and enjoyment for scientific learning and discovery, creating independent learners. Be equipped with the knowledge needed to understand the breadth of Science, through both it's uses and the implications of it, today and in the future. Use a range of methods to communicate their scientific findings and present it. Meet the end of key stage expectations outlined in the National Curriculum for Science

Progress

We follow a structured progression from Early Years to Year 6, encompassing a range of skills and knowledge acquisition in accordance with the 2014 National Curriculum in England. In Early Years, children are introduced to the basics of scientific inquiry through exploration and observation. They learn to ask simple questions, make simple observations and perform simple tests. As they progress to Key Stage 1, children begin to develop a deeper understanding of scientific concepts. They learn to conduct simple experiments, record their findings and make comparisons. Moving on to LKS2, children delve into more complex topics in science, including forces, classification and electricity. They start to apply their scientific knowledge to explain phenomena and engage in more advanced scientific skills. By UKS2, in Year 5 & Year 6, children are expected to demonstrate a more sophisticated understanding of scientific concepts, conduct experiments using a wider range of equipment & resources, & communicate their findings effectively through written reports and presentations.

Links with other subjects

Science touches every part of life and as such, can connect with other areas of the curriculum. Many aspects of data handling and measure in mathematics is used when completing investigations. Specific subject knowledge can also be linked across the curriculum, for example reversible and irreversible changes. This can relate to cookery in DT, deforestation in Geography and the sharing of information online in Computing. We also encourage opportunities for extended writing during our science lessons.

Support

We support our SEND children by displaying and discussing subject specific vocabulary and adapting work where appropriate. A range of equipment is available for investigations and methods of recording are adapted to support children with a range of needs, if required.