

Science Approach

Science raises aspirations for children who lack confidence. Practical investigations help children to develop valuable skills including resilience and self-belief. Children learn that if something does not work first time it does not matter. They can talk about why it did not work and find a solution. They become less hung-up on getting everything right. Science builds practical real-life, transferable skills.

We value science as a core subject and want our pupils to learn key scientific vocabulary and knowledge as well as the skills linked to scientific working. We want the pupils at Berkeley Primary to develop the ability to think independently and raise scientific questions, developing an enthusiasm and enjoyment of scientific learning and discovery so that they have an excitement and passion to pursue science at secondary school and know what career options it could lead to.

Intent

We aim for all pupils to have:

- The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings.
- Confidence and competence in the full range of practical skills, taking the initiative in, for example, planning and carrying out scientific investigations.
- Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings.
- High levels of originality, imagination or innovation in the application of skills.
- The ability to undertake practical work in a variety of contexts, including fieldwork.
- A passion for science and its application in past, present and future technologies.

Implementation

- Science is taught weekly in termly units. This is a strategy to enable the achievement of a greater depth of knowledge.
- Through our planning, we involve problem solving opportunities that allow children to find out for themselves. Children are encouraged to



ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom.

- Planning involves teachers creating engaging lessons, often involving high-quality resources to aid understanding of conceptual knowledge.
- Teachers use precise questioning in class to test conceptual knowledge and skills and assess children regularly to identify those children with gaps in learning, so that all children keep up.
- We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.

Impact

Children at Berkeley Primary School will:

- Be able to retain knowledge that is pertinent to Science with a real life context.
- Be able to question ideas and reflect on knowledge.
- Work collaboratively and practically to investigate and experiment.
- Be able to articulate their understanding of scientific concepts and be able to reason scientifically using rich language linked to science.
- Demonstrate a high love of mathematical skills through their work, organising, recording and interpreting results.
- Achieve age related expectations in Science at the end of their cohort year.

