

Science Pedagogy

Aims

At Emmaus, children will explore the world around them through the specific disciplines of physics, chemistry and biology. Children are encouraged to develop a sense of curiosity and excitement about the world around them through the use of appropriate resources, fieldwork and first-hand enquiry that promote questioning and exploration. Children are given the opportunity to develop their scientific knowledge and understanding of scientific ideas, processes and skills. Children consider how science affects the world on a personal, national and global level and the positive and negative impacts of scientific developments. As part of our school's unique Catholic and Church of England status we also reflect on God's presence in each scientific phenomenon.

What is taught?

Emmaus follows the National Curriculum programme of study as this ensures cohesion and progression. Pupils develop an understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.

Over the course of an academic year, children will carry out several investigations which involve different types of enquiry approaches:

- **observation over time**
- **identifying and classifying**
- **pattern seeking**
- **research using secondary sources**
- **comparative and fair testing**

At Emmaus, we emphasise the importance of a precise understanding and application of scientific vocabulary in pupils' development. The quality and variety of language that pupils hear and speak are key factors in developing their scientific vocabulary and articulating scientific concepts clearly and precisely. For each science topic, key knowledge and vocabulary are identified. These are the minimum expectations for all pupils as the powerful knowledge and core vocabulary all children must master. Lessons will include the opportunity to understand and apply this knowledge and vocabulary in written and spoken form.