

Grow

Personal qualities, identity, social skills

Characteristics of learning

Learn

Curriculum knowledge and skills

Connect

Morals and Values, Spirituality

Science Intent

At Canonbury, our science curriculum aims to inspire **curiosity, wonder and a connection** with our world, providing children with opportunities to develop scientific **knowledge and understanding** from Early Years to Year 6 through play, investigation, observation and practical experiments.

Children revisit key areas of Science as they progress through the school, building on previous knowledge, skills and conceptual understanding. They learn to use **scientific vocabulary** accurately and precisely, **asking questions, describing processes** and making **predictions** and **conclusions**.

In line with the National curriculum (2014):

Children will learn about the foundations of understanding the world through **Biology, Chemistry** and **Physics**. They will learn essential knowledge, methods, and processes, as well as the **uses of Science**, how science has changed and shaped our world and its role in the future.

Children learn through hands-on experiences through each unit of work, conducting **scientific enquiries**, allowing them to develop a range of knowledge and skills as they make observations in order to answer specific questions. In order to help children achieve this, their controlled investigations may include observing over time; identifying patterns; classifying and grouping; research using secondary sources.

Early Years

The Early Years Foundation Stage Curriculum supports children's understanding of science through the specific area of 'Understanding the World'. At Canonbury, our children will begin to explore the natural world around them, learning to make sense of their immediate physical world and community. Children will

- make connections through observations, drawings and discussions
- learn about Science in the world around them through stories
- start to have a sense of their world through talk and the development of rich, varied vocabulary.
- become curious and excited about their learning, through a science rich learning environment
- ask questions and express ideas

In line with the early year's framework (2021), our aim is that children will:

- Explore the natural world around them, making observations and drawing pictures of animals and plants.
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class;
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Key Stage One

In Key Stage One, pupils build on their Early Years experiences to look more closely at the natural and humanly constructed world around them. By conducting observations and investigations, including practical experiments, they have opportunities to ask and answer their own questions, express their ideas and explain their conclusions.

In Key Stage One, pupils learnt to work scientifically by

- developing and applying simple scientific language vocabulary
- developing the skills to observe changes over a period of time
- learning to identify and recognise patterns and to group and classify
- carrying out simple comparative tests
- developing their knowledge using secondary sources of information

They apply these skills in key areas of Science that they revisit throughout the key stage in order to progress their knowledge and skills over time:

Year 1: Plants - Animals, including humans - Everyday materials – Seasonal changes

Year 2: Living things and their habitats – Plants - Animals, including humans
Uses of everyday materials

Key Stage Two

The Key Stage two curriculum builds upon prior learning in Key Stage One, supporting pupils to deepen and widen their scientific knowledge and skills.

In Key Stage Two, pupils learn to work scientifically by

- developing a wider range of scientific language and vocabulary
- identifying what they need to find out and the observations they need to make
- planning and carrying out controlled, purposeful experiments
- making predictions, follow a process and draw conclusions
- organizing and presenting their findings effectively, both orally and in writing.

They apply these skills in key areas of Science that they revisit throughout the key stage in order to progress their knowledge and skills over time:

Year 3: Plants - Animals, including humans - Rocks - Light- Forces and magnets

Year 4: Living things and their habitats - Animals, including humans - States of matter - Sound - Electricity

Year 5: Living things and their habitats - Animals, including humans
Properties and changes of materials – Earth and space – Forces

Year 6: Living things and their habitats - Animals, including humans
Evolution and Inheritance – Light - Electricity