

Early Years Foundation Stage

In the Early Years scientific understanding is fostered by supporting children's understanding of The World.

Carefully planned environments both indoors and outdoors provide opportunities for the children to observe, discuss and question what happens in the world around them.

Through a thematic approach, skills and knowledge are built upon which enable the children to have opportunities to:

- ⇒ Use a range of simple scientific equipment.
- ⇒ Explore different materials and how they can be changed; Explore scientific processes.
- ⇒ Observe how plants grow and learn how to take care of them.
- ⇒ Observe the weather and seasonal changes.
- ⇒ Discover how we can take care of the environment around us.
- ⇒ Care for living things and the environment.
- ⇒ Set their own challenges and problems.
- ⇒ Observe creatures grow and change (life cycles).
- ⇒ Record findings e.g. weather, insects found.
- ⇒ Develop a sense of awe and wonder.

This is achieved through adult-led small groups and through children's access to continuous provision during independent learning time. Trips and expert led workshops support, embed and extend their learning.

By the end of their time at St George's, we expect that all our pupils will have developed a good Scientific understanding of the world around them. But more than that, we aim for all our pupils to have the courage to try new things, to trust that they might not know the answer but that they have the skills to work it out and to be curious about what else that can discover about the world.



St George's Beneficial C of E Primary School



Science

Science at St George's

At St. George's Beneficial CofE Primary School, we value science education because it provides the foundations for understanding the world in which we live. Science is not just about knowledge. It is about making predictions, understanding methods and processes, analysing results, providing explanations and drawing conclusions. But most of all, it is about curiosity. Science encourages children to explore and ask questions, developing their thinking skills and a sense of wonder about the world.



We aim to:-

- 1) Promote a positive attitude to science, providing children with the best possible opportunity to fulfil their potential.
- 2) Develop scientific knowledge and conceptual understanding through a variety of topics (see *Curriculum*).
- 3) Develop an understanding of the uses and implications of science, enabling children to recognise its relevance in everyday life.
- 4) Develop an understanding of the nature, processes and methods of science, allowing children to explain the world around them (see *Working Scientifically*).
- 5) Extend scientific terminology, building a range of specialist and technical vocabulary, and developing its accurate use to enable children to articulate scientific concepts clearly and precisely.

Curriculum

Throughout KS1 and KS2, children will study:

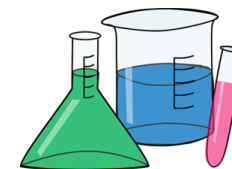
Plants; Animals; Living things and their habitats; Evolution and inheritance; Materials; Rocks; States of matter; Seasons; Light; Forces and magnets; Sound; Electricity; and Earth and Space.

Where possible a thematic approach is used to contextualise the learning and to support the children to make links e.g. with their experiences. STEM projects are incorporated where possible to support and extend their learning practically and purposefully.

Working scientifically

'Working scientifically' describes the process of developing skills in scientific enquiry. Children will be given the opportunity to:

- make observations and measurements;
- identify patterns;
- identify, classify and group living things;
- design and carry out comparative and fair tests (controlled investigations);
- collect, analyse and present data (using ICT where appropriate);
- and research using secondary sources.



These are taught through a range of practical experiments that build on the knowledge that they have learnt previously. As their skills and knowledge develop over the years, the experiments progress in sophistication and the level of independence the pupils have in designing them. Many of these will require children to apply their mathematical knowledge and to problem solve.

Hands on Experiences

During their time at St George's, children will have the opportunity to take part in a range of Science based workshops—including during Science week - and to undertake trips designed to support their understanding of the topics covered in the curriculum e.g. rainforests. Experts and real Scientists are invited into school to support, embed and extend the learning.

Health and Safety



Children will learn to consider aspects of health and safety associated with carrying out science activities. They will develop the ability to recognise and assess the risks and hazards involved, planning activities and behaving in such a way as to reduce or remove these.

They will learn to take reasonable care for the health and safety of themselves and others, and develop a responsibility and respect for all living things and the environment.