**Science at St Augustine’s Catholic Primary School**



***“Science is fun. Science is curiosity. We all have natural curiosity. Science is a process of investigating. It's posing questions and coming up with a method. It's delving in.”***

***Sally Ride – Astronaut and physicist.***

In an increasingly scientific and technological age, children need to acquire the skills and knowledge that will prepare them for life in the 21st century. Science helps explain how the world works and encourages children to develop an **interest** and **curiosity** about their world as well as foster **respect** for their environment. Children will understand and appreciate that science is of importance to everyday life.

At St Augustine’s, we are committed to ensuring the curriculum is **broad**, **balanced** and **purposeful**. We ensure the progressive development of knowledge, skills and vocabulary. We aim for all children to develop a **love of science** and the world around them. We do this through hands-on learning and scientific investigations. We aim to encourage, inspire and sustain children’s curiosity for the world around them that they will continue to develop as they go through all stages of their educational journey and the rest of their lives.

**Intent**

At St. Augustine’s, our children are **SCIENTISTS**!

We intend for children to;

* Develop their natural curiosity and confidence to question the world around them.
* Develop a passion for science; its application in the past, present and future technologies.
* Have a wide range of opportunities to think scientifically and develop their scientific skills to make predictions, plan fair tests and draw conclusions.
* Have regular opportunities to ask and answer questions, through scientific investigation and discussion.

We want the children to grow up wanting to become astronauts, biologists, or physicists.

Our aim is that through stimulating and challenging experiences, we help every child secure and extend their scientific knowledge and vocabulary, as well as promoting a love and thirst for learning.

St Augustine’s Catholic Primary School, we have a coherently planned and sequenced curriculum which has been carefully designed and developed by The Bishop Hogarth Trust with the need of every child at the centre of what we do. Throughout the programmes of study, children will acquire and develop the key knowledge that has been identified within each unit and across each year group, as well as the application of scientific skills. SEND pupils will be supported with resources that will allow them to make connections in a topic. It encourages **self-belief, resilience, respect** and **confidence** in the children. While following each Programme of Study, children will also be ‘working scientifically’ to carry out experiments, use equipment correctly and deepen their understanding of concepts through questioning and discussion. Through carrying out a range of investigations they will also learn to observe, make predictions, solve problems, record results and draw conclusions.

We want to equip our children with not only the minimum statutory requirements of the science National Curriculum but to prepare them for the opportunities, responsibilities and experiences of later life.

**Implementation**

At St. Augustine’s Catholic Primary School, children have weekly lessons in Science throughout Key Stage 1 and 2, following the National curriculum programmes of study and a variety of stimulating visual, practical and auditory resources. Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science.

* The [Science Long Term Plan](https://stjosephsnorton.bhcet.org.uk/wp-content/uploads/2022/10/Science-Long-Term-Plan.pdf) ensures that teachers know which units are to be taught across the key stages.
* The Progression in Science document highlights the knowledge and skills covered in each Key Stage including EYFS.
* Scientific skills are progressive, these are taught across a sequence of lessons and pupils are given a range of practical opportunities to develop and master these. Where possible, use is made of the school grounds and the local area. Opportunities outside of the curriculum are offered to develop scientific thinking. These can be after school clubs, or clubs within schooltime that are opted into by children. For example, gardening club and ECO club. We encourage school visits and visitors into school to enable children to gain first-hand experiences to enrich their learning and cultural capital. Visits and visitors not only develop and enrich scientific learning but also inspire children to consider the prospect of careers in science.
* Cross-curricular links are planned for, with other subjects such as Maths, English and Computing.
* Science is a subject which can enrich and be enriched by meaningful links to other subjects, for example reading, writing, recording and interpreting results in maths and using computing skills.
* Each lesson begins with a retrieval task, this is a 5-10-minute activity which is linked to something taught earlier that term, within the unit or within that year group or phase.
* Children are provided with a ‘Learn it – Link it’ knowledge organiser which details facts about the forthcoming content, prior learning connected to the topic and a vocabulary bank. This organiser is referred to throughout each unit by teachers and children.
* Children explore, question, predict, plan, carry out investigations and observations as well as conclude their findings.
* Science ambassadors allow children to develop a further love of science and good leadership skills as well as the confidence to help lead science in class and across the school.
* Children present their findings and learning using science specific language, observations and diagrams.
* In order to support children to ‘know more and remember more’ there are regular opportunities to review the learning taken place in previous topics as well as previous lessons.
* We measure and assess the impact that our science curriculum is having through in a variety of ways: conducting learning walks, pupil voice, observing lessons and termly monitoring of looking at pupils’ books which indicates that they are gaining a range of practical experiences.

**EYFS**

The Early Years Foundation Stage Curriculum supports children’s understanding of Science through the planning and teaching of ‘Understanding the World.’ Children find out about objects, materials and living things using all of their senses looking at similarities, differences, patterns and change. Both the environment and skilled practitioners foster curiosity and encourage explorative play, children are motivated to ask questions about why things happen and how things work. Our children are encouraged to use their natural environment around them to explore. Children enjoy spending time outdoors exploring mini-beasts and their habitats, observing the changing seasons, plants and animals. The Reception Class provision allows for a balance of self- initiated enquiry and adult- initiated activities for whole class, small group and individual.

**Impact**

Following our challenging and enjoyable science curriculum, the children will leave St Augustine’s being curious and confident in asking questions about the world around them. They will understand where science fits within real life, particularly within the local area in which they live.

They will leave with robust scientific knowledge and conceptual understanding. They will also have a good awareness of the nature, processes and methods of science and be an equipped learner with the scientific knowledge required to understand the applications and implications of science as they move into key stage 3. Children will therefore be expected to leave St Augustine’s reaching at least age-related expectations for science.