

Science Curriculum

Intent

At St Austin's Catholic Primary School, we recognise and value the importance of science and working scientifically in order to develop children's skills of scientific enquiry. Science allows us to explore the wonders of creation, fostering a deep appreciation of the world as part of our Catholic ethos. As stewards of God's Earth, we encourage pupils to develop a sense of responsibility for the environment and ethical decision-making in science.

We aim to deliver a high-quality, fun, practical, and engaging science curriculum that inspires the next generation to succeed and excel in science. Through adherence to the aims of the National Curriculum, we foster curiosity, scientific thinking, and real-world applications of knowledge across biology, chemistry and physics.

Scientific investigation and enquiry are at the heart of our progressive science curriculum. Lessons encourage children to learn through systematic investigations, equipping them with the skills to ask and answer questions about the world. The strands of science are revisited throughout their time at school, ensuring continuity, depth, and progression in learning.

Additionally, we ensure that scientific enquiry skills develop alongside knowledge acquisition. Our curriculum nurtures critical thinking, problem-solving, and creativity, preparing children for their future roles as global citizens.

Implementation

Our science curriculum is designed to be **inclusive, progressive, and cross-curricular**:

- **Progressive learning:** each year group builds on prior knowledge and skills, ensuring deep understanding and readiness for more complex concepts.
- **Scientific method:** children explore, question, predict, plan, and conduct investigations, drawing conclusions and applying their knowledge in real-life contexts.
- **Practical and digital learning:** science is taught through hands-on experiments and outdoor investigations, with digital tools such as data loggers, coding and scientific modelling integrated into learning.
- **Vocabulary focus:** scientific terminology is explicitly taught and embedded within lessons, ensuring pupils articulate their ideas confidently.
- **Cross-curricular links:** science lessons reinforce key skills in **mathematics** (data collection, measurements, graphs), **English** (scientific reading, report writing), **geography** (climate studies, sustainability) and **RE** (ethical implications of scientific advancements).

- **Environmental responsibility:** science learning incorporates Forest School experiences, polytunnel gardening and beekeeping projects to strengthen our pupils' connection with nature and sustainable practices.
- **British values and citizenship:** scientific discovery is taught within the framework of democracy, ethical considerations and global responsibility, helping children understand the impact of science on society.
- **STEM career exposure:** through partnerships, guest speakers and enrichment activities such as 'STEM Week,' pupils explore career opportunities in fields such as engineering, medicine and environmental science.

Assessment

We use both formative and summative assessment to ensure all pupils achieve their full potential. Science learning is tracked using Target Tracker, allowing teachers to monitor individual progress and differentiate lessons accordingly. Retrieval practice, self-assessment and peer assessment strategies help children retain key scientific concepts over time.

Impact

Through our engaging and high-quality science curriculum, pupils leave St Austin's with:

- A love of science and curiosity about the natural world.
- A secure foundation in scientific knowledge and enquiry skills.
- The ability to reason scientifically and use rich scientific vocabulary.
- Confidence in using technology and digital tools in scientific investigations.
- An understanding of scientific ethics and environmental responsibility.
- Awareness of STEM career paths and the role of science in the real world.

By embedding science into our broader school values, we ensure that pupils are not only academically prepared but also morally and socially responsible contributors to the world.

"Exploring, discovering, and innovating – through science, we illuminate the wonders of creation."