

Science at St. George's Catholic Primary School

At St. George's Catholic School, our vision is to provide all pupils with an engaging, ambitious and carefully structured science curriculum. We aim to develop curious learners who explore the world around them, ask questions and develop a secure understanding of scientific concepts.

Through practical enquiry, rich discussion and meaningful experiences—including school trips, use of our outside areas and engagement with external visitors—we strive to build pupils' science capital and foster a lifelong interest in science.

Our curriculum is designed to ensure that all pupils, regardless of starting point, can access, retain and apply key scientific knowledge and vocabulary, enabling them to think and communicate as young scientists.

Curriculum



Our Science curriculum is carefully sequenced and organised into coherent strands (Animals, Plants, The Human Body, Materials and Matter, Energy and Forces, Earth and Space) to ensure pupils build connected knowledge over time.

- The curriculum is deliberately designed to prioritise essential knowledge, reducing cognitive overload so that all pupils can access and succeed in science.
- Core “sticky knowledge” is explicitly identified to support long-term retention and avoid unnecessary repetition.
- Content is structured to build progressively from EYFS to Year 6, enabling pupils to make links between prior and new learning.
- Scientific vocabulary is explicitly planned, taught and revisited to support pupils in developing understanding and oracy.
- The skills for Working Scientifically are embedded within each unit to deepen understanding, rather than being taught in isolation.

- The curriculum reflects our Catholic ethos, encouraging pupils to understand their responsibility as stewards of creation.

Teaching

Teachers deliver the curriculum through clear, structured and knowledge-rich lessons that support pupils in learning and remembering more over time.

- Teachers have strong subject knowledge and understand how learning builds across the curriculum, enabling them to connect new content to prior knowledge.
- Lessons are carefully designed around clear questions and learning objectives to focus thinking and guide enquiry.
- Explicit teaching of vocabulary is central to every lesson, enabling pupils to articulate their understanding confidently.
- Practical investigations are used purposefully to reinforce and deepen understanding of scientific concepts.
- Regular retrieval practice (e.g. low-stakes quizzes) is used to strengthen memory and embed key knowledge.
- Knowledge organisers and visuals support pupils in organising and retaining key information.
- A range of high-quality resources (e.g. Oak National Academy, Explorify, TAPS, ASE, STEM Learning) support consistency while allowing teacher autonomy.
- Opportunities such as Science Week, outdoor learning and trips further enrich learning and develop pupils' science capital.

Learning

As a result of this curriculum and teaching approach, pupils develop secure scientific knowledge, skills and understanding over time.

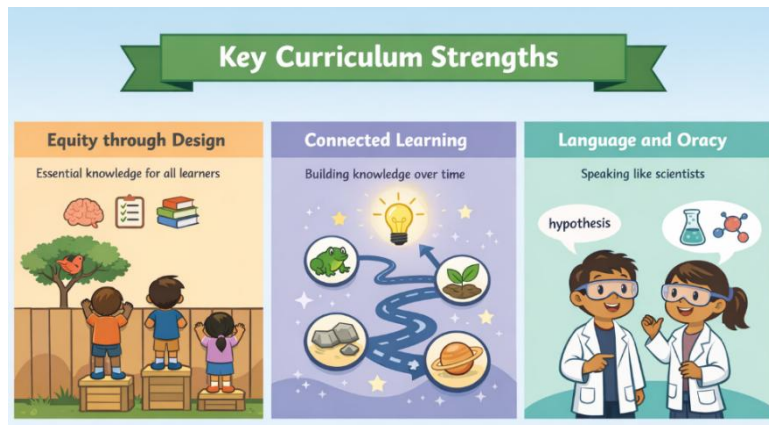
- Pupils know more and remember more, demonstrating secure understanding of key scientific concepts.
- They are able to make connections between different areas of learning and apply their knowledge to new contexts.
- Pupils use precise scientific vocabulary to explain their thinking, supporting both understanding and oracy.
- They confidently engage in enquiry, asking questions, making predictions, carrying out investigations and interpreting results.
- Pupils show curiosity, enjoyment and engagement in science, both in school and beyond.

Assessment is used to check that pupils have learned the intended curriculum:

- Retrieval quizzes assess knowledge over time and support long-term memory.

- TAPS assessments evaluate Working Scientifically skills.
- Teacher assessment, pupil voice, book scrutiny and lesson observations ensure the curriculum is being implemented effectively and progressively.

Key Curriculum Strengths



- **Equity through design**

The curriculum reduces cognitive overload by focusing on essential knowledge, ensuring all pupils can achieve. **Equity** → everyone gets the support they need to achieve.

- **Connected learning**

Carefully sequenced strands enable pupils to build and link knowledge over time, strengthening long-term memory.

- **Language and oracy**

A strong emphasis on vocabulary enables pupils to think, speak and reason like scientists.