St. Joseph's Catholic Primary School & Pre-School

Science Curriculum

Intent

At St. Joseph's Primary School, our intent is to provide a high-quality Science education that inspires curiosity, awe and respect for God's creation. Through the Developing Experts scheme, which is fully aligned with the English National Curriculum, we aim to equip pupils with the scientific knowledge, skills and vocabulary needed to understand the world around them and their role within it.

Our Science curriculum enables pupils to develop a sense of wonder about the natural world, recognising science as a way of understanding and appreciating the complexity and beauty of creation. We encourage pupils to ask questions, explore ideas and develop resilience and independence as young scientists.

Our curriculum is designed to:

- Provide a broad, balanced and progressive Science curriculum from Early Years to Year 6.
- Develop secure substantive knowledge in biology, chemistry and physics.
- Teach pupils to work scientifically through enquiry, investigation and evidence-based reasoning.
- Build and embed scientific vocabulary to support clear communication and understanding.
- Ensure all pupils, including disadvantaged pupils and those with SEND, can access and achieve in Science.
- Promote curiosity, critical thinking and a lifelong interest in Science.
- Introduce pupils to diverse scientists and careers, raising aspirations for all.

Through Science, we aim to nurture pupils who are curious, respectful and responsible stewards of the world around them.

Implementation

At St. Joseph's Primary School, Science is taught weekly as a discrete subject using the Developing Experts scheme to ensure full coverage and progression of the English National Curriculum.

Key elements of implementation include:

Structured and progressive curriculum

- The Developing Experts scheme provides clearly sequenced units that build on prior learning.
- Key knowledge and vocabulary are identified and explicitly taught.
- Knowledge organisers support pupils in remembering and revisiting key concepts.
- Scientific learning builds progressively from EYFS through to Year 6.

High-quality teaching and learning

- Lessons follow a clear structure including engagement, teaching of new knowledge, investigation and reflection.
- Teachers use questioning, discussion, modelling and explanation to deepen understanding.
- Scientific vocabulary is taught explicitly and reinforced regularly.

Working scientifically and enquiry-based learning

- Pupils develop enquiry skills through practical investigations, including:
    - Observing over time
    - Comparative and fair testing
    - Identifying patterns
    - Research using secondary sources
- Pupils learn to make predictions, carry out investigations, record results and draw conclusions.

Assessment and responsive teaching

- Formative assessment is used within lessons to identify and address misconceptions.
- Developing Experts quizzes and assessment tools support ongoing assessment.
- Teachers use assessment information to inform planning and ensure progression.

Inclusion and support for all learners

- Teaching is adapted to meet the needs of all pupils, including those with SEND and disadvantaged pupils.
- Scaffolding, visual supports, practical activities and targeted questioning ensure accessibility.
- Challenge is provided to deepen understanding for all learners.

Enrichment and wider opportunities

- Practical investigations and hands-on experiences enhance engagement and understanding.
- Cross-curricular links are made where appropriate.
- Pupils learn about a range of scientists and the real-world importance of Science.

Impact

The impact of our Science curriculum at St. Joseph's Primary School is that pupils develop secure scientific knowledge, enquiry skills and a genuine enthusiasm for Science.

Pupils will:

- Develop a secure understanding of key scientific concepts.
- Use scientific vocabulary accurately and confidently.

- Ask questions, investigate and draw conclusions using evidence.
- Demonstrate curiosity, engagement and enjoyment in Science.
- Show progression in their knowledge and skills over time.
- Be well prepared for the Science curriculum at Key Stage 3.

Impact is evidenced through:

- Pupils' work showing progression in knowledge, understanding and enquiry skills.
- Pupil voice demonstrating enthusiasm and confidence in Science.
- Assessment outcomes showing good progress and attainment.
- Lesson observations and monitoring showing high levels of engagement.
- Teachers' ongoing assessment and curriculum monitoring.

Through our Science curriculum, pupils leave St. Joseph's Primary School with the knowledge, skills and curiosity needed to understand the world, appreciate God's creation and continue their journey as confident young scientists.

The Curriculum Map - Science

Year Group	Autumn Term	Spring Term	Summer Term
EYFS	Animals Food Forces Health & Safety	Insects and Invertebrates Machines Materials Our Body	Plants Space The Senses Weather and Seasons
Year 1	Seasonal Changes Animal including humans – All about me	Exploring Everyday Materials 1 Exploring Everyday Materials 2	Plants Animals, including humans – All about animals
Year 2	Uses of Everyday Materials Living things and their habitats	Living things and their habitats – habitats around the world Animals including humans - Growth	Animals, including humans 2 – Life cycles Plants
Year 3	Scientific Enquiry Animals, including humans	Rocks Forces and Magnets	Plants Light
Year 4	Animals including humans Living things and their habitats	Living things and their habitats – Conservation States of Matter	Sound Electricity
Year 5	Forces Properties of Materials	Changes of Materials Animals, including humans	Earth and Space Living Things and their habitats
Year 6	Electricity Light	Animals, including humans Living things and their habitats	Evolution and inheritance Looking after our Environment