CURRICULUM POLICY

SUBJECT: Science
DATE: Autumn Term 2026

SUBJECT LEAD: Ross Gray
REVIEW DATE: Autumn Term 2027

1. Mission Statement

At Giles Junior School, we believe that science provides children with the knowledge and skills to understand and engage with the world around them. We aim to deliver a broad, balanced and ambitious science curriculum that develops curiosity, encourages questioning and inspires a lifelong interest in science.

Through carefully planned learning opportunities, pupils build secure scientific knowledge whilst developing an understanding of how scientists work. We provide rich, practical and engaging experiences that enable children to investigate, explore and make sense of the natural and physical world. By nurturing children's curiosity and responding to their questions, we seek to foster a love of science and an appreciation of its importance in everyday life and the wider world.

2. Intent

Our science curriculum is designed to ensure that all pupils:

- Develop secure substantive knowledge across the disciplines of biology, chemistry and physics as outlined in the National Curriculum.
- Build disciplinary knowledge through opportunities to work scientifically and think like scientists.
- Develop scientific enquiry skills, including observing, testing, classifying, researching and identifying patterns.
- Acquire and use scientific vocabulary accurately and confidently.
- Make connections between prior and new learning, enabling knowledge to be retained and applied over time.
- Understand the role and relevance of science in everyday life and future developments.
- Develop curiosity, resilience, critical thinking and a willingness to question and investigate the world around them.

Our curriculum is carefully sequenced so that key concepts are revisited and developed throughout Key Stage Two, building upon prior learning from Key Stage One. This approach supports children in developing deeper understanding and long-term retention of scientific knowledge and skills.

Science is enriched through opportunities such as educational visits, themed learning days, workshops, visitors and extra-curricular activities, enabling children to see science beyond the classroom and appreciate its relevance in the real world.

3. Implementation

Science is taught weekly across the school through a progressive programme of study that ensures full coverage of the National Curriculum whilst meeting the needs of our pupils.

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Teaching and learning are underpinned by the school's Science Skills and Knowledge Progression Document, which identifies the substantive knowledge, disciplinary knowledge and scientific vocabulary pupils are expected to acquire and retain at each stage of the curriculum.

Teachers use the school's medium-term planning and progression documents to ensure knowledge, skills and vocabulary are taught in a coherent sequence and revisited appropriately throughout pupils' learning journey.

Effective science teaching at Giles Junior School includes:

- Eliciting and exploring pupils' prior knowledge and misconceptions.
- Providing opportunities for pupils to ask questions and develop their own lines of enquiry.
- Teaching scientific knowledge alongside working scientifically skills.
- Supporting pupils to plan, conduct and evaluate investigations.
- Encouraging discussion, reasoning and the use of scientific vocabulary.
- Providing opportunities for children to record and present findings in a variety of ways, including written explanations, diagrams, tables, charts and graphs.
- Promoting curiosity, perseverance, critical reflection and the use of evidence when drawing conclusions.

Working scientifically is embedded throughout the curriculum. Across Key Stage Two, pupils are provided with regular opportunities to engage in the five types of scientific enquiry:

- Observing over time.
- Pattern seeking.
- Identifying, grouping and classifying.
- Comparative and fair testing.
- Research using secondary sources.

Practical experiences form an important part of science learning, enabling children to apply their knowledge and develop a deeper understanding of scientific concepts.

Where appropriate, meaningful links are made with other curriculum subjects to enrich learning whilst maintaining the integrity and rigour of the scientific curriculum.

Each class receives a dedicated weekly science lesson, with sufficient time allocated to ensure depth of learning, practical investigation and pupil discussion.

4. Inclusion

At Giles Junior School, we believe that all children are entitled to access an ambitious science curriculum.

Teachers use adaptive teaching strategies to ensure all pupils can successfully access learning and make progress from their individual starting points. Appropriate scaffolding, support and challenge are provided to enable all learners, including those with SEND, disadvantaged pupils, pupils with EAL and higher-attaining pupils, to achieve success.

Practical investigations, collaborative learning opportunities, visual resources and carefully selected scientific vocabulary support pupils in accessing the curriculum. High expectations are maintained for all learners.

Further information regarding provision for pupils with SEND can be found within the school's SEND Policy and Making Science Inclusive Guidance.

5. Assessment

Assessment is an integral part of high-quality science teaching and learning.

Teachers use ongoing formative assessment throughout lessons to identify pupils' understanding, address misconceptions and inform future planning. Assessment opportunities are embedded within teaching through questioning, discussion, observation, practical enquiry and recorded outcomes.

Completed science work is marked with a green tick to acknowledge learning. Teachers use questioning, observation, discussions and assessment outcomes to monitor pupils' understanding and inform subsequent teaching.

End-of-unit assessment tests are used to assess pupils' understanding of the substantive knowledge and scientific concepts taught throughout each unit. Assessment information is used to:

- Identify gaps in knowledge and understanding.
- Inform future teaching, intervention and curriculum planning.
- Monitor progress and attainment over time.
- Ensure appropriate challenge and support for all pupils.

Assessment records are transferred between year groups to support progression and enable teachers to build effectively upon prior learning.

6. Impact

The impact of our science curriculum is demonstrated through pupils who:

- Possess secure scientific knowledge that builds progressively over time.

- Retain and apply previously taught knowledge in new contexts.
- Use scientific vocabulary accurately and confidently.
- Apply scientific enquiry skills independently and effectively.
- Demonstrate curiosity, resilience and enthusiasm for science.
- Ask thoughtful questions and draw conclusions based upon evidence.
- Understand the relevance of science within everyday life and the wider world.
- Are well prepared for the next stage of their scientific education.

Evidence of impact is gathered through:

- End-of-unit assessment outcomes.
- Pupil discussions and pupil voice.
- Work scrutiny.
- Lesson visits and learning walks.
- Assessment information.
- Participation in enrichment opportunities.

7. Monitoring and Evaluation

The Science Subject Leader is responsible for monitoring the quality of science teaching and learning across the school.

Monitoring activities may include:

- Lesson visits and learning walks.
- Work scrutiny and book looks.
- Pupil voice activities.
- Staff voice activities.
- Planning reviews.
- Analysis of assessment information.

These activities help identify strengths, areas for development and professional development needs. The Subject Leader works collaboratively with staff to ensure high-quality science provision and consistent implementation of the curriculum across the school.

Pupil and staff voice activities are conducted regularly to ensure that pupils remain engaged, challenged and enthusiastic about science and that staff feel confident and supported in delivering the curriculum.