

St Margaret's C of E Primary School



Science Policy

Reviewer: Josh Hallam

Renewal Date: September 2029

Contents:

1. INTENT

1.1 Aims (knowledge, learning skills and understanding)

1.2 Principles (breadth, relevance, access for all etc)

At St Margarets, our science curriculum aims to develop curious, confident and resilient learners, who are inspired to ask questions about the world around them. Through engaging, practical and knowledge rich learning experiences, we encourage every child to develop a secure understanding of scientific concepts alongside the skills needed to work and think scientifically.

Our science curriculum is designed to:

- develop a secure body of scientific knowledge that builds progressively from Early Years through to Year 6.
- foster curiosity by encouraging children to ask questions, make predictions, investigate and draw evidence-based conclusions.
- develop scientific enquiry skills, including observing, identifying patterns, classifying, measuring, researching and interpreting evidence.
- equip pupils with the vocabulary and understanding needed to explain scientific ideas confidently.
- help children appreciate how science influences everyday life and contributes to the wider world.
- promotes resilience, independence and critical thinking through practical investigations and collaborative learning.
- inspire children to consider future opportunities in science, technology, engineering and mathematics.

Science supports our school vision of '**Created to Shine**' by enabling every child to recognise and develop their unique gifts, nurturing curiosity, creativity and perseverance. Through scientific exploration, children learn to value God's creation, care for the environment and use their knowledge responsibly to make a positive difference in the world.

Our curriculum reflects the aims of the national curriculum for science by ensuring that all pupils:

- develop scientific knowledge and conceptual understanding through the disciplines of biology, chemistry and physics.
- developing understanding of the nature, processes and methods of science through different types of scientific enquiry.
- are equipped with the scientific knowledge required to understand the uses and implications of science today and for the future.

Science also supports our school values by encouraging children to demonstrate **love** through respect for one another, the natural world and God's creation, and aspire by showing curiosity, resilience and determination to deepen their understanding and achieve their full potential.

2. IMPLEMENTATION

- 2.1 Roles, Responsibilities and Resources
- 2.2 Organisation
- 2.3 Planning and content
- 2.4 Links with other subjects
- 2.5 Knowledge and skills
- 2.6 Wider opportunities (trips, event, visitors etc)
- 2.7 Inclusion and Extension
- 2.8 Health and Safety

2.1 Roles, Responsibilities and Resources

Josh Hallam is responsible for leading the development of science across the school by monitoring teaching and learning, supporting colleagues, ensuring curriculum coverage and maintaining high-quality resources. Teachers are responsible for delivering engaging, well-sequenced lessons that follow the schools agreed curriculum and meet the needs of all learners. Learning support assistants are directed and support pupils to access learning through appropriate scaffolding while promoting independence.

Resources are centrally organised and regularly audited to ensure they are safe, relevant and sufficient for delivering practical science. Staff utilise the Plymouth Science curriculum alongside high-quality practical equipment, scientific texts and digital resources to enhance learning.

2.2 Organisation

Science is taught as a discrete subject across all year groups in accordance with the National Curriculum. Learning is carefully sequenced so that knowledge builds progressively over time, enabling pupils to revisit and deepen their understanding through planned opportunities for retrieval and application.

Teachers follow the schools long term and medium term plans, ensuring all National Curriculum objectives are covered while making meaningful links with other curriculum areas where appropriate.

2.3 Planning and Content

Planning follows the Plymouth Science curriculum, which provides a coherent progression of substantive knowledge, disciplinary knowledge and scientific vocabulary from Year 1 to 6.

Medium-term planning identifies:

- Clear learning objectives linked to the National Curriculum;
- Key scientific vocabulary;
- Opportunities for retrieval practice;

- Practical enquiries and investigations
- Assessment opportunities;
- Misconceptions to address.

Lessons are designed to build upon prior learning, enabling children to make connections between scientific concepts and apply their knowledge in different contexts.

2.4 Link with Other Subjects

Science is enriched through purposeful cross-curricular links where these deepen understanding without compromising scientific integrity.

Children apply mathematical skills when measuring, recording and interpreting data, use English to communicate scientific explanations and conclusions, and utilise computing to research, collect data and present findings. Geography, Design and Technology and RE also provide meaningful opportunities to explore scientific concepts, environmental responsibility and stewardship of the world.

2.5 Knowledge and Skills

Our curriculum develops both substantive knowledge (the scientific facts, concepts and understanding pupils learn) and disciplinary knowledge (how scientists work and think).

Children develop the skills to:

- Ask scientific questions
- Make predictions
- Plan and carry out investigations
- Observe over time
- Identify, classify and group
- Recognise patterns
- Carry out comparative and fair tests
- Use secondary sources appropriately
- Gather, record and interpret data
- Draw evidence-based conclusions
- Evaluate investigations and suggest improvements

Scientific vocabulary is explicitly taught and revisited to develop confidence in communicating scientific ideas accurately.

2.6 Wider opportunities (Trips, Events and Visitors)

Children are provided with opportunities to extend their scientific understanding beyond the classroom through educational visits, visitors, outdoor learning and participation in national events such as **British Science Week**.

Where possible, links are made with local organisations and community experts to inspire children and demonstrate the relevance of science in everyday life and future careers.

2.7 Inclusion and Extension

Science lessons are carefully adapted to ensure all pupils can achieve success. Teachers use

adaptive teaching strategies including:

- Pre-teaching vocabulary
- Visual supports and practical resources
- Modelling and scaffolding
- Collaborative learning
- Targeted adult support
- Flexible grouping.

All pupils are encouraged to think scientifically, while higher-attaining pupils are challenged through opportunities to justify ideas, solve increasing complex problems, design their own investigations and evaluate evidence critically.

Our curriculum promotes equal opportunities, ensuring every child is supported to develop curiosity, confidence and a love of science.

2.8 Health and Safety

Practical science is carried out safely and responsibly in accordance with current health and safety guidance.

Teachers undertake appropriate risk assessments where necessary and ensure children understand safe working practices before practical activities begin. Equipment is regularly checked and maintained, and all investigations are planned to minimise risk while maximising opportunities for practical learning.

Children are taught to use scientific equipment safely, responsibly and respectfully, developing a positive attitude towards practical enquiry and collaborative working.

3. IMPACT

3.1 Monitoring and evaluation

3.2 Reporting to parents and governors

3.1 Monitoring and Evaluation

The impact of the science curriculum is monitored regularly to ensure pupils develop secure scientific knowledge, enquiry skills and positive attitudes towards science. Monitoring is led by the subject leader and is used to celebrate strengths, identify areas for development and inform future school improvement priorities.

Monitoring activities includes:

- Book looks to evaluate curriculum coverage, progression and quality of scientific recording.
- Lesson visits and learning walks to monitor the implementation of the curriculum and quality first teaching
- Pupil voice to evaluate children's enjoyment, confidence and understanding of scientific concepts

- Assessment analysis to identify attainment, progress and any gaps in learning.
- Staff discussions to identify areas where additional support, resources or professional development may be required.

The findings from the monitoring directly inform the annual science action plan. The impact of these actions will be reviewed throughout the year and used to shape future curriculum development.

3.2 Reporting to Parents and Governors

Teachers assess pupils' understanding throughout each unit using formative assessment, questioning, observation and the outcomes of practical investigations. This information is used to adapt teaching and ensure pupils make strong progress through the curriculum.

Parents are kept informed of their child's progress through annual written reports, parent consultation meetings and discussions where appropriate. Science achievements are celebrated through displays, curriculum events and school communications.

The science subject leader reports to senior leaders and governors on the effectiveness of the science curriculum. Reports include information from monitoring activities, pupil outcomes, curriculum developments and progress against the Science Action plan. This ensures governors have a clear understanding of strengths, priorities for development and the impact of actions taken to continually improve science provision across the school.