



Field View
Primary School

Curriculum Policy

Science

Making a difference



Updated: January 2026

Review date: July 2027

St Martin's
Multi Academy Trust



A Place to Thrive

St. Martin's Multi Academy Trust exists to advance a just cause, its vision: to create a place to thrive. A just cause is a future state that does not yet exist. It is vital that people that work in the schools in our Trust understand our vision and 'sign up' to achieving it. Our vision must encapsulate our 'why'. It has to inspire staff and our communities. It must persuade people to stay for and have a deep understanding of our cause. Our people need to be willing to be service orientated, resilient and idealistic. Our cause has to form the foundation of everything we do.



Trust



Respect



Compassion

We are all here to make a difference

Our vision is close to our hearts, it drives us in our chosen direction and informs every decision we make. It is our mission to give our children the skills, knowledge, and self-belief they need to genuinely make a difference in whichever path their lives take them.

Our Values

Honesty, Respect and Perseverance



Honesty



Respect



Perseverance

Our values are at the core of everything we do. They underpin our teaching and learning, every interaction we have with each other, and are an ever-present theme in our school. We strive to make a difference to children's attitudes by consistently promoting our values, and they are the foundations for building the environment we want to foster. They are the behaviours that we all truly believe in and exhibit and are the key components to ensuring that Field View Primary School is truly a place to thrive.

Subject: Science

To inspire curious minds to question, investigate and understand the world around them.

Intent



Curriculum Intent

At Field View Primary School, our Science curriculum is designed to develop secure scientific knowledge alongside the progressive enquiry skills children need to question, investigate and understand the world around them. Using carefully sequenced progression documents, learning builds cumulatively from Nursery to Year 6. Children revisit and deepen key concepts while developing increasing confidence in working scientifically.

We provide a broad, balanced and ambitious Science curriculum that is accessible to all children and underpinned by high expectations. Children develop knowledge across biology, chemistry and physics alongside the skills needed to ask questions, observe, measure, classify, investigate, interpret evidence and draw conclusions.

Scientific enquiry is central to the curriculum. Children experience different types of enquiry, including observing over time, pattern seeking, identifying and classifying, comparative and fair testing and research using secondary sources. Practical work is used purposefully to develop and apply scientific understanding.

Vocabulary, reading and oracy are central to our curriculum. Scientific vocabulary is explicitly taught, revisited and applied so that children can explain ideas, describe observations and justify conclusions accurately.

Our curriculum ensures that all children, regardless of background or starting point, develop the scientific knowledge, skills, curiosity and confidence needed for future learning and life beyond primary school.



Curriculum Aims

We want children to be able to:

- Develop secure scientific knowledge across biology, chemistry and physics.
- Develop progressive skills for working scientifically.
- Ask purposeful scientific questions.
- Make careful observations and measurements.
- Identify, group and classify using scientific criteria.
- Plan and carry out appropriate scientific enquiries.
- Gather, record and interpret information and data.
- Identify patterns and relationships in findings.
- Use evidence to explain results and draw conclusions.
- Use scientific vocabulary accurately and confidently.
- Make connections between scientific learning, everyday life and the wider world.
- Become curious, confident and increasingly independent scientists prepared for the next stage of education.

Implementation



Teaching Approach

Teaching across the Science curriculum is inclusive, engaging and knowledge rich. Learning is carefully sequenced so that new scientific knowledge builds on what children already know.

Teachers explicitly teach and model scientific knowledge and ways of working scientifically. Practical enquiry is used where it helps children develop, explore or apply scientific understanding. Children are taught that scientific investigation involves asking questions, gathering evidence and using that evidence to explain what they observe.

Different types of scientific enquiry are developed progressively across the curriculum. Children learn to observe over time, seek patterns, identify and classify, carry out comparative and fair tests and research using secondary sources.

Teachers model the accurate use of equipment, observation, measurement, recording and scientific reasoning. As children progress through the school, they develop greater independence in selecting approaches, recording findings and drawing conclusions.

Oracy is embedded throughout the curriculum. Children are encouraged to ask questions, explain their thinking, discuss evidence and justify conclusions using accurate scientific vocabulary. Key vocabulary is explicitly taught, revisited and applied across units to support understanding and long-term retention.

Learning is adapted to meet the needs of all children through adaptive teaching. Visual support, vocabulary scaffolds, modelling, practical resources and structured questioning are used where necessary while maintaining ambitious expectations.



Lesson Structure

Science lessons follow a clear and consistent structure while allowing flexibility for different types of scientific learning and enquiry.

- **Retrieval:** Children revisit relevant prior knowledge and make connections with previous learning.
- **Vocabulary:** Key scientific vocabulary is explicitly taught, revisited and applied.
- **Teach and Model:** Teachers introduce new scientific knowledge, address misconceptions and model scientific thinking, processes or practical techniques.
- **Enquire and Apply:** Children apply their knowledge through appropriate observation, investigation, classification, research, measurement or practical enquiry.
- **Oracy:** Children explain, reason and discuss their learning using scientific vocabulary. Oracy bullseyes support purposeful scientific discussion across units.
- **Review:** Teachers check understanding, address misconceptions and consolidate the key learning from the lesson.

Not every lesson requires a practical investigation. Practical work is selected purposefully where it strengthens children's scientific knowledge or develops their ability to work scientifically.



Curriculum Design

Curriculum content is carefully sequenced through progressive units of work that build on prior learning from Nursery to Year 6.

Children develop scientific knowledge across biology, chemistry and physics while also developing the skills needed to work scientifically. Key concepts are revisited at increasing levels of complexity so that children can deepen their understanding and make connections between different areas of Science.

Working scientifically is embedded throughout the curriculum rather than taught as a separate unit. Children progressively develop their ability to ask questions, observe, measure, classify, plan enquiries, gather and present data, identify patterns and use evidence to draw conclusions.

The five types of scientific enquiry are revisited across year groups:

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

Vocabulary, reading and oracy are central to curriculum design. Key scientific vocabulary is explicitly planned and revisited, while discussion and scientific explanation enable children to develop increasingly precise reasoning.

The curriculum also enables children to make links between Science, everyday life and the wider world. Where appropriate, children learn about significant scientists, discoveries and careers so that they understand the relevance and application of scientific knowledge.

The curriculum is inclusive and adapted to meet the needs of all learners through adaptive teaching and appropriate scaffolding where needed.



Planning and Resources

Planning is supported through detailed medium term plans which clearly identify the scientific knowledge, working scientifically skills, vocabulary and intended outcomes taught within each unit.

Units are carefully sequenced using progression documents to ensure knowledge and enquiry skills build progressively from Nursery to Year 6. Planning identifies relevant prior learning, key misconceptions and opportunities for scientific enquiry.

Each unit includes an oracy bullseye to support the development of speaking and listening skills. Questions encourage children to explain scientific ideas, make predictions, discuss evidence and justify conclusions using subject-specific vocabulary.

Teachers have access to a wide range of practical equipment and high-quality resources. Equipment is centrally organised and regularly audited, replenished and replaced to support safe and effective Science teaching.

Resources are selected purposefully to enable children to observe, investigate, measure, classify, record and apply their scientific knowledge with increasing independence.



Early Years Foundation Stage (EYFS)

In EYFS, the foundations of Science are developed primarily through Understanding the World. Children explore, observe, question and talk about the natural world through practical experiences and purposeful play.

In Nursery, children explore their immediate environment and begin to notice similarities, differences, patterns and change. They investigate materials, living things, weather and seasonal change through first-hand experiences. Adults encourage children to ask questions, describe what they notice and use simple scientific vocabulary.

In Reception, children build upon these experiences through more focused observation and investigation. They explore plants, animals, materials, seasonal change and the natural environment and begin to make simple comparisons and explain what they observe.

Children are encouraged to predict what might happen, observe changes, group objects and living things and talk about their findings. Adults model questioning, observation and scientific vocabulary and provide practical opportunities for children to develop curiosity and understanding.

These experiences provide the scientific knowledge, vocabulary and enquiry foundations needed for the National Curriculum in Key Stage 1.



Assessment

Formative Assessment

Assessment in Science is ongoing throughout each unit. Teachers use observation, questioning, discussion, retrieval activities and low-stakes quizzes to assess children's understanding and progress.

Teachers consider children's written work, practical activity, independent learning and responses to oracy questions when assessing both scientific knowledge and working scientifically skills. They listen carefully to children's use of subject-specific vocabulary and their ability to explain ideas, interpret findings and justify conclusions.

Assessment reflects the full learning journey across the unit. Children are assessed as they acquire scientific knowledge, develop enquiry skills and apply their learning through practical and written activities.

Assessment is not based on the success of a practical outcome alone. Teachers consider children's understanding of the scientific concept, their approach to enquiry, their observations and evidence, and their ability to explain what their findings show.

Recording

Teachers assess children's understanding against clear success criteria linked to the progression of scientific knowledge and working scientifically skills across the whole unit.

Assessment is recorded through a range of evidence, including written work, practical outcomes, observations, investigations, discussions, presentations, recorded discussions, photographs and digital evidence where appropriate.

Teachers use unit assessment guidance to assess children's learning and track progress across key scientific knowledge and skills, ensuring a comprehensive picture of each child's development.

Teacher assessment and children's self-assessment are both recorded, enabling children to reflect on their learning, identify strengths and recognise areas for development.

Use of Assessment

Assessment information is used to inform future planning and ensure all children make good progress in Science. Using the assessment guidance, children are assessed as either working below, towards or at expected levels.

Teachers identify gaps in scientific knowledge or working scientifically skills, revisit key learning where necessary and adapt teaching to provide appropriate support or challenge.

Assessment outcomes also support curriculum evaluation, ensuring units remain ambitious, progressive and effective in meeting the needs of all learners. The subject leader monitors assessment across the school to ensure consistency and identify gaps in learning or curriculum coverage.

Assessment information is shared with parents, while children's self-assessment supports the development of metacognitive skills by helping them understand what successful scientific learning looks like and take increasing ownership of their progress.



Inclusion

We are committed to an inclusive curriculum that enables all children to access and succeed. Through adaptive teaching, reasonable adjustments, and ongoing formative assessment, teachers remove barriers and support understanding through scaffolding. Additional adults are deployed effectively to support access to high-quality teaching and develop independence. This ensures all children, including those with SEND, can make strong progress.

Impact



Curriculum Impact

By the end of their primary education, children will:

- Develop secure scientific knowledge across biology, chemistry and physics.
- Use scientific vocabulary confidently and accurately.
- Make meaningful connections between scientific concepts and prior learning.
- Ask purposeful scientific questions.
- Observe, measure, identify, classify and record with increasing accuracy and independence.
- Carry out a range of scientific enquiries appropriately.
- Gather, present and interpret scientific information and data.
- Identify patterns and relationships within findings.
- Use evidence to explain results and draw conclusions.
- Understand that scientific ideas are developed through evidence and enquiry.
- Apply scientific knowledge to everyday experiences and the wider world.
- Demonstrate curiosity, resilience and confidence when investigating scientific questions.
- Recognise the relevance of Science to everyday life and future careers.
- Have met the National Curriculum requirements for Science.
- Be prepared for the next stage of education as knowledgeable, curious and increasingly independent scientists.



Role of Subject Leader

The Science subject leader will:

- Ensure National Curriculum requirements are met.
- Monitor teaching and learning for consistency and progression.
- Carry out book looks, learning walks and pupil voice activities.
- Review planning, assessment and curriculum coverage.
- Support staff through training, coaching and guidance.
- Track children's progress and attainment.

- Ensure appropriate resources are available and effective.
- Keep up to date with developments in Science education.
- Support the ongoing evaluation and improvement of the Science curriculum.