

# Science Policy



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Approved by:	Headteacher
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This policy is scheduled for review on:	Every 3 years or on updates

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## Policy Statement

This policy outlines Manor Multi Academy Trust's ('we' / 'our' / 'us') expectations of our employees' ('you') in relation to the Science Policy.

We are committed to equality and value diversity. As such we are committed to fulfilling our Public Sector Equality Duty (Equality Duty) obligations and expect all staff and volunteers to share this commitment.

This policy should also be applied in accordance with: our Staff Code of Conduct, Safeguarding and Child Protection, ICT Acceptable Use Policies and Procedures, Health and Safety Policy and Curriculum Policy. Copies of all policies and procedures can be accessed via the **All MAT Staff** area on Teams.

The Equality Duty requires us to have due regard to the need to:

- Eliminate unlawful discrimination, harassment, and victimisation.
- Advance equality of opportunity.
- Foster good relations between people who share protected characteristics, such as age, gender, race and faith, and people who do not share them.

If you consider that any of our practices, policies or procedures may be indirectly discriminatory, you should report your concerns and the basis for them to your line manager, who will take appropriate action and ensure that you receive a written response in respect of the concerns that you have raised.

This policy does not form part of your contract of employment. We reserve the right to amend or withdraw this policy at any time.

We are responsible for ensuring the effective implementation of this policy. As part of equality monitoring, we will review and monitor the operation and impact of the policy on a regular basis and in accordance with the policy review date. As part of this monitoring and review this policy will be equality impact assessed.

## Scope

This policy applies to employees, workers, agency workers, consultants, volunteers and pupils, whether during working hours or otherwise.

## Aims & Principles

At East Park Academy, as part of the Manor Multi-Academy Trust (Manor MAT), we are committed to bringing the "Manor Mindset" to life within our science curriculum. The Manor Mindset, focusing on integrity, resilience, and excellence, underpins our approach to fostering a rich, enquiry-based learning environment in science. This policy outlines how we aim to build meaningful connections with learners, families and the wider community through the exploration of scientific concepts, helping every learner understand their place in the natural world and the wider universe.

The Manor Mindset inspires us to encourage learners to engage deeply with scientific enquiry, fostering curiosity, critical thinking and problem-solving skills. We believe that by investigating the world around them—through experimentation, observation and analysis—learners can develop a clearer sense of how science shapes their everyday lives. Effective communication is central to our science curriculum, ensuring that learners not only grasp key concepts but can also apply their understanding in real-world contexts long after the lesson ends.

Through compassionate support and structured challenges, our approach reinforces the values of resilience and reflection, encouraging learners to experience both success and failure in scientific discovery. We employ diverse teaching techniques—including hands-on experiments, group investigations and real-world problem-solving—to make science accessible and engaging, always guided by the Manor Mindset's commitment to excellence. By nurturing a culture of enquiry, respect, and collaboration, this policy ensures that every learner can connect with science in meaningful ways, growing into informed, thoughtful citizens who can use the lessons of scientific exploration to create brighter futures together.



## Vision

At East Park, our vision for science education is to develop a strong foundation of knowledge, skills, and character—empowering learners to contribute meaningfully to their families, community and the world. Our science curriculum is guided by our vision for an End of Year 6 East Parker and our East Park 8 values: Voice, Creativity, Independence, Collaboration, Leadership and Responsibility, Determination, Kindness, and Self-Belief. These values shape learners' experiences, ensuring they grow into confident, capable and compassionate individuals with a deep understanding of the scientific world and its impact on their everyday lives and the future.

We prioritise voice by encouraging learners to articulate their scientific ideas and findings confidently. Creativity is embedded through hands-on experiments, problem-solving and innovative projects, making science learning engaging and memorable. Independence is fostered as learners ask questions, investigate and analyse data, empowering them to draw evidence-based conclusions.

Collaboration is key as learners work together to conduct experiments, share discoveries and build on each other's ideas. Leadership and responsibility are cultivated through understanding the impact of scientific advancements on society and the environment, encouraging learners to think critically about their roles as future scientists and informed citizens. Determination is nurtured by encouraging learners to persist through scientific challenges and refine their problem-solving skills. Kindness teaches learners to approach ethical dilemmas in science with empathy and a sense of responsibility for the wider world. Finally, self-belief is developed as learners grow in confidence through mastering scientific methods and processes, trusting their abilities to explore, discover and contribute meaningfully to discussions about the natural world.

Our science curriculum is purposeful, engaging and inclusive, adapting to meet each learner's needs and providing access to challenging, real-world content. Ultimately, we aim for every child to leave East Park with a deep understanding of science, the ability to think critically and the knowledge, skills and character to grow both in mind and heart, enabling them to be as happy as they are successful.

## Intent

At East Park Academy, we are scientists...

*“The feeling of awed wonder that science can give us is one of the highest experiences of which the human psyche is capable,” Richard Dawkins.*

Our science curriculum is coherently sequenced to ensure all learning builds on prior knowledge, progressing towards meaningful goals. From EYFS, where learners explore the natural world and engage in simple experiments, to KS1, where they begin to make observations, ask questions and draw conclusions, learners build foundational scientific enquiry skills. By KS2, they advance to more complex scientific investigations, problem-solving and applying critical thinking to a wider range of scientific concepts. This progression ensures learners are well-prepared for KS3, where they will apply these skills to solve real-world problems, conduct independent investigations and understand the broader implications of science in society.

We blend established teaching fundamentals with modern research to foster curiosity, creativity and critical analysis, preparing our learners for the evolving world around them and life beyond school.

We believe that science is an important part of our curriculum because it...

- Helps us to understand the world through chemistry, biology and physics.
- Is an extension of our every-day world.
- Has changed our lives.
- Is vital to the world’s prosperity.
- Helps us to develop a sense of excitement and curiosity.
- Ignites a spark for future aspirations and careers.
- Provides the opportunity to pose questions about the world and scientific enquiry skills to seek answers.

Without science, we would not be able to...

- Develop a sense of excitement and curiosity about natural phenomena.
- Understand the world around them and how they use science in their daily lives.
- Ask questions and discover changes in the objects and events in their world.
- Explain and predict phenomena and apply their knowledge to new situations.

## Implementation

At East Park Academy, our curriculum incorporates the statutory requirements set out in the Early Years Foundation Stage framework and the National Curriculum but has been designed to go above and beyond this to provide pupils with enriching learning opportunities that enhance their cultural capital. Our bespoke curriculum has been personalised to our school's geography and pupils' unique experiences.

Our carefully designed schemes of work ensure a progression of scientific concepts, knowledge and skills from Reception to Year 6. The following key scientific concepts are at the core of our curriculum:

- Adaptation
- Change
- Organisation and classification
- Cause and effect
- Scale and measurement
- Variation

Scientific vocabulary is also planned for and continually built upon to support learners to 'think and talk like a scientist'.

Science is taught weekly across the school year to ensure depth in coverage and to aid learners' recall and retention of their learning. Medium term plans for each topic reflect prior learning and future learning, including the future KS3 curriculum expectations, to ensure learning is well-sequenced and progressive. Links are explicitly made between their science topics and other curriculum subjects, to further enable children to build secure mental schema of the themes being taught.

We are committed to teaching high quality science lessons that meet the needs of our learners. Across their lessons, children will:

...know	<p>Biology</p> <ul style="list-style-type: none"> <li>- The characteristics of living things and how they are adapted to their environment.</li> <li>- The processes of production, inheritance and evolution across a range of living things.</li> </ul> <p>Chemistry:</p>
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	<ul style="list-style-type: none"> <li>- The states of matter.</li> <li>- The properties of materials, including reversible and irreversible changes.</li> </ul> <p>Physics:</p> <ul style="list-style-type: none"> <li>- What energy is.</li> <li>- What a force is.</li> </ul> <p>Earth Science:</p> <ul style="list-style-type: none"> <li>- What is in our solar system and how this affects the passage of time.</li> <li>- Observe changes over time.</li> <li>- Seek patterns.</li> <li>- Identify, classify and group.</li> <li>- Complete a fair test.</li> <li>- Conduct research.</li> <li>- Ask and answer questions about the world using scientific enquiry and specialist vocabulary.</li> </ul>
...be able to	<ul style="list-style-type: none"> <li>- Observe changes over time.</li> <li>- Seek patterns.</li> <li>- Identify, classify and group.</li> <li>- Complete a fair test.</li> <li>- Conduct research.</li> <li>- Ask and answer questions about the world using scientific enquiry and specialist vocabulary.</li> </ul>
...have experienced	<ul style="list-style-type: none"> <li>- Hands on experiences of practical science to include a range of equipment.</li> <li>- Fieldwork.</li> <li>- Offsite visits linked to scientific learning.</li> <li>- Memorable and enjoyable lessons.</li> <li>- Regular enquiry-based learning.</li> </ul>

## Impact

Formative assessment of a learner's progress takes place during each lesson through questioning, observation and written outcomes. As part of the East Park Academy feedback policy, verbal feedback is given to the learners regularly and over the shoulder marking happens where necessary so that immediate feedback can be given and acted upon.

Learners are assessed against identified criteria at least three times per year, and this is used to identify gaps or misconceptions that learners have in their learning and to inform future planning, including 'Return and Explore' sessions. These assessments inform the summative assessment that teachers make at the end of each academic year. As a result, learners make rapid and sustained progress from their relative starting points.



Lessons and outcomes are monitored frequently by the science subject lead, including pupil voice discussions, and evaluations of these are used to continually enhance our curriculum design and delivery.

## Breach of Policy

Any breaches of this Policy will be managed under the Trust's Disciplinary Policy and Procedure, which can be located in the **All MAT Staff** area on Teams.

