

Hateley Heath Academy Science Policy



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Approved by:	CEA
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This policy is scheduled for review on:	Every 3 years

Contents

Policy Statement.....	3
Scope	3
Aims & Principles.....	3
Curriculum Overview.....	4
Curriculum Intent	5
Curriculum Implementation	6
Inclusion	7
Assessment.....	7
Curriculum Impact.....	7



Policy Statement

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

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 ICT Acceptable Use policies and Procedures. 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, casual workers, contractors and volunteers, whether during working hours or otherwise.

Aims & Principles

The aim of this policy is to explain how our science curriculum is implemented at Hateley Heath Academy.

Curriculum Overview

Our science curriculum is bespoke to our children and the community around us. It is designed to be ambitious for all pupils and to prepare them for their next stages in life. A knowledge rich and progressive curriculum has been implemented to broaden children's experiences, their understanding of the world and to add depth to their knowledge and skills.

Through our curriculum, we will provide opportunities for the children to seek knowledge by asking questions. Our Learning Clouds support independence and responsibility for their own learning and encouraging the children to develop a growth mindset. They also develop positive dispositions and habits for lifelong learning.



Collaboration



Contemplation



Curiosity



Creativity



Challenge



Confidence

Our science curriculum has been designed around a series of principles that reflect our school values, British Values, pedagogical approaches and needs. We clarify our vision of the curriculum through a carefully sequenced and progressive journey that has key knowledge allowing the children to make connections with other subjects. Within this journey, the children are exposed to both substantive and disciplinary knowledge, which is appropriate to their level of understanding and supports the development of schema.

We teach science as a discreet subject with an aim of children having a deeper understanding of the subject discipline, whilst at the same time, we encourage the children to make connections where appropriate. We ensure that our curriculum provides the children with both substantive and the disciplinary knowledge that is needed for children to appreciate and understand what is unique about a variety of artists. By doing this, our curriculum support schema development. Key concepts in each subject area are carefully considered and interconnected with other subjects. These concepts and skills are carefully sequenced, revisited and built upon from Early Years to Year 6.

Curriculum Intent

At Hateley Heath, our science curriculum has been designed with the intent that each child from EYFS to Year 6, will think and act like a scientist. The children will become knowledgeable about the world through exciting, memorable and first-hand scientific investigations and experiences. They will learn and develop by asking questions, making observations, performing fair tests along with identifying and classifying. Our curriculum is also designed and planned so that children can make links with prior knowledge and to prepare them for the wider world.

The topics that the children will build on, following the National Curriculum as well as going beyond this year by year are:

- Animals including humans
- Earth and space
- Electricity
- Evolution and inheritance
- Forces
- Light
- Living things and their habitats
- Materials
- Plants
- Rocks
- Sound
- Seasonal changes

The scientific skills that the children will build on each year are:

- Asking questions and recognising that they can be answered in different ways
- Making observations and taking measurements
- Engaging in practical enquiry to answer questions
- Recording and presenting evidence
- Answering questions and concluding
- Evaluating and raising further questions and predictions
- Communicating their findings.

Curriculum Implementation

Each class across EYFS, Key Stage 1 and Key Stage 2 will provide children a weekly science lesson. Great science teaching builds progressively on pupils existing knowledge. In order for effective delivery of science education, across weekly lessons there should develop opportunities for:

- ✓ Finding out children's prior knowledge and ideas using a variety of elicitation opportunities.
- ✓ Analysing children's knowledge and starting points and how this can be built upon with new knowledge.
- ✓ Activating opportunities to explore science, work with scientific equipment, test out a question.
- ✓ Providing opportunities for testing ideas, thereby possibly changing them and making predictions based on their own thinking and articulating why they think this.
- ✓ Providing opportunities for developing process skills so that testing is scientific.

Scientific learning opportunities for all children will be appropriately adapted to match children's relative starting points but will ensure that all children can access challenge so that there is 'no lid on the learning'.

Across science lessons, children will work interdependently to support each other through collaborative and peer learning and children will be challenged with open-ended investigative opportunities that will enable them to take locus of control for their learning.

Across lessons, all staff will act as an activator and facilitator of learning, skilfully intervening, scaffolding, questioning and moving learning on in all parts of the lesson so they make rapid progress. In addition, other subjects will play a part across lessons in lesson where children will be able to develop and apply their mathematical, English and computing skills. For example, using mathematical skills for repeated testing of results to calculate averages in science and in EYFS using high quality literacy texts to explore and expose children to scientific concepts and vocabulary that makes connections to the real world.

At Hateley Heath, our science curriculum is underpinned by stories, which feature within each MTP throughout whole school. Each story brings real life purpose and meaning to learning and research shows that this has a significant impact on long term memory.

Inclusion

When planning for teaching and learning we take into account the wide range of abilities of our children. Where necessary children are identified as having additional needs support is given and the Science curriculum is adapted to meet their individual needs, whilst ensuring access to a full, rich and varied curriculum along with their peers. Reasonable adjustments will be made to that every SEND child can fully access the curriculum.

Assessment

Assessment is an integral part of high-quality teaching and learning. Assessment is linked to planning and all assessments in science are used to inform future planning in order to impact on future teaching and learning. In science, opportunities are carried out prior to, during and after teaching in a variety of ways to inform planning or how far ideas and knowledge have progressed after a period of teaching. Formative assessment is continually on going in the form of observations, in the moment marking and feedback and making notes on weekly planning in order to inform planning for the next lesson. These assessments are linked to the key learning objectives for the lesson. Our Teacher Assessment Framework (TAFs) for science are reviewed weekly and ticked when objectives are met by individual children.

In Early Years. Learning journeys and online portal 'Evidence Me' capture observations and are kept up to date with summative assessments of children's achievements and progress.

Curriculum Impact

At Hateley Heath, through our rich and broad curriculum we are enabling children to gain the knowledge, skills and understanding they need for their future. Our school motto is 'Dream it, Believe it, Become it' and through our curriculum we enable this to happen. Our curriculum design will lead to outstanding progress for all pupils, regardless of their starting points, over time. Planned learning will progressively build on prior knowledge and understanding and support children in producing outcomes of the highest quality. We aim for our children to leave Hateley Heath at least achieving Age Related Expectations. The rich and broad curriculum and units of work will enable teachers to consistently plan lessons progressively building on prior knowledge and the development of key skills in order to deliver lessons over the highest standard and children's outcomes to be of the highest quality.