

Science Policy

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Governor link: Chair of Governors

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St Edmundsbury and Ipswich
Diocesan Multi Academy Trust

Whatever you do, do it with all your heart. Colossians 3:23

Our vision is to be a school where pupils have a positive approach to learning and where provision is consistently good or better. Our curriculum is relevant and creative and reflects our diversity. We aim for all pupils to leave St Matthew's well equipped for the future, demonstrating Christian values and showing self-confidence.

Our Science curriculum is underpinned by our curriculum drivers of creativity, aspiration, communication, and knowledge of the world. In our Science lessons we aim to provide experiences through which our pupils will question and explore the world around them, gaining a sense of awe and wonder, whilst understanding the relevance of science to their everyday lives. They will improve their skills of scientific investigation, communication, and teamwork whilst developing their curiosity and passion for our world. We intend to develop learners who persevere, ask questions, cooperate, and have high aspirations. Science trips, whole school science events, and Science related visitors are regularly arranged in order to provide the children with further opportunities to develop an enthusiasm for the subject.

Our Aims

Through our Science curriculum we encourage our pupils to:

- Gain an in-depth knowledge of a broad range of scientific topics, concepts and ideas. Learn the skills they need in order to work scientifically and organise their own investigative enquiries.
- Improve their communication skills by sharing their understanding and findings in a variety of ways.
- Understand the importance of working safely, carefully and methodically in science.
- Be aware of the importance of science to our society and raise their science capital

Teaching and Learning

Children in Reception have access to the Early Years Foundation Stage curriculum, and Years 1 to 6 follow the National Curriculum. The skills of working scientifically are taught within every unit, and our pupils learn to use a variety of approaches to answer relevant scientific questions by collecting, analysing and presenting their findings.

Our pupils will:

- Explore and ask questions about the world around them
- Make observations over time
- Notice patterns
- Identify, group and classify
- Carry out fair and comparative tests
- Research using secondary resources

We value speaking and listening and carefully consider how we use oracy to support the children's scientific learning. We also recognise that our curriculum planning must allow for children to gain a progressively deeper level of knowledge, understanding, and skill competency as they move throughout the school. To support our teaching we use several key resources:

- Science Bug - a programme created by Pearson is used to guide our long term plans and ensure coverage of the curriculum. This is adapted to suit the needs of our pupils.
- PLAN - resources developed by the ASE are used as model examples of work in each year group, and also provide us with our progression in scientific vocabulary ensuring all year groups are teaching the correct vocabulary.
- TAPs - to support our assessment of the skills of working scientifically.
- Explorify - to provide opportunities for speaking about science
- Twig Science Reporter - to raise awareness of science events in the world around us.
- Okido Magazine and National Geographic Kids are provided in Key Stage 1 and Year 3 so that the children can access science based literature, also raising their awareness of science in the world around them.

Records and Assessment

Assessment of pupil progress in science is made principally through ongoing teacher assessment supported by a range of resources and activities.

- In order to assess the children's knowledge of key vocabulary for each unit, each pupil RAG rates a vocabulary list at the beginning and end of each topic. This then informs future planning.
- In order to assess the skills of working scientifically we use TAPs tasks approximately halfway through each half termly unit. These are tasks focussed on a particular skill of scientific enquiry.
- Our assessments are supported by in school moderation and the use of the PLAN resources created by the ASE.
- Target Tracker is used in order to track and monitor the children's progress, which is reported to parents through end of year reports.

Inclusion & Equal Opportunities

Science teaching at St Matthew's is fully inclusive. Teachers use a range of strategies to meet the children's special educational needs and disabilities, and to ensure that the curriculum is accessible to those pupils who have English as an additional language. Learning activities are planned carefully to encourage the full and active participation of all pupils. Tasks are differentiated to enable children to experience levels of understanding and rates of progress that bring feelings of success and achievement. There is a focus on vocabulary and children are pre-taught key vocabulary when necessary. All children at St Matthew's are given equal opportunities in all areas of Science. We monitor the attainment and engagement of all children to ensure there are no patterns of attainment causing concern.

Information Communication Technology

We view ICT as an important tool to support learning in our science lessons. Our pupils are provided with opportunities to research, communicate, and collect and interrogate data in a variety of ways using ICT. The equipment available includes egg microscopes, data loggers, laptops, and tablet computers.

Safety

It is important that children are taught the rules of safety when undertaking experiments and investigations. Materials and equipment need to be handled sensibly and we try to ensure that children do this. It is the teachers' responsibility to make sure that all those participating are aware of

safety implications connected with any scientific activity they are undertaking. We access CLEAPSS Science for support with risk assessments.

Monitoring

The Science curriculum is monitored by the Science leader through observation of teaching, learning walks, pupil voice, book scrutiny, and through analysis of progress data.

Resources

Science resources are kept in the green boxes at the bottom of the KS2 stairwell for the use of all classes. They are regularly checked and updated.