

Subject Policy: Science

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Written by:	N. Cropper
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We believe all children can shine at St Matthew's and we strive for every member of our school family to succeed and flourish with us.

As a church school, we embody our values of respect, kindness, aspiration and perseverance in all we do. Therefore, every family from across our community is welcomed at St. Matthew's and we are proud of our diversity. Our curriculum reflects this and we pride ourselves in providing equal opportunities for all members of its family regardless of disability, religion, sexual orientation, culture, gender, ethnic origin, colour or age. All pupils have access to the Science curriculum, and the right to a learning environment which dispels ignorance, prejudice or stereotyping.

As a school, we have high aspirations for our children, and our vision for children to 'let their light shine' reflects this. Our **'Shine Curriculum'** encapsulates everything we desire for our children as they leave us and move on to their next stage of education. We aim to provide our children with a primary education they will always remember and treasure.

OUR SHINE CURRICULUM



This policy should be read in conjunction with the Learning Policy.

Intent

- At St Matthew's we aim to give children a science curriculum that will stimulate, nurture and sustain the sense of excitement, wonder and curiosity about the world we live in.
- We encourage children to 'glow with pride' and show good values such as respect for living things and the environment; respect for evidence and the opinions of others; honesty in collecting and presenting data; an openness to new ideas, are the basis of responsible citizenship .
- We aim for children to 'know themselves' and be confident to 'take risks'. At St Matthew's we aim to provide children with an exciting and rich curriculum where children have 'hands on' practical experiences who enjoy the experience of working scientifically.
- We ensure the children know that science has changed our lives and is vital to the world's future prosperity.
- We work hard to provide a rich and varied curriculum to challenge and meet the needs of our children.
- We believe all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science.
- From EYFS up to KS2 our pupils will build up a body of key foundational vocabulary, knowledge and concepts, pupils are encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena.
- We provide our children with wider opportunities in science and make links to other subjects.
- Teachers plan and challenge pupils based on our progressive curriculum maps as well as our KLG's and National Curriculum guidance.
- We monitor our schools progress in science regularly in line with our science policy.

Implementation

Planning, Teaching and Learning

All children have access to the Early Years Foundation Stage Curriculum and Science National Curriculum. At St Matthew's we use a long term Science curriculum plan to ensure that all units are covered within each Key Stage. Our plans show the breadth of study as well as how 'Working Scientifically' is embedded within each unit of work. Plans also include the scientific vocabulary to be taught with each unit of work to enable children to articulate scientific concepts clearly and precisely. The teaching of Science at St Matthew's may be as a whole class, in small groups or individual work.

- Teachers base their planning on the programmes of study for their relevant year groups using National Curriculum Objectives for each Key Stage alongside Switched on Science
- Medium Term plans are based on each year groups National Curriculum objectives and linked to a topic each half term following Switched on Science
- Teachers use assessment for learning to tailor lessons around our children and help us plan for next steps.
- In our school we strongly encourage all pupils to use specific topic related vocabulary. The progression for this is shown on our progressive curriculum maps.
- Through effective teaching of science, we develop children's knowledge and key skills during each topic.
- We encourage the children to become independent learners by developing their questioning techniques and scientific enquiry during investigations.

- Regular monitoring shows that our children understand and apply key scientific principles within their work.
- Children are provided with regular opportunities to develop strategies for questioning and thinking.

The Early Years Foundation Stage

We teach science in the Early Years Foundation Stage as an integral part of the topic work covered during the year. It comes under 'Understanding the World' in the EYFS. Children are supported in developing the knowledge, skills and understanding that help them to make sense of the world. They are provided with opportunities to use a range of tools safely, encounter creatures, people, plants and objects in their natural environments and in real-life situations; undertake practical experiments and work with a range of materials.

Curriculum enrichment

We ensure that children have access to a wide range of educational experiences. We have worked alongside STEM ambassadors to promote children's investigation and curiosity through science workshops and experiments. At St Matthew's children will have the opportunity to work scientifically across year groups so that pupils learn the skills to enquire and learn a variety of approaches to answer relevant scientific questions. We believe that these skills will equip children for the ever-changing world around them. We encourage children to 'embrace the world around them' as children take part in 'Muddy Puddle' activities and have opportunities for outdoor learning on our school grounds to provide practical, first-hand experiences to observe seasonal changes and plants. We ensure that children have access to a wide range of educational experiences outside of school through school trips linked to their topic and National Curriculum Science objectives.

Leadership, Assessment and Feedback

- Children's work is marked and feedback given according to the learning objective for each lesson, in line with the St Matthew's Feedback Policy.
- Teachers will assess children's work in Science by making informal judgements as they observe them during lessons.
- Assessment is used to inform future planning to ensure that children are both supported and challenged in their learning. Children complete the end of unit test each half term, this informs teachers to assist them making an informal judgement.
- Formative assessment within every lesson helps teachers to identify the children who need more support to achieve the intended outcome as well as those who are ready for greater stretch and challenge through planned questioning or additional activities.
- Ongoing assessments are made by the teachers against the year group National Objectives. This helps them to identify gaps and support children to develop their learning.
- Older pupils are encouraged to make judgements about how they can improve their own work.
- The assessment of Science allows teachers to identify what has been learnt and to monitor pupils' progress in their development of knowledge and skills.
- At the end of a unit of work, the teacher makes a summary judgement about the work of each pupil in relation to the National Curriculum, and records these grades.
- Progress and achievement in Science is reported to parents through end of year reports and during autumn and spring parent meeting
- A termly monitoring cycle ensures that work is moderated and quality assured at regular intervals through the year.

- The science leader has a clear role and overall responsibility for the progress of all children in science throughout school. Working with the Senior Leadership and Management Team to provide feedback to inform on progress and future actions.

Inclusion

St Matthews Primary School is an inclusive school which focuses on the positive well-being of every child, encouraging them to be confident and independent learners. We deliver a broad and balanced curriculum to ensure that all children have equal access to the Science curriculum.

Impact

- Children will be enthusiastic about science in our school.
- There is clear progression and a range of topics shown in children's work and teachers' expectations in our school.
- Practical activities/investigations take place within each topic.
- Muddy Puddles and outdoor learning is celebrated at least once each half term in each year group

This will be measured through regular monitoring:

- Book scrutiny
- Pupil interview / survey
- Data analysis
- Teacher interview / survey

This policy will be reviewed biennially or more frequently if required.