Science at St. Margaret's
Intent, Implementation & Impact

Everyone is valued. Everyone is motivated. Everyone is achieved.

Intent: We aim to grow scientists

Our Vision for science

"We aim to develop children's understanding, enjoyment, and interest in science so that they understand the impact science has on our lives and the world in which we live. We encourage children to be inquisitive learners and inspire future budding scientists."

Our teachers aim to nurture a love for the natural world and excitement for future possibilities in science, as well as providing opportunities for pupils to investigate and respond creatively in their learning. We try to harness their natural excitement and curiosity and inspire them to pursue scientific enquiry, both now and in the future.

Scientific enquiry should create exciting and memorable learning and stimulate interest in science. It builds reasoning and problem solving. Key components: observation, pattern seeking, identifying, classifying and grouping, comparative and fair testing and research. We combine scientific enquiry with acquiring knowledge and working scientifically skills. This enables our pupils to develop a good understanding of science and the world around them.

Implementation

We use the 'New primary Curriculum for Science 2014' as a basis for implementing the programmes of study for the subject. We ensure all children are exposed to high-quality science teaching and a range of learning experiences. Science teaching is carefully sequenced to ensure a clear progression of substantive knowledge and disciplinary knowledge. Teachers understand where each scientific topic fits in each year and how it fits in across the school, assessing learning carefully so that pupils' learning progresses well. We use assessment for learning to ensure pupils are on track and to diagnose areas of learning that needs strengthening.

We teach science discreetly each week or as part of a topic that encompasses other subjects, where relevant links help us to deliver learning in a holistic and sustainable way. Our long-term plan sets out the units to be taught in each year group to ensure that the requirements of the National Curriculum are met. Our science progression map shows the key knowledge and skills that our children should acquire each year in a clear sequence of learning that builds across Key Stage 2.

Occasional science days/weeks provide opportunities for children to immerse themselves in and practise their learning. Scientific trips and visits also play a key part in experiential learning,

*Please also see our Vision and Principles documents

giving the children opportunities to learn concepts in a scientific setting with specialist equipment and resources.
Each class has a Science Ambassador who assists the science leader by providing pupil voice. They attend half-termly meetings to give feedback from classes, discuss their learning and experiences and plan for science enrichment.

Impact

Children at St. Margaret's will:

- Learn through questioning, exploring and experimenting
- Make links to other subjects and to the real world
- Select and use equipment safely
- Be guided so that their natural curiosity encouraged and promoted
- Include the outdoors, visitors and trips in their learning
- Develop their science knowledge and vocabulary

Teachers plan regular opportunities for pupils to check how well they are learning what they have been taught (for example, through Flashbacks, no-stakes quizzing, vocabulary checks, concept cartoons, Explorify tasks). This ensures that misconceptions are quickly addressed and informs the teacher in planning next steps in learning, making adjustments as required.

Teachers assess pupils against the NC statutory statements for science on Assessment Trackers in line with the school assessment policy. ASE PLAN documents are used to support teacher assessment of pupils' learning with exemplifications of every topic in each year group. Working scientifically skills are woven into lessons and PSTT TAPS assessment activities are used to formally assess these skills.

Science is monitored by the subject lead in the following ways:

- Monitoring of books & outcomes to check understanding & coverage
- Pupil voice interviews
- Learning walks
- Science Ambassadors' meetings to maintain & raise the profile of the subject

The successful approach to the teaching of science will result in a fun, engaging, high-quality science education, that provides children with the foundations for understanding the world they live in and the acquisition of knowledge and skills needed as they progress to Key Stage 3.

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