

OUGHTRINGTON
COMMUNITY
PRIMARY SCHOOL



Mathematics Policy

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1	October 2011	Updated Policy (Numeracy)
2	March 2017	Updated Policy
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This Policy is available on the Learning Platform, on the office network and in the staff room.



Mathematics Policy

Why Teach Mathematics?

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Aims of the National Curriculum

The National Curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

(National Curriculum July 2014)

Our School Aims:

- To encourage all children to develop an enthusiasm for and a confidence in mathematics
- To help children to understand the importance of developing mathematical skills as an essential part of everyday life
- To help children to develop and use a wide range of mathematical skills appropriately
- To provide a rich and challenging learning environment that stimulates mathematical thinking and learning
- To ensure that all children achieve their full potential

Teaching and Learning

Children are taught mathematics for between one hour to one and half hours each day depending on their age. The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupil's understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problem solving and reasoning questions before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

Teachers can access a variety of sources to provide tasks for fluency, reasoning and problem solving e.g. White Rose Documents, NRICH tasks, NCTEM Mastery documents.

Concrete scaffolding resources should be available for all children to readily access during lessons and children should be aware of their location within the classroom.

The Early Years Foundation Stage (EYFS)

In the EYFS, children explore key aspects of Mathematics including counting, sorting, matching, seeking patterns, making connections, recognising relationships and working with numbers, shapes, space and measures. Mathematical understanding is developed through stories, songs, games and imaginative play, so that children enjoy using and experimenting with mathematical concepts and become confident and enthusiastic problem-solvers. Activities and experiences are planned with regard to the Early Years Foundation Stage Curriculum and children's progress in Mathematics is assessed against the Early Learning Goals.

Assessment

Assessment for learning should occur throughout the maths lesson, enabling teachers/teaching assistants to adapt their teaching to meet the children's needs. Feedback from children to teachers and teachers to children should be regular and provide immediate opportunities for support or challenge. This should be documented in books referring to the Marking Policy. Children are given time to read and review their work following marking.

Future lesson planning should consider class success evaluated through marking, observations and reflections made during and following the lesson.

Assessment of pupil work and progress is ongoing by the class teacher and informs future planning. Teachers use the White Rose Planning/Assessment Documents to make a judgement about children's progress in maths throughout the year. In Year Two and Six, past SATS test papers are used in the Spring term to prepare the children for their End of Key Stage Assessments in the Summer term.

Summative assessments are completed at three key points in the year in accordance with the Assessment Policy.

Tracking is used so that children who are not on track to achieve Age Related Expectations can be targeted for support either within class or receive support through an intervention program. The interventions these pupils receive and the frequency of them will depend on the child's needs.

Display

We recognise the importance of displays in the teaching and learning of mathematics. Every class displays relevant mathematical information which is consistent throughout the school. This is appropriate to the age of the class. These may include number lines, number grids, vocabulary and other display materials that provide a visual support for the children's mental processes.

Reporting

Parents are formally invited to two parents' evenings a year. The first parent's evening is used to discuss how children are settling in to their new classes and tackling new challenges. The second parent's evening gives an opportunity for parents to discuss achievements, progress and targets. Parents are always welcome to arrange additional meetings with any teacher if worries or concerns arise between these meetings.

All parents receive an annual written report on which there is a summary of their child's effort and progress in mathematics over the year. At the end of KS1 and KS2, each pupil's level of achievement against national standards is included as part of their annual written report.

Equal Opportunities

As a school we endeavour to maintain an awareness of and to provide for equal opportunities for all our pupils in mathematics. Staff will endeavour to help all children to reach their full potential irrespective of race, gender, age or ability. We strive to ensure that all tasks set are appropriate to each child's level of ability. We have high expectations of all children and we believe that their work should always be of the highest possible standard.

Outcomes

At Oughtrington, we want children to develop a real enthusiasm for mathematics and to equip them with the key skills that will be essential at high school, in higher education and in their personal and working lives.

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