



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

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.

Intent

At Moss Lane we aim to provide a high quality mathematics education through the teaching and developing of a child's ability to calculate, to reason, to think logically and to solve problems with confidence. We aim to achieve this through delivering a mastery curriculum that encompasses the three main aims of the National Curriculum: fluency, reasoning and problem solving. We deliver lessons that are creative and engaging. We want children to make rich connections across mathematical ideas. We want them to know that it is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy. Maths is the foundation for understanding the world and we want our children to know the purpose behind their learning and to apply their knowledge to real life contexts.

Implementation

- To ensure high standards of teaching and learning in maths, we use the progressive White Rose Maths schemes to support planning and to ensure we are implementing the statutory requirements of the National Curriculum.
- To further engage children in the development of mental maths skills we use 'Karate Maths'.
- The children are given the opportunity to reason and problem solve as well as develop their mathematical fluency in most lessons.
- The large majority of children progress through the curriculum content at the same pace.
- Differentiation is achieved by emphasising deep knowledge and through individual support and intervention.
- Work is recorded mostly in exercise books, with the exception of practical lessons, which may be recorded in other ways.



Impact

- The progression of mathematical skills is clear across the school and there is evidence of individual progress from starting points to end of Key Stage performance.
- Work in exercise books show that children are making progress.
- Children are able to reason and problem solve by applying their mathematical fluency skills.
- Children can not only apply their fluency skills to a range of written problems but also work in other subjects and real life contexts.
- Children develop conceptual understanding of mathematical ideas through effective modelling and use of concrete resources.
- Good outcome are achieved through high quality teaching of core skills.