



Maths

Manor's maths curriculum is underpinned by the teaching for mastery approach, and enables the children to develop confidence and enthusiasm, and encourages creativity and inquisitiveness. It develops a deep and interconnected understanding of mathematical concepts and uses practical equipment and pictorial representations to support the development from concrete to abstract understanding. The expectation is for the precise use of mathematical language and a focus on fluency, reasoning and problem solving in a wide variety of contexts.

Maths No Problem

The core of our maths curriculum is the Maths No Problem scheme of work. It is a mastery scheme of work, based upon the Singapore approach. This is supplemented with other high quality mastery materials to meet the needs of all children. Lessons include exploration, structure discussion, guided practice and the opportunity to apply in independent practice.

Impact: Consistency of planning and calculation methods allow for all children to access a mastery curriculum providing challenge for all. Fluency, reasoning and problem solving are developed in every lesson.

Journaling

Journaling is used to develop the children's mathematical communication enabling children to record their mathematical thinking and understanding of concepts. It can take place at any part of the learning journey and provides children with the opportunity to journal for different purposes. Journaling supports children's use of precise mathematical language and representations. It values the process of thinking and problem solving.

Impact: Children can confidently demonstrate their mathematical understanding and variety of approaches using mathematical vocabulary in context.

Online Learning

We use a range of websites and apps to support learning in school as well as providing the opportunity to practise and develop math skills at home.

Impact: Children are able to share their learning with people at home, as well as building fluency through enjoyable practice.

Questioning & Challenge

Varied questioning techniques are used to ensure that all children are challenged in every lesson, developing maths mastery, including open and closed questions, a variety of feedback opportunities and targeted questioning, building on one another's contributions.

Impact: All children access learning and are challenged by questions targeted at individuals developing their reasoning throughout the curriculum.

CPA Approach

Concrete, Pictorial, Abstract (CPA) is a highly effective approach to teaching that develops a deep and sustainable understanding of maths in children. We ensure all children access concrete manipulatives and a range of representations to scaffold their understanding.

Impact: Children develop a deeper understanding of mathematical concepts and are able to apply this in a range of contexts.

Mastering Number Programme

It is a daily whole class programme from the NCETM Mastering Number Programme developing number sense and fluency in Reception and KS1. Children use a range of concrete manipulatives and pictorial representations to strengthen their understanding of number and fluency with number facts.

Impact: Children will develop secure number sense, including fluency and flexibility with number facts, on their future mathematical learning.

CPD

All teachers from Reception to Year 6 have received external CPD training to develop their understanding of mathematical mastery and the delivery of the Maths No Problem scheme of work. Our Maths team works with the local Maths Hub and are part of the Teaching for Mastery Programme. Staff involved in the Mastering Number programme are receiving CPD from the NCETM and our local maths hub.

Impact: All children are taught by teachers with a secure understanding of the mastery approach, ensuring they can support the needs of the children at every stage of their mathematical development.

Vocabulary

Mathematical vocabulary is a core focus in all maths lessons. Children need to be able to use language to support their mastery of the content. They are provided with sentence stems throughout different points in a lesson, enabling all children to speak the maths and where appropriate write it.

Impact: All children are able to discuss the maths learned by speaking it using the age related mathematical vocabulary.

Learning Partners

During maths lessons children work in pairs, carefully selected by teachers enabling them to share their thinking, work collaboratively and 'talk the maths'. They are encouraged to challenge each other's thinking and compare their methods to deepen their thinking and both procedural and conceptual understanding.

Impact: Children are able to discuss mathematical problems, developing their own thinking by building on or challenging that of their partner to further deepen their understanding and ability to reason.

Assessment

Assessment for learning takes place throughout every maths lesson allowing for lessons to be adapted to meet the needs of children. At the end of each chapter learning is reviewed through a formal assessment. Termly tests are used to support teachers' assessment and track the progress of learners.

Impact: Lessons are planned to meet the needs of the children and adapted as required in line with our mastery approach. Interventions are put in place where the need is identified. Children develop a good understanding of mathematical concepts before moving on.

