



Mathematics at Manor Primary School

At Manor Primary School we consider mathematics as far more than simply a core curriculum topic; it is central to helping children become happy, articulate, reflective and confident individuals.

Developing numerical fluency prepares children to access a world surrounded by number and problem solving. It equips young people with key skills such as calculating, estimating, observing and predicting, which will be used extensively throughout their lives.

We have adopted the Singapore Mastery Approach to the teaching of mathematics, which aims to develop a deep, long-term and adaptable understanding of Maths through an inclusive approach where all children achieve. We spend significant time on each topic to deepen understanding and allow children to master concepts.

At Manor we believe that our teaching of mathematics:

- promotes enjoyment of learning through practical activity, exploration and discussion;
- develops confidence and competence with numbers and the number system;
- develops the ability to solve problems through decision-making and reasoning in a range of contexts;
- helps children understand the importance of mathematics in everyday life.

All children are given opportunities to:

- develop a sense of the size of a number and where it fits into the number system (place value);
- become fluent in number facts such as number bonds, multiplication tables, doubles and halves;
- solve simple problems mentally, using jottings personal to them and the bar model to visualise the problem;
- use mathematical vocabulary to support their explanations;
- calculate accurately and efficiently, both mentally and with pencil and paper, drawing on a range of calculation strategies and judging whether their answers are reasonable;
- explore the features of shape and space, and develop measuring skills in a range of contexts;
- explain and make predictions using graphs, diagrams, charts and tables.



At Manor, Maths is taught daily following the Maths - No Problem! Primary Programme. The Maths learning journey is organised into chapters. We start each chapter of learning with a 'cold task' to evaluate prior learning and assess the children's starting point. After a series of lessons developing their skills and understanding through the solving of problems in real life contexts, the children complete a 'hot task'. This provides the children the opportunity to apply what they've learnt and enables the teachers to assess the children's understanding and their ability to apply their learning independently.

Lesson Approach

Each Maths lesson starts with an anchor task: a real-life problem for the children to solve. The children have the opportunity to explore, explain, record and apply their mathematical learning and thinking in every lesson. We follow the C-P-A approach, which encourages children to move from concrete representations (objects/cubes/counters etc.); to pictorial representations (drawings, bar models, diagrams etc.); before moving to an abstract representation such as a written calculation. Collaborative learning, talking and questioning play a vital role in every Maths lesson.

In line with our Singapore Mastery Approach, each child has a Maths Journal and a Maths Workbook. The journal is a record of their learning journey showing the development of their mathematical knowledge, skills and understanding and whenever possible should demonstrate their thought process. The Workbook, is where they practice and apply their mathematical skills.

Arithmetic

In order to further develop the children's sense of number we have weekly Arithmetic lessons, where the children have the opportunity to develop confidence and fluency with numbers and the four operations, improving their recall of number facts and their concept of place value.

Children are also encouraged to practice these skills at home.