



## Maths Policy

Mathematics equips pupils with a uniquely powerful set of tools for life. Here at Manor Farm Infant school, we strive to ensure that the children in our care leave our school with high standards of numeracy, encouraging all pupils to work to the best of their ability. With this in mind we endeavour to ensure that children develop a positive and enthusiastic attitude towards mathematics that will stay with them, by fostering analytical minds and confident communicators to tackle a range of practical tasks and real-life problems.

### 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

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 organised into 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.

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 pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material will continue to consolidate their understanding through additional practice.

Alongside the National guidance, our aim is for children to use their knowledge and understanding of mathematics confidently in day to day life. We understand that our pupils come from a variety of backgrounds with different experiences and exposure to mathematical concepts. This means that they require clear progression, in small steps, to become confident mathematicians.

We aim to help all children to reach their full potential in mathematics by:

- Developing an enjoyment and love of maths
- Introducing a broad and balanced curriculum in a stimulating environment, with high quality teaching;
- Developing independent, inquisitive, enquiring and confident learners while using a range of appropriate learning experiences and resources;

- Encouraging children to remember key mathematical facts and developing their understanding of how these relate to other facts;
- Promoting mathematics as a tool for problem solving and developing the ability to reason, to think logically and to work systematically and accurately;
- Exploring maths in depth, using mathematical vocabulary to reason and explain their workings;
- Encouraging children to reflect on their learning and link their experiences to previous learning.

### **Implementation**

Throughout the school we use the White Rose Maths scheme of learning as a basis to guide the children's journey to mathematical understanding. White Rose Maths is based on a mastery, small steps approach that gradually builds up to develop a deep understanding of the subject. It uses a concrete, pictorial and abstract approach to underpin understanding. Teachers use their expertise and knowledge to adapt and develop lessons to suit their cohorts needs.

Foundation Stage:

Mathematics is one of the seven areas of learning within the Early Years Foundation Stage Curriculum and is subcategorised into the two strands, 'Number' and 'Numerical Patterns'. There is a focus on learning through play for children at this stage of their education. Therefore, practical, hands on mathematics activities are available in dedicated areas in both the inside and outside environments. These will be changed regularly, as topic areas change, to keep children engaged, and will allow children to explore concepts introduced in adult-led activities. Staff also provide learning opportunities through quality interactions with children and encourage the children to explain their reasoning using full sentences.

Key Stage 1:

Maths is taught daily using a wide range of mathematical resources and pupils are taught to show their workings in a concrete, pictorial and abstract form wherever suitable. They are taught to explain their choice of methods and develop their mathematical reasoning skills. Every lesson will include some practise of mental maths skills, usually as a starter, development of fluency skills and an opportunity to practise reasoning and problem-solving skills. Talking about Maths is an important part of every lesson as this helps children to develop speaking, listening and reasoning skills. Maths vocabulary is explicitly introduced and recapped on to ensure understanding. Children are encouraged to work together to solve problems. Teachers will use the White Rose Maths Flashback questions to revisit and revise topics previously covered.

### **Impact**

As a result of our Maths teaching you will see:

- Engaged children who are all challenged;
- Confident children who can talk about Maths and their learning and the links between Mathematical topics;
- Children who show perseverance, resilience and a willingness to 'have a go'
- Lessons that use a variety of resources to support learning;
- Different representations of mathematical concepts;
- Learning that is tracked and monitored to ensure all children make good progress from their starting points.

### **Making links between mathematics and other subjects**

Mathematics is used in other curriculum areas wherever possible or appropriate. This helps to enhance and consolidate mathematical concepts, and using maths in a purposeful way in everyday contexts helps the children to realise that mathematics is important in the real world.