



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

For several years now we have adopted a mastery approach to the teaching and learning of maths. Mastery can be defined as:

"Pupils of all ages acquiring a deep, long-term, secure and adaptable understanding of the subject. The phrase 'teaching for mastery' describes the elements of classroom practice and school organisation that combine to give pupils the best chances of mastering maths. Achieving mastery means acquiring a solid enough understanding of the maths that's been taught to enable pupils to move on to more advanced material." NCETM

- We aspire to engage all pupils to enjoy and achieve in maths believing all can.
- Pupils are actively engaged in their learning.
- We enable all pupils to make connections and develop the skills needed to work systematically and with confidence.
- Lessons are quick paced with episodic teaching at the heart of lessons.
- Teaching and learning is interactive with lots of questioning to elicit and deepen understanding. In a typical lesson, the teacher leads back and forth interaction, including questioning, short tasks, explanation, demonstration, and discussion, enabling pupils to think, reason and apply their knowledge to solve problems.
- Vocabulary and the precise and accurate use of mathematical language is modelled and facilitated within a lesson. Children therefore develop skills to communicate their reasoning and thinking.

The coverage of concepts is done in small steps built upon previous learning.

- If a pupil fails to grasp a concept or procedure, this is identified quickly, and gaps in understanding are addressed systematically to prevent them falling behind.
- Significant time is spent developing deep understanding of the key ideas that are needed to underpin future learning.
- Key number facts are learnt to automaticity, and other key mathematical facts are learned deeply and practised regularly, to avoid cognitive overload in working memory and enable pupils to focus on new learning.

Pupils enjoy maths and engage with their learning. Those pupils who are working below the expected level are identified and support is given within lessons to access the learning and make good progress. Pupils who are working significantly below will be given bespoke activities.