

Maths Intent

At Gooseacre Primary Academy we have adopted a mastery approach to Mathematics in order to deliver the three aims of the National Curriculum: fluency, reasoning and problem solving. Underpinning this pedagogy is a belief that all children can achieve in Maths. Our approach aims to provide all children with full access to the curriculum, enabling them to develop independence, confidence and competence – ‘mastery’ in mathematics in order to be independent mathematicians who are well equipped to apply their learning to the wider world.

At the centre of the mastery approach to the teaching of mathematics is the belief that all pupils have the potential to succeed. They should have access to the same curriculum content and, rather than being extended with new learning, they should deepen their conceptual understanding by tackling challenging and varied problems. Similarly, with calculation strategies, pupils must not simply rote learn procedures but demonstrate their understanding of these procedures through the use of concrete materials and pictorial representations.

The Mathematics Mastery curriculum is cumulative - each school year begins with focus on the concepts and skills that have the most connections, and this concept is then applied and connected throughout the school year to consolidate learning. This gives pupils the opportunity to ‘master maths’, by using previous learning throughout the school year. These skills are developed by applying the 3 Dimensions of Depth to teaching and learning:

1. Conceptual understanding
2. Language and communication
3. Mathematical thinking

With Problem solving at the heart of Mathematics teaching and learning.

These underpin the Mathematics Mastery approach because together they enable pupils to develop a deep understanding in mathematics. If a

pupil has a meaningful understanding of the maths they are learning, they will be able to represent it in different ways, use mathematical language to communicate related ideas and think mathematically with the concept. This will enable them to apply their understanding to a new problem in an unfamiliar situation.

We help children to develop their Mathematical language and communication skills by encouraging all pupils to answer mathematical questions in full sentences with a focus on the correct mathematical vocabulary and through the use of sentence stems for mathematical reasoning. Mathematical vocabulary is shared at the start of each lesson with an expectation that this is used during 'Talk Tasks' with their peers and throughout the lesson. One of the reasons we explicitly teach mathematical language and insist on all pupils using it in sentences is because of the complexity of the language required to be a competent and confident mathematician.