

# Mathematics Curriculum

At St Wilfrid's, our approach to Maths is grounded in an absolute belief for every child to enjoy and succeed in mathematics, regardless of background. This is taught through a 'mastery approach', using combined elements of concrete, pictorial and abstract in order to support deeper conceptual understanding of concepts in order to allow them to apply their skills in a variety of different contexts. By promoting a growth mindset culture within the school, we believe that ability can be attained over time through effort, dedication and hard work, for all. We believe this for our pupils, our staff and our parents to build resilient and successful members of our community and a positive and enjoyable attitude towards maths.

**The approach is based around three principles, known as the 'Dimensions of Depth':**

**1. Conceptual Understanding** supports *all* pupils to deepen their understanding by representing concepts using objects and pictures, and more abstractly, with words and symbols, and making connections between these. **2. Language and Communication** supports pupils to deepen their understanding by explaining, creating problems, justifying and proving using mathematical language. This acts as a scaffold for their thinking and deepening their understanding further. **3. Mathematical Thinking** supports pupils to deepen their understanding by giving an example, by sorting or comparing, or by looking for patterns and rules in the representations they are exploring problems with. **These three 'Dimensions of Depth' are deeply intertwined throughout the programme, with Mathematical Problem Solving at the heart of the curriculum.**

INTENT		IMPLEMENTATION	IMPACT
	<b>Alignment to National Curriculum</b>  The school follows the Mathematics Mastery programme, which is fully aligned to the National Curriculum. Based on effective research, the programme places emphasis on connectionist pedagogies and research to highlight how interconnected mathematics is, to build the deep understanding in pupils.	 <b>Pedagogical Approaches</b>  The school follows a six part lesson sequence: engage, introduce, consider and practise, going deeper, independent task and reflect. The lessons are carefully designed to ensure pace of learning as well as to regularly check for understanding. Maths Meetings are a vital part of the programme, used to consolidate key learning for 10-15 minutes every day outside of the maths lesson.	 <b>Approach to Assessment</b>  Teachers review pupils' work on a daily basis to identify any pupils who need same day intervention and to inform planning. Assessment is against the key constructs. Star assessments are used throughout the year to provide standardised scores and to identify gaps.
	<b>End Points</b>  We are very clear about being ambitious in all year groups and the programme is designed to take the children to greater depth within the statutory assessment frameworks. The aim is for all children to become confident mathematicians, who have the skills to approach, tackle and solve a range of problems.	 <b>Teachers' Expert Knowledge</b>  Teacher development is central to the success of Maths teaching. All teachers are fully trained in the programme with key professional development highlighted on lesson guides. Whole School workshops and Subject Knowledge Enhancement workshops can be delivered by the Maths Lead in a tailored approach.	 <b>Performance Data</b>  The school uses FFT to set ambitious targets for all children, which are at least in line with the top 20% of pupils nationally. The most recent pupil performance data can be found on the school website. FFT tracking is used to compare the current scaled scores with the pupil estimates.
	<b>Sequencing</b>  The Mathematics Mastery curriculum is cumulative, where each school year begins with a focus on the concepts and skills that have the most connections. These are then applied and connected throughout the school year to consolidate learning. This gives pupils the opportunity to 'master maths'; by using previous learning.	 <b>Promoting Discussion and Understanding</b>  Our Maths programme includes both knowledge and vocabulary that are specific to the concepts that the pupils are studying. The six part lesson structure, especially the Talk Task, promotes regular discussion and this is structured to lead to building understanding. Language and Communication underpins every lesson.	 <b>Pupils' Work</b>  The school has really high expectations of all children in terms of the quality and presentation of their work, which we believe leads to a sense of pride. Emphasis on precision of number and symbol formation supports pupils to think logically, organise their reasoning and represent the maths accurately. Photographic evidence is used frequently in mathematics lessons.
	<b>Addressing Social Disadvantage</b>  A key principle of our teaching is about belief that every child can engage with the curriculum for their year group, unless they have a significant developmental delay. Pre-teaching and same day intervention are in place to ensure that all children can engage with the key learning.	 <b>Knowing More and Remembering More</b>  Curriculum maps have been carefully constructed to present the content in a logical progression. The school's approach builds on current research into metacognition. This is evident in the six part lesson and Maths Meetings, which includes carefully crafted check points in between each stage, for example using recall and retrieval practice of key skills.	 <b>Talking to Pupils</b>  All members of the senior leadership team and, particularly, the maths leader talk to the pupils as part of the regular monitoring. The purpose is to explore what they have learnt and what they can remember as well as how much they have enjoyed it. In mathematics, this is generally based around conceptual understanding. Key improvement actions can be identified as a result.
	<b>Local Context</b>  For a proportion of lower attaining pupils, language development is a key focus. Through highlighting of key, precise mathematical vocabulary and a high expectation for all pupils to ask and answer in full sentences, as well as a large emphasis on teaching modelling and appropriate scaffolding, pupils develop and broaden their vocabulary, which supports them to articulate their responses and reasoning skills.	 <b>Teacher Assessment</b>  Each part of the lesson is an opportunity for the teacher to assess the learning before moving onto the next part. Misconceptions can then be immediately addressed. The Practise/Deepen method of marking the pupils' work each day also allows for teachers to assess pupils' understanding of the key learning.	<b>Links / References</b>  <a href="http://www.mymastery.org.uk">www.mymastery.org.uk</a>