



I N T E N T	<p><i>Our vision for our children as mathematicians...</i> All children will have a deep understanding of mathematical concepts with a broad range of skills to use and apply mathematics. They will have a fluent knowledge of the number system and facts including multiplications. Children will learn through a mastery curriculum, involving small steps for each aspect. They must be able to articulate, make generalisations and make sense of solutions to calculations. In mixed-age classes, children will see and learn the same content over a 2-year period to build a greater depth of learning by the second year.</p>
I M P L E M E N T A T I O N	<p><i>Our journey...</i> In 2018 began to explore and experiment with maths hub planning and small steps delivery; throughout 2019-2021 the mastery approach has been embedded throughout all stages of the school. There is an increased emphasis on using manipulatives in lessons, including upper Key-Stage 2. We have adopted the 'Ebbinghaus curve of forgetting' approach to build depth throughout units and year groups. Supporting technology is implemented to build fluency and free up working memory throughout the school. We use '1-minute Whiterose' for number facts and 'TTRockstars' for multiplication and division. SLT are now part of the 'Mastery embedded' course with the Great North Maths Hub. Teachers are now developing long term plans linked to mixed classes interspersing content, rather than blocking.</p> <p><i>In a maths lesson, this is what you will see...</i> Children are taught in a mixture of 2 year groups. They are sat in mixed ability groups in KS1 and LKS2 or pairs in UKS2. All children receive input from teachers to match their needs. Concepts are built on slowly to build knowledge and understanding throughout a lesson, beginning with fluency then progressing to more challenging problems. Manipulatives (Numicon, PV counters, dienes, PV charts etc) are provided to demonstrate and support ideas. Teachers will use a 'you say... I say' to build mathematical vocabulary. More fluent children are provided with extension challenges during whole class teaching to demonstrate a depth of understanding using a '#Problem'. This builds language and reasoning skills. All children will be presented with a task pitched at an expected level for the concept. Differentiation takes place in the form of manipulatives and support from adults and extension with #problems or an extension problem.</p>
I M P A C T	<p><i>We know our children are achieving because...</i> children's responses to maths, along with work in books and tracking using PET analysis, shows whether children are WTS, EXS or GDS. Teachers then use this information to inform future learning. Children will be confident and fluent when discussing and using maths in a range of situations. Termly assessments take the form of PUMA tests for each age range. Homework is given weekly to consolidate particular areas of learning from the week alongside a pre-teach task from the coming week.</p> <p><i>If learners need support we have these systems in place...</i> targeted interventions will be delivered to fill in foundation knowledge and understanding using the 1st class@number and success@arithmetic programmes where children have had gaps identified. In addition, maths homework club is available to all parents and children on Tuesday evenings to support the week's learning.</p>