

Curriculum Statement

Teaching and learning of: Maths

INTENT	<p>At Thorpe Primary School we want to create confident, skilful mathematicians who have a life-long love of mathematics and can expertly apply their knowledge and understanding. Our curriculum is designed with our children at the heart of the process in order to support and challenge their thinking and reasoning through opportunities to explore and discover for themselves. Ultimately, our goal is to ensure that we nurture children who are engaged, motivated and curious learners who are interested and invested in their future.</p> <p>We intend to:</p> <ul style="list-style-type: none"> • develop well-rounded and successful mathematicians, informed by the National Curriculum, and exposed to carefully designed lessons with opportunities to explore and challenge, taught with a clear mathematics objective • deliver a mathematics curriculum which is based on small steps teaching, allowing the majority of children to progress together and building in opportunities for strengthening and deepening understanding • deliver a curriculum that develops mastery of mathematical concepts through acquiring a deep, long-term, secure and adaptable understanding • provide opportunities to develop fluency and to be able to apply this knowledge through reasoning and problem solving • provide and make explicit, the opportunities to build year on year on their prior mathematical understanding • use a concrete-pictorial-abstract (CPA) approach to develop secure understanding of mathematical concepts. • ensure there is continuity between year groups and phases • use 21st century technology such as online tools, iPads (y5 and Y6),resources and expertise 		
Underpinned by	<p style="text-align: center;">Knowledge</p> <p>At Thorpe Primary School, we use Power Maths as mastery based approach to the National Curriculum which we follow. Each unit of work recaps and then builds on prior learning so that all pupils are able to secure and embed their mathematical knowledge as they move up the school.</p> <ol style="list-style-type: none"> 1. Number and place value 2. Number – addition and subtraction 3. Number – multiplication and division 4. Number – fractions (including decimals and percentages) 5. Measurement 6. Geometry – properties of shape 7. Geometry – position and direction 8. Statistics 9. Ratio and proportion 10. Algebra 	<p style="text-align: center;">Mastery</p> <p>Through the use of Power Maths we aim to develop a mastery approach to mathematics through acquiring a deep, long-term, secure and adaptable understanding of the subject. There are certain principles and characteristics which characterise this approach. They are:</p> <ul style="list-style-type: none"> • An expectation that all pupils are capable of achieving high standards in mathematics. The mastery approach rejects the idea that a large proportion of people ‘just can’t do maths’. Instead, all pupils are encouraged by the belief that by working hard at maths they can succeed. • The majority of pupils progress through the curriculum content at the same pace. Challenge is through extending children’s thinking with rich and sophisticated problems rather than moving onto new content. Individualised support and interventions help to support those who need consolidation. • Practice is a vital part of learning but it is with carefully designed variation (varying the way the concept or question is presented) to build fluency and understanding of mathematical concepts. • Children are exposed to and are encouraged to use a range of representations (the way in which the maths is shown) to show deep understanding of a concept. 	<p style="text-align: center;">Vocabulary</p> <p>Pupils will be exposed to, and become confident in the use of, mathematical vocabulary. Mathematical vocabulary is explicitly shared, clarified and modelled within each unit. Pupils are then actively encouraged to use the vocabulary accurately in their verbal and written work.</p>

IMPLEMENTATION	<p>At Thorpe Primary School we follow the Early Years Statutory Framework and the National Curriculum and use Power Maths to help develop a deeper understanding of mathematics through: fun practical activities, exploration, discussion, problem solving and reasoning. We teach 5 lessons a week for a total of 5 hours and then an additional hour is used throughout the week to support mental maths and arithmetic.</p>		
	<p>SEND The Maths curriculum is adapted to meet the needs and styles of all learners. A variety of teaching and learning strategies are used to ensure that all pupils can achieve, including:</p> <ul style="list-style-type: none"> • use of manipulatives to support the CPA approach, • small step learning, • targets from APDR are used to support the planning and adaptation within each unit's journey • roots groups to support children working significantly behind. 	<p>Arithmetic Specific mental maths skills are taught on a weekly basis to support the development of arithmetic. From Y2, fortnightly arithmetic tests are also used alongside feedback sessions to develop efficiency across a range of objectives in line with our calculation policy. Number bonds are a particular focus from Reception and multiplication facts from Y2 and this is further supported by the use of Numbots and TT Rockstars.</p>	<p>Questioning and Discussion Questioning and discussion play a vital role. Children are encouraged to think deeply about mathematics, identifying patterns and connections. This ensures deeper understanding than just memorising written methods. An integral part of every maths lesson is the discussion around the knowledge, skills and approach that is needed, Every lesson begins with a recap of prior learning and then the children from Y1 are given a daily discovery task where they can, in pairs, explore the focus for the day and demonstrate their understanding; drawing on their use of concrete, pictorial or abstract methods. These different approaches are then shared with the class, alongside high-quality modelling from the teacher.</p>
	<p>Formative assessments Year group teams create a vision for the journey of each unit and then use Feedback books to note down adaptations that needed to be made within the lesson or for the next lesson. This will include a range of strengthening and deepening activities to enhance the learning.</p>	<p>CPA Where children are exposed to a new concept, concrete materials will be used. Children will be encouraged to transition through using concrete manipulatives, pictorial representations to the abstract. The suggestions within the Power Maths teachers' guide for which manipulatives are essential for children's learning will be followed. There will be no stigma attached to using manipulatives.</p>	<p>Termly Maths Day Using NRICH support, termly whole-school Maths day are planned that use low threshold high-ceiling investigations to explore, question and reason.</p>
IMPACT	<p>Children will have developed the mathematical knowledge and skills to help them explore, navigate and understand the world around them and their place in it. Children's knowledge and skills will develop progressively as they move through the school, not only to enable them to meet the requirements of the National Curriculum but to inspire them to develop a curiosity and a deeper understanding about the world they live in. Children will be excited and enthused about sharing their learning with others.</p>		
	Pupil Voice	Evidence in knowledge and skills	Breadth and depth
	<p>Pupils will be given opportunities to feedback on their experiences in Maths through discussions and surveys. Success is judged on whether children are positive, confident and actively engaged in Maths.</p>	<p>Pupils can successfully evidence their learning in end-of-term/end of year assessment activities. They are able to efficiently solve arithmetic and reasoning problems orally or in written form. Termly analysis of data is used to identify trends and next steps. This is used at a year group level to develop action plans for the next term/year and what support is needed and at a whole school level to identify trends across groups, topics and question types which informs future actions and plans.</p>	<p>The curriculum builds year on year to ensure children can recap on and embed learning before building in new knowledge and skills. MTP reflect the previous year's learning.</p>

