

# Key Stage 1 Maths Mastery Statements

Key

Cumulative Knowledge

Vocabulary

Prioritising the maths curriculum key objectives/ELG

Planning and support documents		Golden threads of mathematics at GTPS	
<p>Use the National Curriculum for key learning objectives when planning maths.                      Refer to the calculation guidance for support in sequencing learning journeys and ideas for practical and pictorial support.                      Use the maths guidance documents to support the key 'ready to progress' statements.                      Use the 'mind the gap' document to support small steps in calculation skills</p>		<p>The golden threads of fluency, flexibility, problem solving and reasoning should be incorporated within each area of learning. Children must demonstrate these through other strands e.g. use of place value to support calculations, fluency of recall of facts to support calculations, which in turn should be demonstrated through problem solving (in measure for example). Children should be able to explain what they are going to do/have done, using appropriate mathematical vocabulary</p>	
NEW ELG 2021	Number	Numerical Patterns	Children in Reception at GTPS experience:
Year R	<p>Children at the expected level of development will:</p> <ul style="list-style-type: none"> <li>- Have a deep understanding of number to 10, including the composition of each number;</li> <li>- <b>Subitise (recognise quantities without counting) up to 5;</b></li> <li>- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and <b>some number bonds to 10</b>, including <b>double facts</b>.</li> </ul>	<p>Children at the expected level of development will:</p> <ul style="list-style-type: none"> <li>- Verbally count beyond 20, recognising the pattern of the counting system;</li> <li>- <b>Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;</b></li> <li>- Explore and represent patterns within numbers up to 10, including evens and odds, <b>double facts</b> and how quantities <b>can be distributed equally</b>.</li> </ul>	<ul style="list-style-type: none"> <li>• Count objects, actions and sounds (Count reliably from one to 20. Use objects to solve addition and subtraction problems with 2 single digit numbers)</li> <li>• <b>Subitise.</b></li> <li>• <b>Link the number symbol (numeral) with its cardinal number value</b> (order numbers to 20)</li> <li>• Count beyond ten.</li> <li>• <b>Compare numbers.</b></li> <li>• <b>Understand the 'one more than/one less than' relationship between consecutive numbers.</b> <i>Use vocabulary involved in adding and subtracting</i></li> <li>• <b>Explore the composition of numbers to 10.</b></li> <li>• <b>Automatically recall number bonds for numbers 0–10.</b></li> <li>• Select, rotate and manipulate shapes in order to develop spatial reasoning skills.</li> <li>• Compose and decompose shapes so that children recognise a shape and begin to name 2D shapes and 3D shapes indifferent orientations can have other shapes within it, just as numbers can.</li> <li>• <b>Continue, copy and create repeating patterns.</b></li> <li>• <b>Compare length, weight and capacity</b> (<i>use everyday language to talk about measures</i>)</li> </ul>
Mastery Statement	Number and Place Value	Calculation	Measure, shape and statistics
Year 1	<p><b>Building on knowledge of place value from EYFS a GTPS learner can:</b></p> <p><b>Count to and across 100 from any number forwards and backwards fluently</b> (from any number) and <b>count in twos, five and tens, beginning with any multiple</b></p> <p>Count by reciting numbers and counting objects.</p> <p>Order numbers and quantities (<i>using relevant vocabulary</i>) and recognise one more and one less.</p> <p>Use a range of equipment and models to represent numbers in different ways to develop flexibility</p> <p>Read and write numbers to 20 as numerals and words.</p> <p><b>Reason about the location of any number to 20 within the linear number system.</b></p>	<p><b>Building on knowledge of calculation from EYFS a GTPS learner can:</b></p> <p><b>Use and interpret mathematical statements involving addition (+), subtraction (-) and equals (=)</b></p> <p><b>Recall and reason with number bonds to and within 10</b> and 20 in a range of addition and subtraction problems.</p> <p>Solve addition and subtraction problems in practical contexts.</p> <p><b>Compose numbers to 10 from 2 parts and partition numbers to 10 into parts.</b></p> <p>Recognise odd and even numbers.</p> <p><i>Use a variety of key vocabulary (including more than and less than, altogether and difference).</i></p> <p>Work with a range of materials and strategies (concrete objects, pictorial representations, grouping and sharing, patterns, arrays and <b>counting forwards and backwards in twos, fives and tens</b>) to solve one step problems involving multiplication and division.</p> <p>Recognise <math>\frac{1}{2}</math> and <math>\frac{1}{4}</math> of objects, shapes and quantities.</p> <p>Connect halves and quarters to equal grouping and sharing.</p>	<p><b>Building on knowledge of measure, shapes and statistics from EYFS a GTPS learner can:</b></p> <p>Use and compare quantities and measures using non-standard units.</p> <p>Become familiar with standard measures and begin to record.</p> <p>Tell and draw the time for o'clock and half past.</p> <p><i>Use language for dates: days, weeks, months and years.</i></p> <p><i>Sequence events using relevant vocabulary.</i></p> <p>Identify and understand the value of notes and coins.</p> <p><b>Develop fluency for naming 2D and 3D shapes and relate to everyday object building on EYFS.</b> <i>(Compose 2D and 3D shapes from smaller shapes)</i></p> <p>Describe position, direction and movement.</p>
Mastery Statement	Number and Place Value	Calculation	Measure, shape and statistics
Year 2	<p><b>Building on knowledge of place value from EYFS and Year 1 a GTPS learner can:</b></p> <p>Count in steps of 2,3,5 from zero and in 10s from any number fluently (and in fractions using <math>\frac{1}{2}</math> and <math>\frac{2}{4}</math>).</p> <p>Use a range of equipment and models to represent numbers in different ways to develop flexibility when working with number</p> <p><b>Recognise the place value of each digit in two-digit numbers, compose and decompose using standard and non-standard partitioning.</b></p> <p>Compare and order numbers <math>&lt;</math> <math>&gt;</math> <math>=</math> signs.</p> <p><b>Reason about the location of any two-digit number in the linear number system, identifying the previous and next multiple of 10.</b></p> <p>Read and write numbers in digits and words accurately and fluently.</p> <p>Solve problems</p>	<p><b>Building on knowledge of calculation from EYFS and Year 1 a GTPS learner can:</b></p> <p><b>Recall number facts within and to 10</b> and 20 fluently.</p> <p>Use concrete and pictorial resources to solve problems with addition and subtraction.</p> <p>Use a range of mental and written methods with increasing fluency and flexibility.</p> <p><b>Add and subtract across 10 and within 100 by applying related facts</b></p> <p>Explore commutativity and understand that this applies to addition and not subtraction.</p> <p>Recognise and use the inverse for addition and subtraction.</p> <p>Recognise odd and even numbers.</p> <p><i>Use key vocabulary for sum and difference.</i></p> <p>Begin to record addition and subtraction in columns drawing on knowledge of place value.</p> <p>Solve comparative addition and <b>difference problems</b>.</p> <p>Write <math>\times</math>, <math>\div</math> and <math>=</math> signs within the multiplication tables <b>(2,5,10)</b>.</p> <p>Explore commutativity and understand that this applies to multiplication and not division.</p> <p>Work with a range of materials and strategies (inverse, arrays, <b>repeated addition</b>, mental methods and fact recall) to solve problems involving multiplication and division.</p> <p>Solve <b>grouping problems: missing factors and division</b>.</p> <p>Write simple fractions of an amount</p> <p>Use resources and pictures to show understanding and recognition of the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math></p> <p>Connect unit fractions to equal grouping and sharing (introduce <math>\frac{3}{4}</math> as a non-unit fraction)</p> <p>Count fluently</p>	<p><b>Building on knowledge of measure, shapes and statistics from EYFS and Year 1 a GTPS learner can:</b></p> <p>Use symbols for £ and pence</p> <p>Solve problems involving combinations of coins to make amounts.</p> <p>Recognise and count coins fluently and record amounts accurately.</p> <p>Draw and write the time for 5 minutes including quarter past and quarter to the hour.</p> <p>Know the number of minutes in an hour and hours in a day.</p> <p>Compare and sequence intervals of time.</p> <p>Choose and use appropriate standard units for length, height, mass and capacity and apply number knowledge (compare and order) calculation (add and subtract) and problem solving when estimating and measuring.</p> <p>Find lines of symmetry in 2D shapes.</p> <p>Read and write the names of 2D and 3D shape <b>building on EYFS and Year 1</b> and describe, compare and sort</p> <p><b>Use precise language to describe the properties of 2D and 3D shapes and compare shapes</b></p> <p>Use the concept and language of angles to describe turn by applying rotations.</p> <p>Interpret and construct a range of statistics.</p> <p>Ask and answer simple questions about data and apply number skills when totalling and comparing data.</p>

**Golden Thread**

Fluency  
Flexibility  
Problem Solving  
Reasoning