

**'In a Nutshell'**  
Maths  
(last updated 28.7.23)

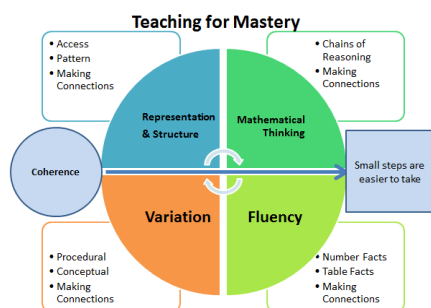
**Curriculum Intent**

When teaching mathematics at New Marston Primary School, we intend to provide a curriculum which caters for the needs of all individuals and sets them up with the necessary skills and knowledge for them to become successful in their next stage of education. We incorporate sustained levels of high challenge through varied, quality and purposeful activities with a focus on fluency, reasoning and problem solving.

Pupils are required to explore maths in depth, using mathematical vocabulary to reason and explain their workings. They are taught to explain their choice of methods and develop their mathematical reasoning skills. We encourage resilience, adaptability and acceptance that struggle is often a necessary step in learning. Our curriculum allows children to better make sense of the world around them relating the pattern between mathematics and everyday life.

**Implementation**

Pupils should make rich connections across mathematical ideas to develop **fluency**, mathematical **reasoning** and competence in increasingly sophisticated **problem solving**. Developing these three strands underpins all maths teaching.  
A wide range of mathematical resources (see list below) are used and pupils are taught to show their workings in a concrete, pictorial and abstract form wherever suitable.



- KS1&2 use [White Rose Maths Hub](#) scheme of learning to support a Mastery approach, including the Flashback 4 resource to review prior learning and keep objectives constantly 'on the boil'.
- R staff are trained to use 'Mastering Early Number' as their main maths teaching throughout the year, except for shape, space and measure units, where they use White Rose Hub.
- Staff create their own slides for lessons using intelligent practice, and the core concepts of the mastery approach, choosing carefully from quality, recommended resources such as

those listed below:

- **Talk It Solve It** - under 'Resources and CPD' in Maths
- **ISeeReasoning** - under 'Policies and Documents' in Maths
- <https://nrich.maths.org>
- [www.ncetm.org.uk](http://www.ncetm.org.uk)
- [www.whiterosemathshub.co.uk](http://www.whiterosemathshub.co.uk)
- **Headstart** materials
- 10 minutes a day - **Hands On Maths**

Teachers use the calculation policy from the WRH to teach the required strategies. [Calculation Policies](#)

**FACTUAL FLUENCY PROGRESSION**

**Early addition and subtraction facts**

- Y1-3 staff are trained to use 'Mastering Early Number' in addition to their daily maths lesson, to support their additive factual fluency. They do this 4 days per week, separate to the main maths lesson.
- Early number facts are tracked across Y1-3 and interventions are used to support those children with gaps in Y4.

**FACTUAL FLUENCY PROGRESSION**

**Multiplication and Division facts**

- Children are taught their times tables explicitly as part of their usual maths lessons to support their multiplicative factual fluency.
- Times Tables Rock Stars <https://trockstars.com/login> should be used weekly for children to practise and become more proficient in their times tables
- Multiplication number facts are tracked from Y3-5 and interventions are used to support those with gaps in Y6.

Y1	Y2	Y3
Addition and subtraction within 10	Addition and subtraction across 10	Secure and maintain fluency in addition and subtraction within and across 10 through continued practice.

Y3	Y4	Y5
Recall the 10, 5, 2, 4 and 8 tables and corresponding division facts.	Recall the 3, 6, 9, 7, 11 and 12 tables and corresponding division facts.	Secure and maintain fluency in all tables and division facts through continued practice.

<b>Learning Environment and resources</b>	<p>Maths 'Working Wall' to include:</p> <ul style="list-style-type: none"> <li>● Concrete – Pictorial – Abstract models where appropriate (concrete when introducing new concepts and ideas; pictorial and abstract to avoid over-reliance on manipulatives to solve problems)</li> <li>● Vocabulary specific to the current topic area, using NMPS grammar-splat colours</li> <li>● Teachers may use sentence stems to aid the coherent reasoning</li> <li>● Model calculation/reasoning on flipchart paper</li> <li>● Resources available to all with a culture developed that encourages use of concrete manipulatives for <b>all</b> children when introducing or reviewing new concepts and ideas in maths.</li> <li>● Rekenreks and tens frames are key resources for the teaching of early addition and subtraction facts and are present in most mastering early number sessions.</li> </ul>
<b>Assessment &amp; Feedback</b>	<ul style="list-style-type: none"> <li>● Feedback follows the school feedback policy where high value is given to verbal feedback during the lesson. Class teachers may use other methods such as whole class feedback, written feedback, peer marking and self-assessment.</li> <li>● PUMA assessments (terms 2,4,6*) for Y1-5 and SATs assessments for Y6 are collected and analysed at by Maths Leads, Senior Leaders and the Headteacher. <i>*not term 6 for years 2 and 6</i></li> <li>● WRH end of block assessments are completed at the end of each unit after a short break of teaching unit (approximately 2 weeks) and scores are tracked on the drive for teachers to analyse gaps within their own class.</li> <li>● Year 4 MTC Multiplication Tables Check.</li> </ul>
<b>Links to EYFS</b>	<p>In EYFS the children are able to build a substantial understanding of the foundational skills in maths through an intentional development of the continuous provision to include elements of mathematical understanding and skills practise. Children are able to develop their mathematical skills consistently through the use of subitising, the use of 10 frames, questioning, singing number songs, formation and recitation of numbers. Children are encouraged to use sentence stems by their adults to develop their mathematical thinking and provide them with the necessary vocabulary to explain their understanding succinctly.</p>
<b>Other information</b>	