


Agreed consistencies within maths

1. Long-Term and Lesson Planning

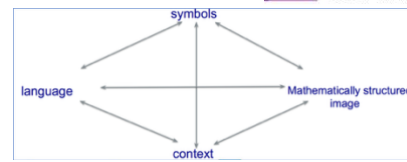
- Long-term planning for Years 1 to 6 must align with the White Rose Maths planning overviews.
- Lesson sequences should be taught in accordance with each year group’s specific White Rose Maths documentation; however, check against the National Curriculum and NCETM documents.
- Geometry is to be taught termly in Key Stage 2, with the following structure:
 - Year 3: Two days per term
 - Year 4: Four days per term
 - Years 5 and 6: One week per term
- For every new block being taught, you must complete the unit overview (see DSAT road map to the NCETM to support completion).
- Time will be given each week in staff meeting for opportunity to complete the following weeks maths learning.

2. Maths Mastery Unit Design

Maths plan – designing learning through mastery approach.	Week Beginning: Year Group:
<p><u>Key vocabulary (what mathematical terms need to be known, understood and used?):</u></p> <ul style="list-style-type: none"> • Taken from white rose overview and NCETM documents. 	<p>Unit:</p> <p><u>Essential knowledge for this unit (children need to know and understand what?):</u></p> <ul style="list-style-type: none"> • Mathematics guidance: Key Stages 1 & 2 – RTP of current year group.
<p><u>Conceptual understanding we are developing (in terms of maths schema, what aspects are being built upon? The prior RTP generalisation’s help our thinking here.)</u></p> <div style="text-align: center;">  <p>The diagram 'Teaching for Mastery Five Big Ideas' shows a central circle with 'Mastery' at the bottom. It is surrounded by four quadrants: 'Coherence' (top-left), 'Representation & Models' (top-right), 'Mathematical Thinking' (bottom-right), and 'Variation' (bottom-left). Each quadrant has associated bullet points: Coherence (Addressing ideas, Consolidating concepts, Making connections); Representation & Models (Clarity of meaning, Making models for children, Making connections); Mathematical Thinking (Addressing the mathematical task, Engaging students, Making connections); Variation (Addressing the mathematical task, Engaging students, Making connections).</p> </div> <ul style="list-style-type: none"> • Mathematics guidance: Key Stages 1 & 2 – RTP of previous year group. 	<p><u>What end point for this unit are we building towards?</u></p> <ul style="list-style-type: none"> • National Curriculum objectives <p><u>What does this build on from (prior content/previous linked unit)?</u></p> <ul style="list-style-type: none"> • What is the linked unit -usually previous year group.
<p><u>SEND (children working more than a year behind ARE)</u> <u>The linked conceptual learning is:</u></p> <ul style="list-style-type: none"> • Children’s initials • Mathematics guidance: Key Stages 1 & 2 – RTP of relevant learning taking place. 	<p><u>What are previous gaps which need securing (particular to your cohort)?</u></p> <ul style="list-style-type: none"> • Use elicitations • Use Boost insight <p style="text-align: center;">To identify specific gaps.</p>
<p><u>Maths talk sentence stems & generalisations to expose mathematical thinking from all children:</u></p> <ul style="list-style-type: none"> • Use white rose unit overview • Use NCETM spines Primary Mastery Professional Development 	<p><u>Key is children making connections and building relational understanding in maths – these things help build that. Children then talk to these, and demonstrate.</u></p>







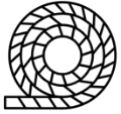




Planned maths visual representations and manipulatives which expose relevant mathematical structure:

- Use white rose unit documents
- Use NCETM spines Primary Mastery Professional Development



3. Daily Mathematics Lesson Structure

Each mathematics lesson must follow the structure outlined below:

<p>1. Focus 5 – Four operations plus one something different but necessary (Begins in Year 2).</p>	<p>2. Recap</p> 	<p>3. I notice... And introduction of lesson generalisation.</p> 	<p>4. Learning intention</p> 
<p>5. Key vocabulary</p> 	<p>6. Varied Fluency</p> 	<p>7. Checkpoint</p> 	<p>8. Varied Fluency</p> 
<p>9. Independent Practice of Varied Fluency</p> 	<p>10. Problem solving</p> 	<p>11. Independent Practice of Problem solving</p> 	<p>12. Reflection</p> 

- Generalisation must be clearly displayed throughout.
- All lessons must be delivered using the agreed lesson design template.
- Every lesson should provide opportunities for pupils to engage with appropriate concrete, pictorial, and abstract representations, as well as songs and rhymes where relevant.
- Each lesson must conclude with a reflection activity. These may include: Answering a SATs-style question, generating their own problem-solving question, writing a set of instructions for a newly acquired skill, producing a vocabulary-rich summary of their learning, verbal reflections (must be evidenced in books with an 'R' in a circle), pupils must be expected to articulate full sentence responses, for example: "7 + 2 = 9 because..."

4. EYFS Approach to Mathematics

- EYFS maths teaching must be guided by number sense documents, incorporating one daily mathematics lesson.
 - Pattern, shape, space, and measures are to be delivered through discovery-based learning and integrated across other curriculum areas, with NCETM used as a supporting resource.
 - Stand-alone lessons on these areas must be scheduled termly.
-

5. Vocabulary and Questioning

- Mathematical vocabulary should be introduced using the choral response technique, "*I Say, You Say*", and displayed clearly within the classroom.
 - Key vocabulary should also be recorded by pupils in their books (particularly in Key Stage 2) and may be included on working walls.
 - Answer's must always be given in full sentences... because... $7 + 2 = 9$ not just the answer 9.
 - Teachers are expected to use consistent and purposeful questioning strategies to promote mathematical thinking. These include: What do you see? What do you notice? What's the same and what's different? Convince me...
 - Mistakes should be celebrated and used as learning opportunities.
-

6. Assessment, Marking, and Feedback

- Live marking and peer feedback must be incorporated into each lesson where appropriate.
 - **Marking protocol:**
 - A green tick indicates a correct response.
 - Questions and objectives should also be marked with a green tick if completed accurately.
 - A pink dot denotes an error or misconception during live marking.
 - Modelled examples provided by an adult must be written in pink.
 - An 'S' in a circle indicates that support was provided by a teacher or teaching assistant.
 - All forms of reflection must be evident in pupil books. If a reflection is verbal, it should be indicated using an 'R' in a circle.
 - Formative assessment should be used to determine whether misconceptions require individual correction or whole-class re-teaching. To do this teachers must use NTS Insight Boost for QLA.
-

7. Elicitation Tasks and Summative Assessments for main maths lessons

- An elicitation task must be completed prior to the teaching of any new unit of work.
- A "What" sticker should be placed in pupil books to signify that this activity has taken place.
- White Rose Maths end-of-unit assessments must be used to support teacher judgment. These are for teacher use only and should not be stuck into books.

8. Maths Fluency Sessions

In addition to the daily mathematics lesson, all pupils must receive a 15-minute daily session targeting fluency in key number facts:

- EYFS: *Number sense*
- Years 1 to 2: *Number Sense*
- Year 3: *Number Sense + Times Tables Booklets*
- Years 4 and 5: *Times Table Fluency (KS2 Teaching for Mastery) + Times Tables Booklets*
- Year 6: *Ninja Maths + Times Tables Booklets*

Assessment of Maths Fluency

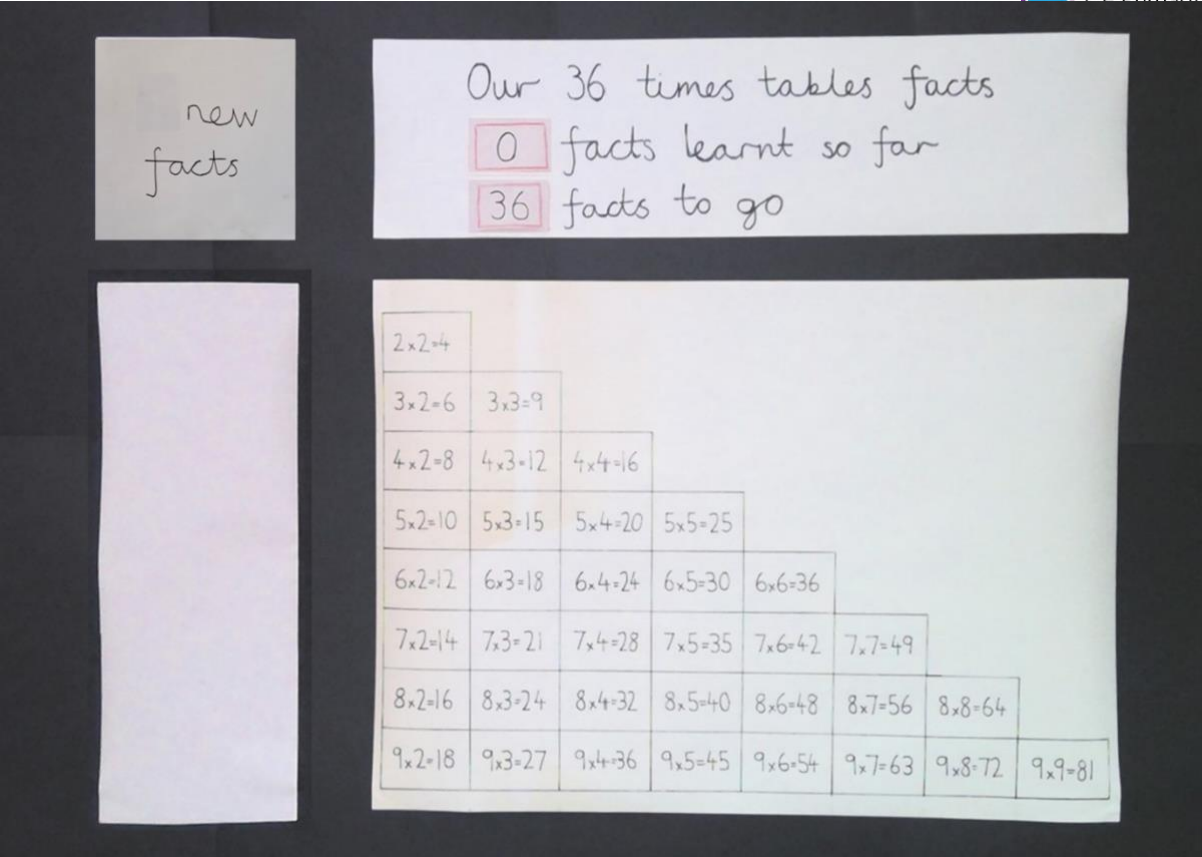
- EYFS: Early number tracking (see proforma).
- Years 1 & 2; Number sense screening weeks and data input of assessment tracker.
- Years 3: Number sense screening weeks and weekly TT rockstars sound check.
- Year 4: Weekly TT Rockstars sound checks + Tracking of practice weekly MTC results.
- Year 5: half termly TT Rockstars sound checks.

9. Arithmetic Practice (Begins in Year 3)

- Using the resource Maths BOTs, children will participate in bi-weekly quizzes. The children will complete 36 questions in 30 minutes.
- Year 6, weekly quizzes using Maths BOTs. The children will complete 36 questions in 30 minutes.

10. Learning Environment and Parental Engagement

- Mathematics working walls must be kept current and include:
 - Key vocabulary
 - Sentence stems
 - Examples of key skills (either pupil-generated or teacher-modelled)
- In year 3 & 4, the following must be displayed on the working wall to support with children's learning of the key multiplication facts along with a large display of the times tables that the children are currently learning.



new facts

Our 36 times tables facts

0 facts learnt so far

36 facts to go

$2 \times 2 = 4$									
$3 \times 2 = 6$	$3 \times 3 = 9$								
$4 \times 2 = 8$	$4 \times 3 = 12$	$4 \times 4 = 16$							
$5 \times 2 = 10$	$5 \times 3 = 15$	$5 \times 4 = 20$	$5 \times 5 = 25$						
$6 \times 2 = 12$	$6 \times 3 = 18$	$6 \times 4 = 24$	$6 \times 5 = 30$	$6 \times 6 = 36$					
$7 \times 2 = 14$	$7 \times 3 = 21$	$7 \times 4 = 28$	$7 \times 5 = 35$	$7 \times 6 = 42$	$7 \times 7 = 49$				
$8 \times 2 = 16$	$8 \times 3 = 24$	$8 \times 4 = 32$	$8 \times 5 = 40$	$8 \times 6 = 48$	$8 \times 7 = 56$	$8 \times 8 = 64$			
$9 \times 2 = 18$	$9 \times 3 = 27$	$9 \times 4 = 36$	$9 \times 5 = 45$	$9 \times 6 = 54$	$9 \times 7 = 63$	$9 \times 8 = 72$	$9 \times 9 = 81$		

- Evidence of pupils' mathematical learning should be uploaded to Seesaw (KS1/KS2) or Tapestry (EYFS) **twice per term** to engage parents in their child's progress.

11. Presentation and maths evidence

- A margin must be on every page in each child's maths books.
- Short date and WHAT must be displayed on the top left-hand side of the page.
- Children must be encouraged to display their work systematically in their maths books and encourage to always show their working.
- Year 2 – 6, there must be evidence of maths being taught daily in maths books from term 1.
- Year 1, in term 1 and 2 begin to record where appropriate in maths books 2 to 3 times a week. In term 3, there must be evidence of daily maths lessons in books (where appropriate).
- EYFS, maths books are introduced in term 3. In EYFS, recording in maths are introduced through quick 'prove it' tasks, where children demonstrate their understanding by drawing, matching, or circling, then explain their thinking using a stem sentence (e.g., "I can see 4 and 1 make 5"). These tasks provide immediate insight into each child's understanding and help identify those who need further support, which can then be addressed during discovery learning or planned into future lessons. Only the 'prove it' sheets are stuck into maths books, while photos of practical work are uploaded to Tapestry. We start with one recorded task per week, gradually increasing to two or three as appropriate later in the year.