Maths Policy

September 2026

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1. **Curriculum Statement**
   Intent

The 2014 National Curriculum for Maths aims to ensure that all children:

- Become fluent in the fundamentals of Mathematics
- Are able to reason mathematically
- Can solve problems by applying their Mathematics

At William Patten, these skills are embedded within Maths lessons and developed consistently over time. We are committed to ensuring that children are able to recognise the importance of Maths in the wider world and that they are also able to use their mathematical skills and knowledge confidently in their lives in a range of different contexts.

We want all children to enjoy Mathematics and to experience success in the subject, with the ability to reason mathematically. We are committed to developing children's curiosity about the subject, as well as an appreciation of the beauty and power of Mathematics.

Implementation

The Maths curriculum at William Patten is aligned to the Mathematics Guidance: Key Stages 1 and 2 (2020)
https://assets.publishing.service.gov.uk/media/6140b7008fa8f503ba3dc8d1/Maths_guidance_KS_1_and_2.pdf

This publication provides non-statutory guidance from the Department for Education, produced to help teachers and schools make effective use of the National Curriculum to develop primary school pupils' mastery of mathematics. It aims to (p5):

- bring greater coherence to the national curriculum by exposing core concepts in the national curriculum and demonstrating progression from year 1 to year 6
- summarise the most important knowledge and understanding within each year group and important connections between these mathematical topics

The content and principles underpinning the 2014 Mathematics curriculum, the non-statutory 2020 guidance and the Maths curriculum at William Patten, reflect those found in high-performing education systems internationally, particularly those of east and south-east Asian countries. These include - Singapore, Japan, South Korea and China. These principles and features characterise this approach and convey how our curriculum is implemented:

Underpinning principles

- Mathematics teaching for mastery assumes everyone can learn and enjoy mathematics.
- Mathematical learning behaviours are developed such that pupils focus and engage fully as learners who reason and seek to make connections.
  Teachers continually develop their specialist knowledge for teaching mathematics, working collaboratively to refine and improve their teaching.
- Curriculum design ensures a coherent and detailed sequence of essential content to support sustained progression over time.

Lesson design

- Lesson design links to prior learning to ensure all can access the new learning and identifies carefully-sequenced steps in progression to build secure understanding. Examples, representations and models are carefully selected to expose the structure of mathematical concepts and emphasise connections, enabling pupils to develop a deep knowledge of mathematics.
- Procedural fluency and conceptual understanding are developed in tandem because each supports the development of the other.
- It is recognised that practice is a vital part of learning, but the practice must be designed to both reinforce pupils' procedural fluency and develop their conceptual understanding.

In the classroom

- Pupils are taught through whole-class interactive teaching, enabling all to master the concepts necessary for the next part of the curriculum sequence.
- In a typical lesson, the teacher leads back-and-forth interaction, including questioning, short tasks, explanation, demonstration, and discussion, enabling pupils to think, reason and apply their knowledge to solve problems.
- Use of precise mathematical language enables all pupils to communicate their reasoning and thinking effectively.
- If a pupil fails to grasp a concept or procedure, this is identified quickly, and gaps in understanding are addressed systematically to prevent them falling behind.
- Significant time is spent developing deep understanding of the key ideas that are needed to underpin future learning.
- Key number facts are learnt to automaticity, and other key mathematical facts are learned deeply and practised regularly, to avoid cognitive overload in working memory and enable pupils to focus on new learning.

Source: https://www.ncetm.org.uk/teaching-for-mastery/mastery-explained/the-essence-of-mathematics-teaching-for-mastery/

To ensure whole consistency and progression, the school follows the national Oak Academy scheme https://www.thenational.academy/teachers/curriculum/maths-primary/overview

The curriculum is sequenced towards enabling children to achieve developmental 'milestones' within specific strands of mathematics. The milestones are identified as 'Ready to Progress' criteria, and they relate to progression within each of the following strands:

NPV: Number and Place Value	NF: Number Facts	AS: Addition and Subtraction	MS: Multiplication	G: Geometry	F: Fractions

The careful and purposeful sequencing of our curriculum content underpins its design, ensuring that pupils are able to build on and make links with existing knowledge. Mathematical topics are taught in blocks, which are broken down into smaller steps. This helps children understand concepts better and their knowledge and understanding of mathematical concepts is developed over time.

This approach means that children do not cover too many concepts at once which can lead to cognitive overload.

Each lesson begins with a quick starter which promotes recall of key number facts and, from the end of year 4, their application to arithmetic questions. The first part of the lesson generally focusses on key knowledge with a practical element, and ends with children recording their understanding by responding to related questions. Those who are quick to grasp new concepts are able to progress to further varied questions, and further 'challenge' questions, which offer variation to extend children's thinking. All children then review the solutions to these tasks, to secure conceptual understanding as a class. The second part of the lesson generally focusses on application. After focussed teaching, children will again record their understanding by responding to related questions, with the opportunity for progression to further varied questions, which the whole class review. The lesson ends with a whole class 'exit quiz'. This provides the means for the teacher to consolidate the key learning from the lesson, as well as providing end of lesson formative assessment.

The school's status as a mastery specialist school, as part of the DfE funded Maths Hubs programme, continues to ensure that staff at all levels understand the pedagogy of the approach.

Impact

The school has a supportive ethos and our approaches support the children in developing their collaborative and independent skills, as well as empathy and the need to recognise the achievement of others. Students can underperform in Mathematics because they think they cannot do it or are not naturally good at it. The school's use of Oak Academy maths addresses these preconceptions by ensuring that all children experience challenge and success in Mathematics by developing a growth mindset.

Regular and ongoing assessment informs teaching, as well as intervention, to support and enable the success of each child. These factors ensure that we are able to maintain high standards, with achievement at the end of KS2 well above the national average, as well an increasingly high proportion of children demonstrating greater depth at the end of each phase.

The sequencing and implementation of the maths curriculum enables children to:

'Recognise and use connections among mathematical ideas; understand how mathematical ideas interconnect and build on one another to produce a coherent whole; recognise and apply mathematics in contexts outside of mathematics'.

(Annenberg Foundation, 2017)

In June 2026, the school hosted a group of school leaders whose aim was to find out more about the school's implementation of the mathematics curriculum. The Co-lead of the London North East Maths Hub provided the following feedback on behalf of the group –

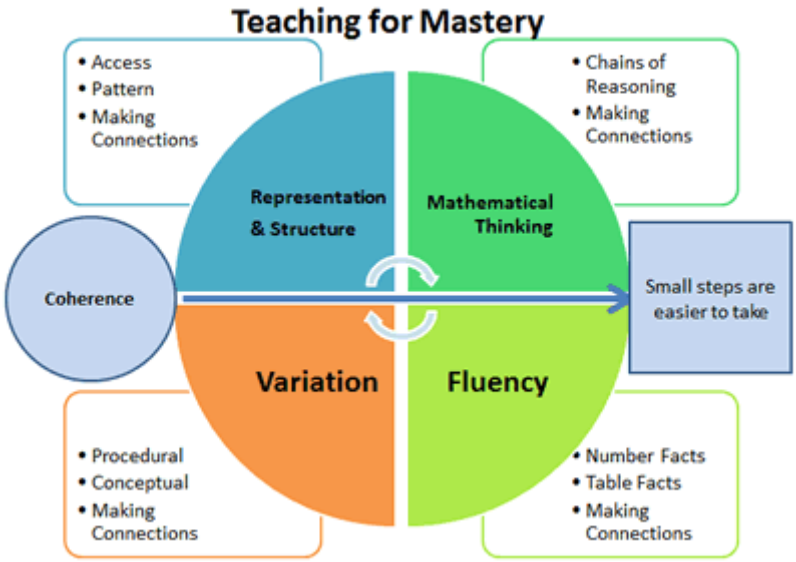
'*Thank you for allowing us to observe teaching and learning in action. It was wonderful to see how confidently the children engaged with the mathematics, demonstrating strong number sense and positive learning behaviours. It was clear to see the impact of the work that has taken place across the school.'*

Having become a mastery specialist school with the London North East Maths Hub, the school offers regular within a network of local schools within this network. Participants take

part in workgroups at William Patten, to observe practice and take part in related professional development provided by the school. As the school itself is a participator within the workgroup it is hosting, its own teachers also take part in the professional development programme, and attend lesson studies as a stimulus for the associated professional development. The school will also continue to benefit from the subject leader's continued participation in central training from the National Centre for Excellence in the Teaching of Mathematics.

2. **Teaching and Learning**

Effective teaching for mastery is underpinned by five big ideas, first published by the National Centre for Excellence (NCETM) in mathematics in 2017 -



Coherence

Lessons are broken down into small connected steps that gradually unfold the concept, providing access for all children and leading to a generalisation of the concept and the ability to apply the concept to a range of contexts.

Representation and Structure

Representations used in lessons expose the mathematical structure being taught, the aim being that students can do the maths without recourse to the representation

Mathematical Thinking

If taught ideas are to be understood deeply, they must not merely be passively received but must be worked on by the student: thought about, reasoned with and discussed with others

Fluency

Quick and efficient recall of facts and procedures and the flexibility to move between different contexts and representations of mathematics

Variation

Variation is twofold. It is firstly about how the teacher represents the concept being taught, often in more than one way, to draw attention to critical aspects, and to develop deep and holistic understanding. It is also about the sequencing of the episodes, activities and exercises used within a lesson and follow up practice, paying attention to what is kept the

same and what changes, to connect the mathematics and draw attention to mathematical relationships and structure.

Source: https://www.ncetm.org.uk/teaching-for-mastery/mastery-explained/five-big-ideas-in-teaching-for-mastery/

Maths is taught daily during the morning. A typical maths lesson lasts for approximately 1 hour, and follows the following structure:

- **Fluency Starter** (5 – 10 minutes): developing and securing recall of key number facts in Y1-4, and their application to arithmetic from the end of Y4-6.
- **LI and key vocabulary for the lesson are introduced and explained**
- **First 'Learning Cycle"**: This part of the lesson generally focusses on teaching key knowledge and involves the following phases:
  - Explanation - Interactive explanation involving characters in the lesson slides whose dialogue models mathematical thinking and which focusses on the exploration of a mathematical concept. Mathematical understanding is supported through the use of pictorial representations.
  - Check: understanding is checked using a range of strategies. When multiple choice questioning is used, children are encouraged to think independently before sharing their reasoning in pairs, before the correct answer is confirmed. The use of 'True or False? Why?' questioning promotes mathematical reasoning, and opportunities for children to explain why an example of the 'non-concept' is incorrect, or to identify an error in a worked example further secures and deepens understanding.
  - **Practice (Task A):** children complete up to three questions/tasks, often with a practical element, which provide the means to independently record what they have learnt. A further question/further questions to promote children's thinking is/are available to children who finish all provided tasks and questions within the allotted time. Additional questions are carefully selected to promote children's greater depth of understanding.
- **Second 'Learning Cycle':** This part of the lesson generally involves the application of mathematical knowledge and teaching involves the 'explanation, 'check and 'practice*' phases.
  - ***Practice (Task B): up to three questions/tasks which provide the means for children to independently record what they have learnt.** A further question/further questions to promote children's thinking is/are available to children who finish all provided tasks and questions within the allotted time. Additional questions are carefully selected to promote children's greater depth of understanding.
- **Exit Quiz:** intelligent practice (varied questioning, which promote children's thinking through progressive depth) during which the whole class completes a question set presented by the teacher to reinforce and consolidate what children need to know and remember from the lesson.

3. **Assessment**

3.1 Formative Assessment and Assessment for Learning:

Children receive effective feedback through teacher assessment, both orally and through written feedback, and AfL is integral to the design of each lesson;

- Fluency starter: the process of developing and securing key fluency facts is adaptive, with the opportunity to revisit and spend longer of specific facts that the class are less confident in recalling. When children apply use of key facts to arithmetic questions from the end of Y4, teaching is equally adaptive according to children's responses which inform how the teacher promotes discussion of why one particular method might be the more efficient than another.
- The 'check' learning phase enables the teacher to gauge the extent of the class's knowledge and understanding.
- Each practice task is linked to the teaching, so that teachers can see from a recorded response to practical activity whether children have secured the concept and/or applied the key knowledge without misconception.
- An end of lesson 'exit quiz' provides the further rmeans for teachers to consolidate the key knowledge and understanding of the lesson. It also enables teachers to assess the extent to which children have 'mastered' the overarching learning intention for the lesson.

3.2 Summative Assessment:

- Teachers use Sumdog to set diagnostic online assessments that children complete at the end of the each teaching block in all year groups. Each assessment comprises of 25 questions which are set according to the objectives that teachers have selected in line with the content of each the teaching block. The summary reports that are generated from this process are then used to inform teachers' assessment of children's attainment according to the age related expectation. Each report is also used by teachers to identify any questions that children answered less confidently, so that these can be explained in class to close remaining gaps before the next topic in the programme of study.
- Teachers administer written end of term maths papers (Y2 – 6) which are aligned to the termly content of their year group's programme of study. Y1 complete an end of year written assessment. Scores are input into the square-I platform, which enables teachers to use the scoring to identify target areas and inform overall judgements as to whether a child is working at greater depth within the ages expectation, working at, working towards or working below.

4. **Planning and Resources**

At the beginning of the planning process, teachers deepen their own knowledge and understanding of conceptual progression, by reading the related NCETM Guide. These guides are part of the professional materials published by the National Centre for the Excellence in Teaching of Mathematics. Teachers use the example questioning within these documents to select challenge questions as extension tasks in alignment with the 'small step' (or learning intention) of each maths lesson:

https://www.ncetm.org.uk/teaching-for-mastery/mastery-materials/primary-mastery-professional-development/

Teachers can access the guides that relate to each Oak Maths teaching block using the Oak Maths Curriculum Mapping document:

Primary maths NCETM curriculum prioritisation mapping.pdf - Google Drive

Teachers can access and download a slide deck for each lesson, as well as scaffolded task sheets, directly through the Oak Maths platform:

KS1:
https://www.thenational.academy/teachers/programmes/maths-primary-ks1/units

KS2:
https://www.thenational.academy/teachers/programmes/maths-primary-ks2/units

This provides an overview of the 'small steps' (individual lessons) within each teaching block, so that teachers can see how the learning is sequenced. A teaching guide is accessed when teachers click directly on the small step that they are planning. As well as the learning intention, this provides explanations of the key vocabulary and possible misconceptions.

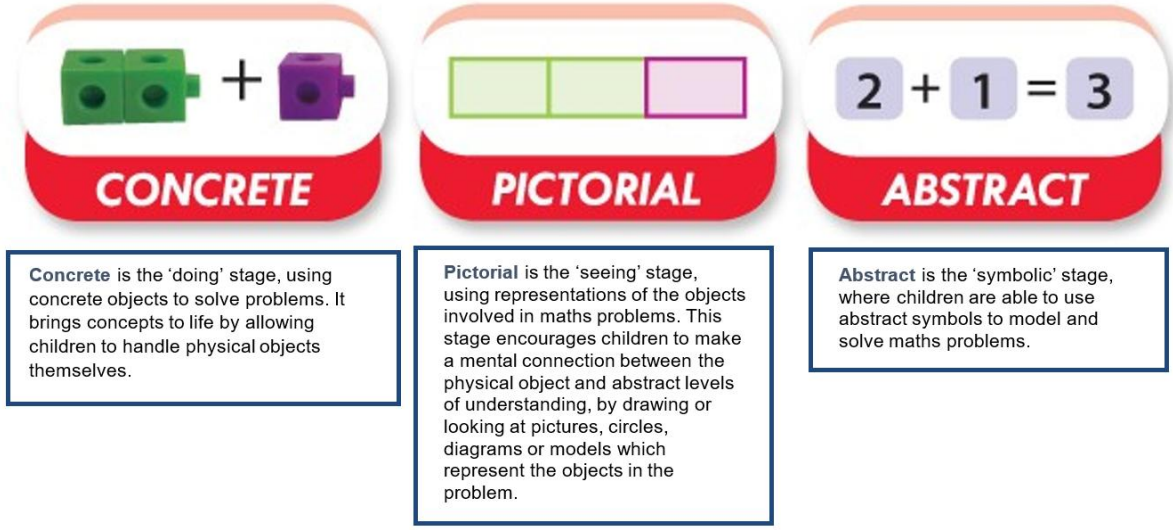
When reviewing lesson slides, teachers will also note the symbols in the top right corner of each lesson slide. This informs the pace of each lesson and the impact of each lesson phase on the overall lesson structure.

Oak Maths Slide Deck Symbols	
Symbol	**Key/Explanation & Teacher 'Tips' (devised by the London North East Maths Hub 'Oak Academy' Workgroup 2024-5)**
	**Aspect of main teaching practice** • You don't need to just read from the slides, or read all of the dialogue between the characters. • Sometimes, get the children to find out instead of just telling them; this might involve hiding slides and then sharing after the discovery has been made.
	**Questions that secure understanding through mathematical reasoning** – • true/false / which one is right/wrong? Do you agree? How will this look? (eg partner talk, followed by class vote).
	**Generally 3 questions, usually involving a practical element** • An outcome of 'the learning journey' rather than a separate question set. • Most children will complete all task/questions, some children will focus on securing their understanding through the first task/question with adult support.
	Check and Review • Confirmation of the answers or possible correct responses. • Children can self-mark (green pen Y1*-6)

Teachers work to the following principles when considering how they will realise the Oak Maths Teaching slides as interactive 'experience based' lessons:

- The slides are not the lesson itself, rather the visual means to support the teaching of the maths.
- The slides themselves need little adaptation but need to have been considered carefully within the planning process, so that teachers know how they will teach the lesson.

The use of manipulative objects and pictorial representations is a common feature of lessons. This recognises the progression in conceptual understanding from concrete to pictorial and then abstract representations of mathematical structures:



Each classroom has its own supply of mathematical equipment. This is informed by the Ready to Progress Criteria of the Mathematical Guidance (2020), which underpins Oak Maths and in line with the White Rose Maths calculation policies, which is also in line with the school's taught progression of calculation:

https://whiterosemaths.com/resources/primary-resources/primary-sols/

Teachers also use the following website to model accurate use of physical resources: Manipulatives - MathsBot.com.

The subject leader attends regular training through the Local Leaders of Maths Education (LLME) network at the London North East maths Hub, in addition to central training from the NCETM. This informs the school's realisation of the nationally adopted 'Teaching for Mastery' approach.

Teachers are encouraged to use the school playgrounds as an outdoor classroom when possible, for example, when teaching length, area or perimeter.

5. **Organisation**

The school has implemented a blocked curriculum approach to the teaching of Mathematics. This ensures that children are able to focus for longer on each specific area of Maths and develop a more secure understanding over time. This approach is also designed to enable children to progress to a greater depth of understanding.

Subsequent blocks continue to consolidate previous learning so that the children continually practise key skills and are able to recognise how different aspects of Maths are linked. For example, when children have completed a block which has enabled them to master the multiplication of two-digit numbers, a subsequent block on area and shape might provide

opportunities to use this understanding when calculating the area of shapes with 2-digit length and width dimensions.

6. **EYFS**

There are six key areas of early mathematics learning, which collectively provide a platform for everything children will encounter as they progress through their maths learning at primary school, and beyond:

- Cardinality and Counting
- Comparison
- Composition
- Pattern
- Shape and Space
- Measures.

Children in Nursery have a short daily Maths teaching session, during which time they begin to develop their understanding of simple mathematical concepts. These are informed by the Development Matters Framework (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/988004/Development_Matters.pdf) and the Birth to Five Matters Guidance (https://www.birthto5matters.org.uk/wp-content/uploads/2021/03/Birthto5Matters-download.pdf), as well as the six key areas of early mathematical learning. Teaching and learning might include:

- Identifying different amounts of up to three objects so that children are able to recognise amounts without counting them (subitising).
- Activities which expose the composition and cardinality of numbers to five.
- Manipulating shapes and talking about 2D and 3D shapes, using mathematical and informal language.
- Investigating, describing and creating sequences and repeating patterns with different colours and objects.
- Make comparisons between objects relating to size, weight, measure and length.

Children are taught these concepts using physical resources, pictorial resources, songs, games and role-play. There is no focus activity linked to these sessions.

In Reception, children have a three-part lesson from Autumn 1, which is informed by the Power Maths Scheme for Reception. This consists of:

1. Whole class oral and mental starter - 5 minutes
2. Whole class main teaching - 10 minutes
3. Focus activity for 8 children, grouped according to current attainment and taught in a ratio of 2 or 3 children to 1 adult

Throughout the week a child will work with an adult - either a teacher or a supporting adult - on a differentiated task. This activity is completed in 10 - 15 minutes.

This structure to the lesson enables teachers to secure a good balance between whole class work, group teaching and individual practice. It also enables teachers to establish regular routines thereby maximising teaching time. It supports assessment on a daily basis, as well as individual feedback to children, ensuring that children receive immediate intervention as required during the supported focus activity.

In both Nursery and Reception, the independent activities at the Maths table link to the focus for the week. For example, if the focus for the week is addition, then activities on the Maths will often link to this. In addition to these planned independent activities, children also have the opportunity to self-select Maths resources to consolidate their learning during child-initiated activities. We recognise the importance of play-based learning and therefore encourage children to develop their understanding during their play. Such opportunities are provided in both the inside and outside environment.

As part of the planning process, teachers incorporate the teacher slides and use of the pupil activities and resources from the NCETM's 'Mastering Number' programme. This focusses on the key concepts that underpin children's understanding of number and number fluency.

Regular observations and assessments help to ensure that children that need additional intervention to consolidate their mathematical understanding are identified and supported by appropriate interventions.

7. **KS1 and KS2**

Recorded Outcomes

In maths, the use of worksheets will depend on the topic and the extent to which the outcome needs to be scaffolded. Wherever possible, children will record outcomes directly into their maths books. In some lessons, visuals from part of the worksheet, rather than the whole sheet, will be stuck into children's books. Although printed sheets are used for a greater number of outcomes in year 1, children will record directly into their maths books whenever this is possible.

Lesson Starters and Number Fluency

Lesson starters in KS1 are designed to achieve the following Ready to Progress requirements set out in the Teaching Mathematics in KS1 and KS2 guidance:

- 1NF–1 (Y1 Number Facts 1) Develop fluency in addition and subtraction facts within 10.
- 1NF-2 (Y2 Number Facts 2) Count forwards in 2s, 5s and 10s
- 2NF–1 (Y2 Number Facts 1) Secure fluency in addition and subtraction facts within 10, through continued practice.

<table>
<tr><th colspan="2">Year 1</th></tr>
<tr><td>Wave 1
1NF1: Addition facts within 10:

• Step/set 1 facts: adding 1
• Step/set 2 facts: adding 2,
• Step/set 3 facts: bonds to 10
• Step/set 4 facts: adding zero
• Step/set 5 facts: doubles
• Step/set 6 facts: near doubles
• Step/set 7 facts: adding 3</td><td>Wave 2
1NF2: Count forwards in 2s, 5s and 10s</td></tr>
<tr><th colspan="2">Year 2</th></tr>
</table>

Addition facts beyond 10 (including 2NF1: consolidation of Y1 facts to 10)

Steps/sets in the order of 1NF1 progression; including (bridging 10/compensating):

- Step/set 8: adding 4
- Step/set 9: adding 5
- Step/set 10: adding 6
- Step/set 11: adding 7
- Step/set 12: adding 8
- Step/set 13: adding 9

This short lesson phase provides opportunities for children to chant facts from sight and from memory, and develop and secure recall through the use of interactive memory card games with a partner in which the answer to a key fact is written on the reverse. This lesson phase is interactive and fast paced, enables children to make links between inverse operations. Teachers focus on the following content throughout the year.

Number Fluency Yearly Overview

Year 1											
Autumn Term											
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
Wave 1 *Step/set 1:* Adding 1			*Wave 1* *Step/set 2:* Adding 2			*Wave 1* *Step/set 3:* Bonds to 10			*Wave 1* *Step/set 4:* Adding zero		
Spring Term											
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
Wave 1 *Step/set 5:* Doubles			*Wave 1* *Step/set 6* Near doubles			*Wave 1* *Step/set 7:* Adding 3			*Wave 1* Consolidation of all addition facts		
Summer Term											
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
Wave 1 Consolidation of all addition facts (continued)						*Wave 2:* Count forward and back in 2s, 5s and 10s					

Year 2											
Autumn Term											
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
Wave 1 *Step/set 1:* Adding 1		*Wave 1* *Step/set 2:* Adding 2		*Wave 1* *Step/set 3:* Bonds to 10	*Wave 1* *Step/set 4:* Adding zero	*Wave 1* *Step/set 5:* Doubles		*Wave 1* *Step/set 6* Near doubles		*Wave 1* *Step/set 7:* Adding 3	
Spring Term											
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 10**	**Week 11**
Wave 1 *Step/set 8:* Adding 4		*Wave 1* *Step/set 9:* Adding 5		*Wave 1* *Step/set 10:* Adding 6		*Wave 1* *Step/set 11:* Adding 7		*Wave 1* *Step/set 12:* *Adding 8*		*Wave 1* *Step/set 13:* Adding 9	
Summer Term											
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
Consolidation of all addition facts Adding						*Wave 2:* Count forward and back in 2s, 5s and 10s (Consolidation) Extending to: Counting in 2s, 4s and 8s					

Lesson starters in KS2 are designed to achieve the following Ready to Progress requirements set out in the Teaching Mathematics in KS1 and KS2 guidance. The school's approach follows the order of the stated factual fluency progression outlined in the guidance:

- 3NF–1 (Y3 Number Facts 1: Secure fluency in addition and subtraction facts that bridge 10, through continued practice.
- 3NF–2 (Y3 Number Facts 2): Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.
- 4NF–1 (Y4 Number Facts 1): Recall multiplication and division facts up to , and recognise products in multiplication tables as multiples of the corresponding number.

Factual fluency progression

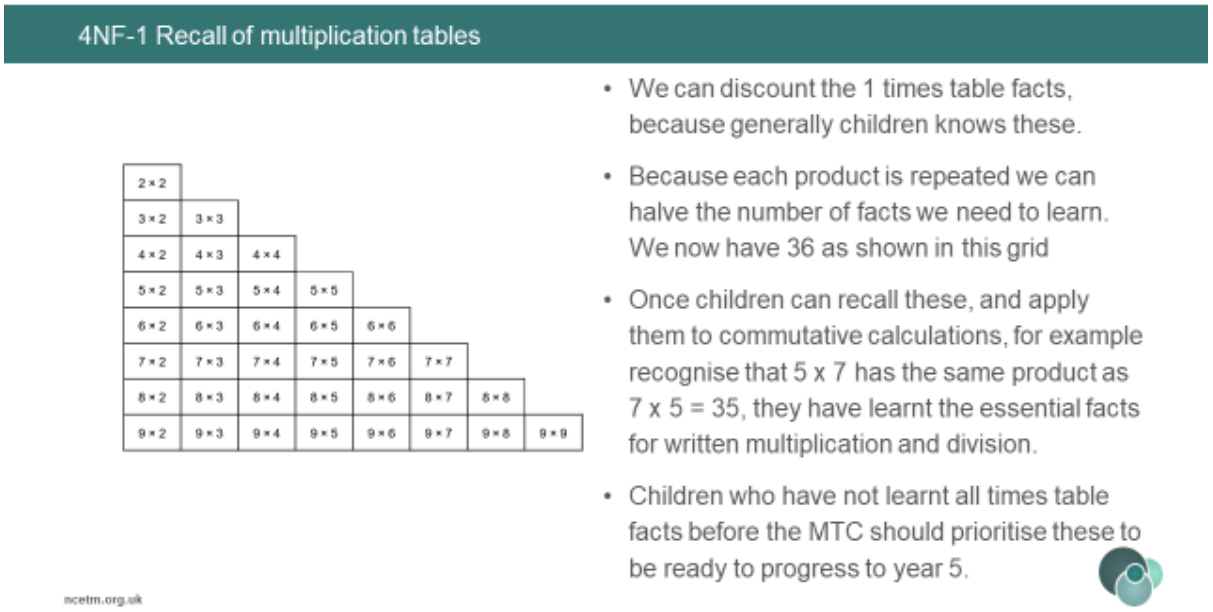
	Year 1	Year 2	Year 3	Year 4
Additive factual fluency	Addition and subtraction within 10.	Addition and subtraction across 10.	Secure and maintain fluency in addition and subtraction within and across 10, through continued practice.	
Multiplicative factual fluency			Recall the 10 and 5 multiplication tables, and corresponding division facts.	Recall the 3, 6 and 9 multiplication tables, and corresponding division facts.
			Recall the 2, 4 and 8 multiplication tables, and corresponding division facts.	Recall the 7 multiplication table, and corresponding division facts.
				Recall the 11 and 12 multiplication tables, and corresponding division facts.

<table>
<tr><th colspan="3">Year 3</th></tr>
<tr><td colspan="2">Wave 1(Autumn and Spring Terms)
3NF1: Addition facts to 10 + 10
• Steps/sets in the order of Y2 progression</td><td>Wave 2 (Summer term)
3NF2: Multiplication facts for 10x, 5x, 2x, 4x and 8x tables</td></tr>
<tr><td colspan="3">3NF3: Scaling number facts to 10 (to be covered by Oak academy lessons)</td></tr>
<tr><th colspan="3">Year 4</th></tr>
<tr><td colspan="3">Summer 2: Fluent in 5 Arithmetic - Retrieval Content</td></tr>
<tr><td colspan="3">4NF1: Recall of Multiplication Tables
• Step/set 1 facts: Square numbers
• Step/set 2 facts: 2x
• Step/set 3 facts: 4x
• Step/set 4 facts: 8x
• Step/set 5 facts: 3x
• Step/set 6 facts: 6x
• Step/set 7 facts: 9x
• Step/set 8 (5 x 7 / 7 x 5) & Step/set 9 facts: 11x facts
• Step/set 10: 12x facts
• Step 11: Speed Practice
Covered during Oak Academy lessons:
4NF2: Division problems with remainders
4NF3: Scaling number facts by 100</td></tr>
<tr><th colspan="3">Year 5</th></tr>
<tr><td colspan="3">Fluent in 5 Arithmetic: Retrieval Content
Incorporating (5NF1: Continued practice of times tables)</td></tr>
<tr><td colspan="3">5NF2: Scaling facts by 1 tenth or 1 hundredth (to be covered by Oak academy lessons)</td></tr>
<tr><th colspan="3">Year 6</th></tr>
<tr><td colspan="3">Fluent in 5 Arithmetic (Retrieval content according to cohort needs)/ Arithmetic Practice Aligned to Lesson Content</td></tr>
</table>

As in KS1, in years 3 and 4, this short lesson phase provides opportunities for children to chant facts from sight and from memory, and develop and secure recall through the use of interactive memory card games with a partner in which the answer to a key fact is written on the reverse. This lesson phase is interactive and fast paced, and slides for this part of the lesson enable children to make links between inverse operations.

Year 4 Times Tables Check:

The approach to fluency ensures that children are well prepared for the Multiplication Tables Check that is completed nationally in Y4. The order that times table facts are taught, is informed by the NCETM's 'Ready to Progress Exemplification Materials (Number Facts)' and the 'Mastering Number' Y4 Programme (2023). It follows the following progression (alongside coverage within the Oak Maths content) and systematically prioritises the following facts, alongside focussed practice of the 11x and 12x multiplication tables:



Children use the online Sumdog platform to complete regular speed practice of randomised times tables facts throughout summer 1, once the systematic coverage of each multiplication table has been covered.

The approach is communicated to parents at the beginning of autumn 2, with resources shared for each set of facts throughout the year to help inform and encourage support at home.

From the summer term in year 4, teachers use 'Fluent in Five' to consolidate children's arithmetic skills, enabling retrieval of previously taught methods and the recall of the key number facts they will need.

The teacher models the most efficient method(s) that children will need to use, and then works through each question with the class. This is an interactive process which involves input from the children as they also record the working out that is required to find the answer. Children who are confident with the method, may work with greater independence - they are able to complete the working out on their own, but must refer their work to the teacher model to check that their answer is correct and that their working out is accurate and identify how errors have occurred if this has been the case. All children should begin the next question together, and work through it in the same way. If a child has made a mistake, this is picked up (either by them during the process above, or by their teacher), so they understand what they have done wrong.

Rationale:

'Regular practice of mental and written arithmetic skills is important in order to keep calculation skills fresh. This is especially important given the way the vast majority of schools are choosing to structure their curriculum – with longer blocks spent on each topic area, and less focus on revisiting topics.

Children and schools also repeatedly report of the strict time limits affecting performance in the Key Stage 2 Arithmetic Tests, with many children in Key Stage 2 not being able to complete the full test in the time given.

This is often because children are attempting questions which have been designed to be answered mentally using an informal or formal written method, which takes up valuable time. Sometimes, this occurs when children are not familiar with suitable mental approaches to calculations, or because they are simply 'tricked' by the appearance of a gridded working out area after each question.

Fluent in Five has been designed to provide both regular practice… along with – in Key Stage 2 – helping children to distinguish between mental and written methods. This ultimately develops a child's ability to complete all the questions in an arithmetic test in the limited time that they are given.'

Third Space Learning – Fluent in Five Teacher Guide

Teachers focus on the following content in lesson starters throughout the year, with three options mapped for Y6 considering cohort needs in preparation for Statutory Assessment Tests:

Year 4

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
12x (2 focus facts) *2 x 12/12 x 2* *3 x 12 / 12 x 3*	*12x (2 focus facts)* 4 x 12 / 12 x 4 5 x 12 / 12 x 5	*12x (2 focus facts)* 6 x 12 / 12 x 6 7 x 12 / 12 x 7	12 x (2 focus facts) 8 x 12 /12 x 8 9 x 12 / 12 x 9	12 x (2 focus facts) 11 x 12 / 12 x 11 12 x 12	11x (1 focus fact) 11 x 11	*Introduction to Parents*	*Set 1: Square Numbers*	Set 2: 2x facts			*Set 3:* 4x facts

Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Set 4: 8x facts	*Set 5: 3x facts*		*Set 6: 6x facts*	*Set 7: 9x facts*		*Set 8* 5x/7x fact	*Set 9: 11x facts (consolidation)*		*Set 10: 12 facts (consolidation)*		

Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Speed Practice - all facts (Sumdog)						Continued Speed Practice (Sumdog) MTC window		Fluent in 5 Application of key number facts to arithmetic: • adding and subtracting fractions with the same denominator, adding and subtracting with up to 3-digit numbers, dividing with remainders, multiplying 2-digit numbers by 1-digit numbers, the 8 times table and finding one half and one third of a number. • finding any unit fraction of an amount and recaps the four operations with 2 and 3-digit numbers and times tables facts. • finding an non-unit fraction of an amount, recapping the four operations with up to 3-digit numbers and the three times tables. • the four operations with up to 3-digit numbers, the 3, 5 and 8 times tables, finding unit and non-unit fractions of amounts. • the four operations with up to 3-digit numbers, the 4, 5 and 8 times tables, finding unit and non-unit fractions of amounts.		

Year 5

Fluent in 5: Application of key number facts to arithmetic:

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12

- Week 1: 3 times tables, adding 3-digit numbers and ones, regrouping in addition, and unit fractions.
- Week 2: Concentrates on Year 3 content including the 4 times tables, subtracting 3-digit numbers with exchanging, adding 3-digit numbers and ones, adding two-digit numbers and tens, and unit fractions.
- Week 3: Focuses on adding and subtracting up to 3-digit numbers, the 8 times tables, multiples of 10, dividing and multiplying 2-digit numbers by 1-digit numbers.
- Week 4: Focuses on adding and subtracting up to 3-digit numbers, dividing 2-digit numbers by 1-digit numbers with remainders, multiplying 2-digit numbers by 1-digit numbers, and finding non-unit fractions of amounts.
- Week 5: Introduces adding and subtracting up to 4-digit numbers and multiples of 1,000, continuing practice on adding three 1-digit numbers, times table facts, dividing 2-digit numbers by 1-digit numbers with remainders, multiplying 2-digit numbers by 1-digit numbers, and finding non-unit fractions.
- Week 6: Builds on previous content with additional focus on adding and subtracting up to 4-digit numbers, adding multiples of 10, times table facts, dividing 2-digit numbers by 1-digit numbers with remainders, and finding non-unit fractions.
- Week 7: Focuses on arithmetic skills involving up to 4-digit numbers, addition and subtraction, times table facts, fractions, and multiplication of a 2-digit number and a 1-digit number.
- Week 8: Recaps adding and subtracting 4-digit numbers, introducing addition of fractions with the same denominator, and reinforcing multiplication and division skills.
- Week 9: Introduces the 6 times table, continues practice on adding and subtracting 4-digit numbers, multiplying 2-digit numbers, and finding non-unit fractions of amounts.
- Week 10: Adds the 7, 11, and 12 times tables, continues 4-digit addition and subtraction, fraction addition and subtraction, and multiplication of 2-digit numbers.
- Week 11: Introduces multiplying and dividing by 1 and 0, reinforces skills in 4-digit addition and subtraction, adding fractions with the same denominator, and multiplication of 2-digit numbers.
- Week 12: Focuses on multiplying three numbers, reinforces addition and subtraction of 4-digit numbers, subtracting fractions, and multiplication of 2-digit numbers by 1-digit numbers.

Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12

- Week 13: multiplying and dividing by 10 and 100 with integers, and continues practice in 4-digit addition and subtraction, times tables, and finding unit fractions.
- Week 14: Introduces multiplying 3-digit numbers by 1-digit numbers, and includes 4-digit arithmetic, addition of three 1-digit numbers, times tables, and find unit fraction of amounts.
- Week 15: Introduces dividing 3-digit numbers by 1-digit numbers without remainders, and reinforces adding and subtracting 4-digit numbers, times tables, multiplying three numbers, and finding unit fractions of amounts.
- Week 16: Introduces dividing 3-digit numbers by 1-digit numbers with remainders, and includes 4-digit arithmetic, times tables, multiplying three numbers, and finding unit fractions of amounts.
- Week 17: Focuses on adding and subtracting up to 4-digit numbers, times table facts, multiplying three numbers, dividing by 100, and adding and subtracting fractions with the same denominator.
- Week 18: Continues with adding up to 4-digit numbers, adding multiples of 100, times table facts, dividing 2 and 3-digit numbers by 1-digit numbers (including with remainders), and calculating with fraction.
- Week 19: subtracting up to 4-digit numbers, times table facts, dividing 2 and 3-digit numbers by 1-digit numbers (including with remainders), multiplying 2-digit numbers by 1-digit numbers, and adding and subtracting fractions with the same denominator.
- Week 20: Introduces adding fractions or fractions and mixed numbers with answers greater than 1, and continues to focus on adding and subtracting with 4-digit numbers, multiplying three numbers, dividing 2 and 3-digit numbers by 1-digit numbers, and finding unit and non-unit fractions of amounts.
- Week 21: Introduces subtracting a fraction from a whole number and recaps adding and subtracting with up to 4-digit numbers, multiplying three numbers, dividing 2- digit numbers by 1-digit numbers, multiplying 2-digit numbers by 1-digit numbers, and finding unit and non-unit fractions of amounts.
- Week 22: Continues to focus on adding and subtracting up to 4-digit numbers, times table facts, dividing 2 and 3-digit numbers by 1-digit numbers, multiplying 2 and 3-digit numbers by 1-digit numbers, and finding unit and non-unit fractions of amounts.
- Week 23: Focuses on adding and subtracting up to 4-digit numbers, times table facts, multiplying three numbers, multiplying and dividing by 10 and 100, dividing 2 and 3-digit numbers by 1-digit numbers, multiplying 2 and 3-digit numbers by 1-digit numbers, and finding unit and non-unit fractions of amounts.
- Week 24: Introduces dividing 1- or 2-digit numbers by 10 and 100 (with decimals) and continues to recap adding and subtracting up to 4-digit numbers, times table facts, dividing 2 and 3-digit numbers by 1-digit numbers, multiplying 2 and 3-digit numbers by 1-digit numbers, and finding unit and non-unit fractions of amounts.

Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12

- Week 25: making a whole with tenths or hundredths, the four operations, times tables finding fractions of amounts.
- Week 26: multiplying three numbers, the four operations and finding a fraction of an amount.
- Week 27: finding fractions of numbers and the four operations.
- Week 28: times tables facts, multiplying 2-digit numbers by 1-digit numbers and dividing 2-digit or 3-digit numbers by 1-digit numbers.
- Week 29: multiplying and dividing multiples of 10 by a 1-digit number, the four operations and calculating with fractions.
- Week 30: adding and subtracting up to 4-digit numbers, multiplying and dividing with up to 2-digit numbers and calculating with fractions.
- Week 31: multiplying and dividing by 1 and multiplying by 0.
- Week 32: Continues to recap Year 4 content with a specific focus on multiplying and dividing by 10 and 100, including with decimals.
- Week 33: Continues the focus from the previous week on multiplying and dividing by 10 and 100, including with decimals.
- Week 34: Recaps previously covered content
- Week 35: Recaps previously covered content
- Week 36: Recaps previously covered content

Three options are mapped for Y6 considering cohort needs in preparation for Statutory Assessment Tests

Year 6 – Option 1 Blocked Arithmetic Practice

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Addition and subtraction</u> • *Combinations involving numbers with up to 6 digits* • *Decimal numbers with up to three decimal places, including combinations of numbers with varying decimal places*						<u>Multiplication and Division</u> • Mental and written calculations by a single digit • Multiplication of three single digit numbers • Application of the inverse to find missing numbers • Long and short multiplication and division using written methods • Multiplication and division by 10, 100 and 1000, including decimal numbers and outcomes • Multiplying decimal numbers (with 1 and 2 decimal places) by 1 and 2 digit numbers					

Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 11	Week 12
<u>Order of Operations</u>			<u>Calculations involving fractions</u> • Adding and subtracting fractions with the same denominator • Adding and subtracting fractions with different denominators, extending to finding the missing fractions within a calculation • Adding a fraction to a mixed number and subtracting from a mixed number • Subtracting mixed numbers with different denominators • Multiplying a whole by a fraction/finding a fraction of an amount • Multiplying mixed numbers • Multiplying fractions • Dividing a fraction by a whole number					<u>Calculations with percentages</u> • Finding a percentage of an amount				

Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Mixed question Practice across domains</u>		**SATS**	Consolidation								

Year 6

Option 2: Consolidation and Gap Closing

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12

- Week 1: addition and subtraction of up to 4-digit numbers, 7 times table, dividing and multiplying by 1-digit numbers, and unit fractions.
- Week 2: similar to Week 1, but introduces multiplying and dividing by 10 (including decimals).
- Week 3: Covers addition and subtraction up to 4-digits, the 8 times table, division and multiplication by 1-digit numbers, multiplying and dividing by 10, and non-unit fractions.
- Week 4: Introduces new concepts including adding/subtracting more than 4-digit numbers and near multiples of 10, along with the 6 times table, multiplying/dividing by 10 and 100, and non-unit fractions.
- Week 5: Focuses on adding and subtracting more than 4-digit numbers, adding near multiples of 10, multiplying three numbers, adding fractions with the same denominator and the 6, 7, and 8 times tables.
- Week 6: Focuses on subtracting fractions with the same denominator, adding and subtracting more than 4-digit numbers, division and multiplication by 1-digit numbers, multiplying and dividing by 10 and 100, and adding fractions with the same denominator.
- Week 7: Introduces square and cube numbers, with a focus on adding and subtracting more than 4-digit numbers, multiplying and dividing 2- or 3-digit numbers by 1-digit numbers and calculating with fractions.
- Week 8: Introduces multiplying and dividing by 10, 100, and 1000, alongside adding and subtracting with more than 4-digit numbers, multiplying and dividing 2- or 3-digit numbers by 1-digit numbers and calculating with fractions.
- Week 9: Focuses on multiplication and division with multiples of 10, 100, and 1000, as well as square and cube numbers, multiplying and dividing by 10 and adding and subtracting with more than 4-digit numbers and multiplying 2- or 3-digit numbers by 1-digit numbers.
- Week 10: Recaps content from the previous weeks, including addition and subtraction with more than 4-digit numbers, multiplying 2- or 3-digit numbers by 1-digit numbers, multiplying and dividing with multiples of 10, 100 and 1,000 and calculating with fractions.
- Week 11: Introduces adding fractions involving mixed numbers and different denominators, along with recapped content from the previous week.
- Week 12: Focuses on subtraction of numbers with different denominators, subtraction from mixed numbers, and continues with addition, subtraction, multiplication, division, and square numbers.

Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12

- Week 13: Introduces multiplying 4-digit numbers by 1-digit numbers and 2-digit numbers by 2-digit numbers, along with adding and subtracting more than 4-digit numbers, dividing with multiples of 10, square and cube numbers, and subtracting fractions.
- Week 14: Focuses on multiplying 3-digit numbers by 2-digit numbers and 4-digit numbers by 2-digit numbers, and recaps addition and subtraction, division of 2-digit by 1-digit numbers, cube numbers, and non-unit fractions.
- Week 15: Includes dividing up to 4-digit numbers by 1-digit numbers, multiplying three numbers, multiplying 4-digit numbers by 1 or 2-digit numbers, square and cube numbers and adding fractions.
- Week 16: Introduces multiplying fractions by integers (including mixed numbers), along with addition and subtraction of more than 4-digit numbers, division of up to 4-digit numbers by 1-digit numbers, multiplying up to 4-digit numbers by 1- or 2-digits, and multiplying by 1,000.
- Week 17: Recaps content from previous weeks, focusing on adding and subtracting more than 4-digit numbers, dividing up to 4-digit numbers by 1-digit numbers, multiplying up to 4-digit numbers by 1 or 2-digit numbers, and calculating with fractions.
- Week 18: Maintains focus on adding and subtracting more than 4-digit numbers, dividing up to 4-digit numbers by 1-digit numbers, multiplying up to 4-digit numbers by 1 or 2-digit numbers, multiplying fractions and multiples of 10, 100, and 1000.
- Week 19: Focuses on adding and subtracting more than 4-digit numbers, dividing up to 4-digit numbers by 1-digit numbers, multiplying up to 4-digit numbers by 1 or 2-digit numbers, and multiplying and dividing with multiples of 10, 100, and 1000.
- Week 20: Focuses on addition and subtraction with more than 4-digit numbers, dividing 4-digit numbers by 1-digit numbers, multiplying 4-digit numbers by 1- or 2-digit numbers, multiplying and diving with multiples of 10, 100 and 1,000, square numbers and finding non-unit fractions of amounts.
- Week 21: Recaps previous content including addition, subtraction, multiplication and division and calculating with fractions including multiplying fractions by integers and adding and subtracting fractions.
- Week 22: Focuses on adding and subtracting fractions, including mixed numbers and fractions with different denominators, while continuing with addition, subtraction multiplication and division.
- Week 23: Focuses on on multiplying and dividing fractions by integers, adding and subtracting fractions with different denominators, and continues with addition, subtraction, multiplication, and division.
- Week 24: Recaps multiplication and division of fractions and integers, addition and subtraction of fractions with different denominators, and includes addition, subtraction, multiplication and division.

Summer Term

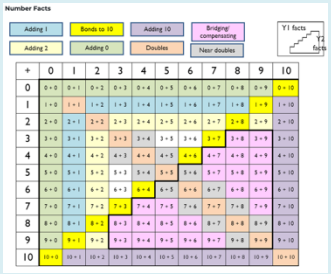
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12

- Week 25: Focuses on addition and subtraction of numbers with more than 4-digits, multiplication of up to 4-digits by 1- or 2-digits and division of up to 4-digits by 1-digit, and finding non-unit fractions of an amount.
- Week 26: Recaps adding and subtracting more than 4-digit numbers, dividing with up to 4-digit numbers by 1-digit numbers including with remainders, multiplying up to 4-digit numbers by 1- or 2-digit numbers, multiplying and dividing with 10 and 1000 and finding non-unit fractions of amounts.
- Week 27: Continues to recap the previous learning including multiplying three numbers finding non-unit fractions of an amount and adding fractions.
- Week 28: Focuses on the four operations, multiplying and dividing with 10 and 1,000, finding non-unit fractions of amounts and subtracting fractions.
- Week 29: Focuses on the four operations and multiplying with 100, finding non-unit fractions of amounts, adding fractions and multiplying with fractions.
- Week 30: Introduces complements to 1, adding and subtracting decimals with the same and different numbers of decimal places as well as recapping previously covered topics.
- Week 31: Focuses on the four operations with up to 4-digit numbers, square numbers, finding non-unit fractions of amounts, multiplying with fractions and adding and subtracting with decimals.
- Week 32: Continues to focus on the four operations with up to 4-digit numbers and additionally focuses on multiplying and dividing by 10, 100 and 1,000 including with decimals and adding fractions.
- Week 33: Continues the focuses from the previous week and additionally focuses on adding fractions.
- Week 34: Recaps all previous objectives covered in Fluent in Five for Year 5.
- Week 35: Recaps all previous objectives covered in Fluent in Five for Year 5.
- Week 36: Recaps all previous objectives covered in Fluent in Five for Year 5.

Year 6											
Option 3: Consolidation and Challenge											
Autumn Term											
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
• Addition and subtraction with more than 5-digit numbers, multiplication, division, and calculating with fractions and decimals						• Week 7: Focuses on adding and subtracting 7-digit numbers, multiplying by 100 or 1,000, multiplying 2-digit decimal numbers by 1- or 2-digit numbers, adding fractions, finding fractions of numbers, and multiplying fractions by integers. • Week 8: Covers adding and subtracting with up to 7-digit numbers, squared numbers, multiplying by 10, multiplication and division with 1-digit numbers, adding fractions including mixed numbers, and multiplying a fraction by an integer. • Week 9: Focuses on decimals addition, cubed numbers, multiplying and dividing by 100, division by a 2-digit number, and multiplying fractions by integers. • Week 10: Concentrates on the order of operations, adding and subtracting different denominator fractions, division by 1-digit and 2-digit numbers, and division by 10, 100, and 1000. • Week 11: Focuses on adding and subtracting decimals, multiplying and dividing by 1-digit and 2-digit numbers, order of operations, adding and subtracting different denominator fractions, and multiplying fractions by fractions. • Week 12: Focuses on adding and subtracting numbers (including decimals), multiplying and dividing by 100, operations with 1-digit and 2-digit numbers, order of operations, and multiplying fractions by fractions				
Spring Term											
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
• Week 13: Focuses on adding and subtracting numbers with up to 7-digits, near multiples of 10, 100, and 1000, square and cube numbers, and operations involving multiplication and division by 10, 100, and 1,000. • Week 14: Covers adding and subtracting numbers with up to 7-digits and with decimal numbers, multiplication and division by 1-digit and 2-digit numbers, and order of operations. • Week 15: Focuses on adding and subtracting numbers with up to 7-digits and with decimal numbers, square and cube numbers, multiplying by 1-digit and 2-digit numbers, order of operations, and multiplying fractions by integers. • Week 16: Concentrates on adding and subtracting numbers with up to 7-digits and multiples of 10, 100, and 1,000, fractions with different denominators, order of operations, and finding fractions of amounts. • Week 17: Focuses on adding and subtracting numbers with up to 7-digits, multiplying by 1-digit or 2-digit numbers, order of operations, and adding and subtracting fractions with different denominators. • Week 18: Recaps adding and subtracting with numbers up to 7-digits, multiplying and dividing by multiples of 10, 100 and 1,000, multiplying fractions by fractions, multiplying decimals by an integer and dividing fractions by an integer.						• Week 19: Focuses on adding and subtracting with numbers up to 7-digits and with decimal numbers, multiplying a decimal by an integer and multiplying up to 4-digit numbers by 1- or 2-digit numbers. • Week 20: Recaps adding and subtracting decimal numbers, multiplying and dividing by 10, 100 and 1,000, multiplying pairs of fractions, multiplying a fraction by an integer and finding a percentage of an amount. • Week 21: Recaps all prior learning including addition and subtraction, multiplying up to 4-digit numbers by 1- or 2-digit numbers, dividing up to 4-digit numbers by 1-digit numbers, the order of operations, calculating with decimals and calculating with percentages. • Week 22: Continues to recap prior learning involving order of operations, the four operations, decimal calculations, calculating with fractions and finding percentages of amounts. • Week 23: Continues to recap all the previous content covered in Fluent in Five. • Week 24: Continues to recap all the previous content covered in Fluent in Five.				
Summer Term											
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
• Week 25: Recaps the previously covered content, including addition and subtraction of 7-digit numbers, square numbers, and division by 2-digit numbers. • Week 26: Continues to recap topics including focuses on multiplication by 2-digit numbers, division with remainders, and addition of mixed numbers. • Week 27: Recaps content including cube numbers, multiplication involving decimals, and adding fractions with different denominators. • Week 28: Recaps prior learning including multiplication and division of large numbers, finding fractions of amounts, and complex addition and subtraction. • Week 29: Focuses on prior learning including calculating with decimals, long division, and multiplication of fractions by whole numbers. • Week 30: Recaps all areas of learning, including adding and subtracting with 7-digit numbers, multiplying and dividing by 10 and 100, and adding and subtracting mixed numbers						• Week 31: Recaps the previously covered Fluent in Five content for Year 6 with a focus on long multiplication, square and cube numbers. • Week 32: Continues to recap the previously covered content with a focus on adding and subtracting fractions with denominators that are not the same and long division. • Week 33: Focuses on mental addition and subtraction of decimals and long multiplication. • Week 34: Recaps all previously covered content in Fluent in Five for Year 6. • Week 35: Recaps all previously covered content in Fluent in Five for Year 6. • Week 36:Recaps all previously covered content in Fluent in Five for Year 6.				

Features of a Maths Lesson at William Patten

Fluency & Arithmetic Starter

Fluent in Five	KS1	KS2
• Guided practice, to secure number fluency and mental and written methods		A. $\frac{2}{3}$ of 99 = 66 *(M)* B. 700 + 600 = 1,300 *(M)* C. 7,543 – 5,636 = 1,907 *(W)* D. 765 x 10 = 7,650 *(M)* E. 873 x 8 = 6,984 *(W)*

Learning Intention (LI)

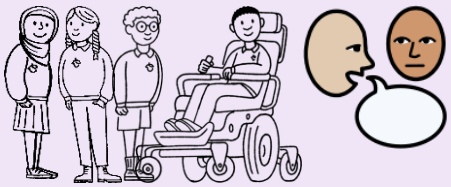
We find out what our lesson is about and record this as a title in our book

Key vocabulary

We learn or recap the definitions of the key words we will be using in the lesson

Part 1: Knowledge* (Practical)

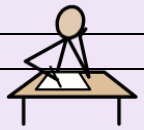
Teaching & Learning





- We find out about 'how' and 'why' the maths works; thinking, exploring and understanding it in the same way that the characters model in their dialogue.
- We might also use manipulatives, to help us understand and represent the maths in the same way it is being shown in lesson slides.

Practice



- Up to three independent tasks/questions, linked to the teaching, to record our learning.

Question 1	Question 2 When Q1 is complete	Question 3 When Q3 is complete

Review

We review, check and complete as necessary, the answers to all the questions in part 1.

Part 2: Application*

Teaching & Learning



- We deepen our understanding through further discussion and teaching. This often involves a skill, such as using and applying the maths in a context or solving related problems together.

Practice



- Up to three independent tasks/questions, linked to the teaching, to record our learning.

Question 1	Question 2 When Q1 is complete	Question 3 When Q2 is complete

We review, check and complete as necessary, the answers to all the questions in part 2.

Some lessons have 3 parts!

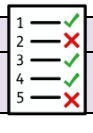
*Each lesson is different, but all explain the structure of the maths (how it works) and combine key knowledge with its application and problem solving.

Summary



- Key learning is summarised.

Exit Quiz



- We answer 6 questions together, as a class, about what we have just learnt.

8. **Equal Opportunities**

The school is committed to ensuring the active participation and progress of all children in their learning.

All children will be given equal opportunities to achieve their best possible standard, whatever their current attainment and irrespective of gender, ethnic, social or cultural background, home language or any other aspect that could affect their participation or the progress of which they are capable.

9. **Inclusion**

Taking a mastery approach, differentiation occurs in the support and intervention provided to different children, not in the topics taught, particularly at earlier stages. The National Curriculum states:

'Children who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.'

There is little differentiation in the content taught but the questioning and scaffolding individual children receive in class as they work through problems will differ, with higher attainers challenged through progression to more demanding problems, which deepen their knowledge of the same content before acceleration onto new content. Children's difficulties and misconceptions are identified through immediate formative assessment and addressed through review of children's responses, which take place within the lesson sequence.

A range of inclusion strategies that have disseminated by the SENDCO are embedded in practice. Teachers are also acutely aware of the special educational needs of the children in their Maths class, as well as those who have English as an additional language.
Although the expectation is that the majority of children will move through the programmes of study at broadly the same pace, the 2014 National Curriculum states:

'Decisions about when to progress should always be based on the security of children's understanding and their readiness to progress to the next stage.'

If a child's needs are best met by following an alternative plan, including coverage of the content from a previous year, this will be overseen by the SENDCO, in collaboration with the class teacher and with the knowledge of SLT. Specific arrangements for the provision of children with SEND will be communicated to parents and carers during SEND reviews.

Oak Maths (2024):
'Our curriculum is intentionally designed to facilitate high-quality teaching as a powerful lever to support pupils with SEND. Aligned with EEF guidance, our resources have a focus on clear explanations, modelling and frequent checks for understanding, with guided and independent practice. Lessons are chunked into learning cycles and redundant images and information are minimised to manage cognitive load. We have removed reference to year groups in our resources so that they can be used when pupils are ready, regardless of their age. Our resources are purposefully created to be accessible, for example by using accessible fonts,

and colours with good contrast. We have used Equatio's equation editor to create digital, accessible written mathematics in our resources.'

10. **Role of the Subject Leader**

The subject leader will raise the profile of Maths at William Patten Primary School through best practice. They will model lessons, as appropriate to new staff, ECTs and peers to support continued professional development. They will ensure the high quality of Maths displays around the school, present certificates of achievement (including those related to the use of SumDog for homework (see section 11), during end of term assemblies and involve the school in 'celebrations' of Maths, including participation in events such as 'World Maths Day' and local, regional and national Sumdog Competitions.

In addition to the above:

- The subject leader will support staff in providing opportunities for learning outside the classroom in Maths and will identify and organise opportunities which enable this, as appropriate.
- The subject leader will monitor progression and continuity of Maths throughout the school through lesson observations and regular monitoring of outcomes of work in Maths exercise books.
- The subject leader will ensure that all staff have access to year group plans and the relevant resources which accompany them.
- The subject leader will monitor children's progress through the analysis of whole school data. They will use this data to inform the subject development plan which will detail how standards in the subject are to be maintained and developed further.
- The subject leader will, on a regular basis, organise, audit and purchase central and class-based Maths resources.
- Through ongoing involvement in the DfE funded Maths Hubs programme, the subject leader will keep up to date on current developments in Maths education and disseminate information to colleagues. They will also contribute directly to the Maths Hubs programme, as a mastery specialist and support staff in demonstrating best practice to visitors from other schools as part of the school's work as a recognised centre for excellence in the teaching of mastery.
- The subject leader will extend relationships and make contacts beyond the school.
- The subject leader will develop opportunities for parents/carers to become more involved in Maths education.
- The subject leader will ensure that all staff have access to professional development including observations of outstanding practice in the subject.
- The Maths Subject Leader will disseminate the school's practice to other schools within a local network. They will also work with teachers to provide a model of outstanding practice within and beyond the school as a Mastery Specialist for the London North East Maths Hub and as an accredited NCETM PD Lead.

11. **Parents**

- The school recognises that parents and carers have a valuable role to play in supporting their child's mathematical learning. An overview of the Maths curriculum is available on the school's website, as well as guidance in the progression in calculation methods used by the school. Paper copies of these documents are also available on request and the curriculum letter, sent home by each year group, also outlines the Maths topics to be covered.

- Activities which link to each Maths topic are suggested for parents and carers to try at home with their child in each Reception newsletter.
- EYFS children receive several pieces of maths homework every half-term.
- The school uses Sumdog to ensure that children have access to adaptive practice, pitched at the attainment of the individual, and which focuses on securing children's 'number sense' to free working memory.
- The level of challenge provided by Sumdog is responsive according to children's individual needs.
- Sumdog recommends child spends at least 30 minutes each week on Sumdog, which can be broken up into smaller chunks of time. The little and often approach gives them regular and consistent practice.
- Children in year 1 – 6 are provided with individual login details at the beginning of the school year so they can access the range of games and activities provided. The school will reissue children's login details at the onset of local, regional and national maths competitions that children can contribute school points to through completion of activities.
- White Rose Maths Parent Books which align to the NC programmes of study for each year group are available on the school's website. Paper copies are available on request and made available to identified children who would benefit from additional practice at home.
- Parents are informed of their child's progress at Parents' Evenings, and this is also communicated in written school reports at the end of the year.
- Parents and carers are encouraged to speak to their child's Maths teacher at any point during the year, either informally or by making a specific appointment. Information about their child's standards, achievements and future targets in Maths is shared during Parents' Evenings as well as ways that parents/carers may be able to assist with their child's learning.
- The school also provides a number of opportunities for parents/carers to learn about what their child is learning and the way their child is being taught through parent workshops.

This policy will be reviewed annually by the Governing body.

Policy Agreed: **September 2026**
Policy Review Date: **September 2027**

MathsHUBS
London North East