September: 2026

Mental Maths at Abbey

Fluency in mental maths relies on a firm and thorough understanding of number concepts and a flexibility with numbers which goes well beyond memorisation.

We need to develop a firm foundation in the number system. An understanding of place value, partitioning, doubling and halving, form the basis of mathematical fluency and accuracy. We need to actively teach these mental maths strategies, together with the series of number facts, that will be needed for rapid recall each year in school.

Number facts fluency

The DfE guidance, alongside development of deep conceptual understanding, places significant emphasis on procedural and factual fluency.

In teaching procedural and factual knowledge, ensure that students get to automaticity. Automaticity with procedures and facts is important because it frees children's minds to think about concepts. (Willingham2009 p19)
Being fluent in number facts is to free up the working memory when tackling a more interesting and engaging piece of mathematics. (Askew 2012 p54)

What do we mean by fluency?
 The national curriculum for mathematics aims to ensure that all pupils become **fluent** in the fundamentals of mathematics, … so that pupils develop conceptual understanding and the ability **to recall and apply** knowledge rapidly and accurately.
 …pupils should make **rich connections** across mathematical ideas to develop **fluency…**

Fluency is…
Efficiency - An efficient strategy is one that the student can carry out quickly and easily to solve problems

What do children need to know and apply fluently?
National Curriculum - Key Stage 1
 The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop **confidence** and **mental fluency** with whole numbers, counting and place value.
 By the end of year 2, pupils should **know the number bonds to 20** and be precise in using and understanding place value.

Number Facts in the National Curriculum and EYFS

Reception (EYFS ELG)	Have a deep understanding of number to 10, including the **composition** of each number. **Subitise** (recognise quantities without counting) up to 5. Automatically recall (without reference to rhymes, counting or other aids) **number bonds up to 5** (including subtraction facts) and some number bonds to 10, including **double facts**. Explore and represent patterns within numbers up to 10, including **evens and odds**, double facts	
Year 1	represent and use number bonds and related subtraction facts within 20	
Year 2	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100	recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers

September: 2026

Through our mental maths sessions, we aim to:

Rehearse – To practise and consolidate existing skills
Recall - To secure knowledge of number facts; building up speed and accuracy
Refresh - To draw on and revisit previous learning; to assess, review and strengthen children's previously acquired knowledge and skills relevant to later learning; return to aspects of mathematics with which the children have had difficulty; draw out key points from learning.
Language – Develop children's use of and understanding of mathematical vocabulary

When children leave Abbey CofE Infant School, we want them to:

• Have a secure knowledge of number facts and a good understanding of the four operations.
• Be able to use this knowledge and understanding to carry out calculations mentally and to apply general strategies when using one-digit and two-digit numbers.
• Make use of diagrams and informal notes to help record steps and part answers when using mental methods that generate more information than can be kept in their heads.

The focus for mental maths sessions:

Add and subtract within 10, One more / less, Two more / two less, Pairs to 10, doubles and halves, know and derive facts to 20, recognising and understanding numbers and the written word for numerals, multiplication facts.

Number

Recall: **Children should be able to derive and recall:**	**Mental Calculation Skills:** **Working mentally, with jottings if needed, children should be able to:**	**Mental Methods or Strategies:** **Children should understand when to and be able to apply these strategies:**
Reception •Record the numeral for a pictorial representation of numbers to 10 •Draw a picture for numbers to 10 •Subitise – record the numeral		•1:1 correspondence •recognising patterns
Year 1 •Record the next number in a sequence when counting in 1s •Count in 2s, 5s, 10s •1 more or 1 less of any given number •Record a numeral when shown a representation •Record the word when shown a picture or numeral (1 -20) •Record the numeral when shown the word		•Count on in ones from any number •Count backwards in ones from any number
Year 2 •Record a numeral when described e.g. it has 2 tens and 5 ones…or when shown a representation, pictorial or 20 + 3 = ? •Record the word when shown a picture or numeral (1 -20) •Record the numeral when shown the word • Know 10 more or less than any number		• partition numbers into 10s and 1s

September: 2026

Addition and Subtraction

Recall: **Children should be able to derive and recall:**	**Mental Calculation Skills:** **Working mentally, with jottings if needed, children should be able to:**	**Mental Methods or Strategies:** **Children should understand when to and be able to apply these strategies:**
Reception ·number bonds up to 5 (including subtraction facts) and some number bonds to 10	• add or subtract a pair of single-digit numbers, e.g. 4 + 2, 5 – 1	• count on or back in ones •1:1 correspondence
Year 1 • number pairs with a total of 10, e.g. 3 + 7 • addition facts for totals to at least 5, e.g. 2 + 3, 4 + 3 • addition doubles for all numbers to at least 10, e.g. 8 + 8	• add or subtract a pair of single-digit numbers, e.g. 4 + 5, 8 – 3 • add or subtract a single-digit number to or from a teens number, e.g. 13 + 5, 17 – 3	reorder numbers when adding, e.g. put the larger number first • count on or back in ones, twos or tens • partition small numbers, e.g. 8 + 3 = 8 + 2 + 1 • partition and combine tens and ones
Year 2 • addition and subtraction facts for all numbers up to at least 10, e.g. 3 + 4, 8 – 5 • number pairs with totals to 20 • all pairs of multiples of 10 with totals up to 100, e.g. 30	add or subtract a pair of single-digit numbers, including crossing 10, e.g. 5 + 8, 12 – 7 • add any single-digit number to or from a multiple of 10, e.g. 60 + 5 • add or subtract a single-digit number to or from a two-digit number, including crossing the tens boundary, e.g. 23 + 5, 57 – 3, then 28 + 5, 52 – 7 • add or subtract a multiple of 10 to or from any two-digit number, e.g. 27 + 60, 72 – 50	• reorder numbers when adding • partition: bridge through 10 and multiples of 10 when adding and subtracting • partition and combine multiples of tens and ones • use knowledge of pairs making 10 • partition: count on in tens and ones to find the total • partition: count on or back in tens and ones to find the difference

Multiplication & Division

Recall: **Children should be able to derive and recall:**	**Mental Calculation Skills:** **Working mentally, with jottings if needed, children should be able to:**	**Mental Methods or Strategies:** **Children should understand when to and be able to apply these strategies:**
Reception • doubles of all numbers to 5, e.g. double 3	• odd and even numbers to 10	• use patterns of last digits, Numberblocks
Year 1 • doubles of all numbers to 10, e.g. double 6 • odd and even numbers to 20	• count on from and back to zero in ones, twos, fives or tens	• use patterns of last digits, e.g. 0 and 5 when counting in fives
Year 2 • doubles of all numbers to 20, e.g. double 13, and corresponding halves • doubles of multiples of 10 to 50, e.g. double 40, and corresponding halves • multiplication facts for the 2, 5 and 10 times-tables, and corresponding division facts • record odd and even numbers to 100	• double any multiple of 5 up to 50, e.g. double 35 • halve any multiple of 10 up to 100, e.g. halve 90 • find half of even numbers to 40 • find the total number of objects when they are organised into groups of 2, 5 or 10	• partition: double the tens and ones separately, then recombine • use knowledge that halving is the inverse of doubling and that doubling is equivalent to multiplying by two • use knowledge of multiplication facts from the 2, 5 and 10 times-tables, e.g. recognise that there are 15 objects altogether because there are three groups of five

September: 2026

Mental Maths Sessions

Once a week, children in KS1 are given a set of 10 verbal questions to complete – these will be based on previously taught lessons linked to the quick recall of number facts

A range of vocabulary is used every week e.g.

Subtract, minus, less than, take away

Add, more than, plus, addition

Multiply, lots of, multiplied by, times, groups of, array, repeated addition

Divide, shared, grouped, division

Sessions focus on speed and accuracy

Teachers can follow the same structure each week, once blocks have been taught. However, the questions can vary each week if needed so that weaker areas needing consolidating can become a focus.

A friend marks the child's answers

Children have opportunities to share and explain how they have found an answer.

Children in Reception begin the mental maths sessions in the Summer term. They will be given 5 questions to complet

September: 2026

Example Questions:

Year 1	Year 2
Spell it… 12 or display a pictorial representation for the number	**Spell it**… 12 or display a pictorial representation for the number…or **What's the number?** Read the word and record the numeral / pictorial representations
1 less than/more than ….	1 less than/more than …. 10 more / less…
I am thinking of a number … it has 1 ten or 6 ones / display a pictorial representations / ? + 10 = 14	**I am thinking of a number** … … it has 1 ten or 6 ones / display a pictorial representations / ? + 30 = 34…..partition the number in 2 different ways
What's the number? Read the word and record the numeral	**Times table fact…**
Let's add / subtract…	**Let's add / subtract…**
Write a number bond… 10 10 = ? + ? / display a pictorial representation	Write a number bond… 10 / 20 / 100 20 = ? + ? / display a pictorial representation
Let's double/halve ….. double 6/ present as a word problem	**Let's double/halve** ….. double 30/ present as a word problem I have 7 cherries. I have eaten half. What did I start with?
Let's find the odd/even numbers	**Let's find the odd/even numbers**
Let's add / subtract…	**Let's add / subtract…**
Let's add / subtract…	**Let's multiply / divide…**

Other resources to support:

White Rose Education - Maths – Flashback 4