Mathematics Calculation Policy

Addition • Subtraction • Multiplication • Division

"Building confident mathematicians through a consistent and progressive approach to calculation."

Academic Year: 2026-2027
Policy Lead: A. Cassel
Approved By: S. Watkins
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Vision Statement

At Hindon Primary School, we believe that all children can become confident and competent mathematicians. This policy outlines the progression of calculation strategies taught from Reception to Year 6, ensuring that children develop fluency, reasoning and problem-solving skills through a consistent and carefully sequenced approach. The methods within this policy support the White Rose Maths scheme and provide a clear progression from concrete experiences to efficient written calculations.

Contents

Understanding Calculation at Hindon Primary School

Mathematics is an essential life skill and plays a central role in your child's education. At Hindon Primary School, we aim to develop confident, fluent and resilient mathematicians who can apply their understanding to a wide range of real-life situations.

This calculation policy outlines the methods and strategies used throughout the school to teach the four operations: addition, subtraction, multiplication and division. By following a clear and consistent progression, children develop a secure understanding of number and calculation before moving on to more formal written methods.

The methods taught in school may differ from those used when many parents and carers were at school. By sharing our approaches, we hope to strengthen the partnership between home and school and help families support children's mathematical learning with confidence.

The CPA Approach

Concrete	Pictorial	Abstract
Children use practical resources such as counters, Numicon, place value counters and Dienes.	Children represent their understanding through drawings, diagrams, models and number lines.	Children use numbers, symbols and formal written methods independently.

Mental Methods First

Children are encouraged to consider whether a calculation can be solved mentally before using a written method. Developing strong mental arithmetic skills, including number bonds, times tables and place value understanding, helps children become efficient and confident mathematicians.

Written Calculations and Supporting Mathematical Fluency

Why do children need written calculation methods?

Written calculations are an important part of children's mathematical development. Whilst mental strategies remain a key focus throughout primary school, written methods help children to:

- Record and represent their mathematical thinking clearly.
- Explain and justify how an answer has been reached.
- Solve calculations that are too complex to complete mentally.
- Keep track of multiple steps within a calculation.
- Develop accuracy, efficiency and confidence when working with larger numbers.

As children progress through the school, they are encouraged to estimate answers before calculating and to check their answers using inverse operations where appropriate.

By the end of Key Stage 2, children should be able to select the most efficient strategy for a calculation, deciding whether a mental method, jottings or a formal written method is most appropriate.

Supporting Your Child at Home

- Practising number bonds and times tables regularly.
- Playing number and board games together.
- Discussing numbers and calculations in everyday situations.
- Involving children in shopping, budgeting and handling money.
- Encouraging children to read timetables, prices, measurements and scores.
- Using cooking, baking and DIY activities to explore weighing and measuring.
- Asking children to explain the methods they have been taught in school.

Where possible, encourage your child to use the methods they are learning in class, as consistency helps to build confidence and understanding.

Mathematical Misconceptions

Myth	Fact
Just add a zero when multiplying by 10.	Digits move through the place value columns.
Move the decimal point.	The decimal point stays fixed; the digits move.
Everything is a sum.	A sum is specifically an addition calculation.

Key Mathematical Vocabulary

Addition	Subtraction	Multiplication	Division
add	subtract	multiply	divide
plus	minus	times	share
sum	difference	product	quotient
total	take away	groups of	remainder
altogether	fewer	array	factor
increase	decrease	multiple	divisor

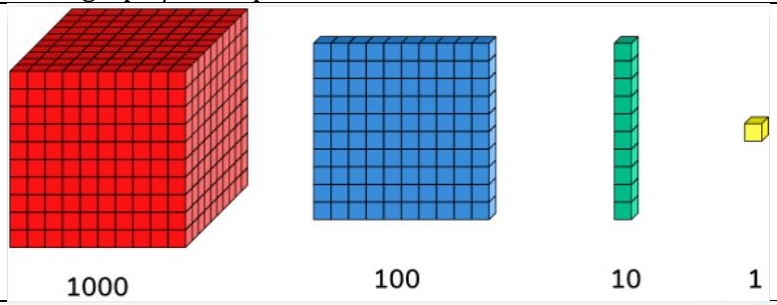
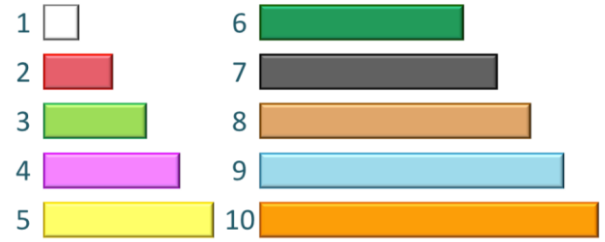
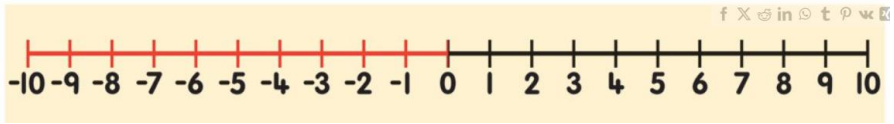
Important Mathematical Concepts

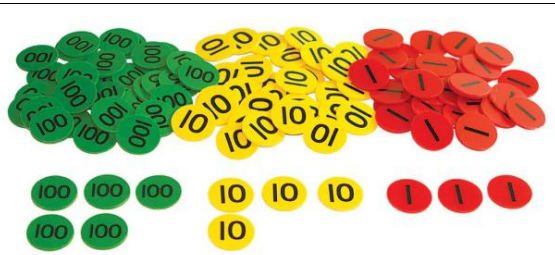
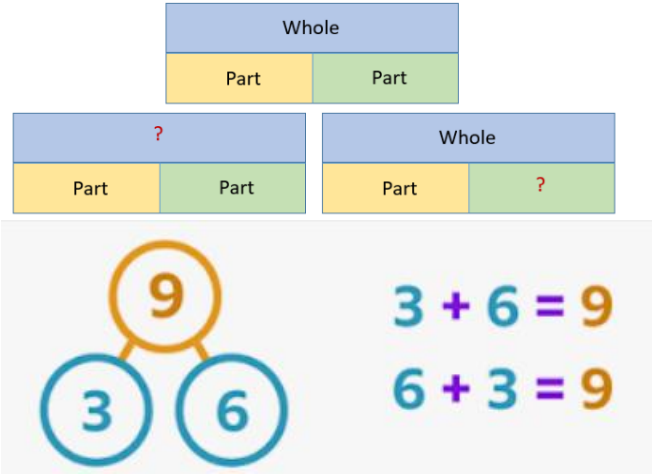
Term	Definition
Place Value	The value of a digit based on its position within a number.
Number Bond	Two or more numbers that combine to make a given total.
Partitioning	Splitting a number into smaller parts to support calculation.
Inverse	The opposite operation used to check an answer.
Estimate	An approximate answer calculated before solving exactly.

Exchange	Regrouping values between place value columns in written methods.

Mathematical Representations and Manipulatives

At Hindon Primary School, children use a range of mathematical representations and manipulatives to develop a deep understanding of number and calculation. These resources support the Concrete, Pictorial and Abstract (CPA) approach and help children build secure mathematical understanding before moving to formal written methods.

Resource	Photograph / Example	How it Supports Learning
Dienes Blocks		Children use Dienes blocks to develop their understanding of place value. They help children see the relationship between ones, tens, hundreds and thousands and support the development of written calculation methods.
Numicon		Numicon provides a visual and tactile representation of number. It helps children develop fluency, number sense and understanding across all areas of mathematics, including calculation, fractions and decimals.
Cuisenaire Rods		Cuisenaire rods allow children to compare numbers, identify patterns and explore mathematical relationships. They are particularly useful when teaching multiplication, division, fractions and ratio.
Number Lines		Number lines help children visualise number relationships and develop efficient mental calculation strategies. They support counting, addition, subtraction, estimation and reasoning.

Place Value Counters		Place value counters help children represent numbers clearly and understand how digits move between columns during addition, subtraction, multiplication and division.
Part-Whole Models		Part-whole models help children understand how numbers can be partitioned and recombined. They are often used when developing number bonds and calculation strategies.

Addition

Vocabulary

Add	Addition	Plus	And	Count On
More	Sum	Total	Altogether	Increase

Addition Progression of Skills

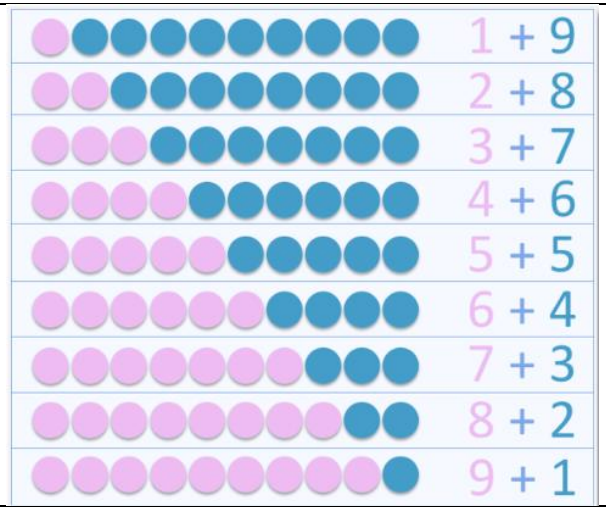
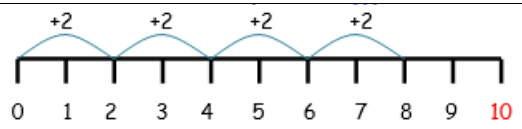
Based on the White Rose Maths Small Steps Progression

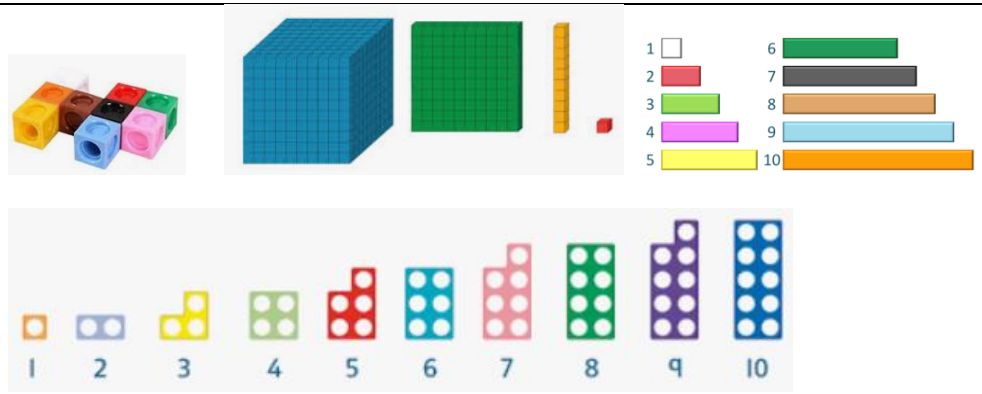
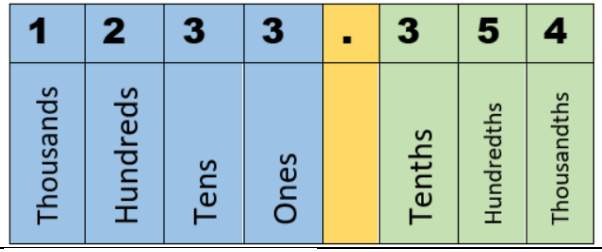
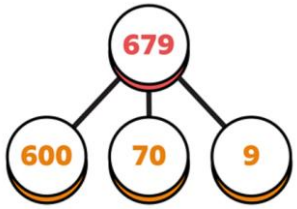
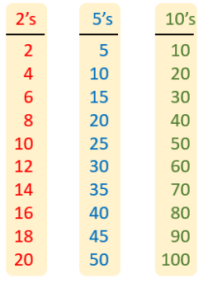
Year Group	Skills Covered
Reception	• Conceptually subitise to 5 • Find 1 more • Notice the composition of numbers within 10 • Combine 2 groups • Add more
Year 1	• Add together • Add more • Bonds within 10 • Related facts within 20 • Missing numbers
Year 2	• Add 1s to any number (related facts) • Add three 1-digit numbers • Add across a 10 • Add multiples of 10 • Add 10s to any number • Add two 2-digit numbers (not across a ten) • Add two 2-digit numbers (across a ten) • Missing numbers
Year 3	• Add 1s, 10s and 100s to a 3-digit number • Add two numbers (no exchange) • Add two numbers across a 10 or 100 • Complements to 100 • Add fractions with the same denominator within 1 whole • Calculate the duration of events
Year 4	• Add 1s, 10s and 100s to a 4-digit number • Add up to two 4-digit numbers

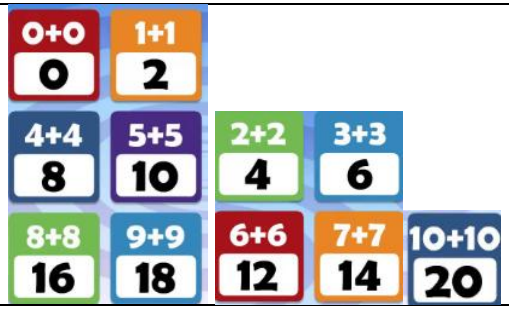
	• Add decimal numbers in the context of money • Add fractions and mixed numbers with the same denominator beyond 1 whole
Year 5	• Add using mental strategies • Add whole numbers with more than 4 digits • Add decimals with up to 2 decimal places • Complements to 1 • Add fractions with denominators that are multiples of one another

Prerequisite Knowledge and Skills

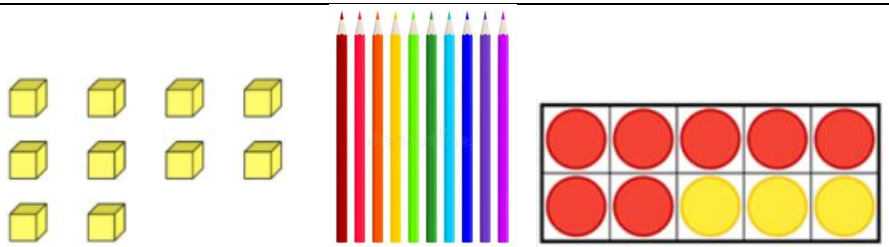
Before children move towards formal written methods of addition, they should demonstrate understanding of the following concepts:

Skill	Example / Representation
Understand that addition can be completed in any order (commutativity).	34 + 56 = 90 or 56 + 34 = 90
Begin addition calculations with the larger number to reduce the amount of counting required.	5 + 27 = Begin with 27 in your head and count on, despite 5 coming first. 27 + 5 = 32
Recall number bonds to 10.	
Recall addition facts for all single-digit numbers.	*1+1=2, 1+2=3, 1+4=5, 2+1=3, 2+2=4, 2+3=5 etc.*
Count forwards in steps of 1, 2, 5, 10 and 100 using a number line.	

Understand that a number line is a continuous representation of numbers and can extend indefinitely.	
Use concrete resources such as multilink, Dienes, Numicon, Cuisenaire rods and other manipulatives to model addition.	
Understand place value. For example, in 327, the 3 represents 300, the 2 represents 20 and the 7 represents 7.	
Partition numbers into hundreds, tens and ones.	
Count forwards and backwards in equal steps of different sizes.	

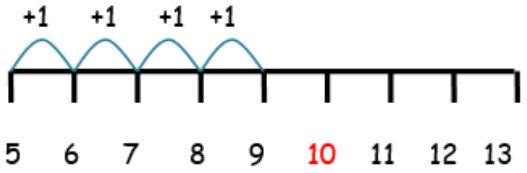
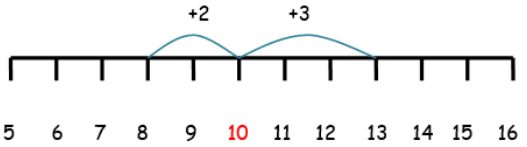
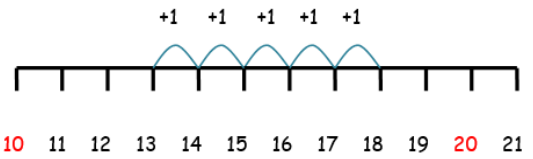
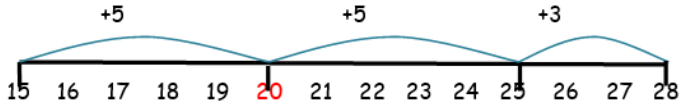
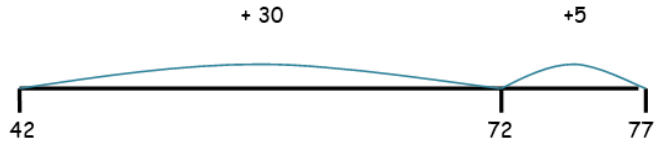
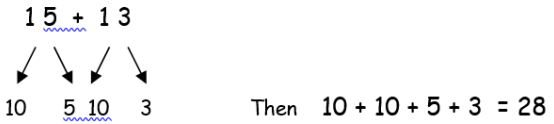
Recall doubles of numbers from 1–10.	
Recall doubles of numbers from 10–20.	Double 12 is 24, (or 2 lots of 12 is 24, or 2 times 12 is 24, or 2 groups of 12 is 24)
Understand that addition increases the value of a number.	
Understand that addition can be completed in any order.	e.g. . 2+3=5 or 3+2=5

Early Addition Development

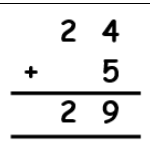
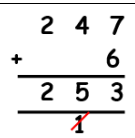
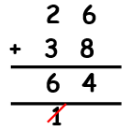
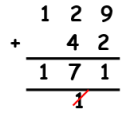
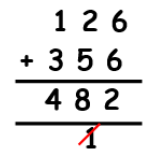
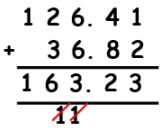
Count up to 10 objects reliably.	
Find one more than a given number.	When given a number, say 13, they can count on to find 'one more' e.g. 14.
Combine two groups to find a total.	
Record calculations using + and = symbols.	2+6=8

Addition – Progression of Methods

Non-Standard Methods

Method	Example / Representation
Count along a number line to add single-digit numbers together to find a total of less than 10. Example: 5 + 4 = 9.	
Add single-digit numbers that bridge to 10 using a number line. Partition the smaller number into two parts, one of which will add to the larger number to make 10. Example: 8 + 5 = 13.	
Add a 2-digit number and a single-digit number using a number line. Example: 13 + 5 = 18.	
Add two 2-digit numbers by bridging through 10 using a number line. Partition the smaller number to reach the next multiple of ten. Example: 13 + 15 = 28.	
Add two 2-digit numbers by adding the most significant digit first using a blank number line. Example: 42 + 35 = 77.	
Partition and recombine. Example: 15 + 13 = 28. (May be taught out of order where appropriate.)	
Add a 3-digit number and a 2-digit number using a number line. Example: 243 + 64.	

Standard Written Methods – Column Addition

Method	Example / Representation
2-digit add 1-digit	
3-digit add 1-digit	
2-digit add 2-digit	
3-digit add 2-digit	
3-digit add 3-digit	
Adding decimals	

Subtraction

Vocabulary

Subtract	Take Away	Minus
Less	Fewer	Difference

Subtraction Progression of Skills

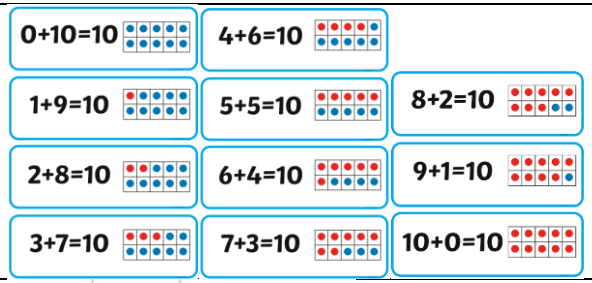
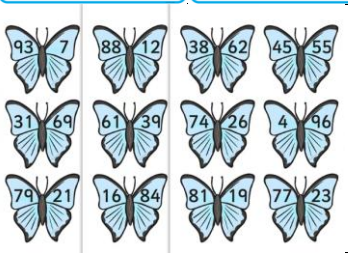
Based on the White Rose Maths Small Steps Progression

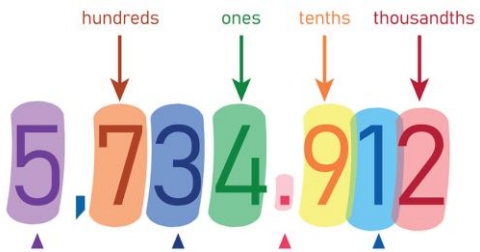
Year Group	Skills Covered
Reception	• Conceptually subitise to 5 • Find 1 less • Notice the composition of numbers within 10 • Partition • Take away
Year 1	• Find a part • Take away • Bonds within 10 • Related facts within 20 • Missing numbers
Year 2	• Subtract 1s from any number (related facts) • Subtract across a 10 • Subtract multiples of 10 • Subtract 10s from any number • Subtract two 2-digit numbers (not across a ten) • Subtract two 2-digit numbers (across a ten) • Missing numbers
Year 3	• Subtract 1s, 10s and 100s from a 3-digit number • Subtract two numbers (no exchange) • Subtract two numbers across a 10 or 100 • Complements to 100 • Subtract fractions with the same denominator within 1 whole
Year 4	• Subtract 1s, 10s, 100s and 1,000s from a 4-digit number • Subtract up to two 4-digit numbers • Subtract decimal numbers in the context of money • Subtract fractions and mixed numbers with the same denominator

Year 5	• Subtract whole numbers with more than 4 digits • Subtract using mental strategies • Subtract decimals with up to 2 decimal places • Complements to 1 • Subtract fractions with denominators that are multiples of one another

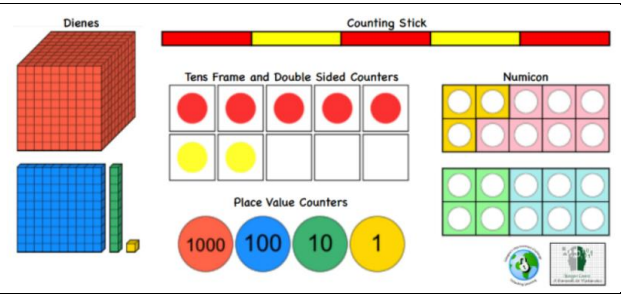
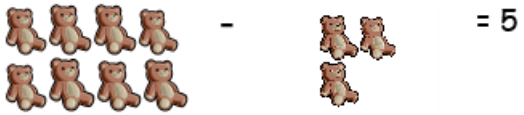
Ideas and Strategies to Master before Formal Written Methods

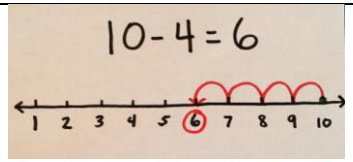
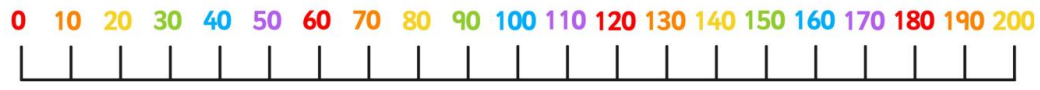
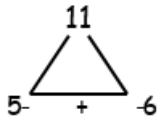
Before children move towards formal written methods of subtraction, they should develop a secure understanding of the following concepts. These skills are not necessarily taught in order and will be revisited as children become ready.

Skill	Example / Representation
Understand that subtraction can be seen in two ways: 'taking away' and 'finding the difference'.	'**Taking away'** is usually used when subtracting a small number from a much larger one – usually **2-digit** subtract a **single digit** like 32 – 6. This is sometimes called 'counting back. 'At Hindon Primary School we will use this method in mental calculations only, as the '**finding the difference'** method has more explicit links to more complex subtraction used further on in school.
Recall number bonds to 10 and the related subtraction facts.	
Recall number bonds to 100 (complements to 100).	
Understand that a number line is a continuous representation of numbers and can extend indefinitely.	

Understand that subtraction cannot be completed in any order. For example, 9 – 4 is not the same as 4 – 9.	*9-4=5 is not the same as 4-9 = -5*
Understand place value. For example, in 327, the 3 represents 300, the 2 represents 20 and the 7 represents 7.	

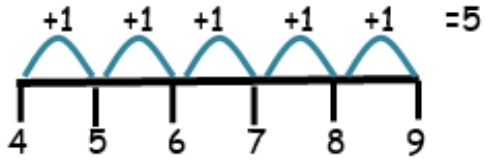
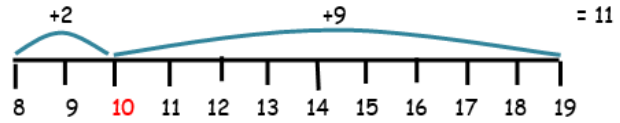
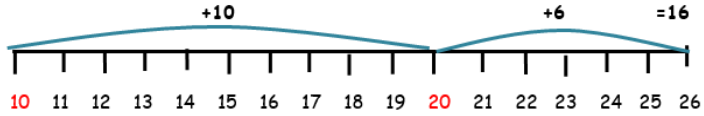
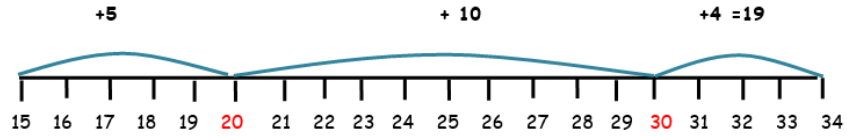
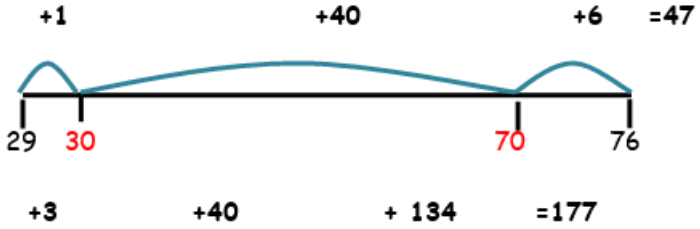
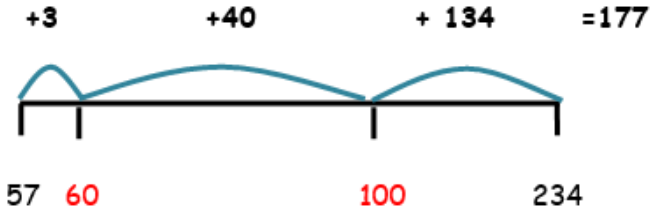
Developing Early Subtraction Skills

Description	Example / Representation
Use concrete apparatus to physically 'take away' from numbers less than 10.	
Find the difference by counting on from the smaller number to the larger number.	*9-4=5. Start at 4 and count on to 9. The 'difference' is the answer.*
Use concrete apparatus or pictures to either 'take away' or 'find the difference' between two groups.	
Count on and count back in 1s or 10s using a number line.	

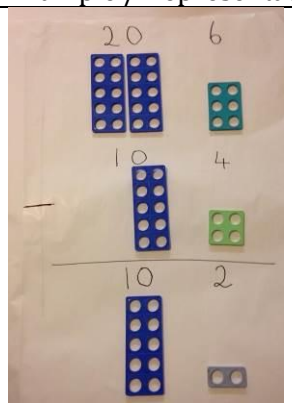
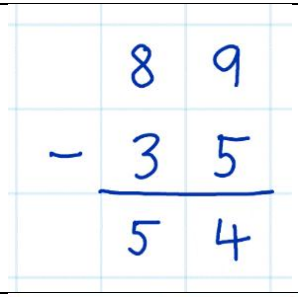
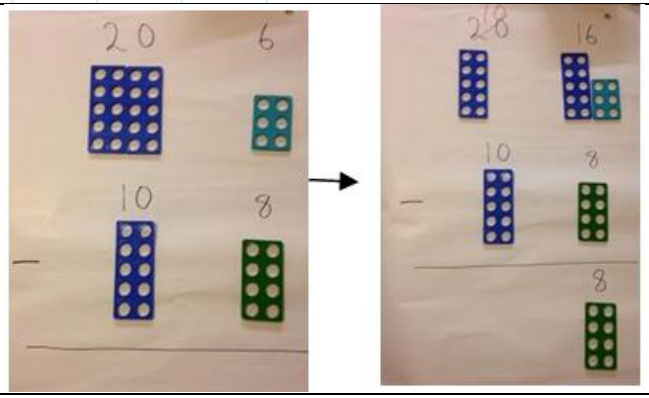
	 
Count forwards and backwards in steps of different sizes from any starting point.	
Find one less than a given number.	*When given a number, say 13, they can **count back** to find 'one less' e.g. 12*
Use – and = signs to record mental calculations in number sentences.	*23- 6 = 17*
Use fact families (inverse operations) to check subtraction calculations.	11-6 = 5 11-5 =6 5+6=11 

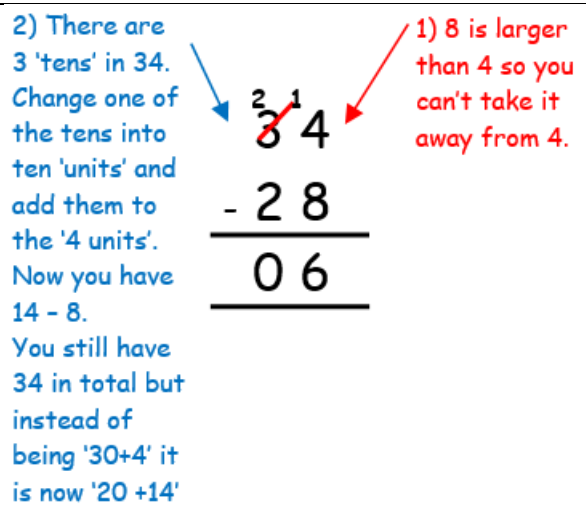
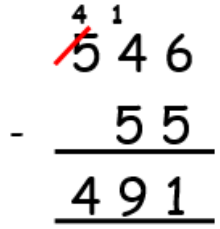
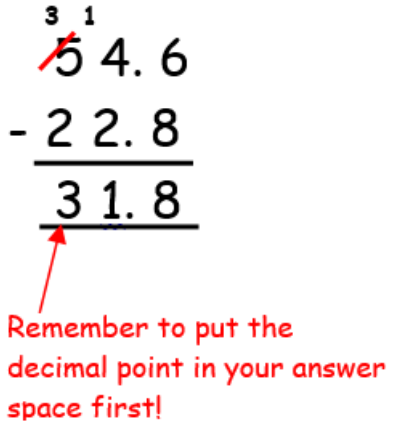
Subtraction – Progression of Methods

Non-Standard Methods

Method	Example / Representation
Use 'counting on' with a number line from a single-digit number less than 10 to another single-digit number less than 10. Example: 9 – 4 = 5.	
Use 'counting on' with a number line from a single digit to a 2-digit number less than 20. Example: 19 – 8 = 11.	
Subtract 10 from a 2-digit number using counting on with a number line. Example: 26 – 10 = 16.	
Use a number line for 2-digit numbers subtracting 2-digit numbers using bridging to ten. Example: 34 – 15 = 19.	
Use a number line for 2-digit numbers subtracting 2-digit numbers, taking bigger jumps to improve efficiency. Example: 76 – 29 = 47.	
Use a number line for 3-digit numbers subtracting 2-digit numbers using efficient bigger jumps. Example: 234 – 57 = 177.	

Standard Written Methods – Column Subtraction

Method	Example / Representation
Use Numicon or Dienes set out in column subtraction for 2-digit subtract 2-digit numbers without exchanging.	
Use column subtraction for 2-digit subtract 2-digit numbers without exchanging.	
Use Numicon or Dienes set out in column subtraction for 2-digit subtract 2-digit numbers with exchanging.	

Use column subtraction for 2-digit subtract 2-digit numbers with exchanging.	
Use column subtraction for 3-digit numbers subtracting 2-digit numbers.	
Use column subtraction for decimal numbers.	

Multiplication

Vocabulary

×	Lots Of	Groups Of	Times
Multiply	Multiplication	Jumps	Multiple
Number Line	Product	Twice	Three Times
Array	Row	Column	Double
Repeated Addition			

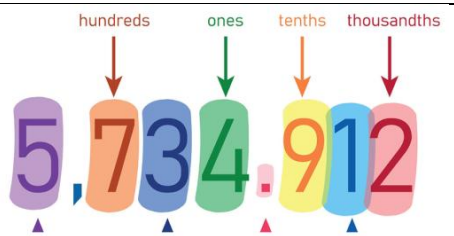
Multiplication Progression of Skills

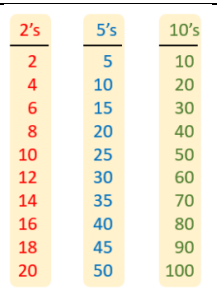
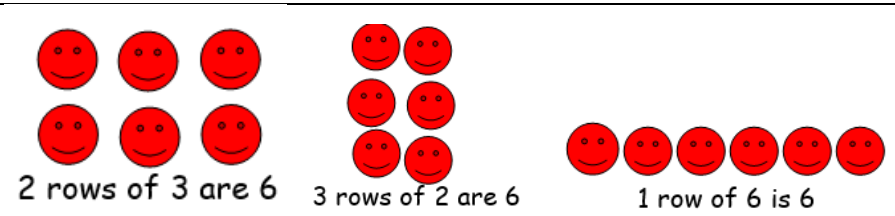
Based on the White Rose Maths Small Steps Progression

Year Group	Skills Covered
Reception	• Double to 10 • Make equal groups
Year 1	• Count in 2s, 5s and 10s • Add equal groups • Make arrays • Make doubles
Year 2	• Link repeated addition and multiplication • Use arrays • Double • The 2 times-table • The 10 times-table • The 5 times-table • Missing numbers
Year 3	• The 3 times-table • The 4 times-table • The 8 times-table • Related facts • Multiply a 2-digit number by a 1-digit number (no exchange) • Multiply a 2-digit number by a 1-digit number (with exchange) • Scaling • Correspondence problems

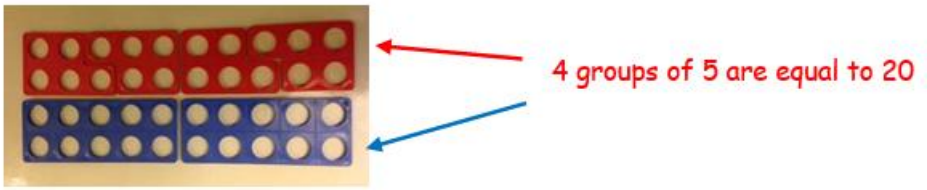
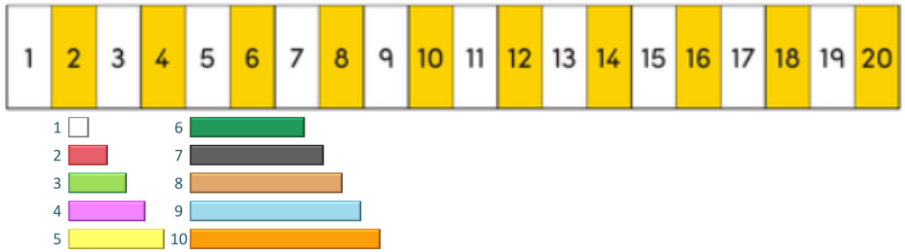
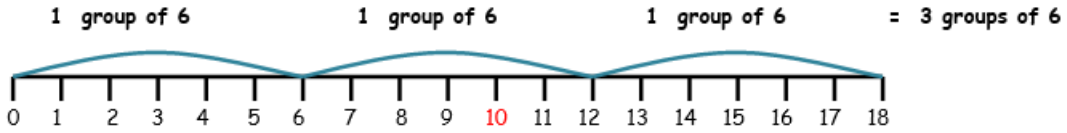
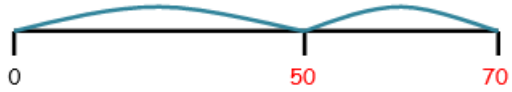
Year 4	• Times-table facts to 12 × 12 • Multiply by 1 and 0 • Multiply 3 numbers • Factor pairs • Multiply by 10 and 100 • Related facts • Mental strategies • Multiply a 2- or 3-digit number by a 1-digit number • Scaling • Correspondence problems
Year 5	• Multiples and factors • Square and cube numbers • Multiply numbers up to 4 digits by a 1-digit number • Multiply numbers up to 4 digits by a 2-digit number • Multiply by 10, 100 and 1,000 • Mental strategies • Multiply fractions by a whole number • Multiply mixed numbers by a whole number • Find the whole
Year 6	• Multiply numbers up to 4 digits by a 2-digit number • Multiply by 10, 100 and 1,000 • Order of operations • Multiply decimals by integers • Multiply fractions by fractions • Find the whole • Calculations involving ratio

Ideas and Strategies to Master before Formal Written Methods

Skill	Example / Representation
Understand place value. For example, in 327, the 3 represents 300, the 2 represents 20 and the 7 represents 7.	

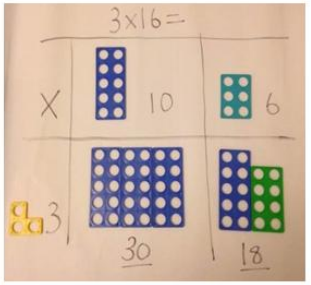
Recognise simple number sequences, such as counting in 2s, 5s and 10s.	
Be able to use methods for addition and subtraction.	(see previous sections)
Know that multiplication can be calculated in any order. For example, 3 × 4 = 12 and 4 × 3 = 12.	*3x4=12 and 4x3=12*
Represent multiplication facts using arrays.	
Understand that multiplication and division are inverse operations.	*2 x 6 = 12 and 12 ÷ 6 = 2*
Double and halve numbers from 1 to 100.	*Double 4 is 8, 4x2=8; half of 8 is 4, 8÷2=4*
Understand that multiplication is repeated addition.	*To find 4 x 3, you add 4 groups of 3, or you add 3 four times :3+3+3+3 =12*

Developing Early Multiplication Skills

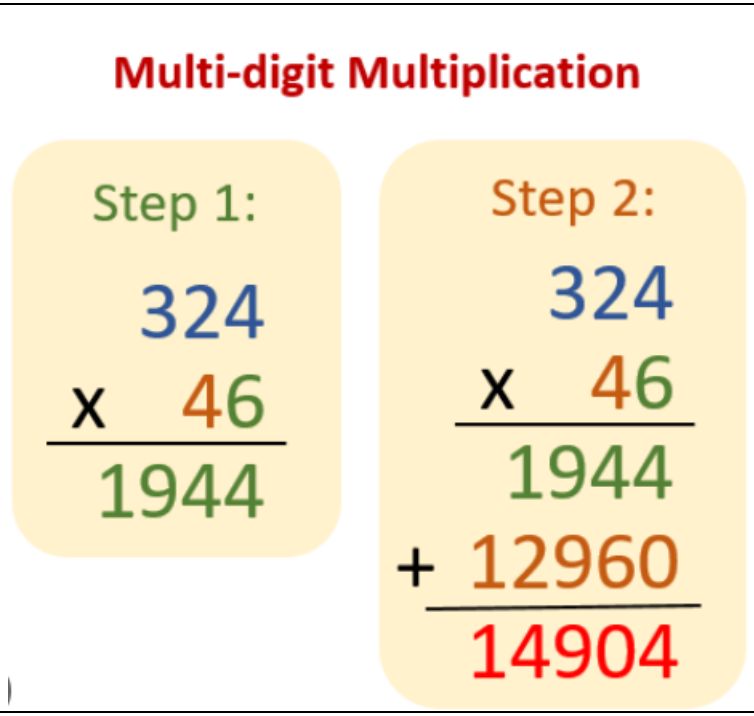
Description	Example / Representation
Put objects into groups of the same number.	
Use Cuisenaire rods or Numicon to multiply using repeated addition. Example: 4 × 5 = 20.	 
Use a numbered number line and record the jumps for single-digit multiplication calculations. Example: 3 × 6. Use a number line for single-digit numbers multiplied by single-digit numbers. Use a number line for 2-digit numbers multiplied by single-digit numbers. Example: 14 × 3.	
Use times table facts to make more efficient jumps on a number line. Example: 14 × 5 can be solved using 10 × 5 and 4 × 5.	

Multiplication – Progression of Methods

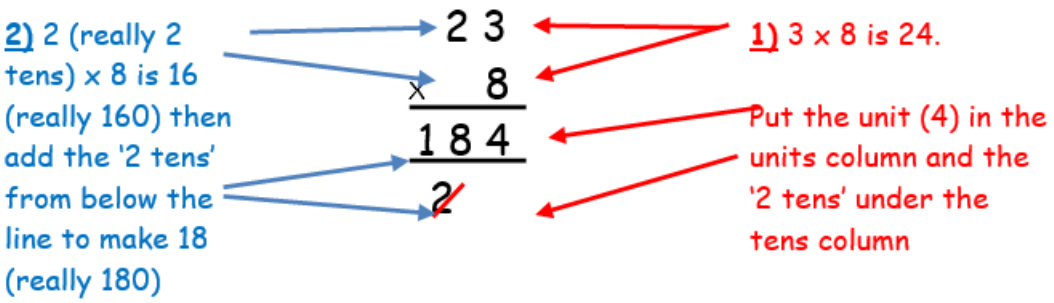
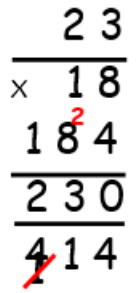
Non-Standard Methods

Method	Example / Representation
Use Dienes or Numicon set out in the Grid Method for 2-digit numbers multiplied by single-digit numbers. Example: 3 × 16 = 48.	1) Partition 16 into 10 and 6 2) Put the 3 in the left column 3) Work out 3x10 and put the answer and the Numicon in the box  3 0 + 1 8 4 8 4) Work out 3x 6 and put the answer and the Numicon in the box 5) Add up the 'mini answers' 30 +18
Use the Grid Method for 2-digit numbers multiplied by single-digit numbers. Partition 24 into 20 and 4, calculate each product, then combine the answers mentally or using column addition. Example: 24 × 3 = 72.	*1st – Partition 24 into 20 and 4* *2nd – Work out 20 x 3 and put the answer in the box* *3rd – Work out 4 x 3 and put the answer in the box* *4th – Add your answers together either mentally or using column addition* X | 20 | 4 3 | 60 | 12 6 0 + 1 2 7 2

Use the Grid Method for 2-digit numbers multiplied by 2-digit numbers. Partition both numbers, calculate each partial product and combine using column addition. Example: 24 × 32 = 768.	(Dienes or Numicon could be used to support if needed) *e.g. 24 x 32 = 768* *1st – Partition 24 into 20 and 4* *2nd –Partition 32 into 30 and 2* *3rd – Work out 20 x 30 and put the answer in the box* *4th – Work out 4 x 30 and put your answer in the box* *5th – Work out 20 x 2 and put your answer in the box* *6th – Work out 4x2 and put your answer in the box* *7th – Add your answers together using column addition* **x** / **20** / **4** **30** / **600** / **120** **2** / **40** / **8** 600 + 120 40 8 768

Use the Grid Method for 3-digit numbers multiplied by 2-digit numbers.	
Use the Grid Method for 3-digit numbers multiplied by 3-digit numbers.	https://www.youtube.com/watch?v=B_bKy8hYur0

Multiplication – Standard Written Methods

Method	Example / Representation
Short Multiplication for 2-digit numbers × single-digit numbers. Example: 23 × 8.	
Long Multiplication for 2-digit numbers × 2-digit numbers. Example: 23 × 18. Long Multiplication for 3-digit numbers × 2-digit numbers. Example: 234 × 64. Long Multiplication for 4-digit numbers × 2-digit numbers. Example: 2345 × 64. Long Multiplication for decimal numbers. Example: 23.4 × 64.7.	1) 8x3 is 24. Write the 4 in the units column and the 2 (really 2tens) under the tens column. 2) 8x2 (really 8x20) is 16 (really 160) add the 2 tens from below the line to make 18 (really 180) 3) Place a '0' in the units column as everything will now be multiplied by a 'tens number'. 4) 1x3 (really 10x3) is 3 (really 30) – Write the 3 in the tens column. 5) 1x2 (really 10x20) is 2 (really 200) Write the 2 in the hundreds column 6) Add up both of your 'mini answers' 

Key Teaching Points

- Multiply the ones first.
- Exchange where necessary.
- Record exchanged values correctly.
- Use place value placeholders when multiplying by tens.
- Add partial products accurately

Division

Vocabulary

÷	Lots Of	Groups Of	Share
Group	Jumps	Number Line	Equal
Halve	Divide	Division	Divided By
Remainder	Factor	Decimal	Decimal Place
Divisible			

Division Progression of Skills

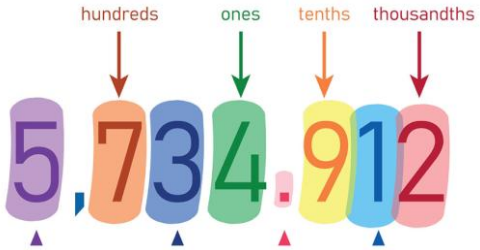
Based on the White Rose Maths Small Steps Progression

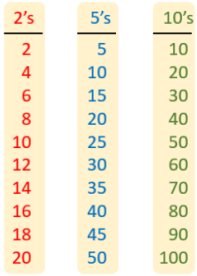
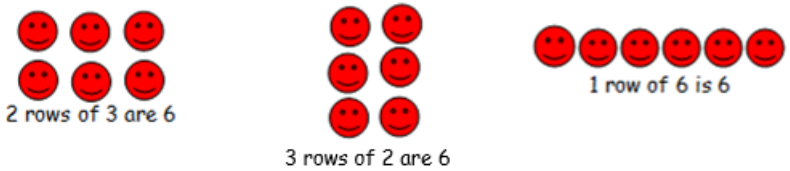
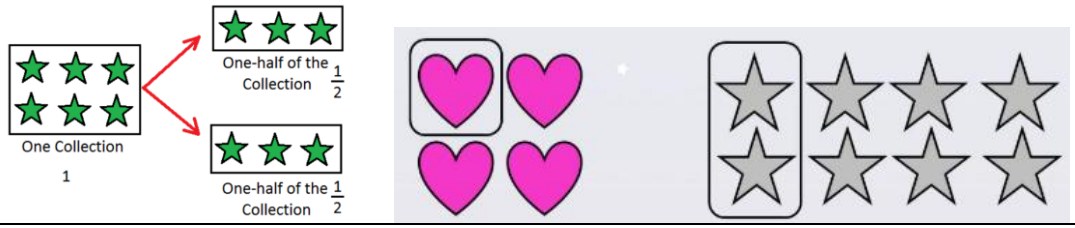
Year Group	Skills Covered
Reception	• Sharing • Grouping
Year 1	• Make equal groups – grouping • Make equal groups – sharing • Find a half • Find a quarter
Year 2	• Divide by 2 • Divide by 10 • Divide by 5 • Missing numbers • Unit fractions • Non-unit fractions
Year 3	• Divide by 3 • Divide by 4 • Divide by 8 • Related facts • Divide a 2-digit number by a 1-digit number (no exchange) • Divide a 2-digit number by a 1-digit number (with remainders) • Unit fractions of a set of objects • Non-unit fractions of a set of objects

Year 4	• Division facts to 12 × 12 • Divide a number by 1 and itself • Related facts • Divide a 2- or 3-digit number by a 1-digit number • Divide by 10 and 100
Year 5	• Mental strategies • Divide numbers up to 4 digits by a 1-digit number • Divide by 10, 100 and 1,000 • Fraction of an amount
Year 6	• Short division • Mental strategies • Long division • Order of operations • Divide by 10, 100 and 1,000 • Divide decimals by integers • Decimal and fraction equivalents • Divide a fraction by an integer • Fraction of an amount • Calculate percentages • Calculations involving ratio

Division- Progression of Methods

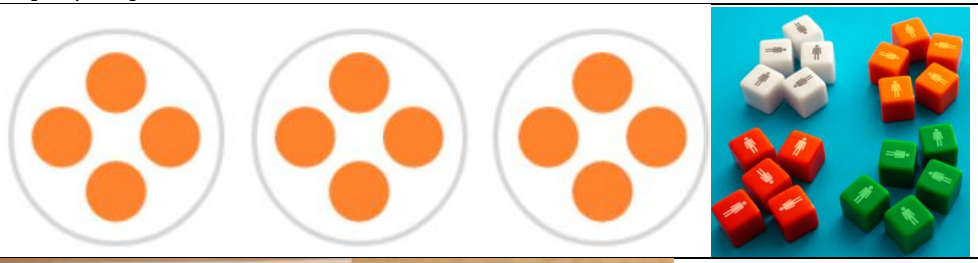
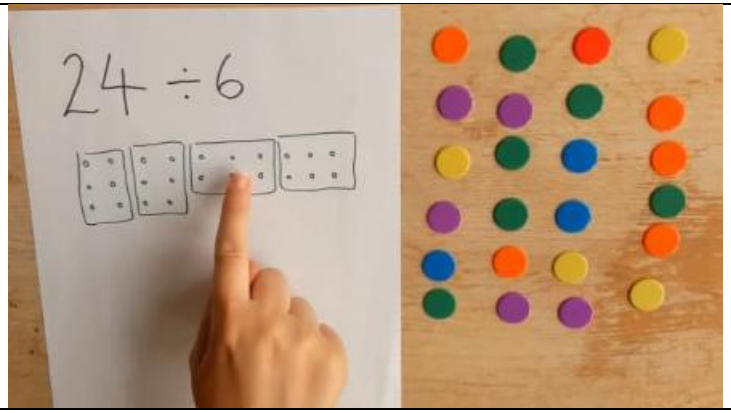
Ideas and Strategies to Master before Formal Written Methods

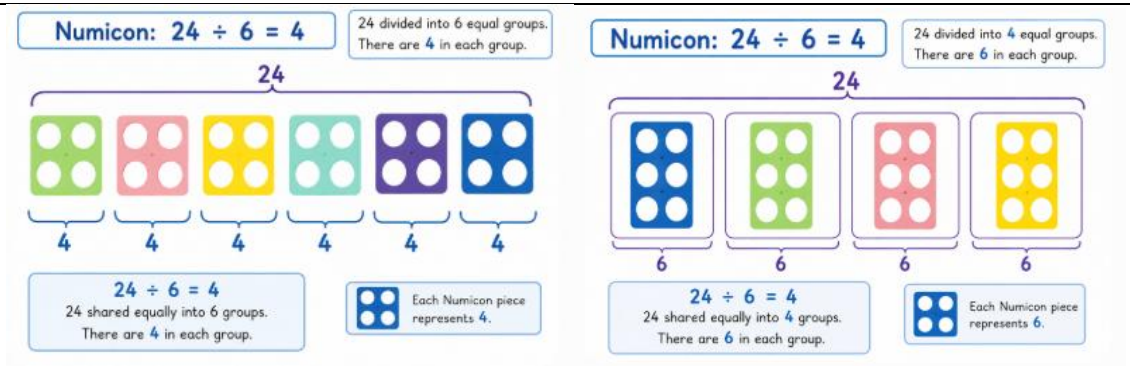
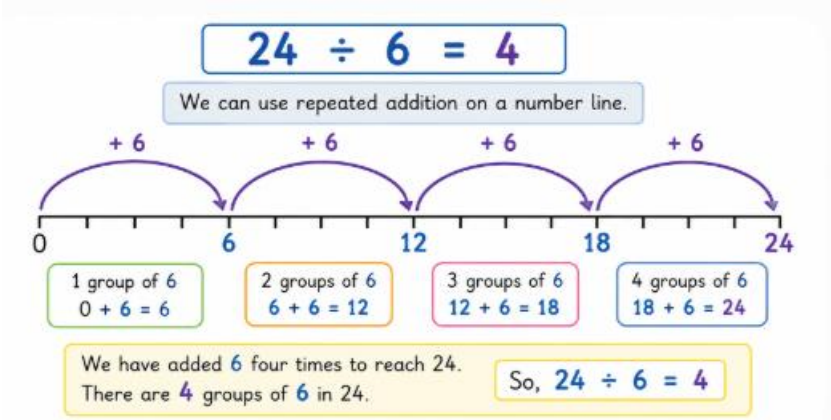
Skill	Example / Representation
Understand place value. For example, in 327, the 3 represents 300, the 2 represents 20 and the 7 represents 7.	
Put objects into groups of the same number.	

	 
Recognise simple number sequences such as counting in 2s, 5s and 10s.	
Be able to use methods for addition and subtraction.	(See addition and Subtraction sections)
Recall multiplication facts up to 12 × 12 and derive related division facts.	*5 x 4 = 20, so 20 ÷ 5 = 4 and 20 ÷ 4 = 5*
Represent multiplication facts using arrays.	
Understand that multiplication and division are inverse operations.	*2 x 6 = 12 and 12 ÷ 6 = 2*
Find one half (½) and one quarter (¼) of groups of objects and whole numbers.	

Double and halve numbers from 1 to 100.	*Double 4 is 8, 4x2=8; half of 8 is 4, 8÷2=4*
Understand that division cannot be calculated in any order.	*12÷4=3 is not the same as 12÷3=4*

Developing Early Division Skills

Description	Example / Representation
Share objects into groups of equal size.	
Use dots, pictures and circles to represent division calculations. Example: 24 ÷ 6 = 4.	
Use Numicon to divide numbers into chunks of equal size. Example: 24 ÷ 6 = 4.	

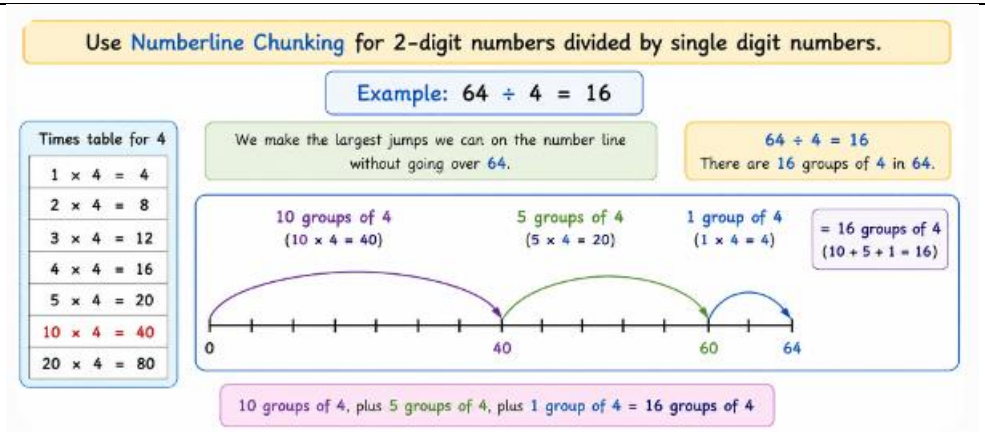
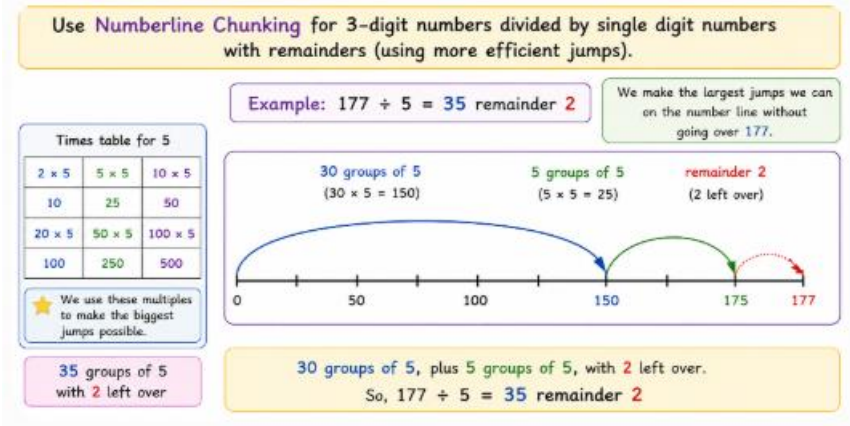
	
Use repeated addition on a numbered number line. Example: 24 ÷ 6 = 4.	

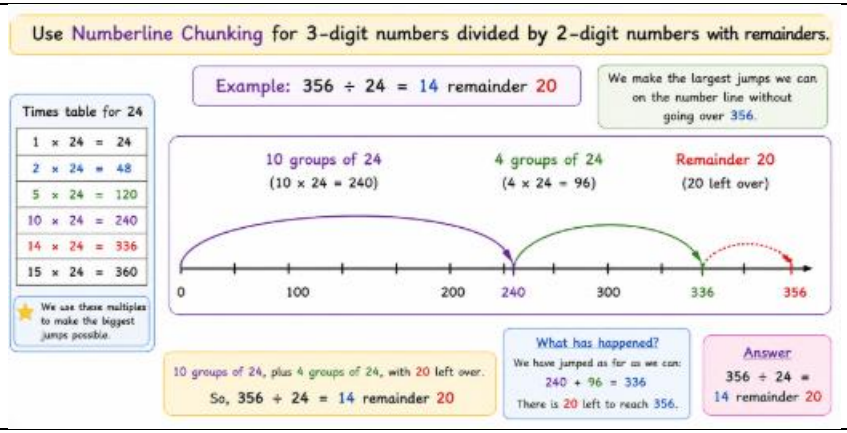
Division – Non-Standard Methods

Chunking is a type of division with several methods. We have decided that Number Line Chunking is more efficient and shares more with other methods, and therefore we are phasing out the use of Column Chunking.

Children who are currently in Years 4, 5 and 6 will continue to use Column Chunking, as this is the method they have already been taught.

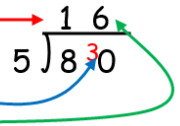
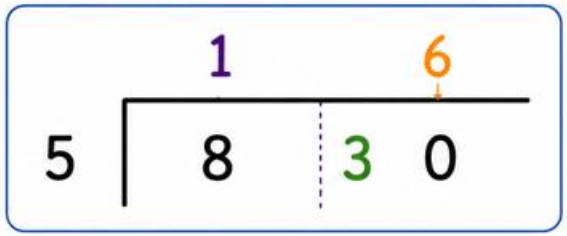
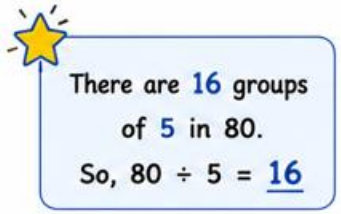
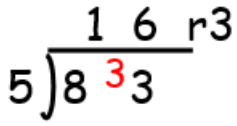
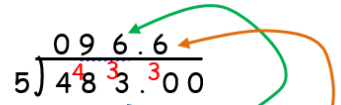
Children who are currently in Reception and Years 1, 2 and 3, who have not yet been taught either method, will be taught Number Line Chunking.

Method	Example / Representation
Use Number Line Chunking for 2-digit numbers divided by single-digit numbers. Example: 64 ÷ 4 = 16.	
Use Number Line Chunking for 3-digit numbers divided by single-digit numbers with remainders (using more efficient jumps). Example: 177 ÷ 5 = 35 remainder 2.	

Use Number Line Chunking for 3-digit numbers divided by 2-digit numbers with remainders.	

Key Teaching Points for Number Line Chunking

- Create a times table for the divisor.
- Draw a number line starting at 0 and ending at the target number.
- Choose the largest multiple that does not exceed the target.
- Record the jump on the number line and the number of groups represented.
- Repeat using the largest possible jumps.
- Count the total number of groups to find the answer.

Method	Example / Representation
Use the Bus Stop Method to divide a 2-digit number by a single-digit number without remainders. Example: 80 ÷ 5 = 16.	1) How many groups of 5 are in 8? 1. Write the '1' above the '8',on the line. 2) How many are left over? 1 group of 5 is 5, and there are 3 more to reach 8. Write this '3' next to the '0' 3) How many groups of 5 are in 30? 6. Write the '6' above the '0' on the line. 4) The answer is 80÷5=40 
Use the Bus Stop Method to divide a 2-digit number by a single-digit number with remainders. Example: 83 ÷ 5 = 16 r3.	**8** Use the Bus Stop Method to divide a 2-digit number by a single-digit number without remainders. Example: 80 ÷ 5 = 16 1 How many groups of 5 are in 8? 1 Write the '1' above the '8' on the line. 2 How many are left over? 1 group of 5 is 5, and there are 3 more to reach 8. Write this '3' next to the '0'. 3 How many groups of 5 are in 30? 6 Write the '6' above the '0' on the line. 4 The answer is 80 ÷ 5 = 16  
Use the Bus Stop Method to divide a 3-digit number by a single-digit number with remainders. Example: 483 ÷ 5 = 96 r3.	
Use the Bus Stop Method to divide a 3-digit number by a single-digit number with a decimal answer. Example: 483 ÷ 5 = 96.6.	1) Complete the steps until you reach the point where there would be a remainder THEN 2) Put a decimal point and two '0' after the big number 3) Put a decimal point after the last number on the line. 4) How many groups of 5 are in 30? '6'. Write the '6' above the line. 
Use the Bus Stop Method to divide a 4-digit number by a single-digit number with a decimal answer. Example: 5483 ÷ 5.	
Use the Bus Stop Method to divide a decimal number by a single-digit number with a decimal answer. Example: 83.7 ÷ 5 = 16.74.	

Division – Standard Written Methods

Key Teaching Points

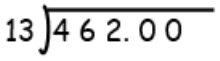
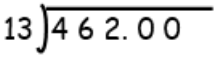
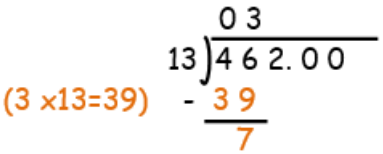
- Divide from left to right.
- Record each quotient digit above the digit being divided.
- Carry remainders forward to the next place value.
- For decimal answers, continue the calculation using placeholder zeros.
- Keep decimal points aligned throughout the calculation.
- Express any final remainder appropriately as a remainder or decimal.

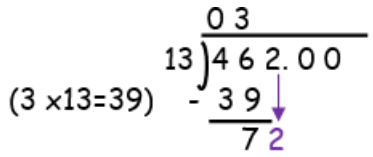
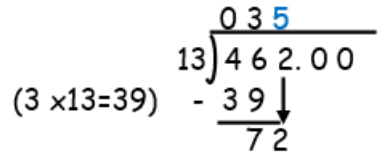
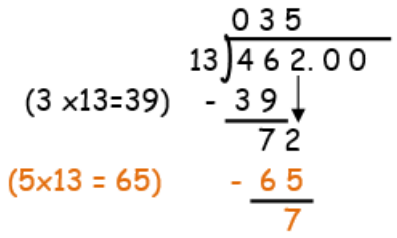
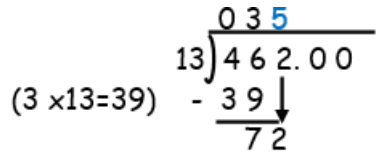
Division – Long Bus Stop Division

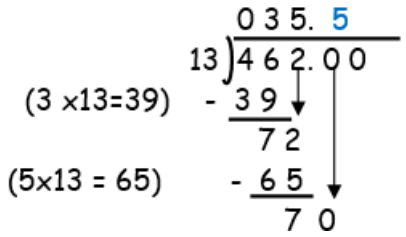
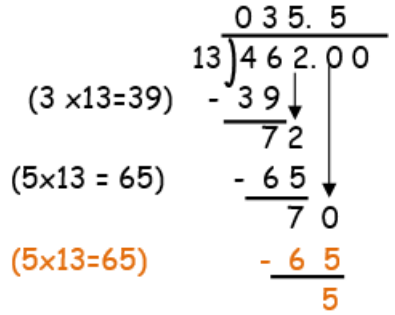
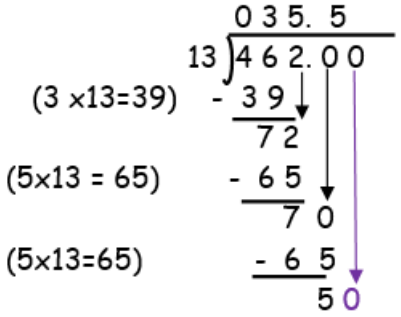
Standard Written Methods

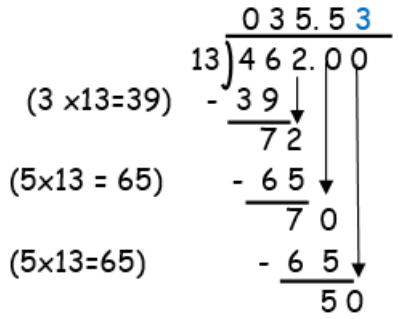
Use Long 'Bus Stop' Division to divide a 3-digit number by a 2-digit number with a decimal answer. Example: 462 ÷ 13 = 35.53.

Use Long 'Bus Stop' Division to divide a decimal number by a 2-digit number with a decimal answer. Example: 462.7 ÷ 13 = 35.59.

Step	Example / Representation
1) Set out the numbers for the calculation (divisor on the left) and put in a decimal point and two '0's	
2) How many groups of 13 are in 4? None. Write a '0' above the 4. **3) How many Groups of 13 are in 46? 3. Write a '3' above the '6'**	
4) What is 3 x 13? 39. Write this '3'9 underneath the '46' and subtract it. Write the answer '7' underneath the '9'	

5) Bring down the '2' and write it next to the '7'	
6) How many groups of 13 are there in 72? 5. Write the '5' above '2' on the answer line	
7) What is 5 x 13? 65. Write '65' below the '72' and subtract it. Write the answer '7' underneath the '5'.	
8) Put the decimal point into the answer line. **9) Bring down the '0' and write it next to the '7'**	

10) How many groups of 13 are in 70? 5. Write the '5' on the answer line above the '0'	
11) What is 5 x13? 65. Write the 65 below the 70 and subtract it. Write the answer 5 underneath the '5'.	
12) Bring down the next '0' and write it next to the '5'	

13) How many groups of 13 are in 50? 3. Write the '3' above the '0' on the answer line.	
14) What is 3 x 13? 39. Write '39' below the '50' and subtract it. Write the answer '11' underneath the '5'. **15) Now there are two decimal places in the answer, you can stop working…** **16) …unless you are going to find 3 decimal places and then round to 2 decimal places**