



## Year 4 Maths Long Term Map

Autumn	Number <b>Place value</b>	Number <b>Addition and subtraction</b>	Measurement <b>Area</b>	Number <b>Multiplication and division A</b>	Consolidation		
Spring	Number <b>Multiplication and division B</b>	Measurement <b>Length and perimeter</b>	Number <b>Fractions</b>	Number <b>Decimals A</b>			
Summer	Number <b>Decimals B</b>	Measurement <b>Money</b>	Measurement <b>Time</b>	Consolidation	Geometry <b>Shape</b>	Statistics	Geometry <b>Position and direction</b>

White Rose Steps		
Number: Place Value	Can you...	National Curriculum Objectives
Step 1: Represent numbers to 1,000	Can you represent numbers to 1000?	<ul style="list-style-type: none"> <li>Read and write numbers up to 1,000 in numerals and words (Y3)</li> <li>Identify, represent and estimate numbers using different representations</li> </ul>
Step 2: Partition numbers to 1,000	Can you partition numbers up to 1000?	<ul style="list-style-type: none"> <li>Identify, represent and estimate numbers using different representations</li> <li>Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones) (Y3)</li> </ul>
Step 3: Number line to 1,000	Can you label, identify and find missing values on number lines to 1000?	<ul style="list-style-type: none"> <li>Identify, represent and estimate numbers using different representations</li> </ul>
Step 4: Thousands	Can you count in thousands and explore multiples of a thousand?	<ul style="list-style-type: none"> <li>Count in multiples of 6, 7, 9, 25 and 1,000</li> </ul>
Step 5: Represent numbers to 10,000	Can you represent numbers to 10,000?	<ul style="list-style-type: none"> <li>Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens and ones)</li> <li>Identify, represent and estimate numbers using different representations</li> </ul>
Step 6: Partition numbers to 10,000	Can you partition numbers to 10,000 into thousands, hundreds, tens and ones?	
Step 7: Flexible partitioning of numbers to 10,000	Can you partition numbers up to 10,000 in different ways?	
Step 8: Find 1, 10, 100, 1,000 more or less	Can you find 1, 10, 100, 1,000 more or less than a number up to 10,000?	<ul style="list-style-type: none"> <li>Find 1,000 more or less than a given number</li> </ul>
Step 9: Number line to 10,000	Can you explore number lines to 10,000?	<ul style="list-style-type: none"> <li>Identify, represent and estimate numbers using different representations</li> <li>Order and compare numbers beyond 1,000</li> <li>Order and compare numbers beyond 1,000</li> </ul>
Step 10: Estimate on a number line to 10,000	Can you estimate on a number line to 10,000?	
Step 11: Compare numbers to 10,000	Can you compare numbers to 10,000?	
Step 12: Order numbers to 10,000	Can you order numbers to 10,000?	
Step 13: Roman Numerals	Can you read and write Roman numerals to 100?	<ul style="list-style-type: none"> <li>Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value</li> </ul>
Step 14: Round to the nearest 10	Can you round to the nearest 10?	<ul style="list-style-type: none"> <li>Round any number to the nearest 10, 100 or 1,000</li> </ul>
Step 15: Round to the nearest 100	Can you round to the nearest 100?	
Step 16: Round to the nearest 1,000	Can you round to the nearest 1000?	

Step 17: Round to the nearest 10, 100 or 1,000	Can you round to the nearest 10, 100 or 1000?	
<b>Number: Addition and Subtraction</b>		
Step 1: Add and subtract 1s, 10s, 100s and 1000s	Can you add and subtract 1s, 10s, 100s and 1000s?	<ul style="list-style-type: none"> <li>Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate</li> <li>Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</li> </ul>
Step 2: Add up to two 4-digit numbers - no exchange	Can you add up to two 4-digit numbers?	
Step 3: Add two 4-digit numbers - one exchange	Can you add two 4-digit numbers with one exchange?	
Step 4: Add two 4-digit numbers - more than one exchange	Can you add two 4-digit numbers with more than one exchange?	
Step 5: Subtract two 4-digit numbers - no exchange	Can you subtract up to two 4-digit numbers?	
Step 6: Subtract two 4-digit numbers - one exchange	Can you subtract two 4-digit numbers with one exchange?	
Step 7: subtract two 4-digit numbers - more than one exchange	Can you subtract two 4-digit numbers with more than one exchange?	
Step 8: Efficient subtraction	Can you use mental and written methods of subtraction to solve problems?	<ul style="list-style-type: none"> <li>Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate</li> </ul>
Step 9: Estimate answers	Can you estimate and use inverse operations to check answers to a subtraction?	<ul style="list-style-type: none"> <li>Estimate and use inverse operations to check answers to a calculation</li> </ul>
Step 10: Checking strategies	Can you check strategies to check answers to a subtraction?	
<b>Measurement: Area</b>		
Step 1: What is area?	Can you explore how to work out the area of rectilinear shapes?	<ul style="list-style-type: none"> <li>Find the area of rectilinear shapes by counting squares</li> </ul>
Step 2: Count squares	Can you find the area of rectilinear shapes by counting squares?	
Step 3: Make Shapes	Can you make rectilinear shapes using a given number of squares?	
Step 4: Compare areas	Can you compare the areas of rectilinear shapes?	
<b>Number: Multiplication and Division A</b>		
Step 1: Multiples of 3	Can you recall multiples of 3?	<ul style="list-style-type: none"> <li>Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> </ul>
Step 2: Multiply and divide by 6	Can you multiply and divide by 6?	

Step 3: 6 times-table and division facts	Can you use the 6 times-table and division facts to solve problems?	<ul style="list-style-type: none"> <li>Recognise and use factor pairs and commutativity in mental calculations</li> </ul>
Step 4: Multiply and divide by 9	Can you multiply and divide by 9?	
Step 5: 9 times-table and division facts	Can you use the 9 times-table and division facts to solve problems?	
Step 6: The 3, 6 and 9 times-tables	Can you recall the 3, 6 and 9 times-tables to solve problems?	
Step 7: Multiply and divide by 7	Can you multiply and divide by 7?	<ul style="list-style-type: none"> <li>Count in multiples of 6, 7, 9, 25 and 1,000</li> <li>Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> </ul>
Step 8: 7 times-table and division facts	Can you use the 7 times-table and division facts to solve problems?	
Step 9: 11 times-table and division facts	Can you use the 11 times-table and division facts to solve problems?	<ul style="list-style-type: none"> <li>Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>Recognise and use factor pairs and commutativity in mental calculations</li> <li>Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</li> </ul>
Step 10: 12 times-table and division facts	Can you use the 12 times-table and division facts to solve problems?	
Step 11: Multiply by 1 and 0	Can you multiply by 1 and 0?	
Step 12: Divide a number by 1 and itself	Can you divide a number by 1 and itself?	
Step 13: Multiply three numbers	Can you multiply three numbers?	

## Consolidation

### Number: Multiplication and Division B

Step 1: Factor pairs	Can you recognise and use factor pairs?	<ul style="list-style-type: none"> <li>Recognise and use factor pairs and commutativity in mental calculations</li> </ul>
Step 2: Use factor pairs	Can you use factor pairs in mental calculations?	
Step 3: Multiply by 10	Can you multiply by 10?	<ul style="list-style-type: none"> <li>Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 (Y5)</li> </ul>
Step 4: Multiply by 100	Can you multiply by 100?	
Step 5: Divide by 10	Can you divide by 10?	
Step 6: Divide by 100	Can you divide by 100?	<ul style="list-style-type: none"> <li>Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</li> </ul>
Step 7: Related facts - multiplication and division	Can you solve problems using related facts for multiplication and division?	
Step 8: Informal written methods for multiplication	Can you use informal written methods for multiplication?	<ul style="list-style-type: none"> <li>Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</li> <li>Recognise and use factor pairs and commutativity in mental calculations</li> </ul>

Step 9: Multiply a 2-digit number by a 1-digit number	Can you multiply a 2-digit number by a 1-digit number?	<ul style="list-style-type: none"> <li>Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout</li> </ul>
Step 10: Multiply a 3-digit number by a 1-digit number	Can you multiply a 3-digit number by a 1-digit number?	
Step 11: Divide a 2-digit number by a 1-digit number (1)	Can you divide a 2-digit number by a 1-digit number?	<ul style="list-style-type: none"> <li>Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers</li> </ul>
Step 12: Divide a 2-digit number by a 1-digit number (2)	Can you divide a 2-digit number by a 1-digit number?	
Step 13: Divide a 3-digit number by a 1-digit number	Can you divide a 3-digit number by a 1-digit number?	
Step 14: Correspondence problems	Can you solve problems involving multiplication and division?	<ul style="list-style-type: none"> <li>Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</li> </ul>
Step 15: Efficient multiplication	Can you solve problems using the most efficient multiplication?	

### Measurement: Length and Perimeter

Step 1: Measure in kilometres and metres	Can you measure in kilometres and metres?	<ul style="list-style-type: none"> <li>Convert between different units of measure [for example, kilometre to metre; hour to minute]</li> </ul>
Step 2: Equivalent lengths (kilometres and metres)	Can you find equivalent lengths using kilometres and metres?	
Step 3: Perimeter on a grid	Can you find the perimeter using a grid?	<ul style="list-style-type: none"> <li>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> </ul>
Step 4: Perimeter of a rectangle	Can you find the perimeter of a rectangle?	
Step 5: Perimeter of rectilinear shapes	Can you find the perimeter of rectilinear shapes?	
Step 6: Find missing lengths in rectilinear shapes	Can you find missing lengths in rectilinear shapes?	
Step 7: Calculate the perimeter of rectilinear shapes	Can you calculate the perimeter of rectilinear shapes?	
Step 8: Perimeter of regular polygons	Can you find the perimeter of regular polygons?	
Step 9: Perimeter of polygons	Can you find the perimeter of polygons?	

### Number: Fractions

Step 1: Understand the whole	Can you understand the whole?	<ul style="list-style-type: none"> <li>Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators (Y3)</li> </ul>
Step 2: Count beyond 1	Can you count beyond 1?	
Step 3: Partition a mixed number	Can you partition a mixed number?	

Step 4: Number lines with mixed numbers	Can you explore mixed numbers using a number line?	This small step is not taken from the Year 4 National Curriculum. It is included to take into account the non-statutory DfE Ready to Progress guidance.
Step 5: Compare and order mixed numbers	Can you compare and order mixed numbers?	
Step 6: Understand improper fractions	Can you understand improper fractions?	
Step 7: Convert mixed numbers to improper fractions	Can you convert mixed numbers to improper fractions?	
Step 8: Convert improper fractions to mixed numbers	Can you convert improper fractions to mixed numbers?	
Step 9: Equivalent fractions on a number line	Can you find equivalent fractions on a number line?	<ul style="list-style-type: none"> <li>Recognise and show, using diagrams, families of common equivalent fractions</li> </ul>
Step 10: Equivalent fraction families	Can you find equivalent fraction families?	
Step 11: Add two or more fractions	Can you add two or more fractions?	<ul style="list-style-type: none"> <li>Add and subtract fractions with the same denominator</li> </ul>
Step 12: Add fractions and mixed numbers	Can you add fractions and mixed numbers?	
Step 13: Subtract two fractions	Can you subtract two fractions?	
Step 14: Subtract from whole amounts	Can you subtract from whole amounts?	
Step 15: Subtract from mixed numbers	Can you subtract from mixed numbers?	
<b>Number: Decimals A</b>		
Step 1: Tenths as a fraction	Can you recognise tenths as a fraction?	<ul style="list-style-type: none"> <li>Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers or quantities by 10 (Y3)</li> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> </ul>
Step 2: Tenths as decimals	Can you recognise tenths as decimals?	
Step 3: Tenths on a place value chart	Can you recognise tenths on a place value chart?	<ul style="list-style-type: none"> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>Compare numbers with the same number of decimal places up to 2 decimal places</li> </ul>
Step 4: Tenths on a number line	Can you recognise tenths on a number line?	

Step 5: Divide a 1-digit number by 10	Can you divide a 1-digit number by 10?	<ul style="list-style-type: none"> <li>Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> </ul>
Step 6: Divide a 2-digit number by 10	Can you divide a 2-digit number by 10?	<ul style="list-style-type: none"> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> </ul>
Step 7: Hundredths as fractions	Can you recognise hundredths as fractions?	<ul style="list-style-type: none"> <li>Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10</li> <li>Recognise and show, using diagrams, families of common equivalent fractions</li> </ul>
Step 8: Hundredths as decimals	Can you recognise hundredths as decimals?	<ul style="list-style-type: none"> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>Compare numbers with the same number of decimal places up to 2 decimal places</li> </ul>
Step 9: Hundredths on a place value chart	Can you recognise hundredths on a place value chart?	
Step 10: Divide a 1- or 2-digit number by 100	Can you divide a 1- or 2-digit number by 100?	<ul style="list-style-type: none"> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> </ul>

### Number: Decimals B

Step 1: Make a whole with tenths	Can you make a whole with tenths?	<ul style="list-style-type: none"> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>Solve simple measure and money problems involving fractions and decimals to 2 decimal places</li> </ul>
Step 2: Make a whole with hundredths	Can you make a whole with hundredths?	
Step 3: Partition decimals	Can you partition decimals?	
Step 4: Flexibly partition decimals	Can you flexibly partition decimals?	
Step 5: Compare decimals	Can you compare decimals?	<ul style="list-style-type: none"> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>Compare numbers with the same number of decimal places up to 2 decimal places</li> </ul>
Step 6: Order decimals	Can you order decimals?	
Step 7: Round to the nearest whole number	Can you round to the nearest whole number?	<ul style="list-style-type: none"> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>Round decimals with 1 decimal place to the nearest whole number</li> </ul>
Step 8: Halves and quarters as decimals	Can you recognise halves and quarters as decimals?	<ul style="list-style-type: none"> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> </ul>

		<ul style="list-style-type: none"> <li>Recognise and write decimal equivalents to 1 4, 1 2 and 3 4</li> </ul>
<b>Measurement: Money</b>		
Step 1: Write money using decimals	Can you write money using decimals?	<ul style="list-style-type: none"> <li>Estimate, compare and calculate different measures, including money in pounds and pence</li> </ul>
Step 2: Convert between pounds and pence	Can you convert between pounds and pence?	
Step 3: Compare amounts of money	Can you compare amounts of money?	
Step 4: Estimate with money	Can you estimate with money?	
Step 5: Calculate with money	Can you calculate with money?	
Step 6: Solve problems with money	Can you solve problems with money?	
<b>Measurement: Time</b>		
Step 1: Years, months, weeks and days	Can you solve problems involving years, months, weeks and days?	<ul style="list-style-type: none"> <li>Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days</li> </ul>
Step 2: Hours, minutes and seconds	Can you solve problems involving hours, minutes and seconds?	
Step 3: Convert between analogue and digital times	Can you convert between analogue and digital times?	<ul style="list-style-type: none"> <li>Read, write and convert time between analogue and digital 12- and 24-hour clocks</li> </ul>
Step 4: Convert to the 24-hour clock	Can you convert to the 24-hour clock?	
Step 5: Convert from the 24-hour clock	Can you convert from the 24-hour clock?	
<b>Consolidation</b>		
<b>Geometry: Shape</b>		
Step 1: Understand angles as turns	Can you understand angles as turns?	<ul style="list-style-type: none"> <li>Recognise angles as a property of shape or a description of a turn (Y3)</li> </ul>
Step 2: Identify angles	Can you identify various angles?	
Step 3: Compare and order angles	Can you compare and order angles?	<ul style="list-style-type: none"> <li>Identify acute and obtuse angles and compare and order angles up to two right angles by size</li> </ul>
Step 4: Triangles	Can you compare and classify triangles?	
Step 5: Quadrilaterals	Can you compare and classify quadrilaterals?	
Step 6: Polygons	Can you compare and classify polygons?	<ul style="list-style-type: none"> <li>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> </ul>
Step 7: Lines of symmetry	Can you identify lines of symmetry?	
Step 8: Complete a symmetric figure	Can you complete a symmetric figure?	



<b>Statistics</b>		
Step 1: Interpret charts	Can you interpret charts?	<ul style="list-style-type: none"> <li>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</li> </ul>
Step 2: Comparison, sum and difference	Can you solve comparison, sum and difference problems using information presented in charts, tables of graphs?	<ul style="list-style-type: none"> <li>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and line graphs</li> <li>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</li> </ul>
Step 3: Interpret line graphs	Can you interpret line graphs?	
Step 4: Draw line graphs	Can you draw line graphs?	
<b>Geometry: Position and Direction</b>		
Step 1: Describe position using coordinates	Can you describe position using coordinates?	<ul style="list-style-type: none"> <li>Describe positions on a 2-D grid as coordinates in the first quadrant</li> </ul>
Step 2: Plot coordinates	Can you plot coordinates?	<ul style="list-style-type: none"> <li>Describe positions on a 2-D grid as coordinates in the first quadrant</li> <li>Plot specified points and draw sides to complete a given polygon</li> <li>Plot specified points and draw sides to complete a given polygon</li> <li>Describe movements between positions as translations of a given unit to the left/right and up/down</li> </ul>
Step 3: Draw 2-D shapes on a grid	Can you draw 2-D shapes on a grid?	
Step 4: Translate on a grid	Can you translate on a grid?	
Step 5: Describe translation on a grid	Can you describe translations on a grid?	