

# Year 5 term 3&4



*Points in italics are either where statements have been moved from other year groups or to support progression where no statement is given*

## **Oral and Mental calculation**

- Read and write any number and use decimal notation for tenths and hundredths and know what each digit represents.
- Count forwards and backwards in steps of 0.01, 0.1, 1, 10, 100 and 1000 from any positive number or decimal.
- Count forwards and backwards in equal steps and describe any patterns in the sequence
- Count forward and backwards with both negative and positive numbers through zero
- Count forwards and backwards with fractions.
- Order and compare whole numbers up to 1 000 000, negative numbers and decimals with up to two decimal places.
- Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place e.g.  $4.6 + 5.4 = 10$ ).
- Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places (e.g.  $0.39 + 0.61 = 1$ )).
- Use partitioning to double or halve any number, including decimals to two decimal places.
- Know by heart facts for all multiplication tables up to  $12 \times 12$
- Multiply and divide whole numbers and decimals with up to two decimal places mentally by 10 or 100, and numbers by 1000 – *link to converting measures*
- Find all the factor pairs of a number,
- Find the common factors of two numbers.
- Round whole numbers to the nearest 10, 100, 1000 or a number with up to two decimal places to the nearest integer or number of decimal places.
- Count in fraction or decimal steps

Week	Main focus of teaching
1	<p><b>Number and place value to solve problems</b></p> <ul style="list-style-type: none"> <li>• <i>Identify the value of each digit to two decimal place- using images or manipulatives- in a 6 or 7 digit numbers.</i></li> <li>• <i>Read and write numbers with two decimal places supported by images or manipulatives</i></li> <li>• <i>Round 6 or 7 digit numbers to the nearest 100 or 1000 using a number line</i></li> <li>• <i>Compare and order numbers with two decimal places on an empty number line –supported by images or manipulatives.</i></li> </ul>

# Year 5 term 3&4



*Points in italics are either where statements have been moved from other year groups or to support progression where no statement is given*

	<ul style="list-style-type: none"> <li>• <i>Partition numbers into ones, tenths and hundredths (for example, <math>37.49 = 30+7 + 0.4 +0.09</math> supported by practical resources</i></li> <li>• Round decimals with two decimal places to the nearest whole number and to one decimal place <i>using a number line.</i></li> <li>• Solve problems involving number up to two decimal places.</li> </ul>
2	<p><b>Addition and subtraction to solve problems</b></p> <ul style="list-style-type: none"> <li>• Estimate answers –including using rounding</li> <li>• <i>Consider the most appropriate strategy to solve a calculation: calculate mentally, use a jotting or a written method</i></li> <li>• Add two or more whole numbers with more than 4 digits including using a compact written method of addition</li> <li>• Add two or more decimals numbers with up to two decimal places, including using a compact written method of addition</li> <li>• Subtract whole numbers with more than 4 digits including using a compact written method of subtraction</li> <li>• Subtract decimals numbers with up to two decimal places, including using a compact written method of subtraction</li> <li>• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> <li>• Solve problems involving addition, subtraction, multiplication and division and combinations of these</li> </ul>
3	<p><b>Measures – area to solve problems</b></p> <ul style="list-style-type: none"> <li>• <i>Revise finding the area of polygons by counting squares (year 4)</i></li> <li>• <i>Link area to arrays and use multiplication to find area</i></li> <li>• Calculate the area of rectangles (including squares), using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>)</li> <li>• Estimate(<i>and find</i>) the area of irregular shapes.</li> <li>• Compare the area of rectangles (including squares), using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>)</li> <li>• <i>Solve problems involving area</i></li> </ul>
4	<p><b>Measures-length, mass and capacity to solve problems</b></p> <ul style="list-style-type: none"> <li>• Estimate <i>and work practically with measures</i></li> <li>• Use, read and write standard units of length to a suitable degree of accuracy.</li> <li>• Use, read and write standard units of mass to a suitable degree of accuracy</li> </ul>

# Year 5 term 3&4



*Points in italics are either where statements have been moved from other year groups or to support progression where no statement is given*

	<ul style="list-style-type: none"><li>• Use, read and write standard units of capacity to a suitable degree of accuracy.</li><li>• Estimate (<i>and find</i>) volume (for example, using <math>1 \text{ cm}^3</math> blocks to build cuboids (including cubes)</li><li>• Estimate (<i>and find</i>) capacity (for example, using water).</li><li>• Estimate answers to calculations including using rounding</li><li>• <i>Consider the most appropriate strategy to solve a calculation: calculate mentally, use a jotting or a written method</i></li><li>• Add and subtract to solve problems involving measures <i>including those involving</i> decimal numbers up to two decimal place</li></ul>
5	<p><b>Fractions to solve problems</b></p> <ul style="list-style-type: none"><li>• Continue to compare and order fractions whose denominators are all multiples of the same number <i>on a number line</i></li><li>• <i>Be introduced to</i> mixed number and improper fractions-<i>practically or with diagrams</i></li><li>• <i>Write a mixed number e.g. <math>1\frac{1}{5}</math> and explain its meaning</i></li><li>• <i>Write an improper fraction e.g. <math>11/6</math> and explain its meaning</i></li><li>• Convert mixed numbers to and improper fractions and vice versa. <i>Revise adding fractions with the same denominator (using practical models and /or diagrams). (year 4)</i></li><li>• <i>Revise subtracting fractions with the same denominator (using practical models and /or diagrams) (year 4)</i></li><li>• Add fractions with denominators that are multiples of the same number <i>(using practical models and /or diagrams). – link to equivalent fractions and factors</i></li><li>• Subtract fractions with denominators that are multiples of the same number <i>(using practical models and /or diagrams).- link to equivalent fractions and factors</i></li><li>• Write mathematical statements involving adding or subtracting fraction</li><li>• Convert an improper fraction answer to a mixed number, e.g. <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}</math>.</li></ul>

# Year 5 term 3&4



*Points in italics are either where statements have been moved from other year groups or to support progression where no statement is given*

6	<p><b>Multiplication to solve problems</b></p> <ul style="list-style-type: none"><li>• Estimate answers and use rounding</li><li>• <i>Consider the most appropriate strategy to solve a calculation: calculate mentally, use a jotting or a written method</i></li><li>• Multiply numbers up to 4 digits by a one- or two-digit number using a compact written method, including long multiplication for two-digit numbers.</li><li>• Solve problems involving multiplication including using their knowledge of factors and multiples, cubes and squares.</li><li>• Solve problems involving multiplication, including<ul style="list-style-type: none"><li>➤ scaling by simple fractions</li><li>➤ problems involving simple rates.</li></ul></li><li>• Solve problems involving addition, subtraction, multiplication and division and combinations of these</li></ul>
7	<p><b>Shape and position and direction to solve problems</b></p> <ul style="list-style-type: none"><li>• Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</li><li>• Use the properties of rectangles to calculate missing lengths and angles.</li><li>• Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.</li><li>• Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</li><li>• Continue to draw given angles, and measure them in degrees (<math>^{\circ}</math>).</li><li>• Identify angles at a point and one whole turn (total <math>360^{\circ}</math>).</li><li>• Identify angles at a point on a straight line and a turn (total <math>180^{\circ}</math>).</li><li>• Identify other multiples of <math>90^{\circ}</math>.</li><li>• Solve problems involving shapes</li><li>• Solve problems involving angles</li></ul>
8	<p><b>Position and Direction to solve problems</b></p> <ul style="list-style-type: none"><li>• Describe positions on the first quadrant of a coordinate grid.</li><li>• Plot specified points and complete shapes.</li><li>• Identify, describe and represent the position of a shape following a reflection using the appropriate language, and know that the shape has not changed.</li><li>• Identify, describe and represent the position of a shape following a</li></ul>

# Year 5 term 3&4



*Points in italics are either where statements have been moved from other year groups or to support progression where no statement is given*

	<p>translation, using the appropriate language, and know that the shape has not changed</p> <ul style="list-style-type: none"><li>• Solve problems involving position and/ or direction</li></ul>	
9	<p><b>Division to solve problems</b></p> <ul style="list-style-type: none"><li>• Estimate answers</li><li>• <i>Consider the most appropriate strategy to solve a calculation: calculate mentally, use a jotting or a written method</i></li><li>• Divide numbers up to 4 digits by a one-digit number using a written method of short division</li><li>• interpret remainders appropriately for the context.</li><li>• Solve problems involving addition, subtraction, multiplication and division and combinations of these</li><li>• Solve problems involving division, including<ul style="list-style-type: none"><li>➤ scaling by simple fractions</li><li>➤ problems involving simple rates.</li></ul></li></ul>	
10	<p><b>Assess and review</b></p>	