

Sheerness West Federation  
Progression in Maths Year 3 and 4

	<u>Year 3</u>	<u>Year 4</u>
<b>Number and place value</b>	<ul style="list-style-type: none"> <li>I can count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</li> <li>I can recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> <li>I can compare and order numbers up to 1000</li> <li>I can identify, represent and estimate numbers using different representations</li> <li>I can read and write numbers up to 1000 in numerals and in words</li> <li>I can solve number problems and practical problems involving these ideas.</li> </ul>	<ul style="list-style-type: none"> <li>I can count in multiples of 6, 7, 9, 25 and 1000</li> <li>I can find 1000 more or less than a given number</li> <li>I can count backwards through zero to include negative numbers</li> <li>I can recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>I can order and compare numbers beyond 1000</li> <li>I can identify, represent and estimate numbers using different representations</li> <li>I can round any number to the nearest 10, 100 or 1000</li> <li>I can solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> <li>I can 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>
<b>Number – addition and subtraction</b>	<ul style="list-style-type: none"> <li>I can add and subtract numbers mentally, including: <ul style="list-style-type: none"> <li>a three-digit number and ones</li> <li>a three-digit number and tens</li> <li>a three-digit number and hundreds</li> </ul> </li> <li>I can add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</li> <li>I can estimate the answer to a calculation and use inverse operations to check answers</li> <li>I can solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>	<ul style="list-style-type: none"> <li>I can add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</li> <li>I can estimate and use inverse operations to check answers to a calculation</li> <li>I can solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul>
<b>Number – multiplication and division</b>	<ul style="list-style-type: none"> <li>I can recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</li> <li>I can write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</li> <li>I can solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</li> </ul>	<ul style="list-style-type: none"> <li>I can recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>I can 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> <li>I can recognise and use factor pairs and commutativity in mental calculations</li> <li>I can multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>I can solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</li> </ul>
<b>Number - fractions</b>	<ul style="list-style-type: none"> <li>I can count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10</li> <li>I can recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> <li>I can recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</li> <li>I can recognise and show, using diagrams, equivalent fractions with small denominators</li> <li>I can add and subtract fractions with the same denominator within one whole e.g. <math>\frac{2}{7} + \frac{3}{7} = \frac{5}{7}</math></li> <li>I can compare and order unit fractions, and fractions with the same denominators</li> <li>I can solve problems that involve all of the above.</li> </ul>	<ul style="list-style-type: none"> <li>I can recognise and show, using diagrams, families of common equivalent fractions</li> <li>I can count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</li> <li>I can solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number</li> <li>I can add and subtract fractions with the same denominator</li> <li>I can recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>I can recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{3}{4}</math></li> <li>I can find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> <li>I can round decimals with one decimal place to the nearest whole number</li> <li>I can compare numbers with the same number of decimal places up to two decimal places</li> <li>I can solve simple measure and money problems involving fractions and decimals to two decimal places.</li> </ul>
<b>Measurement</b>	<ul style="list-style-type: none"> <li>I can measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> <li>I can measure the perimeter of simple 2-D shapes</li> <li>I can add and subtract amounts of money to give change, using both £ and p in practical contexts</li> <li>I can tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</li> <li>I can estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight</li> <li>I can know the number of seconds in a minute and the number of days in each month, year and leap year</li> <li>I can compare durations of events [for example to calculate the time taken by particular events or tasks].</li> </ul>	<ul style="list-style-type: none"> <li>I can convert between different units of measure [for example, kilometre to metre; hour to minute]</li> <li>I can measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>I can find the area of rectilinear shapes by counting squares</li> <li>I can estimate, compare and calculate different measures, including money in pounds and pence</li> <li>I can read, write and convert time between analogue and digital 12- and 24-hour clocks</li> <li>I can solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> </ul>
<b>Geometry – Properties of shape</b>	<ul style="list-style-type: none"> <li>I can draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</li> <li>I can recognise angles as a property of shape or a description of a turn</li> <li>I can identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle</li> <li>I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</li> </ul>	<ul style="list-style-type: none"> <li>I can compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>I can identify acute and obtuse angles and compare and order angles up to two right angles by size</li> <li>I can identify lines of symmetry in 2-D shapes presented in different orientations</li> <li>I can complete a simple symmetric figure with respect to a specific line of symmetry.</li> </ul>

<b>Geometry – position and direction</b>		<ul style="list-style-type: none"> <li>• I can describe positions on a 2-D grid as coordinates in the first quadrant</li> <li>• I can describe movements between positions as translations of a given unit to the left/right and up/down</li> <li>• I can plot specified points and draw sides to complete a given polygon.</li> </ul>
<b>Statistics</b>	<ul style="list-style-type: none"> <li>• I can interpret and present data using bar charts, pictograms and tables</li> <li>• I can solve one-step and two-step questions [for example, ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables.</li> </ul>	<ul style="list-style-type: none"> <li>• I can interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</li> <li>• I can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</li> </ul>