

## Year 5 Maths

<b>Place value</b>	<ul style="list-style-type: none"> <li>The pupil can read, write, order, round and compare numbers to at least 1 000 000 and determine the value of each digit. (E.g. <i>what is the value of the digit 5 in the number 654 321</i>)</li> <li>The pupil can interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. (E.g. <i>what is 4 more than -6, what is the next number in this sequence? 12, 7, 2, __, __?</i>)</li> <li>Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. (E.g. <i>what is 10 less than 9000?</i>)</li> </ul>
<b>Addition and subtraction</b>	<ul style="list-style-type: none"> <li>The pupil can solve multi step addition and subtraction problems with more than 4 digits/decimals to three places, including using formal written methods (where appropriate) (e.g. <math>77\,912\text{cm} + 2\,329\text{cm} = \underline{\quad}, \underline{\quad} + 1242 = 12105</math>, <math>54.345 + 25.456 = 40 + \underline{\quad}</math>)</li> <li>The pupil can use estimation and inverse to check answers (e.g. <i>estimate <math>4512 + 1221 = \underline{\quad}</math> as <math>4500 + 1200 = 5700</math>, and check <math>6751 - 2134 = 4617</math> by completing the addition calculation <math>4617 + 2134 = 6751</math>)</i></li> </ul>
<b>Multiplication and division</b>	<ul style="list-style-type: none"> <li>The pupil can instantly recall the multiplication and division facts for up to 12x12 to find all factor pairs of a number, and common factors of two numbers (E.g. <i>What are the common factors of 24 and 40, how many factors has 25 got?, <math>\underline{\quad} \times 7 = 84</math>, <math>108 \div \underline{\quad} = 9</math>)</i></li> <li>The pupil can solve problems involving multiplying numbers up to 4 digits by a one- or two-digit number using a formal written methods (and make the choice when to use formal written method) (E.g. <math>2462 \times 63</math>, <math>2462 \times 10</math>)</li> <li>The pupil can solve problems involving dividing numbers up to 4 digits by a one-digit number using a formal written method (and make the choice when to use formal written method) (E.g. <math>2464 \div 8</math>, <math>2464 \div 10</math>)</li> </ul>
<b>Fractions, decimals and percentages</b>	<ul style="list-style-type: none"> <li>The pupil can use equivalent fractions in order to compare, add, subtract and order fractions whose denominators are all multiples of the same number (E.g. <math>2/7 + 5/14 = 1/14 + \underline{\quad}</math>, <math>3/8</math> of 24 is greater or less than <math>2/4</math>, John has <math>2/5</math> of a bar and Amy <math>3/10</math>. Who has the most? Why?)</li> <li>The pupil can recognise mixed numbers and improper fractions and convert from one form to the other (E.g. <math>2\frac{1}{4} = 9/4</math>)</li> <li>The pupil can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (<i>I have 6 quarters of an apple – how much have I got altogether as a mixed number?</i>)</li> <li>The pupil can read, write, order and compare decimal numbers. Convert decimals to fractions (E.g. <math>0.71 = 71/100</math>, <math>0.007 = 7/1000</math>)</li> <li>The pupil can write percentages as a fraction with denominator 100, and solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}</math> and those fractions with a denominator of a multiple of 10 or 25. (E.g. <math>2/5</math> is <math>\underline{\quad}\%</math> and <math>0.\underline{\quad}</math>)</li> </ul>
<b>Measurement</b>	<ul style="list-style-type: none"> <li>The pupil can solve problems and convert between different units of metric measure/units of time (E.g. <math>3\text{ hours} = 180\text{ minutes}</math>, <math>6780\text{ meters} = 6\text{km } 780\text{ meters}</math>)</li> <li>The pupil can calculate the perimeter and area of composite rectilinear shapes in centimetres and metres</li> </ul>
<b>Geometry - shape</b>	<ul style="list-style-type: none"> <li>The pupil can identify 3-D shapes, including cubes and other cuboids, from 2-D representations</li> <li>The pupils can estimate, measure and draw given angle</li> </ul>
<b>Geometry – position and direction</b>	<ul style="list-style-type: none"> <li>The pupil can identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed</li> </ul>
<b>Statistics</b>	<ul style="list-style-type: none"> <li>The pupil can solve comparison, sum and difference problems using information presented in a line graph and complete, read and interpret information in tables, including timetables (<i>line graphs, bar charts</i>)</li> </ul>