

## Maths Medium Term Plan Year 5

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
Autumn	Number and Place Value ♣ read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit ♣ count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 ♣ interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero ♣ round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 ♣ solve number problems and practical problems that involve all of the above ♣ read Roman numerals to 1000 (M) and recognise years written in Roman numerals.			Addition and subtraction ♣ add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) ♣ add and subtract numbers mentally with increasingly large numbers ♣ use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy ♣ solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.		Statistics ♣ solve comparison, sum and difference problems using information presented in a line graph ♣ complete, read and interpret information in tables, including timetables		Number: Multiplication and Division ♣ multiply and divide numbers mentally drawing upon known facts ♣ multiply by 10, 100 and 1000 ♣ identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers ♣ know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers ♣ establish whether a number up to 100 is prime and recall prime numbers up to 19 ♣ recognise and use square numbers and cube numbers, and the notation for squared ( $^2$ ) and cubed ( $^3$ ) ♣ solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes ♣ solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.		Measurement: Area and Perimeter ♣ measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres ♣ calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres ( $\text{cm}^2$ ) and square metres ( $\text{m}^2$ ) and estimate the area of irregular shapes.		Consolidation	

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Spring	<p>Number: Multiplication and Division</p> <ul style="list-style-type: none"> <li>♣ multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers</li> <li>♣ multiply and divide numbers mentally drawing upon known facts</li> <li>♣ divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</li> <li>♣ solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</li> </ul>	<p>Number: Fractions</p> <ul style="list-style-type: none"> <li>♣ compare and order fractions whose denominators are all multiples of the same number</li> <li>♣ identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</li> <li>♣ recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements <math>&gt; 1</math> as a mixed number [for example, <math>2/5 + 4/5 = 6/5 = 1 \frac{1}{5}</math>]</li> <li>♣ add and subtract fractions with the same denominator and denominators that are multiples of the same number</li> <li>♣ multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams</li> <li>♣ read and write decimal numbers as fractions [for example, <math>0.71 = 71/100</math>]</li> <li>♣ solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</li> </ul>	<p>Number: Decimals and Percentages</p> <ul style="list-style-type: none"> <li>♣ read, write, order and compare numbers with up to three decimal places</li> <li>♣ recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li> <li>♣ round decimals with two decimal places to the nearest whole number and to one decimal place</li> <li>♣ solve problems involving number up to three decimal places</li> <li>♣ recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal</li> <li>♣ solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{5}</math>, <math>\frac{2}{5}</math>, <math>\frac{4}{5}</math> and those fractions with a denominator of a multiple of 10 or 25.</li> </ul>	Consolidation
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Summer	Number: Decimals <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 one or two-digit number to 10 or 100, identify the value of the digits in the answer as ones, tenths and hundredths</li> <li>♣ Solve simple measure and money problems involving fractions and decimals to two decimal places</li> <li>♣ convert between different units of measure (for example km to m)</li> </ul>				Geometry: Properties of Shape <ul style="list-style-type: none"> <li>♣ identify 3-D shapes, including cubes and other cuboids, from 2-D representations</li> <li>♣ know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</li> <li>♣ 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>) angles at a point on a straight line and <math>\frac{1}{2}</math> a turn (total <math>180^{\circ}</math>), other multiples of <math>90^{\circ}</math></li> <li>♣ use the properties of rectangles to deduce related facts and find missing lengths and angles</li> <li>♣ distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</li> </ul>			Geometry: Position and Direction <ul style="list-style-type: none"> <li>♣ 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>		Measurement: Converting Units <ul style="list-style-type: none"> <li>♣ convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)</li> <li>♣ solve problems involving converting between units of time</li> <li>♣ understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints</li> </ul>		Measurement: Volume <ul style="list-style-type: none"> <li>♣ estimate volume [for example, using 1 <math>\text{cm}^3</math> blocks to build cuboids (including cubes)] and capacity [for example, using water]</li> <li>♣ use all four operations to solve problems involving measure</li> </ul>		Consolidation