Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<u>Number:</u>	<u>Number:</u>	<u>Number:</u>	<u>Number:</u>	<u>Geometry:</u>	<u>Number:</u>
Number and Place	Multiplication and	Multiplication and	Decimals and	Properties of Shape:	Decimals:
Number and Place Value: - Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. - 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. - 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. <u>Number:</u> Addition and Subtraction: - Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).	<ul> <li>Multiplication and Division: <ul> <li>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</li> <li>Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers.</li> </ul> </li> <li>Establish whether a number up to 100 is prime and recall prime numbers up to 19.</li> <li>Solve problems involving multiplication and division including using their knowledge of factors and multiples.</li> <li>Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).</li> <li>Solve problems involving multiplication and division including using their</li> </ul>	<ul> <li>Multiplication and Division:</li> <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>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> <li>Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</li> </ul>	Decimals and Percentages: - Read and write decimal numbers as fractions [for example, 0.71 = 71/100] - Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. - Read, write, order and compare numbers with up to three decimal places. - Round decimals with two decimal places to the nearest whole number and to one decimal place - 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. - Solve problems which require knowing percentage	<ul> <li>Properties of Shape:</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 (°). <ul> <li>Identify:</li> <li>angles at a point and one whole turn (total 360°)</li> <li>angles at a point on a straight line and 2 1 a turn (total 180°)</li> <li>other multiples of 90°.</li> </ul> </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> <li>Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.</li> </ul>	Decimals: - Solve problems involving number up to three decimal places. - Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. <u>Number and Place</u> Value: - Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. <u>Measurement:</u> Converting Units: - Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; gram and kilogram; litre and millilitre).
	knowledge of squares and cubes.		and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those		- Understand and use approximate equivalences between metric units and

## Maths Long Term Plan

## Year 5

- Add and subtract numbers	- Multiply and divide whole	Number:	fractions with a denominator	Geometry:	common imperial units such
mentally with increasingly	numbers by 10, 100 and 1000	Fractions:	of a multiple of 10 or 25.	Position and	as inches, pounds and pints.
<ul> <li>large numbers.</li> <li>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li> <li>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> </ul>	<ul> <li>1000.</li> <li>Multiply and divide numbers mentally drawing upon known facts.</li> <li><u>Number</u> Fractions:</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 &gt; 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 and 1/5].</li> <li>Compare and order fractions whose denominators are all multiples of the same number.</li> <li>Add and subtract fractions with the same denominator and denominators that are</li> </ul>	<ul> <li>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</li> </ul>	Measurement: Perimeter and Area: <ul> <li>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.</li> <li>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes. Statistics <ul> <li>Solve comparison, sum and difference problems using information presented in a line graph.</li> <li>Complete, read and interpret information in tables, including timetables.</li> </ul></li></ul>	Direction: - 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.	<ul> <li>Solve problems involving converting between units of time.</li> <li>Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.</li> <li><u>Measurement:</u> Volume/ Capacity:         <ul> <li>Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water].</li> </ul> </li> </ul>
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