



**NUMBER: NUMBER AND PLACE VALUE**

COUNTING	COMPARING NUMBERS	IDENTIFYING, REPRESENTING AND ESTIMATING	READING	WRITING	UNDERSTANDING PLACE VALUE	ROUNDING	PROBLEM SOLVING
<p>Interpret negative numbers in context</p> <p><i>Count forwards with positive and negative whole numbers including through zero</i></p> <p><i>Count backwards with positive and negative whole numbers including through zero</i></p> <p><i>Count forwards in steps of powers of 10 for any given number up to 1,000,000</i></p> <p><i>Count backwards in steps of powers of 10 for any given number up to 1,000,000</i></p>	<p>Compare and order numbers up to at least 1,000,000</p> <p>Compare and order numbers with up to three decimal places</p>	<p>Identify, represent and estimate numbers using different representations</p>	<p>Read numbers up to at least 1,000,000</p> <p>Read numbers with up to three decimal places</p> <p><b>Read Roman numerals to 1000</b></p> <p><b>Recognise years written in Roman numerals.</b></p>	<p>Write numbers up to at least 1,000,000</p> <p>Write numbers with up to three decimal places</p>	<p>Determine the value of each digit in numbers up to at least 1,000,000</p> <p>Identify the value of each digit in numbers up to 2 decimal places</p>	<p>Round any number up to 1,000,000 to the nearest 10.</p> <p>Round any number up to 1,000,000 to the nearest 100.</p> <p>Round any number up to 1,000,000 to the nearest 1000.</p> <p>Round any number up to 1,000,000 to the nearest 10,000.</p> <p>Round any number up to 1,000,000 to the nearest 100,000.</p> <p>Round decimals with two decimal places to the nearest whole number</p> <p>Round decimals with two decimal places to one decimal place</p>	<p>Solve number and practical problems that involve all of the Y5 criteria</p>



**NUMBER: ADDITION AND SUBTRACTION**

NUMBER BONDS AND RAPID RECALL	MENTAL CALCULATION	INVERSE OPERATIONS, CHECKING AND ESTIMATING ANSWERS	WRITTEN CALCULATION	PROBLEM SOLVING
<p><i>Derive and recall what must be added to any four-digit number to make the next multiple of 1000.</i></p> <p><i>Derive and recall sums and differences of decimals to one decimal place.</i></p> <p><i>Derive and recall doubles and halves of decimals to one decimal place.</i></p> <p><i>Derive what must be added to a decimal with one decimal places to make the next whole number</i></p>	<p><i>Add numbers mentally with increasingly large numbers</i></p> <p><i>Subtract numbers mentally with increasingly large numbers</i></p> <p><i>Add any pair of decimals up to one decimal place</i></p> <p><i>Subtract any pair of decimals up to one decimal place</i></p> <p><i>Double decimals up to one decimal place</i></p> <p><i>Add near doubles of decimals up to one decimal place</i></p>	<p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</p>	<p>Add whole digits with more than four digits using formal written methods</p> <p>Subtract whole digits with more than four digits using formal written methods</p>	<p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</p>



**NUMBER: MULTIPLICATION AND DIVISION**

RAPID RECALL AND MENTAL CALCULATION	INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS	WRITTEN CALCULATION	PROPERTIES OF NUMBERS, MULTIPLES, FACTORS, PRIME, SQUARE AND CUBE NUMBERS	PROBLEM SOLVING
<p><i>Double three-digit multiples of 10 to 500 and find corresponding halves</i></p> <p><i>Multiply and divide two-digit numbers by 4 and 8</i></p> <p><i>Multiply two-digit numbers by 5 and 20</i></p> <p><i>Multiply by 25 and 50</i></p> <p><i>Multiply pairs of multiples of 10</i></p> <p>Multiply whole numbers by 1000</p> <p>Divide whole numbers by 1000</p> <p>Multiply numbers involving decimals by 10, 100 and 1000</p> <p>Divide numbers involving decimals by 10, 100 and 1000</p>	<p>Estimate and use inverse operations to check answers to multiplication and division calculations with Y5 criteria.</p>	<p>Multiply numbers up to 4-digits by a one-digit number using a formal written method</p> <p>Multiply numbers up to 4-digits by a two-digit number using a formal written method of long multiplication</p> <p>Divide numbers up to 3-digits by a one-digit number using the formal written method of short division</p> <p>Divide numbers up to 3-digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</p> <p>Divide number with up to 4-digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</p>	<p><i>Identify multiples and factors</i></p> <p><i>Find all factor pairs of a number</i></p> <p><i>Find common factors of two numbers</i></p> <p><i>Know the vocabulary prime number, prime factor and composite (non-prime) numbers.</i></p> <p><i>Use the vocabulary prime number, prime factor and composite (non-prime) numbers.</i></p> <p><i>Establish whether a number up to 100 is prime</i></p> <p><i>Recall prime numbers up to 19</i></p> <p><i>Recognise square numbers</i></p> <p><i>Use square numbers and the notation for squared (²)</i></p> <p><i>Recognise cube numbers</i></p> <p><i>Use cube numbers and the notation for cubed (³)</i></p>	<p>Solve problems involving multiplication and division including their knowledge of factors, multiples, squares and cubes.</p> <p>Solve problems involving a combination of all four operations and understanding the meaning of the equals sign.</p> <p>Solve problems involving multiplication and division including scaling by simple fractions and problems involving simple rates.</p>



NUMBER: FRACTIONS					
RECOGNISING FRACTIONS	COMPARING FRACTIONS	EQUIVALENCE	ADDITION AND SUBTRACTION OF FRACTIONS	MULTIPLICATION AND DIVISION OF FRACTIONS	PROBLEM SOLVING
<i>Recognise and use thousandths</i>	Compare and order fractions whose denominators are all multiples of the same number	Identify, read and write equivalent fractions of a given fraction  Read decimal numbers as fractions  Write decimal numbers as fractions  Relate thousandths to tenths, hundredths and decimal equivalents.  Recognise per cent symbol (%) and understand that it relates to 'parts per hundred'  Write percentages as a fraction with the denominator 100.  Write percentages as a decimal fraction.	Add fractions with the same denominator and multiples of the same number  Subtract fractions with the same denominator and multiples of the same number  Recognise mixed numbers and improper fractions and convert from one form to the other.  Write mathematical statements >1 as a mixed number.	Multiply proper fractions and mixed numbers by whole numbers supported by materials and diagrams.	Solve problems involving numbers up to 3 decimal places  Solve problems which require knowledge of percentage and decimal equivalents of $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{5}$ , $\frac{2}{5}$ , $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25.

STATISTICS	
INTERPRETING, CONSTRUCTING AND REPRESENTING DATA	PROBLEM SOLVING
Read and complete information in tables including timetables	Solve comparison, sum and difference problems using information presented in a line graph
Read and interpret information in tables including timetables	



MEASUREMENT			
COMPARING AND ESTIMATING	MEASURING AND CALCULATING	TELLING THE TIME	CONVERTING
<p>Compare the area of squares and other rectangles</p> <p>Estimate the area of irregular shapes</p> <p>Estimate volume</p> <p>Estimate capacity</p>	<p>Use all four operations to solve problems involving all measures (length, mass, volume, money, time, capacity) using decimal notation including scaling.</p> <p>Measure and calculate the perimeter of composite rectilinear shapes in cm and m</p> <p>Calculate area of squares and other rectangles using standard units cm<sup>2</sup> and m<sup>2</sup></p>	<p><i>SHOULD BE SECURED - CONSOLIDATION ONLY</i></p>	<p>Convert between different units of metric measure for length (km and m, cm and m, cm and mm)</p> <p>Convert between different units of metric measure for mass (g and kg)</p> <p>Convert between different units of metric measure for capacity (ml and l)</p> <p>Solve problems involving converting between units of time</p> <p>Understand and use equivalences between metric and common imperial units: inches, pounds and pints</p>

GEOMETRY				
IDENTIFYING SHAPES AND THEIR PROPERTIES	COMPARING AND CLASSIFYING SHAPES	DRAWING AND CONSTRUCTING	ANGLES	POSITION, DIRECTION AND MOVEMENT
<p>Identify 3D shapes</p>	<p>Use the properties of rectangles to deduce related facts and find missing lengths and angles.</p> <p>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles</p>	<p>Draw given angles</p>	<p>Know that angles are measured in degrees</p> <p>Measure angles in degrees (°)</p> <p>Estimate and compare acute, obtuse and reflex angles</p> <p>Identify:</p> <ul style="list-style-type: none"> <li>*angles at a point and one whole turn total 360°</li> <li>*angles at a point on a straight line and half a turn total 180°</li> <li>*other multiples of 90°</li> </ul>	<p>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.</p>



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**Y5 TERMLY EXPECTATIONS TO BE ON TRACK - MINIMUM NUMBER OF STATEMENTS FOR EACH AREA**

	Number and place value (25)	Addition and subtraction (13)	Multiplication and division (29)	Fractions (16)	Algebra (N/A)	Ratio and proportion (N/A)	Measurement (12)	Statistics (3)	Geometry (9)	TOTAL (107)	%
<b>5-</b> <i>(AUTUMN)</i>	35									35+	33%+
<b>5=</b> <i>(SPRING)</i>	68				3					71+	66%+
<b>5+</b> <i>(SUMMER)</i>	83				19					102+	95%+