




















Autumn

Week	Topic	Curriculum objectives	YEAR 1- AUTUMN TERM- SMALL STEPS
1	Number: Place Value	<p>Number: Place Value Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit.</p> <p>Round any whole number to a required degree of accuracy. Use negative numbers in context, and calculate intervals across zero.</p> <p>Solve number and practical problems that involve all of the above.</p>	<ul style="list-style-type: none"> <li> Numbers to ten million</li> <li> Compare and order any number</li> <li> Round any number</li> <li> Negative numbers</li> </ul>
2-5	Number: Addition, Subtraction, multiplication and Division	<p>Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why.</p> <p>Multiply multi-digit number up to 4 digits by a 2-digit number using the formal written method of long multiplication.</p> <p>Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding as appropriate for the context.</p> <p>Divide numbers up to 4 digits by a 2-digit number using the formal written method of short division, interpreting remainders according to the context.</p> <p>Perform mental calculations, including with mixed operations and large numbers.</p> <p>Identify common factors, common multiples and prime numbers.</p> <p>Use their knowledge of the order of operations to carry out calculations involving the four operations.</p> <p>Solve problems involving addition, subtraction, multiplication and division.</p> <p>Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.</p>	<ul style="list-style-type: none"> <li> Add and subtract integers</li> <li> Multiply up to a 4-digit number by 2-digit number</li> <li> Short division</li> <li> Division using factors</li> <li> Long division (1)</li> <li> Long division (2)</li> <li> Long division (3)</li> <li> Long division (4)</li> <li> Common factors</li> <li> Common multiples</li> <li> Primes to 100</li> <li> Squares and cubes</li> <li> Order of operations</li> <li> Mental calculations and estimation</li> <li> Reason from known facts</li> </ul>
6	<b>MOCK SATS</b>		

7-10	Number : Fractions	<p>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</p> <p>Compare and order fractions, including fractions &gt; 1 Generate and describe linear number sequences (with fractions)</p> <p>Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions. Multiply simple pairs of proper fractions, writing the answer in its simplest form</p> <p>Divide proper fractions by whole numbers</p> <p>Associate a fraction with division and calculate decimal fraction equivalents [ for example, 0.375] for a simple fraction [for example 3/ 8 ]</p> <p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p>	<ul style="list-style-type: none"> <li>■ Simplify fractions</li> <li>■ Fractions on a number line</li> <li>■ Compare and order (denominator)</li> <li>■ Compare and order (numerator)</li> <li>■ Add and subtract fractions (1)</li> <li>■ Add and subtract fractions (2)</li> <li>■ Add fractions</li> <li>■ Subtract fractions</li> <li>■ Mixed addition and subtraction</li> <li>■ Multiply fractions by integers</li> <li>■ Multiply fractions by fractions</li> <li>■ Divide fractions by integers (1)</li> <li>■ Divide fractions by integers (2)</li> <li>■ Four rules with fractions</li> <li>■ Fraction of an amount</li> <li>■ Fraction of an amount - find the whole</li> </ul>
11	Geometry : Position and Direction	<p>Describe positions on the full coordinate grid (all four quadrants).</p> <p>Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</p>	<ul style="list-style-type: none"> <li>■ The first quadrant</li> <li>■ Four quadrants</li> <li>■ Translations</li> <li>■ Reflections</li> </ul>
12	<b>Mock SATs</b>		
13-14	Number Decimals	<p>Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places.</p> <p>Multiply one-digit numbers with up to 2 decimal places by whole numbers.</p> <p>Use written division methods in cases where the answer has up to 2 decimal places.</p> <p>Solve problems which require answers to be rounded to specified degrees of accuracy.</p>	<ul style="list-style-type: none"> <li>■ Three decimal places</li> <li>■ Multiply by 10, 100 and 1,000</li> <li>■ Divide by 10, 100 and 1,000</li> <li>■ Multiply decimals by integers</li> <li>■ Divide decimals by integers</li> <li>■ Division to solve problems</li> <li>■ Decimals as fractions</li> <li>■ Fractions to decimals (1)</li> <li>■ Fractions to decimals (2)</li> </ul>

Spring

1-2	Number: Percentages	<p>Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison.</p> <p>Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.</p>	<ul style="list-style-type: none"> <li>▀ Fractions to percentages</li> <li>▹ Equivalent FDP</li> <li>▀ Order FDP</li> <li>▹ Percentage of an amount (1)</li> <li>▀ Percentage of an amount (2)</li> <li>▹ Percentages - missing values</li> </ul>
3-4	Number :Algebra	<p>Use simple formulae</p> <p>Generate and describe linear number sequences.</p> <p>Express missing number problems algebraically.</p> <p>Find pairs of numbers that satisfy an equation with two unknowns.</p> <p>Enumerate possibilities of combinations of two variables.</p>	<ul style="list-style-type: none"> <li>▀ Find a rule - one step</li> <li>▹ Find a rule - two step</li> <li>▀ Forming expressions</li> <li>▹ Substitution</li> <li>▀ Formulae</li> <li>▹ Forming equations</li> <li>▀ Solve simple one-step equations</li> <li>▹ Solve two-step equations</li> <li>▀ Find pairs of values</li> <li>▹ Enumerate possibilities</li> </ul>
5	Measurement: Converting Units	<p>Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.</p> <p>Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3dp.</p> <p>Convert between miles and kilometres.</p>	<ul style="list-style-type: none"> <li>▀ Metric measures</li> <li>▹ Convert metric measures</li> <li>▀ Calculate with metric measures</li> <li>▹ Miles and kilometres</li> <li>▀ Imperial measures</li> </ul>
6	<b>Mock SATs</b>		
7-8	Measurement: Perimeter, Area and Volume	<p>Recognise that shapes with the same areas can have different perimeters and vice versa.</p> <p>Recognise when it is possible to use formulae for area and volume of shapes.</p> <p>Calculate the area of parallelograms and triangles.</p> <p>Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm<sup>3</sup> , m<sup>3</sup> and extending to other units (mm<sup>3</sup> , km<sup>3</sup> )</p>	<ul style="list-style-type: none"> <li>▀ Shapes - same area</li> <li>▹ Area and perimeter</li> <li>▀ Area of a triangle (1)</li> <li>▹ Area of a triangle (2)</li> <li>▀ Area of a triangle (3)</li> <li>▹ Area of parallelogram</li> <li>▀ Volume - counting cubes</li> <li>▹ Volume of a cuboid</li> </ul>

9-10	Number: Ratio	<p>Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.</p> <p>Solve problems involving similar shapes where the scale factor is known or can be found.</p> <p>Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</p>	<ul style="list-style-type: none"> <li>▀ Using ratio language</li> <li>▹ Ratio and fractions</li> <li>▀ Introducing the ratio symbol</li> <li>▹ Calculating ratio</li> <li>▀ Using scale factors</li> <li>▹ Calculating scale factors</li> <li>▀ Ratio and proportion problems</li> </ul>
11	<b>SATs</b>		
12	Geometry: Properties of shape	<p>Draw 2 -D shapes using given dimensions and angles.</p> <p>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons.</p> <p>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</p>	<ul style="list-style-type: none"> <li>▀ Measure with a protractor</li> <li>▹ Introduce angles</li> <li>▀ Calculate angles</li> <li>▹ Vertically opposite angles</li> <li>▀ Angles in a triangle</li> <li>▹ Angles in a triangle – special cases</li> <li>▀ Angles in a triangle – missing angles</li> <li>▹ Angles in special quadrilaterals</li> <li>▀ Angles in regular polygons</li> <li>▹ Draw shapes accurately</li> <li>▀ Draw nets of 3-D shapes</li> </ul>

Summer

1	Continued....Geometry: Properties of shape	<p>Draw 2 -D shapes using given dimensions and angles.</p> <p>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons.</p> <p>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</p>	<ul style="list-style-type: none"> <li>▶ Measure with a protractor</li> <li>▶ Introduce angles</li> <li>▶ Calculate angles</li> <li>▶ Vertically opposite angles</li> <li>▶ Angles in a triangle</li> <li>▶ Angles in a triangle – special cases</li> <li>▶ Angles in a triangle – missing angles</li> <li>▶ Angles in special quadrilaterals</li> <li>▶ Angles in regular polygons</li> <li>▶ Draw shapes accurately</li> <li>▶ Draw nets of 3-D shapes</li> </ul>
2-3	Statistics	<p>Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.</p> <p>Interpret and construct pie charts and line graphs and use these to solve problems. Calculate the mean as an average</p>	<ul style="list-style-type: none"> <li>▶ Read and interpret line graphs</li> <li>▶ Draw line graphs</li> <li>▶ Use line graphs to solve problems</li> <li>▶ Circles</li> <li>▶ Read and interpret pie charts</li> <li>▶ Pie charts with percentages</li> <li>▶ Draw pie charts</li> <li>▶ The mean</li> </ul>
4-6	Problem solving (complete in weeks one and 2 as extra maths before SATs)		<p>Problem solving including all areas of maths. Problem of the day.</p>
7-8	Community fair projects		
9-12	Investigations		