

## Second Level: Use With Understanding/ Apply [Second \*\*\*]

	Term 1	Term 2	Term 3	Term 4
<b>Estimating and Rounding</b>	<ul style="list-style-type: none"> <li>Estimate the answer to a problem</li> <li>Represent the value of tenths and hundredths</li> </ul>	<ul style="list-style-type: none"> <li>Know that <math>+</math>/<math>-</math> and <math>\times</math>/<math>\div</math> are inverse operations</li> <li>Estimate and check the solution to a problem using the inverse operation</li> </ul>	<ul style="list-style-type: none"> <li>Justify answers</li> <li>Change decimal fractions to decimal numbers</li> </ul>	<ul style="list-style-type: none"> <li>Round numbers to 1 decimal place (tenths)</li> <li>Round numbers to 2 decimal places (hundredths)</li> </ul>
<b>Awareness of Number</b> <ul style="list-style-type: none"> <li>Counting</li> <li>Numerals</li> <li>Quantities</li> <li>Place Value</li> </ul>	<ul style="list-style-type: none"> <li>Count forwards and backwards in ones within 1,000,000 from different starting points</li> <li>Count in multiples of 10 within 1,000,000</li> <li>Read and write numbers to 1,000,000</li> <li>Order and compare numbers beyond 1,000,000</li> <li>Read and write decimal fractions with up to 3 decimal places</li> <li>Understand and provide examples of the numbers before and after a given number</li> <li>Use concrete resources to represent different numbers</li> <li>Use pictorial representations to show different numbers</li> <li>Match numerals to pictorial representations or concrete materials</li> <li>Estimate numbers using different representations</li> <li>Recognise and represent tenths, hundredths and thousandths etc.</li> <li>Partition decimals in different ways <math>3.6 = 3</math> units &amp; 6 tenths = 36 tenths</li> </ul>	<ul style="list-style-type: none"> <li>Count in different multiples within 1,000,000</li> <li>Identify the rule for number sequences (whole numbers)</li> <li>Describe and extend number sequences</li> <li>Use concrete resources to represent different numbers</li> <li>Use pictorial representations to show different numbers</li> <li>Match numerals to pictorial representations or concrete materials</li> <li>Estimate numbers using different representations</li> <li>Order and compare numbers up to 1,000,000</li> </ul>	<ul style="list-style-type: none"> <li>Compare decimal fractions</li> <li>Count in tenths, hundredths and thousandths on a number</li> <li>Line</li> <li>Read and write numbers less than zero</li> <li>Use concrete resources to represent different numbers</li> <li>Use pictorial representations to show different numbers</li> <li>Match numerals to pictorial representations or concrete materials (decimals)</li> <li>Estimate numbers using different representations (decimals)</li> </ul>	<ul style="list-style-type: none"> <li>Identify numbers that fall between 2 decimal fractions</li> <li>Sequence decimal fractions with up to 3 decimal places</li> <li>Solve problems involving negative numbers</li> <li>Order decimal fractions with up to 3 decimal places</li> <li>Describe and extend number sequences involving decimal fractions with 3 decimal places</li> <li>Extend knowledge of place value to decimals up to 3 decimal places</li> <li>Identify decimal numbers on a number line</li> </ul>
<b>Addition &amp; Subtraction</b>	<ul style="list-style-type: none"> <li><math>+</math>/<math>-</math> 10, 100, 1,000 to and from whole numbers</li> <li><math>+</math>/<math>-</math> multiples of 10 to and from whole numbers</li> <li>Use estimation to check answers to calculations</li> </ul>	<ul style="list-style-type: none"> <li><math>+</math>/<math>-</math> 10, 100, 1000 to and from decimal fractions of at least 2 decimal places</li> <li><math>+</math>/<math>-</math> multiples of 10 to and from decimal fractions of up to 2 decimal places</li> <li>Solve any <math>+</math>/<math>-</math> problems with numbers to 2 decimal places</li> <li>Understand the order of operations using brackets</li> </ul>	<ul style="list-style-type: none"> <li>Solve multistep word problems</li> </ul>	<ul style="list-style-type: none"> <li>Solve multistep word problems</li> </ul>
<b>Multiplication &amp; Division</b>	<ul style="list-style-type: none"> <li><math>\div</math> numbers up to 4 digits by 1 digit</li> <li><math>\div</math> decimal numbers up to 2 decimal places by 1 digit whole numbers</li> </ul>	<ul style="list-style-type: none"> <li><math>\times</math> and <math>\div</math> decimal fractions with at least 2 decimal places by 10, 100, 1,000</li> </ul>	<ul style="list-style-type: none"> <li><math>\times</math> and <math>\div</math> numbers with at least 3 decimal places by multiples of 10, 100, 1,000</li> <li>Multiply numbers up to 4 digits by 2 digit whole numbers</li> <li>Understand the order of operations using brackets</li> <li>Interpret remainders as whole numbers, remainders, fractions or rounding</li> <li>Understand the order of operations</li> <li>Solve <math>\times</math> and <math>\div</math> word problems</li> </ul>	<ul style="list-style-type: none"> <li>To use number bonds for factors and products and to identify missing factors</li> <li>To relate common factors to equivalent fractions</li> <li>Recognise and describe square and cubed numbers</li> <li>Can apply knowledge of inverse operations</li> </ul>
<b>Fractions, Decimals and Percentages</b>		<ul style="list-style-type: none"> <li>Compare and order fractions (including fractions <math>&gt;1</math>)</li> <li><math>\times</math> 1 digit numbers with up to 2 decimal places by whole numbers</li> <li>Multiply up to 2 digit decimals by whole numbers</li> </ul>	<ul style="list-style-type: none"> <li>Revise equivalent and use common factors to simplify fractions</li> <li>Calculate decimal fraction equivalents (by dividing using a simple fraction) – fractions/ decimals/ %</li> <li>Interpret remainders as whole number remainders, fractions or by rounding as appropriate to the context</li> </ul>	<ul style="list-style-type: none"> <li>Revise equivalent and use common factors to simplify fractions</li> <li>Revise equivalent and use common factors to simplify fractions</li> <li>Calculate decimal fraction equivalents (by dividing using a simple fraction) – fractions/ decimals/ %</li> </ul>

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	Term 1	Term 2	Term 3	Term 4
<b>Measurement:</b> <ul style="list-style-type: none"> <li>▪ Money</li> <li>▪ Time</li> <li>▪ Length</li> <li>▪ Mass</li> <li>▪ Perimeter</li> <li>▪ Area</li> <li>▪ Volume</li> <li>▪ Patterns and Relationships</li> <li>▪ Expressions and Equations</li> <li>▪ Impact of Maths</li> </ul>	<ul style="list-style-type: none"> <li>▪ Can use a timer to measure time including 100ths of a second</li> <li>▪ Convert cm to mm and mm to cm</li> <li>▪ Measure accurately using 1/4kg, 1/2kg and g</li> <li>▪ Know perimeter is the distance round the outside</li> <li>▪ Calculate the area of right angles triangles using the formula <math>\frac{1}{2} (l \times b)</math></li> <li>▪ Calculate the volume of cuboids using <math>V = l \times b \times h</math></li> <li>▪ Applies knowledge to generate number patterns</li> <li>▪ Research historical number systems and how they have changed over time</li> </ul>	<ul style="list-style-type: none"> <li>▪ Solve money problems using 4 operations</li> <li>▪ Use and create timetables set out in both 12 and 24 hour clock times</li> <li>▪ Convert cm to mm and mm to cm</li> <li>▪ Read scales accurately using kg and g</li> <li>▪ Measure accurately perimeter of regular shapes using mm/cm/m</li> <li>▪ Calculate the area of right angles triangles using the formula <math>\frac{1}{2} (l \times b)</math></li> <li>▪ Calculate the volume of cuboids using <math>V = l \times b \times h</math></li> <li>▪ Applies knowledge to generate number patterns</li> </ul>	<ul style="list-style-type: none"> <li>▪ Interpret sales information from different retailers</li> <li>▪ Compare costs from different retailers to determine affordability</li> <li>▪ Demonstrates the benefits and risks of using bank cards and digital technologies</li> <li>▪ Calculate time intervals bridging part of hours (12/ 24 hours)</li> <li>▪ Convert m to km and km to m</li> <li>▪ Convert kg to g and g to kg</li> <li>▪ Measure accurately perimeter of irregular shapes using mm/cm/m</li> <li>▪ Calculate accurately the perimeter of irregular shapes using mm/cm/m</li> <li>▪ Calculate the area of compound shapes using knowledge of squares, rectangles and triangles</li> <li>▪ Calculate the volume of a composite shape containing cubes and cuboids</li> <li>▪ To express missing number problems algebraically <math>x-30=40</math> and <math>4B=20</math></li> </ul>	<ul style="list-style-type: none"> <li>▪ Calculates profit and loss accurately</li> <li>▪ Revise comparisons</li> <li>▪ Use appropriate timers to measure activities (speed, distance and time)</li> <li>▪ Knows different units of speed (mph, km/ph, m/s)</li> <li>▪ Convert m to km and km to m</li> <li>▪ Convert kg to g and g to kg</li> <li>▪ Measure accurately perimeter of irregular shapes using mm/cm/m</li> <li>▪ Calculate accurately the perimeter of irregular shapes using mm/cm/m</li> <li>▪ Calculate the area of compound shapes using knowledge of squares, rectangles and triangles</li> <li>▪ Calculate the volume of a composite shape containing cubes and cuboids</li> <li>▪ Understand that capacity is maximum volume</li> <li>▪ Use well known number patterns such as square, cubed, triangular numbers</li> <li>▪ Explain a rule and extend a sequence including Pascal's triangle and Fibonacci sequence</li> <li>▪ To use simple formula to generate, express and describe linear number sequences</li> </ul>
<b>Shape, Position and Movement</b> <ul style="list-style-type: none"> <li>▪ Shape</li> <li>▪ Angles, Symmetry and Transformation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Identify acute, obtuse, straight and reflex angles in the wider world</li> <li>▪ Name angles and measure and draw to 2 degree accuracy</li> </ul>	<ul style="list-style-type: none"> <li>▪ Extend the range of 2D shapes</li> <li>▪ Extend knowledge of 2D shapes</li> <li>▪ Identify lines of symmetry of irregular shapes</li> <li>▪ Identify and draw up to 4 lines of symmetry</li> <li>▪ Complete and create symmetrical shapes/ patterns with vertical, horizontal &amp; diagonal lines of symmetry</li> </ul>	<ul style="list-style-type: none"> <li>▪ Continue to extend range of shape and properties</li> <li>▪ Extend understanding of 3D shapes</li> <li>▪ Extend the range of 3D shapes</li> <li>▪ Name 8 compass rose and identify angles between them using 3 figure bearings</li> <li>▪ Draw simple triangles given angles and lengths</li> <li>▪ Complete and create symmetrical shapes/ patterns with vertical, horizontal &amp; diagonal lines of symmetry</li> <li>▪ Missing angles</li> <li>▪ Interpret a coordinate system to locate and plot a point on a grid</li> </ul>	<ul style="list-style-type: none"> <li>▪ Continue to extend range of shape and properties</li> <li>▪ Use and create nets for 3D shapes</li> <li>▪ Extend knowledge of properties of 3D shapes</li> <li>▪ Measure and draw 3 figure compass bearings using a protractor</li> <li>▪ Apply scale to interpret maps, plans and diagrams</li> <li>▪ Interpret a coordinate system to locate and plot a point on a grid</li> </ul>
<b>Information Handling:</b> <ul style="list-style-type: none"> <li>▪ Data Handling and Analysis</li> <li>▪ Ideas of Chance and Uncertainty</li> </ul>		<ul style="list-style-type: none"> <li>▪ Predict and explain outcomes using appropriate vocabulary</li> </ul>	<ul style="list-style-type: none"> <li>▪ Interpret information presented to show awareness of significance of the data</li> <li>▪ Conduct experiments involving chance and uncertainty</li> </ul>	<ul style="list-style-type: none"> <li>▪ Display data in a variety of more complex ways</li> <li>▪ Select appropriate questions for a survey to gather information required</li> <li>▪ Know how methods of collecting information may affect the data collected</li> </ul>