

## **MATHS MEDIUM TERM PLAN**

### **Year 6 Term 3**

#### **Mental & Oral Starter Objectives**

##### Number, Place Value and Rounding

- Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.
- Round any whole number to a required degree of accuracy.
- Use negative numbers in context, and calculate intervals across zero.
- Solve number and practical problems.

##### Addition & Subtraction

- Add and subtract negative integers
- See also: Multiplication and division for problems involving all four operations.

##### Multiplication & Division

- Perform mental calculations, including with mixed operations and large numbers.
- Identify common factors, common multiples and prime numbers.

##### Fractions

- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.
- Compare and order fractions, including fractions  $> 1$ .
- Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.
- Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

<u>Week 1</u>	<u>Week 2 &amp; 3</u>	<u>Week 4 &amp; 5</u>	<u>Week 6 &amp; 7</u>	<u>Week 8</u>	<u>Week 9</u>	<u>Week 10 &amp; 11</u>	<u>Week 12</u>	<u>Week 13</u>	<u>Week 14</u>
1.Number, Place Value and Rounding	2. Addition & Subtraction	3.Multiplication & Division	4.Fractions	5.Properties of shapes	6.Position, direction & movement	7.Measures	8.Statistics	9. Algebra	Assess & Review
<ul style="list-style-type: none"> <li>• Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.</li> <li>• Round any whole number to a required degree of accuracy.</li> <li>• Use negative numbers in context, and calculate intervals across zero.</li> <li>• Solve number and practical problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Add and subtract negative integers</li> <li>• See also: Multiplication and division for problems involving all four operations.</li> </ul>	<ul style="list-style-type: none"> <li>• Perform mental calculations, including with mixed operations and large numbers.</li> <li>• Identify common factors, common multiples and prime numbers.</li> <li>• Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.</li> <li>• Divide numbers up to 4 digits by a two-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.</li> <li>• Divide numbers up</li> </ul>	<ul style="list-style-type: none"> <li>• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</li> <li>• Compare and order fractions, including fractions <math>&gt; 1</math>.</li> <li>• Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.</li> <li>• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</li> <li>• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</li> </ul>	<ul style="list-style-type: none"> <li>• Draw 2-D shapes using given dimensions and angles.</li> <li>• Recognise, describe and build simple 3-D shapes, including making nets.</li> <li>• Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.</li> <li>• Illustrate and name parts of circles, including radius, diameter and</li> </ul>	<ul style="list-style-type: none"> <li>• Describe positions on the full coordinate grid. (all four quadrants)</li> <li>• Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</li> </ul>	<ul style="list-style-type: none"> <li>• Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.</li> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• Interpret and construct pie charts and line graphs and use these to solve problems.</li> <li>• Calculate and interpret the mean as an average.</li> </ul>	<ul style="list-style-type: none"> <li>• Use simple formulae.</li> <li>• Generate and describe linear number sequences.</li> <li>• Express missing number problems algebraically.</li> <li>• Find pairs of numbers that satisfy an equation with two unknowns.</li> <li>• Enumerate possibilities of combinations of two variables. numbers, and proper fractions.</li> </ul>	

		<p>to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.</p> <ul style="list-style-type: none"> <li>• Use knowledge of the order of operations to carry out calculations involving the four operations.</li> </ul>	<ul style="list-style-type: none"> <li>• Multiply simple pairs of proper fractions, writing the answer in its simplest form.</li> <li>• Divide proper fractions by whole numbers.</li> </ul>	<p>circumference and know that the diameter is twice the radius.</p> <ul style="list-style-type: none"> <li>• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</li> </ul>		<p>versa, using decimal notation to up to three decimal places.</p> <ul style="list-style-type: none"> <li>• Convert between miles and kilometres.</li> <li>• Recognise that shapes with the same areas can have different perimeters and vice versa.</li> <li>• Recognise when it is possible to use formulae for area and volume of shapes.</li> <li>• Calculate the area of parallelograms and triangles</li> <li>• Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm<sup>3</sup>)</li> </ul>			
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						and cubic metres (m <sup>3</sup> ), and extending to other units.			
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