



**Maths Medium Term**

**Year: 6**

**Term: Spring**

**Teacher: Mrs Pemberton**

<b><u>Week</u></b>	<b><u>Topic</u></b>	<b><u>Objectives</u></b>
<i>Week 1</i> (4 days)	MEASURES - TIME TO SOLVE PROBLEMS           STATISTICS TO SOLVE PROBLEMS	<ul style="list-style-type: none"> <li>• Read, write and convert time between analogue and digital 12 hour clock and 24 hour clock</li> <li>• Solve problems involving converting between units of time e.g. seconds and minutes, half past 12 and 13:30</li> <li>• Complete, read and interpret information in tables, including timetables - link to 24 hour clock</li> <li>• Understand and use approximate equivalences between metric and common imperial units such as pints</li> <li>• Revise continuous and discrete data. Read and understand scales, including estimating points that are between the numbers marked on the scales</li> </ul>
<i>Week 2</i>	STATISTICS TO SOLVE PROBLEMS           NUMBER AND PLACE VALUE TO SOLVE PROBLEMS	<ul style="list-style-type: none"> <li>• Interpret line graphs and use these to solve problems</li> <li>• Begin to link pie charts to angles e.g. 360 degrees, fractions and percentages</li> <li>• Begin to interpret pie charts use these to solve problems</li> <li>• Read, write, order and determine the value of each digit for numbers up to 10 000 000</li> <li>• Round any whole number to the nearest 10, 100, 1 000 or 10 000 using a number line</li> <li>• Order and identify the value of each digit in numbers to three decimal places</li> </ul>
<i>Week 3</i>	NUMBER AND PLACE VALUE TO SOLVE PROBLEMS	<ul style="list-style-type: none"> <li>• Round decimals with three places to the nearest whole number or to one decimal place</li> <li>• Order and compare positive and negative numbers- on a number line</li> <li>• Use negative numbers in context and calculate intervals across zero</li> <li>• Generate and describe and extend or complete number sequences</li> <li>• Solve problems that involve all of the above</li> </ul>

Week 4	ADDIITON AND SUBTRACTION TO SOLVE PROBLEMS	<ul style="list-style-type: none"> <li>• Solve addition multi-step problems in contexts, deciding which operations and methods to use and why</li> <li>• Subtract whole numbers and decimals using a formal written method</li> <li>• Use inverse to check answers to calculations</li> <li>• Express missing number problems algebraically</li> <li>• ALGEBRA- find pairs of number that satisfy number sequences involving two unknowns e.g. <math>x+y= 1.5</math></li> <li>• Know how to calculate and interpret the mean as an average</li> </ul>
Week 5	MULTIPLICATION AND DIVISION TO SOLVE PROBLEMS	<ul style="list-style-type: none"> <li>• Revise multiplying and dividing by 10, 100 and 1000 including with decimals</li> <li>• Multiply numbers with up to 4 digits by a two-digit whole number using a formal written method of long multiplication.</li> <li>• Multiply one-digit numbers with up to two decimal places by whole numbers</li> <li>• ALGEBRA- find pairs of number that satisfy number sequences involving two unknowns e.g. <math>a \times b= 36</math></li> <li>• Express missing number problems algebraically</li> <li>• Divide numbers up to 4 digits by a two-digit number using a formal written method of short division where appropriate</li> <li>• Extend to division of numbers up to 4 digits by a two-digit whole number using a formal written method of long division</li> <li>• Interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context</li> </ul>
Week 6	RATIO AND PROPORTION TO SOLVE PROBLEMS	<ul style="list-style-type: none"> <li>• Understand ratio as unequal grouping or sharing</li> <li>• Understand proportion as scaling up or down</li> <li>• Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts</li> </ul>
Week 7	USE ALL FOUR OPERATIONS TO SOLVE PROBLEMS	<ul style="list-style-type: none"> <li>• Use their knowledge of the order of operations (BODMAS) to solve problems involving a combination of addition, subtraction, multiplication and/or division</li> <li>• Solve problems involving addition, subtraction, multiplication and /or division</li> </ul>

<p>Week 8 &amp; Week 9</p>	<p>FRACTIONS TO SOLVE PROBLEMS</p>	<ul style="list-style-type: none"> <li>• Revise how to use common factors to simplify fractions</li> <li>• Revise how to use common multiples to turn two or more fractions to the same denomination</li> <li>• Revising identifying prime numbers.</li> <li>• Revise how to compare and order fractions (such as 2/3, 3/4 and 5/6 by converting them to fractions with the same denominator), including fractions &gt;1 (including on a number line)</li> <li>• Add fractions with different denominators</li> <li>• Subtract fractions with different denominators</li> <li>• Write a mixed number e.g. <math>1\frac{1}{5}</math> and explain its meaning</li> <li>• Write an improper fraction e.g. 11/6 and explain its meaning</li> <li>• Convert mixed numbers to and improper fractions and vice versa</li> <li>• Convert an improper fraction answer to a mixed number e.g. <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}</math></li> <li>• Solve problems involving fractions</li> </ul> <p>If appropriate:</p> <ul style="list-style-type: none"> <li>• Extend to adding mixed numbers, using the concept of equivalent fractions</li> <li>• Extend to subtracting mixed numbers, using the concept of equivalent fractions</li> <li>• Extend to multiplying pairs of unit fractions, writing the answer in its simplest form (using diagram or manipulatives)</li> <li>• Extend to dividing a unit fraction by a whole number (using diagrams or manipulatives)</li> </ul>
<p>Week 9 Cont'd</p>	<p>PERCENTAGES TO SOLVE PROBLEMS</p>	<ul style="list-style-type: none"> <li>• Recall and use equivalences between simple fractions, decimals and percentages</li> <li>• Find decimal equivalents for simple fractions</li> <li>• Find simple percentages of amounts</li> <li>• Use percentages for comparison</li> <li>• Solve problems involving the calculation of percentages</li> </ul>
<p>Week 10</p>	<p>SHAPE, POSITION AND DIRECTION TO SOLVE PROBLEMS</p>	<ul style="list-style-type: none"> <li>• Describe positions on a coordinate grid (first quadrant)</li> <li>• Describe positions on the full coordinate grid (all four quadrants)</li> <li>• Identify, describe and represent the position of a shape following a reflection using the appropriate language, and know that the shape has not changed</li> <li>• Identify, describe and represent the position of a shape following a translation, using the</li> </ul>

		<p>appropriate language, and know that the shape has not changed</p> <ul style="list-style-type: none"> <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> </ul>
Week 11	SHAPE, POSITION AND DIRECTION TO SOLVE PROBLEMS	<ul style="list-style-type: none"> <li>• Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.</li> <li>• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles</li> <li>• Solve problems with shapes and /or position and direction</li> </ul>
Week 12	REVISION	Revision of topics requiring further work - to be identified