

Medium Term Maths Planning

Terms 3&4

Class:

EVERY DAY: Practise and develop oral and mental skills to promote mental fluency (e.g. counting, mental strategies, rapid recall of +, -, x and ÷ facts)

_Please check attainment and progress from previous assessments to judge starting points and priorities for this term

<u>Week</u> Date <i>(approx. days)</i>	<u>Programme of study</u> Strand and subheading	Year 5 objectives	Year 6 objectives
1	Number and place value	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero • round any number up to 1 000 000 to the nearest 10, 100, 1000 , 10 000 and 100 000 • solve number problems and practical problems that involve all of the above • read Roman numerals to 1000 (M) and recognise years written in Roman numerals	<ul style="list-style-type: none"> • 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 that involve all of the above
2	Number +/-	<ul style="list-style-type: none"> • add and subtract numbers mentally with increasingly large numbers • add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. 	<ul style="list-style-type: none"> • Perform mental calculations, including with mixed operations and large numbers • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. • Use their knowledge of the order of operations to carry out calculations involving the four operations

<p>3</p>	<p>Number & measures Multiplication Division money</p>	<ul style="list-style-type: none"> multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. 	<ul style="list-style-type: none"> Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication 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 Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context Solve problems involving multiplication and division
<p>4</p>	<p>Measures area/volume (incl formula) conversion between units and imperial</p>	<ul style="list-style-type: none"> convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre) understand and use equivalences between metric units measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes use all four operations to solve problems involving measure (e.g. length,) using decimal notation including scaling. 	<ul style="list-style-type: none"> Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate Use, read, write and convert between standard units, converting measurements of length from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places Recognise that shapes with the same areas can have different perimeters and vice versa Recognise when it is possible to use formulae for area and volume of shapes Solve problems involving the above
<p>5</p>	<p>Geometry Finding unknown angles Reflection & translation</p>	<ul style="list-style-type: none"> identify 3-D shapes, including cubes and other cuboids, from 2-D representations Solve problems involving the above 	<ul style="list-style-type: none"> Draw 2-D shapes using given dimensions and angles Recognise, describe and build simple 3-D shapes, including making nets Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. Solve problems involving the above
<p>6</p>		<ul style="list-style-type: none"> Generate and describe linear number sequences 	

Half term

7	Fractions/ Decimals/ Percentages	<ul style="list-style-type: none"> compare and order fractions whose denominators are all multiples of the same number identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $2/5 + 4/5 = 6/5 = 11/5$) add and subtract fractions with the same denominator and multiples of the same number multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams solve problem involving the above 	<ul style="list-style-type: none"> Use common factors to simplify fractions; use common multiples to express fractions in the same denomination Compare and order fractions, including fractions > 1 Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] Divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$] Solve problems including those that which require answers to be rounded to specified degrees of accuracy
8	Fractions/ Decimals/ Percentages	<ul style="list-style-type: none"> read and write decimal numbers as fractions (e.g. $0.71 = 71/100$) recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents round decimals with two decimal places to the nearest whole number and to one decimal place read, write, order and compare numbers with up to three decimal places solve problems involving number up to three decimal places recognise the per cent symbol (%) and understand that per cent relates to "of parts per hundred", and write percentages as a fraction with denominator hundred, and as a decimal fraction solve problems including those which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those with a denominator of a multiple of 10 or 25. solve problems involving the above 	<ul style="list-style-type: none"> Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] 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 Multiply one-digit numbers with up to two decimal places by whole numbers Use written division methods in cases where the answer has up to two decimal places Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts Solve problems including those that which require answers to be rounded to specified degrees of accuracy solve problems involving the above
9	<i>Problem Solving</i> +/-/x/÷ Area perimeter	<i>Teaching the skills and strategies of problem solving</i> <i>Could also be used for assessment purposes</i>	

	length		
10	Measures Geometry Properties of 2D shape Coordinates in 4 quadrants translation and reflection	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Describe positions on the full coordinate grid (all four quadrants) Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
11	Statistics Tables & timetables/ Mean as an average	Statistics <ul style="list-style-type: none"> complete, read and interpret information in tables, including timetables. solve problems involving converting between units of time 	<ul style="list-style-type: none"> Calculate and interpret the mean as an average