



Mount Pleasant Primary School

Maths Medium-Term Plan: Year 6



Number	Measurement	Geometry	Statistics
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	Unit	Place Value (2 weeks)	Addition, Subtraction, Multiplication & Division (6 weeks)	Fractions (4 weeks)	Position & Direction (1 week)
Autumn	NC Objectives	<p>Use negative numbers in context, and calculate intervals across zero</p> <p>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</p> <p>Solve problems which require answers to be rounded to specified degrees of accuracy</p> <p>Solve number and practical problems that involve all of the above</p>	<p>Perform mental calculations</p> <p>Use their knowledge of the order of operations to carry out calculations involving the four operations</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p> <p>Solve problems involving addition and subtraction, Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.</p> <p>Perform mental calculations, including with mixed operations and large numbers</p> <p>Use their knowledge of the order of operations to carry out calculations involving the four operations</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>Identify common factors, common multiples and prime numbers.</p> <p>Solve problems involving multiplication and division. Use written division methods in cases where the answer has up to two decimal places</p> <p>Use estimation to check answers to calculations and determine in the context of a problem</p>	<p>Compare and order fractions, including fractions >1</p> <p>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination</p> <p>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions</p> <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$)</p> <p>Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$)</p> <p>Generate and describe linear number sequences (with fractions)</p> <p>Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example 1/8]</p> <p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p>	<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>
	Small Steps		<p>numbers to 10,000,000</p> <p>compare & order any numbers</p> <p>round any number</p> <p>negative numbers</p>	<p>add & subtract integers</p> <p>multiply 4 by 2</p> <p>short division 4 by 1</p> <p>long division 4 by 2</p> <p>common factors</p> <p>common multiples</p> <p>primes to 100</p> <p>squares & cubes</p> <p>order of operations</p> <p>mental calculations</p>	<p>simplify fractions</p> <p>fractions on a number line</p> <p>compare & order fractions</p> <p>add & subtract fractions</p> <p>multiply fractions by integers</p> <p>divide fractions by integers</p> <p>four rules with fractions</p> <p>fractions of amounts</p>

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	Unit	Decimals (weeks)	Percentages (2 weeks)	Algebra (2 weeks)	Converting Units (1 week)	Perimeter, Area & Volume (2 weeks)	Ratio (3 weeks)
Spring	NC Objectives	<p>Identify the value of each digit in numbers given to three decimal places Solve problems which require answers to be rounded to specified degrees of accuracy Multiply one-digit numbers with up to two decimal places by whole numbers Multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places 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.</p>	<p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p>	<p>Use simple formulae Generate and describe linear number sequences Express missing number problems algebraically Find pairs of numbers that satisfy an equation with two unknowns Enumerate possibilities of combinations of two variables</p>	<p>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, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to three decimal places Convert between miles and kilometers</p>	<p>Recognise that shapes with the same areas can have different perimeters and vice versa Calculate the area of parallelograms and triangles Recognise when it is possible to use formulae for area and volume of shapes Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm³, m³ and extending to other units (mm³, km³)</p>	<p>Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts Solve problems involving similar shapes where the scale factor is known or can be found Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples 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>
	Small Steps	<p>3 decimal places multiply by 10, 100, 1000 divide by 10, 100, 1000 multiply decimals divide decimals FDP</p>	<p>fractions to percentages FDP percentages of amounts</p>	<p>1-step rules 2-step rules formulating expressions substitution formulae equations pairs of values</p>	<p>metric measures converting metric measures calculate metric measures miles & KM imperial measures</p>	<p>area & perimeter triangle area parallelogram area volume</p>	<p>ratio language ratio & fractions ratio symbol calculating ratio ratio & proportion</p>

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Summer	Unit	Statistics (2 weeks)	Properties of Shape (3 weeks)	Consolidation / Gaps / Secondary Ready as appropriate based on data
	NC Objectives	Interpret and construct pie charts and line graphs and use these to solve problems Calculate the mean as an average	Draw 2-D shapes using given dimensions and angles Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles Recognise, describe and build simple 3-D shapes, including making nets	
	Small Steps	read and interpret line graphs draw line graphs use line graphs circles pie charts the mean	measure with a protractor calculate angles vertically opposite angles angles in a triangle angles in a quadrilateral angles in regular polygons draw shapes draw nets	