

Hampshire Medium Term Plans for Mathematics Year 6: Curriculum

<p>Y6 Block A Term 1 (15 lessons) 6A1</p>	<p>Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i></p>	<p>Domain</p>
<p>Problem solving and reasoning</p> <p>Number and Place Value</p>	<p>Addition and subtraction,</p> <p>Multiplication and division</p>	<p>A&S PSR M&D NPV</p>
<p>Y6 Block B Term 1 (15 lessons) 6B1</p>	<p>Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i></p>	<p>Domain</p>
<p>Problem solving and reasoning</p> <p>Number and Place Value</p>	<p>Addition and subtraction</p> <p>Multiplication and division</p> <p>Fractions, decimals and percentages</p> <p>Algebra</p>	<p>A&S PSR M&D Fractions NPV A</p>
<p>Y6 Block C Term 1 (15 lessons) 6C1</p>	<p>Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i></p>	<p>Domain</p>
<p>Problem solving and reasoning</p> <p>Number and Place Value</p>	<p>Addition and subtraction</p> <p>Multiplication and division</p> <p>Measures</p> <p>Algebra</p>	<p>A&S PSR M&D NPV Measure A</p>
<p>Y6 Block D Term 1 (15 lessons) 6D1</p>	<p>Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i></p>	<p>Domain</p>
<p>Problem solving and reasoning</p> <p>Number and Place Value</p>	<p>Addition and subtraction,</p> <p>Multiplication and division</p> <p>Fractions, decimals and percentages</p> <p>Measures</p> <p>Algebra</p>	<p>A&S PSR M&D NPV Fractions Measure A</p>

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Y6 Block A Term 2 (15 lessons) 6A2	Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i>	Domain
Problem solving and reasoning Number and Place Value	Addition and subtraction, Multiplication and division Measures Algebra	A&S PSR M&D NPV Measure A
Y6 Block B Term 2 (15 lessons) 6B2	Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i>	Domain
Problem solving and reasoning Number and Place Value	Addition and subtraction, Multiplication and division Fractions, decimals and percentages Measures Algebra	A&S PSR M&D NPV Fractions Measure A

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Y6 Block C Term 2 (15 lessons) 6C2	Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i>	Domain
<p>Problem solving and reasoning</p> <p>Number and Place Value</p> <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 • solve number and practical problems that involve all place value applications. • use negative numbers in context, and calculate intervals across zero 	<p>Addition and subtraction, multiplication and division</p> <ul style="list-style-type: none"> • 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 • 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 • solve problems involving addition, subtraction, multiplication and division <p>Measures</p> <ul style="list-style-type: none"> • 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 to three decimal places • convert between miles and kilometres • calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3) and cubic metres (m^3) and extending to other units, such as mm^3 and km^3. <p>Algebra</p> <ul style="list-style-type: none"> • express missing number problems algebraically • use simple formulae <p>Geometry: properties of shape</p> <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 • compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. <p>Statistics</p> <ul style="list-style-type: none"> • interpret and construct pie charts and line graphs and use these to solve problems • calculate and interpret the mean as an average 	<p>A&S / M&D PSR</p> <p>Measure</p> <p>A</p> <p>Geometry (a)</p> <p>Statistics</p>

Y6 Block D Term 2 (15 lessons) 6D2	Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i>	Domain
<p>Problem solving and reasoning</p> <p>Number and Place Value</p> <ul style="list-style-type: none"> • read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • solve number and practical problems that involve all place value applications • use negative numbers in context, and calculate intervals across zero 	<p>Addition and subtraction, multiplication and division</p> <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 • perform mental calculations, including with mixed operations and large numbers • use their knowledge of the order of operations to carry out calculations involving the four operations • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • solve problems involving addition, subtraction, multiplication and division • use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy <p>Fractions, decimals and percentages</p> <ul style="list-style-type: none"> • associate a fraction with division to calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{1}{3}$) • multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$) • divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$). • use written division methods in cases where the answer has up to two decimal places • solve problems which require answers to be rounded to specified degrees of accuracy • recall and use equivalences between simple fractions, decimals and percentages, including in different contexts <p>Ratio and proportion</p> <ul style="list-style-type: none"> • 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 the calculation of percentages (e.g. of measures) such as 15% of 360 and the use of percentages for comparison • 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 <p>Algebra</p> <ul style="list-style-type: none"> • generate and describe linear number sequences • pairs of numbers that satisfy number sentences involving two unknowns 	<p>A&S, M&D</p> <p>NPV</p> <p>Fractions</p> <p>Fractions</p> <p>A</p>

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	<p>Measures</p> <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• 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 <p>Geometry : position and direction</p> <ul style="list-style-type: none">• describe positions on the full coordinate grid (all four quadrants)• draw and translate simple shapes on the co-ordinate plane, and reflect them in the axes	<p>Measure</p> <p>Geometry (b)</p>
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Y6 Block A Term 3 (15 lessons) 6A3	Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i>	Domain
<p>Problem solving and reasoning</p> <p>Number and Place Value</p> <ul style="list-style-type: none"> • read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • solve number and practical problems that involve all place value applications. • use negative numbers in context, and calculate intervals across zero 	<p>Addition and subtraction, multiplication and division</p> <ul style="list-style-type: none"> • divide numbers up to 4 digits by a two-digit whole number using the efficient written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • perform mental calculations, including with mixed operations and large numbers • identify common factors, common multiples and prime numbers • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • solve problems involving addition, subtraction, multiplication and division • use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. <p>Fractions, decimals and percentages</p> <ul style="list-style-type: none"> • multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$) • divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$). • solve problems which require answers to be rounded to specified degrees of accuracy • 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 • identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places • multiply one-digit numbers with up to two decimal places by whole numbers <p>Measures</p> <ul style="list-style-type: none"> • calculate the area of parallelograms and triangles • calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm³) and cubic metres (m³) and extending to other units, such as mm³ and km³. <p>Algebra</p> <ul style="list-style-type: none"> • use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • find pairs of numbers that satisfy number sentences involving two unknowns • enumerate all possibilities of combinations of two variables 	<p>A&S, M&D</p> <p>NPV</p> <p>Fractions</p> <p>Measure</p> <p>A</p>

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Y6 Block B Term 3 (15 lessons) 6B3	Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i>	Domain
REVISION	REVISION	NPV A&S <u>M&D</u> Fractions Measure Geometry PSR

Key:

- PSR Problem solving and reasoning
- NPV Number and Place Value
- A&S Addition and Subtraction
- M&D Multiplication and Division
- A Algebra