

Hampshire Medium Term Plans for Mathematics Year 5: Curriculum

Y5 Block A Term 1 (15 lessons) 5A1	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 Measures Geometry	A&S PSR Measure NPV Geometry
Y5 Block B Term 1 (15 lessons) 5B1	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	Multiplication and division Fractions, decimals and 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 Statistics	M&D PSR Fractions NPV Statistics
Y5 Block C Term 1 (15 lessons) 5C1	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 <ul style="list-style-type: none"> • 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 • 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 	Addition and subtraction Measures Geometry: properties of shapes	A&S PSR Measure NPV Geometry

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Y5 Block A Term 2 (15 lessons) 5A2	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>	<p>Addition and subtraction</p> <p>Measures</p> <ul style="list-style-type: none"> measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres calculate and compare the area rectangles (including squares) and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes <p>Statistics</p>	<p>A&S PSR Measure NPV</p> <p>Statistics</p>
Y5 Block B Term 2 (15 lessons) 5B2	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>	<p>Multiplication and division</p> <p>Fractions, decimals and percentages</p> <ul style="list-style-type: none"> compare and order fractions whose denominators are all multiples of the same number add and subtract fractions with the same denominator and multiples of the same number recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents read, write, order and compare numbers with up to three decimal places <p>Geometry</p>	<p>M&D PSR Fractions NPV</p> <p>Geometry</p>
Y5 Block C Term 2 (15 lessons) 5C2	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 Roman numerals to 1000 (M) and recognise years written in Roman numerals. 	<p>Addition and subtraction</p> <p>Fractions, decimals and percentages</p> <p>Measures</p> <ul style="list-style-type: none"> convert between different units of measure (e.g. kilometre and metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre) understand and use basic equivalences between metric and common imperial units such as inches, pounds and pints <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> identify 3-D shapes, including cubes and cuboids, from 2-D representations 	<p>A&S PSR Fractions NPV Measure</p> <p>Geometry</p>

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Y5 Block D Term 2 (15 lessons) 5D2	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>	<p>Multiplication and division</p> <p>Fractions, decimals and percentages</p> <ul style="list-style-type: none"> • recognise mixed numbers and improper fractions of a given convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $2/5 + 4/5 = 6/5 = 1\frac{1}{5}$) • round decimals with two decimal places to the nearest whole number and to one decimal place • solve problems involving number up to three decimal places • recognise the per cent symbol (%) and understand that per cent relates to “number of parts per hundred”, and write percentages as a fraction with denominator hundred, and as a decimal fraction <p>Measures</p> <ul style="list-style-type: none"> • convert between different units of measure (e.g. kilometre and metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre) • estimate volume (e.g. using 1 cm³ blocks to build cubes and cuboids) and capacity (e.g. using water) • use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling <p>Statistics</p>	<p>M&D</p> <p>PSR NPV Fractions</p> <p>Measures</p> <p>Statistics</p>

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Y5 Block A Term 3 (15 lessons) 5A3	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 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 • 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 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> • add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • add and subtract numbers mentally with increasingly large numbers <p>Multiplication and division</p> <ul style="list-style-type: none"> • multiply and divide numbers mentally drawing upon known facts • multiply numbers up to 4 digits by a one- or two digit number using a formal written method, including long multiplication of two-digit numbers • 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. <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> • know angles are measured in degrees; estimate and compare acute, obtuse and reflex angles • draw given angles, and measure them in degrees (°) • identify: <ul style="list-style-type: none"> ○ angles at a point and one whole turn (total 360°) ○ angles at a point on a straight line and ½ a turn (total 180°) ○ multiples of 90° <p>Measures</p> <ul style="list-style-type: none"> • solve problems involving converting between units of time 	<p>A/S NPV</p> <p>M&D</p> <p>Geometry (a)</p> <p>Measures</p>

Hampshire Medium Term Plans for Mathematics Year 5: Curriculum

Y5 Block B Term 3 (15 lessons) 5B3	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 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 through zero • solve number problems and practical problems that involve all of the above 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> • add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • add and subtract numbers mentally with increasingly large numbers • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. <p>Multiplication and division</p> <ul style="list-style-type: none"> • multiply and divide numbers mentally drawing upon known facts • 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. <p>Fractions, decimals and percentages</p> <ul style="list-style-type: none"> • multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams • solve problems involving number up to three decimal places • solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25 <p>Geometry: Position and direction</p> <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 	<p>A&S NPV</p> <p><u>M&D</u></p> <p>Fractions</p> <p>Geometry</p>

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Y5 Block C Term 3 (15 lessons) 5C3	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 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 • 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 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> • add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • add and subtract numbers mentally with increasingly large numbers <p>Multiplication and division</p> <ul style="list-style-type: none"> • identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. • know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • establish whether a number up to 100 is prime and recall prime numbers up to 19 • multiply and divide numbers mentally drawing upon known facts • 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 • recognise and use square numbers and cube numbers, and the notation for squared (\square^2) and cubed (\square^3) • 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 <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> • know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles § draw given angles, and measure them in degrees (o) • use the properties of rectangles to deduce related facts and find missing lengths and angles • distinguish between regular and irregular polygons based on reasoning about equal sides and angles <p>Statistics</p> <ul style="list-style-type: none"> • solve comparison, sum and difference problems using information presented in line graphs • complete, read and interpret information in tables, including timetables 	<p>A&S NPV</p> <p>M&D</p> <p>Geometry (a)</p> <p>Statistics</p>

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Y5 Block D Term 3 (15 lessons) 5D3	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 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 • solve number problems and practical problems that involve all of the above 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> • add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • add and subtract numbers mentally with increasingly large numbers • 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. <p>Multiplication and division</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 • multiply and divide numbers mentally drawing upon known facts • 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. <p>Fractions, decimals and percentages</p> <ul style="list-style-type: none"> • multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams • solve problems involving number up to three decimal places • solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25 	<p>A&S NPV</p> <p><u>M&D</u></p> <p>Fractions</p>

Key:

PSR Problem solving and reasoning

NPV Number and Place Value

M&D Multiplication and Division

A Algebra

A&S Addition and Subtraction