

Hampshire Medium Term Plans for Mathematics: Curriculum Year 4

Y4 Block A Term 1 (15 lessons) 4A1	Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i>	Domain
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons</li> </ul> <p>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</p> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> <li>read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value.</li> </ul>	<p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</li> <li>estimate and use inverse operations to check answers to a calculation</li> <li>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>convert between different units of measure (e.g. kilometre to metre; hour to minute)</li> <li>measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>find the area of rectilinear shapes by counting squares</li> <li>estimate, compare and calculate different measures, including money in pounds and pence</li> <li>read, write and convert time between analogue and digital 12 and 24-hour clocks</li> <li>solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>interpret and present discrete data using bar charts and continuous data using line graphs</li> <li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li> </ul>	<p>A/S PSR</p> <p>Measures</p> <p>NPV</p> <p>Statistics</p>

<b>Y4 Block B Term 1 (15 lessons) 4B1</b>	<b>Learning Objectives :</b> <i>By the end of this sequence of lessons all pupils will be able to.....</i>	<b>Domain</b>
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one- and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons</li> <li>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</li> </ul> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	<p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</li> <li>recognise and use factor pairs and commutatively in mental calculations</li> <li>multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</li> </ul> <p><b>Fractions, decimals and percentages</b></p> <ul style="list-style-type: none"> <li>count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten</li> <li>solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number</li> <li>recognise and show, using diagrams, families of common equivalent fractions</li> <li>add and subtract fractions with the same denominator.</li> </ul> <p><b>Geometry: Properties of shapes</b></p> <ul style="list-style-type: none"> <li>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>identify acute and obtuse angles and compare and order angles up to two right angles by size</li> <li>identify lines of symmetry in 2-D shapes presented in different orientations</li> <li>complete a simple symmetric figure with respect to a specific line of symmetry.</li> </ul>	<p><b>M&amp;D</b> PSR</p> <p>Fractions</p> <p>NPV</p> <p><i>Geometry</i></p>

<b>Y4 Block C Term 1 (15 lessons) 4C1</b>	<b>Learning Objectives :</b> <i>By the end of this sequence of lessons all pupils will be able to.....</i>	<b>Domain</b>
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one- and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons</li> <li>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</li> </ul> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	<p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>add and subtract numbers with up to 4 digits using the efficient written methods of columnar addition and subtraction where appropriate</li> <li>estimate and use inverse operations to check answers to a calculation</li> <li>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>convert between different units of measure (e.g. kilometre to metre; hour to minute)</li> <li>measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>find the area of rectilinear shapes by counting</li> <li>estimate, compare and calculate different measures, including money in pounds and pence</li> <li>read, write and convert time between analogue and digital 12 and 24-hour clocks</li> <li>solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>interpret and present discrete data using bar charts and continuous data using line graphs</li> <li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li> <li>Compare the impact of representations where scales have intervals of differing step sizes</li> </ul>	<p>A&amp;S PSR</p> <p>Measure</p> <p>NPV</p> <p>Statistics</p>

Y4 Block D Term 1 (15 lessons) 4D1	Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i>	Domain
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one- and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</li> </ul> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	<p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</li> <li>recognise and use factor pairs and commutatively in mental calculations</li> <li>multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.</li> </ul> <p><b>Fractions, decimals and percentages</b></p> <ul style="list-style-type: none"> <li>recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>recognise and write decimal equivalents to <math>\frac{1}{4}</math>; <math>\frac{1}{2}</math>; <math>\frac{3}{4}</math></li> <li>find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> <li>round decimals with one decimal place to the nearest whole number</li> <li>compare numbers with the same number of decimal places up to two decimal places</li> <li>solve simple measure and money problems involving fractions and decimals to two decimal places.</li> </ul> <p><b>Geometry: position and direction</b></p> <ul style="list-style-type: none"> <li>describe positions on a 2-D grid as coordinates in the first quadrant</li> <li>describe movements between positions as translations of a given unit to the left/right and up/down</li> <li>plot specified points and draw sides to complete a given polygon.</li> </ul>	<p><b>M&amp;D</b> PSR</p> <p>Fractions</p> <p>NPV</p> <p>Geometry</p>

<b>Y4 Block A Term 2 (15 lessons) 4A2</b>	<b>Learning Objectives :</b> <i>By the end of this sequence of lessons all pupils will be able to.....</i>	<b>Domain</b>
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons</li> </ul> <p>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</p> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> <li>read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value.</li> </ul>	<p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</li> <li>estimate and use inverse operations to check answers to a calculation</li> <li>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>convert between different units of measure (e.g. kilometre to metre; hour to minute)</li> <li>measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>find the area of rectilinear shapes by counting squares</li> <li>estimate, compare and calculate different measures, including money in pounds and pence</li> <li>read, write and convert time between analogue and digital 12 and 24-hour clocks</li> <li>solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>interpret and present discrete data using bar charts and continuous data using line graphs</li> <li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li> </ul>	<p>A/S PSR</p> <p>Measures</p> <p>NPV</p> <p>Statistics</p>

<b>Y4 Block B Term 2 (15 lessons) 4B2</b>	<b>Learning Objectives :</b> <i>By the end of this sequence of lessons all pupils will be able to.....</i>	<b>Domain</b>
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one- and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons</li> <li>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</li> </ul> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	<p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</li> <li>recognise and use factor pairs and commutatively in mental calculations</li> <li>multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</li> </ul> <p><b>Fractions, decimals and percentages</b></p> <ul style="list-style-type: none"> <li>count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten</li> <li>solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number</li> <li>recognise and show, using diagrams, families of common equivalent fractions</li> <li>add and subtract fractions with the same denominator.</li> </ul> <p><b>Geometry: Properties of shapes</b></p> <ul style="list-style-type: none"> <li>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>identify acute and obtuse angles and compare and order angles up to two right angles by size</li> <li>identify lines of symmetry in 2-D shapes presented in different orientations</li> <li>complete a simple symmetric figure with respect to a specific line of symmetry.</li> </ul>	<p><b>M&amp;D</b> PSR</p> <p>Fractions</p> <p>NPV</p> <p><i>Geometry</i></p>



<b>Y4 Block C Term 2 (15 lessons) 4C2</b>	<b>Learning Objectives :</b> <i>By the end of this sequence of lessons all pupils will be able to.....</i>	<b>Domain</b>
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one- and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons</li> <li>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</li> </ul> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	<p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>add and subtract numbers with up to 4 digits using the efficient written methods of columnar addition and subtraction where appropriate</li> <li>estimate and use inverse operations to check answers to a calculation</li> <li>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>convert between different units of measure (e.g. kilometre to metre; hour to minute)</li> <li>measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>find the area of rectilinear shapes by counting</li> <li>estimate, compare and calculate different measures, including money in pounds and pence</li> <li>read, write and convert time between analogue and digital 12 and 24-hour clocks</li> <li>solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>interpret and present discrete data using bar charts and continuous data using line graphs</li> <li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li> <li>Compare the impact of representations where scales have intervals of differing step sizes</li> </ul>	<p>A&amp;S PSR</p> <p>Measure</p> <p>NPV</p> <p>Statistics</p>

<p><b>Y4 Block D Term 2 (15 lessons)</b> <b>4D2</b></p>	<p><b>Learning Objectives :</b> <i>By the end of this sequence of lessons all pupils will be able to.....</i></p>	<p><b>Domain</b></p>
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one- and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</li> </ul> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	<p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</li> <li>recognise and use factor pairs and commutatively in mental calculations</li> <li>multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.</li> </ul> <p><b>Fractions, decimals and percentages</b></p> <ul style="list-style-type: none"> <li>recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>recognise and write decimal equivalents to <math>\frac{1}{4}</math>; <math>\frac{1}{2}</math>; <math>\frac{3}{4}</math></li> <li>find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> <li>round decimals with one decimal place to the nearest whole number</li> <li>compare numbers with the same number of decimal places up to two decimal places</li> <li>solve simple measure and money problems involving fractions and decimals to two decimal places.</li> </ul> <p><b>Geometry: position and direction</b></p> <ul style="list-style-type: none"> <li>describe positions on a 2-D grid as coordinates in the first quadrant</li> <li>describe movements between positions as translations of a given unit to the left/right and up/down</li> <li>plot specified points and draw sides to complete a given polygon.</li> </ul>	<p><b>M&amp;D</b> PSR</p> <p>Fractions NPV</p> <p>Geometry</p>



<p><b>Y4 Block A Term 3 (15 lessons)</b> <b>4A3</b></p>	<p><b>Learning Objectives :</b> <i>By the end of this sequence of lessons all pupils will be able to.....</i></p>	<p><b>Domain</b></p>
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons</li> <li>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</li> </ul> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> <li>read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value.</li> </ul>	<p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</li> <li>estimate and use inverse operations to check answers to a calculation</li> <li>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>convert between different units of measure (e.g. kilometre to metre; hour to minute)</li> <li>measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>find the area of rectilinear shapes by counting squares</li> <li>estimate, compare and calculate different measures, including money in pounds and pence</li> <li>read, write and convert time between analogue and digital 12 and 24-hour clocks</li> <li>solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>interpret and present discrete data using bar charts and continuous data using line graphs</li> <li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li> </ul>	<p>A/S PSR</p> <p>Measures</p> <p>NPV</p> <p>Statistics</p>

Y4 Block B Term 3 (15 lessons) 4B3	Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i>	Domain
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one- and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons</li> <li>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</li> </ul> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	<p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</li> <li>recognise and use factor pairs and commutatively in mental calculations</li> <li>multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</li> </ul> <p><b>Fractions, decimals and percentages</b></p> <ul style="list-style-type: none"> <li>count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten</li> <li>solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number</li> <li>recognise and show, using diagrams, families of common equivalent fractions</li> <li>add and subtract fractions with the same denominator.</li> </ul> <p><b>Geometry: Properties of shapes</b></p> <ul style="list-style-type: none"> <li>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>identify acute and obtuse angles and compare and order angles up to two right angles by size</li> <li>identify lines of symmetry in 2-D shapes presented in different orientations</li> <li>complete a simple symmetric figure with respect to a specific line of symmetry.</li> </ul>	<p><b>M&amp;D</b> PSR</p> <p>Fractions</p> <p>NPV</p> <p>Geometry</p>

Hampshire Medium Term Plans for Mathematics: Curriculum Year 4

<p><b>Y4 Block C Term 3 (15 lessons) 4C3</b></p>	<p><b>Learning Objectives :</b> <i>By the end of this sequence of lessons all pupils will be able to.....</i></p>	<p><b>Domain</b></p>
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one- and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons</li> <li>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</li> </ul> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	<p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>add and subtract numbers with up to 4 digits using the efficient written methods of columnar addition and subtraction where appropriate</li> <li>estimate and use inverse operations to check answers to a calculation</li> <li>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>convert between different units of measure (e.g. kilometre to metre; hour to minute)</li> <li>measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>find the area of rectilinear shapes by counting</li> <li>estimate, compare and calculate different measures, including money in pounds and pence</li> <li>read, write and convert time between analogue and digital 12 and 24-hour clocks</li> <li>solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>interpret and present discrete data using bar charts and continuous data using line graphs</li> <li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li> <li>Compare the impact of representations where scales have intervals of differing step sizes</li> </ul>	<p>A&amp;S PSR</p> <p>Measure</p> <p>NPV</p> <p>Statistics</p>

Hampshire Medium Term Plans for Mathematics: Curriculum Year 4

Y4 Block D Term 3 (15 lessons) 4D3	Learning Objectives : <i>By the end of this sequence of lessons all pupils will be able to.....</i>	Domain
<p><b>Problem solving and reasoning</b></p> <ul style="list-style-type: none"> <li>Solve one- and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling</li> <li>Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs</li> <li>Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument</li> </ul> <p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>find 1000 more or less than a given number</li> <li>count backwards through zero to include negative numbers</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	<p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>recall multiplication and division facts for multiplication tables up to 12 × 12</li> <li>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</li> <li>recognise and use factor pairs and commutatively in mental calculations</li> <li>multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.</li> </ul> <p><b>Fractions, decimals and percentages</b></p> <ul style="list-style-type: none"> <li>recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>recognise and write decimal equivalents to <math>\frac{1}{4}</math>; <math>\frac{1}{2}</math>; <math>\frac{3}{4}</math></li> <li>find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> <li>round decimals with one decimal place to the nearest whole number</li> <li>compare numbers with the same number of decimal places up to two decimal places</li> <li>solve simple measure and money problems involving fractions and decimals to two decimal places.</li> </ul> <p><b>Geometry: position and direction</b></p> <ul style="list-style-type: none"> <li>describe positions on a 2-D grid as coordinates in the first quadrant</li> <li>describe movements between positions as translations of a given unit to the left/right and up/down</li> <li>plot specified points and draw sides to complete a given polygon.</li> </ul>	<p><b>M&amp;D</b> PSR</p> <p>Fractions NPV</p> <p>Geometry</p>

Key:

PSR Problem solving and reasoning

NPV Number and Place Value

A&S Addition and Subtraction

M&D Multiplication and Division

A Algebra