



# **SHOBNALL PRIMARY & NURSERY SCHOOL**

## **MATHEMATICS PROGRAMME OF STUDY**

### **YEAR 5 LONG TERM OVERVIEW**



## YEAR FIVE MATHEMATICS MEDIUM TERM PLAN

KEY: **NUMBER**, **GEOMETRY**, **STATISTICS** and **MEASUREMENT**

**AUTUMN TERM**, **SPRING TERM** and **SUMMER TERM**

Week	Unit	Lesson titles	Domain	National Curriculum Pupils should be taught to:
1	Unit 1- Place value within 100,000	Lesson 1 – Roman numerals	Number- Number and place value	• Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals.
		Lesson 2 – Number to 10,000	Number- Number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit (100,000).
		Lesson 3 – Numbers to 100,000	Number- Number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit (100,000).
		Lesson 4 – Numbers to 1,000,000	Number- Number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit (100,000).
2		Lesson 5 – Read and write 5-and 6-digit numbers	Number- Number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit (100,000).
		Lesson 6 – Power of 10	Number- Number and place value	• Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.
		Lesson 7 – 10, 100, 1,000, 100,000 more or less	Number- Number and place value	• Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.
		Lesson 8 – Partition numbers to 1,000,000	Number- Number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit (100,000).
3	Unit 2 – Place value within 1,000,000	Lesson 1 – Number line to 1,000,000	Number- Number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
		Lesson 2 – Compare and order numbers to 100,000	Number- Number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
		Lesson 3 – Compare and order numbers to 1,000,000	Number- Number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
		Lesson 4 – Round numbers to the nearest 100,000	Number- Number and place value	• Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000

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4		Lesson 5 – Round numbers to the nearest 10,000	Number- Number and place value	<ul style="list-style-type: none"><li>Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000</li></ul>
		Lesson 6 – Round numbers to the nearest 10, 100 and 1,000	Number- Number and place value	<ul style="list-style-type: none"><li>Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000</li></ul>
5	Unit 3 – Addition and subtraction	Lesson 1 – Mental Strategies (addition)	Number- Addition and subtraction	<ul style="list-style-type: none"><li>Add and subtract numbers mentally with increasingly large numbers.</li></ul>
		Lesson 2 – Mental Strategies (subtraction)	Number- Addition and subtraction	<ul style="list-style-type: none"><li>Add and subtract numbers mentally with increasingly large numbers.</li></ul>
		Lesson 3 – Add whole numbers with more than 4-digits (1)	Number- Addition and subtraction	<ul style="list-style-type: none"><li>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).</li></ul>
		Lesson 4 – Subtract whole numbers with more than 4-digits (1)	Number- Addition and subtraction	<ul style="list-style-type: none"><li>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).</li></ul>
		Lesson 5 – Subtract whole numbers with more than 4-digits (2)	Number- Addition and subtraction	<ul style="list-style-type: none"><li>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).</li></ul>
		Lesson 6 – Round to check answers	Number- Addition and subtraction	<ul style="list-style-type: none"><li>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li></ul>
6		Lesson 8 – Inverse operations (addition and subtraction)	Number- Addition and subtraction	<ul style="list-style-type: none"><li>Estimate and use inverse operations to check answers to a calculation.</li></ul>
		Lesson 9 – Multi-step addition and subtraction problems (1)	Number- Addition and subtraction	<ul style="list-style-type: none"><li>solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why.</li></ul>
		Lesson 10 – Multi-step addition and subtraction problems (2)	Number- Addition and subtraction	<ul style="list-style-type: none"><li>solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why.</li></ul>
		Lesson 11 – Solve missing number problems	Number- Addition and subtraction	<ul style="list-style-type: none"><li>solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why.</li></ul>

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7		Lesson 12 – Solve comparison problems	Number- Addition and subtraction	<ul style="list-style-type: none"><li>solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why.</li></ul>
	Unit 5 – Multiplication and division (1)	Lesson 1 - Multiples	Number – Multiplication and division	<ul style="list-style-type: none"><li>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</li></ul>
Lesson 2 – Common multiples		Number – Multiplication and division	<ul style="list-style-type: none"><li>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</li></ul>	
Lesson 3 – Factors		Number – Multiplication and division	<ul style="list-style-type: none"><li>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</li></ul>	
8		Lesson 4 – Common factors	Number – Multiplication and division	<ul style="list-style-type: none"><li>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</li></ul>
		Lesson 5 – Prime numbers	Number – Multiplication and division	<ul style="list-style-type: none"><li>Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.</li></ul>
		Lesson 6 – Square numbers	Number – Multiplication and division	<ul style="list-style-type: none"><li>Recognise and use square numbers and cube numbers, and the notation for squared (<sup>2</sup>) and cubed (<sup>3</sup>).</li></ul>
		Lesson 7 – Cube numbers	Number – Multiplication and division	<ul style="list-style-type: none"><li>Recognise and use square numbers and cube numbers, and the notation for squared (<sup>2</sup>) and cubed (<sup>3</sup>).</li></ul>
		9	Lesson 8 – Multiplying by 10,100 and 1,000	Number – Multiplication and division
Lesson 9 – Divide by 10, 100 and 1,000			Number – Multiplication and division	<ul style="list-style-type: none"><li>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.</li><li></li></ul>
Lesson 10 – Multiples of 10, 100 and 1,000			Number – Multiplication and division	<ul style="list-style-type: none"><li>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.</li></ul>

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	<b>Unit 5 – Fractions (1)</b>	Lesson 1 – Equivalent fractions	<b>Number – Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</li> </ul>
<b>10</b>		Lesson 2 – Equivalent fractions – unit and non-unit fractions	<b>Number – Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</li> </ul>
		Lesson 3 – Families of equivalent fractions	<b>Number – Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</li> </ul>
		Lesson 4 – Improper fractions to mixed number	<b>Number – Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements <math>&gt; 1</math> as a mixed number.</li> </ul>
		Lesson 5 – Mixed number to improper fractions	<b>Number – Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements <math>&gt; 1</math> as a mixed number.</li> </ul>
		Lesson 6 – Compare fractions less than 1	<b>Number – Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Compare and order fractions whose denominators are all multiples of the same number.</li> </ul>
<b>11</b>		Lesson 7 – Order fractions less than 1	<b>Number – Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Compare and order fractions whose denominators are all multiples of the same number.</li> </ul>
		Lesson 8 – Compare and order fractions greater than 1	<b>Number – Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Compare and order fractions whose denominators are all multiples of the same number.</li> </ul>
	<b>Unit 6 – Fractions (2)</b>	Lesson 1 – Adding and subtracting fractions	<b>Number – Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</li> </ul>
<b>12</b>		Lesson 2 – Add fractions within 1	<b>Number – Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</li> </ul>
		Lesson 3 – Add fractions with a total greater than 1	<b>Number – Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</li> </ul>



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		Lesson 5 – Add two mixed numbers	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</li> </ul>
		Lesson 6 – Subtract fractions within 1	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</li> </ul>
		Lesson 7 – Subtract from a mixed number	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</li> </ul>
		Lesson 8 – Subtract from a mixed number – breaking the whole	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</li> </ul>
		Lesson 9 – Subtract two mixed numbers	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</li> </ul>
2		Lesson 10 – Solve fraction problems	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</li> </ul>
		Lesson 11 – Solve multi-step fraction problems	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</li> </ul>
3	<b>Unit 7 – Multiplication and division (2)</b>	Lesson 1 – Multiply up to 4-digits by 1-digit.	Number – Multiplication and division	<ul style="list-style-type: none"> <li>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.</li> </ul>
		Lesson 2 – Multiply 2-digits (area model)	Number – Multiplication and division	<ul style="list-style-type: none"> <li>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.</li> </ul>
		Lesson 3 – Multiply 2 digits by 2-digits.	Number – Multiplication and division	<ul style="list-style-type: none"> <li>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.</li> </ul>

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<b>4</b>		Lesson 4 – Multiply 3-digits by 2-digits.	Number – Multiplication and division	<ul style="list-style-type: none"> <li>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.</li> </ul>
		Lesson 5 – Multiply 4-digit by 2-digit.	Number – Multiplication and division	<ul style="list-style-type: none"> <li>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.</li> </ul>
		Lesson 6 – Divide 4-digit by 1-digit (1)	Number – Multiplication and division	<ul style="list-style-type: none"> <li>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.</li> </ul>
		Lesson 7 – Divide 4-digit by 1-digit (2)	Number – Multiplication and division	<ul style="list-style-type: none"> <li>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.</li> </ul>
		Lesson 8 – Divide by remainders	Number – Multiplication and division	<ul style="list-style-type: none"> <li>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.</li> </ul>
		Lesson 9 – Efficient divisions	Number – Multiplication and division	<ul style="list-style-type: none"> <li>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.</li> </ul>
		Lesson 10 Solve problems with multiplication and division	Number – Multiplication and division	<ul style="list-style-type: none"> <li>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.</li> </ul>
<b>5</b>	<b>Unit 8 – Fractions (3)</b>	Lesson 1 – Multiply unit fractions by an integer	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</li> </ul>
		Lesson 2 – Multiply non-unit fractions by an integer	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</li> </ul>
		Lesson 3 – Multiply mixed numbers by integers (1)	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</li> </ul>
		Lesson 4 – Multiply mixed numbers by integers (2)	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</li> </ul>

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6		Lesson 5 – Fractions of amounts	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"><li>• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</li></ul>
		Lesson 6 – Finding the whole	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"><li>• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</li></ul>
		Lesson 7 – Using fractions as operators	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"><li>• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</li></ul>
7	Unit 9 – Decimals and percentages	Lesson 1 – Write decimals up to 2 decimal places – less than 1	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"><li>• Read, write, order and compare numbers with up to three decimal places.</li></ul>
		Lesson 2 – Write decimals up to 2 decimal places – greater than 1	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"><li>• Read, write, order and compare numbers with up to three decimal places.</li></ul>
		Lesson 3 – Equivalent fractions and decimals – tenths.	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"><li>• Read and write decimal numbers as fractions</li></ul>
		Lesson 4 – Equivalent fractions and decimals- hundredths	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"><li>• Read and write decimal numbers as fractions</li></ul>
		Lesson 5 – Equivalent fractions and decimals	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"><li>• Read and write decimal numbers as fractions</li></ul>
8		Lesson 6 – Thousandths as fractions	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"><li>• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li></ul>
		Lesson 7- Thousandths as decimals	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"><li>• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li></ul>



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		Lesson 8 – Thousandths on a place value grid	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li> </ul>
		Lesson 9 – Order and compare decimals – same number of decimal places	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Read, write, order and compare numbers with up to three decimal places.</li> </ul>
	9	Lesson 10 – Order and compare decimals with up to 3 decimal places	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Read, write, order and compare numbers with up to three decimal places.</li> </ul>
		Lesson 11 – Round to the nearest whole number	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Round decimals with two decimal places to the nearest whole number and to one decimal place.</li> </ul>
		Lesson 12 – Round to one decimal place	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Round decimals with two decimal places to the nearest whole number and to one decimal place.</li> </ul>
10		Lesson 13 – Understanding percentages	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>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 100, and as a decimal.</li> </ul>
		Lesson 14 – Percentages as fractions and decimals	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>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 100, and as a decimal.</li> </ul>
		Lesson 15 – Equivalent fractions, decimals and percentages.	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>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 100, and as a decimal.</li> </ul>
11	<b>Unit 10 – Measure – perimeter and area</b>	Lesson 1 – Perimeter of rectangles	Measurement	<ul style="list-style-type: none"> <li>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.</li> </ul>
		Lesson 2 – Perimeter of rectilinear shapes (1)	Measurement	<ul style="list-style-type: none"> <li>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.</li> </ul>
		Lesson 3 – Perimeter of rectilinear shapes (2)	Measurement	<ul style="list-style-type: none"> <li>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.</li> </ul>
		Lesson 4 – Perimeter of polygons	Measurement	<ul style="list-style-type: none"> <li>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.</li> </ul>

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12		Lesson 5 – Area of rectangles (1)	Measurement	<ul style="list-style-type: none"> <li>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes.</li> </ul>
		Lesson 6 – Area of rectangles (2)	Measurement	<ul style="list-style-type: none"> <li>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes.</li> </ul>
		Lesson 7 – Area of compound shapes	Measurement	<ul style="list-style-type: none"> <li>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes.</li> </ul>
		Lesson 8 – Estimate area	Measurement	<ul style="list-style-type: none"> <li>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes.</li> </ul>
1	<b>Unit 11 – Graphs and tables</b>	Lesson 1 - Draw line graphs	Statistics	<ul style="list-style-type: none"> <li>Solve comparison, sum and difference problems using information presented in a line graph.</li> </ul>
		Lesson 2 – Read and interpret line graphs (1)	Statistics	<ul style="list-style-type: none"> <li>Solve comparison, sum and difference problems using information presented in a line graph.</li> </ul>
		Lesson 3 – Read and interpret line graphs (2)	Statistics	<ul style="list-style-type: none"> <li>Solve comparison, sum and difference problems using information presented in a line graph.</li> </ul>
		Lesson 4 – Read and interpret tables	Statistics	<ul style="list-style-type: none"> <li>Complete, read and interpret information in tables, including timetables.</li> </ul>
		Lesson 5 – Two-way tables	Statistics	<ul style="list-style-type: none"> <li>Complete, read and interpret information in tables, including timetables.</li> </ul>
		Lesson 6 – Timetables - reading	Statistics	<ul style="list-style-type: none"> <li>Complete, read and interpret information in tables, including timetables.</li> </ul>
2	<b>Unit 12 – Geometry – properties of shapes</b>	Lesson 1 – Understand and use degrees	Geometry	<ul style="list-style-type: none"> <li>Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.</li> </ul>
		Lesson 2 – Measure acute angles	Geometry	<ul style="list-style-type: none"> <li>Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.</li> </ul>
		Lesson 3 – Measure angles up to 180°	Geometry	<ul style="list-style-type: none"> <li>Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.</li> </ul>
		Lesson 4 – Draw lines and angles accurately	Geometry	<ul style="list-style-type: none"> <li>Draw given angles, and measure them in degrees (°).</li> </ul>

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3		Lesson 5 – Calculate angles around a point	Geometry	<ul style="list-style-type: none"> <li>Identify - angles at a point and one whole turn (total <math>360^\circ</math>) - angles at a point on a straight line and 1 2 a turn (total <math>180^\circ</math>) - other multiples of <math>90^\circ</math></li> </ul>
		Lesson 6 - Calculate angles on a straight line	Geometry	<ul style="list-style-type: none"> <li>Identify - angles at a point and one whole turn (total <math>360^\circ</math>) - angles at a point on a straight line and 1 2 a turn (total <math>180^\circ</math>) - other multiples of <math>90^\circ</math>.</li> </ul>
		Lesson 7 – Lengths and angles in shapes	Geometry	<ul style="list-style-type: none"> <li>Use the properties of rectangles to deduce related facts and find missing lengths and angles.</li> </ul>
		Lesson 8 – Regular and irregular polygons	Geometry	<ul style="list-style-type: none"> <li>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</li> </ul>
		Lesson 12 – 3D shapes	Geometry	<ul style="list-style-type: none"> <li>Identify 3D shapes, including cubes and other cuboids, from 2D representations.</li> </ul>
4	<b>Unit 13 – Geometry – position and direction</b>	Lesson 1 – Read and plot coordinates	Geometry	<ul style="list-style-type: none"> <li>Describe the position on a 2D grid as coordinates in the first quadrant (Year 4).</li> </ul>
		Lesson 2 – Problem solving with coordinates	Geometry	<ul style="list-style-type: none"> <li>Describe the position on a 2D grid as coordinates in the first quadrant (Year 4).</li> </ul>
		Lesson 3 – Translate shapes	Geometry	<ul style="list-style-type: none"> <li>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.</li> </ul>
5		Lesson 4 – Translate points	Geometry	<ul style="list-style-type: none"> <li>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.</li> </ul>
		Lesson 5 – Lines of symmetry	Geometry	<ul style="list-style-type: none"> <li>Identify lines of symmetry in 2D shapes presented in different orientations (Year 4)</li> </ul>
		Lesson 6 – Reflection in horizontal and vertical lines	Geometry	<ul style="list-style-type: none"> <li>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.</li> </ul>
6	<b>Unit 14 – Decimals</b>	Lesson 1 – Add and subtract decimals within 1 (1)	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Solve problems involving number up to three decimal places.</li> </ul>
		Lesson 2 – Add and subtract decimals within 1 (2)	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Solve problems involving number up to three decimal places.</li> </ul>
		Lesson 3 – Complements to 1	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Solve problems involving number up to three decimal places.</li> </ul>

## YEAR FIVE MATHEMATICS MEDIUM TERM PLAN

**KEY: NUMBER, GEOMETRY, STATISTICS and MEASUREMENT**

**AUTUMN TERM, SPRING TERM and SUMMER TERM**

7	Lesson 4 – Add and subtract decimals (bridging)	Number – Fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
	Lesson 5 – Add decimals- same number of decimal places	Number – Fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
	Lesson 6 - Subtract decimals with the same number of decimal places	Number – Fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
	Lesson 7 – Add decimals with different numbers of decimal places	Number – Fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
	Lesson 8 – Subtract decimals with different numbers of decimal places	Number – Fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
8	Lesson 9 – Problem solving with decimals (1)	Number – Fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
	Lesson 11 – Decimal sequences	Number – Fractions (including decimals and percentages)	• Read, write, order and compare numbers with up to three decimal places.
	Lesson 12 – Multiply by 10	Number – Fractions (including decimals and percentages)	• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
	Lesson 13 – Multiply by 10, 100 and 1,000	Number – Fractions (including decimals and percentages)	• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
	Lesson 14 - Divide by 10	Number – Fractions (including decimals and percentages)	• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.

## YEAR FIVE MATHEMATICS MEDIUM TERM PLAN

**KEY: NUMBER, GEOMETRY, STATISTICS and MEASUREMENT**

**AUTUMN TERM, SPRING TERM and SUMMER TERM**

9		Lesson 15 – Divide by 10, 100 and 1,000	Number – Fractions (including decimals and percentages)	<ul style="list-style-type: none"> <li>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</li> </ul>
	Unit 15 – Negative number	Lesson 1 – Understand negative number	Number- Number and place value	<ul style="list-style-type: none"> <li>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.</li> </ul>
		Lesson 2 – Count through zero	Number- Number and place value	<ul style="list-style-type: none"> <li>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.</li> </ul>
		Lesson 3 – Compare and order negative numbers	Number- Number and place value	<ul style="list-style-type: none"> <li>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.</li> </ul>
10		Lesson 4 – Find the difference	Number- Number and place value	<ul style="list-style-type: none"> <li>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.</li> </ul>
	Unit 16 – Measure converting units	Lesson 1 – Kilograms and kilometres	Measurement	<ul style="list-style-type: none"> <li>Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).</li> </ul>
		Lesson 2 – Millimetres and millilitres	Measurement	<ul style="list-style-type: none"> <li>Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).</li> </ul>
		Lesson 3 – Convert units of length	Measurement	<ul style="list-style-type: none"> <li>Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).</li> </ul>
11		Lesson 4 – Imperial units of length	Measurement	<ul style="list-style-type: none"> <li>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</li> </ul>
		Lesson 5 – Imperial units of mass	Measurement	<ul style="list-style-type: none"> <li>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</li> </ul>
		Lesson 6 – Imperial units of capacity	Measurement	<ul style="list-style-type: none"> <li>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</li> </ul>
		Lesson 7 – Convert units of time	Measurement	<ul style="list-style-type: none"> <li>Solve problems involving converting between units of time.</li> </ul>
12		Lesson 8 – Timetables - calculating	Measurement	<ul style="list-style-type: none"> <li>Solve problems involving converting between units of time.</li> </ul>
		Lesson 1 – Cubic centimetre	Measurement	<ul style="list-style-type: none"> <li>Estimate volume (for example, using 1 cm<sup>3</sup> blocks to build cuboids (including cubes) and capacity (for example, using water).</li> </ul>

## YEAR FIVE MATHEMATICS MEDIUM TERM PLAN

KEY: **NUMBER**, **GEOMETRY**, **STATISTICS** and **MEASUREMENT**

**AUTUMN TERM**, **SPRING TERM** and **SUMMER TERM**

	<b>Unit 17 – Volume and capacity</b>	Lesson 2 – Compare volume	Measurement	<ul style="list-style-type: none"><li>Estimate volume (for example, using 1 cm<sup>3</sup> blocks to build cuboids (including cubes) and capacity (for example, using water).</li></ul>
		Lesson 3 – Estimate volume	Measurement	<ul style="list-style-type: none"><li>Estimate volume (for example, using 1 cm<sup>3</sup> blocks to build cuboids (including cubes) and capacity (for example, using water).</li></ul>