SHOBNALL PRIMARY & NURSERY SCHOOL

MATHEMATICS PROGRAMME OF STUDY

YEAR 6 LONG TERM OVERVIEW

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

Week	Unit	Lesson titles	Domain	National Curriculum Pupils should be taught to:	Government Guidance Ready-to-progress criteria
1	***Unit 1- Place value within 10,000,000***	Lesson 1 – Numbers to 1,000,000	Number- Number and place value	• 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 of the above.	**6NPV–1** Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000). **6NPV–2** Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning. **6NPV–3** Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts. **6NPV–4** Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.
		Lesson 2 – Numbers to 10,000,000 (1)	Number- Number and place value	• 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 of the above.	
		Lesson 3 – Numbers to 10,000,000 (2)	Number- Number and place value	• 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 of the above.	
		Lesson 4 – Number line to 10,000,000	Number- Number and place value	• 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 of the above.	
2		Lesson 5 – Comparing and ordering numbers to 10,000,000	Number- Number and place value	• 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 of the above.	
		Lesson 6 – Rounding numbers	Number- Number and place value	• Round any whole number to a required degree of accuracy.	
		Lesson 7 – Negative numbers	Number- Number and place value	• Use negative numbers in context, and calculate intervals across zero.	
	Unit 2 – Four operation (1)	Lesson 1 – Problem solving – using written methods of	Number – Addition and subtraction	*Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. (YEAR FIVE)*	**6AS/MD–1** Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

		addition and subtraction (1)			(multiplicative relationships restricted to multiplication by a whole number). **6AS/MD–2** Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.
3		Lesson 2 – Problem solving – using written methods of addition and subtraction (2)	Number – Addition and subtraction	*Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. (YEAR FIVE)*	
		Lesson 3 – Multiplying numbers up to 4 digit by a 1-digit number	Number – Addition, subtraction, multiplication and division	• Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.	
		Lesson 4 – Multiplying numbers up to 4 digits by a 2-digit number	Number – Addition, subtraction, multiplication and division	• Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.	
		Lesson 5 – Dividing numbers up to 4 digit by a 2-digit number (1)	Number – Addition, subtraction, multiplication and division	• Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.	
4		Lesson 6 – Dividing numbers up to 4 digit by a 2-digit number (2)	Number – Addition, subtraction, multiplication and division	• Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.	
		Lesson 7 – Dividing numbers up to 4 digit by a 2-digit number (3)	Number – Addition, subtraction, multiplication and division	• 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.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

		Lesson 8 - – Dividing numbers up to 4 digit by a 2-digit number (4)	Number – Addition, subtraction, multiplication and division	• 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.	
		Lesson 9 – Dividing numbers up to 4 digit by a 2-digit number (5)	Number – Addition, subtraction, multiplication and division	• 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.	
5		Lesson 10 – Dividing numbers up to 4 digit by a 2-digit number (6)	Number – Addition, subtraction, multiplication and division	• 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.	
	Unit 3 – Four operations (2)	Lesson 1 – Common factors	Number – Addition, subtraction, multiplication and division	• Identify common factors, common multiples and prime numbers.	
		Lesson 2 – Common multiples	Number – Addition, subtraction, multiplication and division	• Identify common factors, common multiples and prime numbers.	
		Lesson 3 – Recognising prime numbers up to 100	Number – Addition, subtraction, multiplication and division	• Identify common factors, common multiples and prime numbers.	
6		Lesson 4 – Square and cubes	Number – Addition, subtraction,	*Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}). (YEAR FIVE)*	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

			multiplication and division		
		Lesson 5 – Order of operations	Number – Addition, subtraction, multiplication and division	• Use their knowledge of the order of operations to carry out calculations involving the four operations.	
		Lesson 6 – Brackets	Number – Addition, subtraction, multiplication and division	• Use their knowledge of the order of operations to carry out calculations involving the four operations.	
		Lesson 7 – Mental calculations (1)	Number – Addition, subtraction, multiplication and division	• Perform mental calculations, including with mixed operations and large numbers.	
7		Lesson 8 – Mental calculations (2)	Number – Addition, subtraction, multiplication and division	• Perform mental calculations, including with mixed operations and large numbers.	
		Lesson 9 – Reasoning from known facts	Number – Addition, subtraction, multiplication and division	• Use their knowledge of the order of operations to carry out calculations involving the four operations. • Solve problems involving addition, subtraction, multiplication and division.	
	Unit 4 – Fractions (1)	Lesson 1 – Simplifying fractions (1)	Number – Fractions (including decimals and percentages)	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.	**6F–1** Recognise when fractions can be simplified, and use common factors to simplify fractions.

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

		Lesson 2 – Simplifying fractions (2)	Number – Fractions (including decimals and percentages)	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • Compare and order fractions, including fractions > 1.	**6F–2** Express fractions in a common denomination and use this to compare fractions that are similar in value. **6F–3** Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.
8		Lesson 3 – Fractions on a number line	Number – Fractions (including decimals and percentages)	• Compare and order fractions, including fractions > 1.	
		Lesson 4 – Comparing and ordering fractions (1)	Number – Fractions (including decimals and percentages)	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • Compare and order fractions, including fractions > 1.	
		Lesson 5 – Comparing and ordering fractions (2)	Number – Fractions (including decimals and percentages)	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • Compare and order fractions, including fractions > 1.	
		Lesson 6 – Adding and subtracting fractions (1)	Number – Fractions (including decimals and percentages)	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	
9		Lesson 7 – Adding and subtracting fractions (2)	Number – Fractions (including decimals and percentages)	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

		Lesson 8 – Adding fractions	Number – Fractions (including decimals and percentages)	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	
		Lesson 9 – Subtracting fractions	Number – Fractions (including decimals and percentages)	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	
		Lesson 10 – Problem solving – adding and subtracting fractions (1)	Number – Fractions (including decimals and percentages)	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	
10		Lesson 11 – Problem solving – adding and subtracting fractions (2)	Number – Fractions (including decimals and percentages)	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	
	Unit 5 – Fractions (2)	Lesson 1 – Multiplying a fraction by a whole number	Number – Fractions (including decimals and percentages)	*Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. (YEAR FIVE)*	**6NPV–4** Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.
		Lesson 2 – Multiplying a fraction by a fraction (1)	Number – Fractions (including decimals and percentages)	• Multiply simple pairs of proper fractions, writing the answer in its simplest form.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

		Lesson 3 – Multiplying a fraction by a fraction (2)	Number – Fractions (including decimals and percentages)	• Multiply simple pairs of proper fractions, writing the answer in its simplest form.	
11		Lesson 4 – Dividing a fraction by a whole number (1)	Number – Fractions (including decimals and percentages)	• Divide proper fractions by whole numbers.	
		Lesson 5 – Dividing a fraction by a whole number (2)	Number – Fractions (including decimals and percentages)	• Divide proper fractions by whole numbers.	
		Lesson 6 – Dividing a fraction by a whole number (3)	Number – Fractions (including decimals and percentages)	• Divide proper fractions by whole numbers.	
		Lesson 7 – Four rules with fractions	Number – Fractions (including decimals and percentages)	• Use their knowledge of the order of operations to carry out calculations involving the four operations.	
12		Lesson 8 – Calculating fractions of amounts	Number – Fractions (including decimals and percentages)	• Use written division methods in cases where the answer has up to two decimal places.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

		Lesson 9 – Problem solving – fractions of amounts	Number – Fractions (including decimals and percentages)	• Use written division methods in cases where the answer has up to two decimal places.	
	Unit 6 – Geometry – position and direction	Lesson 1- Plotting coordinates in the first quadrant	Geometry	• Describe positions on the full coordinate grid (all four quadrants).	
		Lesson 2 – Plotting coordinates	Geometry	• Describe positions on the full coordinate grid (all four quadrants).	
1		Lesson 3 – Plotting translations and reflections	Geometry	• Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	
		Lesson 4 – Reasoning about shapes with coordinates.	Geometry	• Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	
	Unit 7 - Decimals	Lesson 1 – multiplying by 10, 100 and 1,000	Number – Fractions (including decimals and percentages)	• Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to three decimal places.	**6NPV–1** Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).
		Lesson 2 – Dividing by multiples of 10,100 and 1,000	Number – Fractions (including decimals and percentages)	• Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to three decimal places.	
2		Lesson 3 – Decimals as fractions	Number – Fractions	• Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

			(including decimals and percentages)	• Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to three decimal places.	
		Lesson 4 – Fractions as decimals (1)	Number – Fractions (including decimals and percentages)	• Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction.	
		Lesson 5 – Fractions as decimals (2)	Number – Fractions (including decimals and percentages)	• Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction. • Use written division methods in cases where the answer has up to two decimal places.	
		Lesson 6 – Multiplying decimals (1)	Number – Fractions (including decimals and percentages)	• Multiply one-digit numbers with up to two decimal places by whole numbers.	
3		Lesson 7 – Multiplying decimals (2)	Number – Fractions (including decimals and percentages)	• Multiply one-digit numbers with up to two decimal places by whole numbers.	
		Lesson 8 – Dividing decimals (1)	Number – Fractions (including decimals and percentages)	• Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction. • Solve problems which require answers to be rounded to specified degrees of accuracy.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

		Lesson 9 – Dividing decimals (2)	Number – Fractions (including decimals and percentages)	• 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.	
	Unit 8 - Percentages	Lesson 1 – Percentages of (1)	Number – Fractions (including decimals and percentages) Ratio and proportion	• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. • Solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison.	
4		Lesson 2 – Percentages of (2)	Number – Fractions (including decimals and percentages) Ratio and proportion	• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. • Solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison.	
		Lesson 3 – Percentages of (3)	Number – Fractions (including decimals and percentages) Ratio and proportion	• Multiply simple pairs of proper fractions, writing the answer in its simplest form. • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. • Solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison.	
		Lesson 4 – Percentages of (4)	Number – Fractions (including	• Multiply one-digit numbers with up to two decimal places by whole numbers.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

			decimals and percentages) Ratio and proportion	• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. • Solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison.	
		Lesson 5 – Finding missing values	Number – Fractions (including decimals and percentages) Ratio and proportion	• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. • Solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison.	
5		Lesson 6 - Converting fractions to percentages	Number – Fractions (including decimals and percentages)	• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	
		Lesson 7 – Equivalent fractions, decimals and percentages (1)	Number – Fractions (including decimals and percentages)	• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	
		Lesson 8 – Equivalent fractions, decimals and percentages (2)	Number – Fractions (including decimals and percentages)	• Compare and order fractions, including fractions > 1. • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	
		Lesson 9 – Mixed problem solving	Number – Fractions	• Solve problems which require answers to be rounded to specified degrees of accuracy.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

			(including decimals and percentages)	• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	
6	***Unit 9 - Algebra***	Lesson 1 – Finding a rule (1)	Algebra	• Use simple formulae. • Generate and describe linear number sequences	**6AS/MD–4** Solve problems with 2 unknowns.
		Lesson 2 – Finding a rule (2)	Algebra	• Use simple formulae. • Generate and describe linear number sequences	
		Lesson 3 – Using a rule (1)	Algebra	• Generate and describe linear number sequences. • Express missing number problems algebraically	
		Lesson 4 – Using a rule (2)	Algebra	• Generate and describe linear number sequences. • Express missing number problems algebraically	
7		Lesson 5 – Using a rule (3)	Algebra	• Generate and describe linear number sequences.	
		Lesson 6 – Formulae	Algebra	• Use simple formulae. • Enumerate possibilities of combinations of two variables	
		Lesson 7 – Solving equations (1)	Algebra	• Express missing number problems algebraically.	
		Lesson 8 – Solving equations (2)	Algebra	• Express missing number problems algebraically.	
8		Lesson 9 – Solving equations (3)	Algebra	• Express missing number problems algebraically.	
		Lesson 10 - – Solving equations (4)	Algebra	• Find pairs of numbers that satisfy an equation with two unknowns. • Enumerate possibilities of combinations of two variables.	
		Lesson 11– Solving equations (5)	Algebra	• Find pairs of numbers that satisfy an equation with two unknowns. • Enumerate possibilities of combinations of two variables.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

	Unit 10 – Measure – imperial and metric measures	Lesson 1 – Metric measures	Measurement	• 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 up to three decimal places.	**6NPV–4** Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.
9		Lesson 2 – Converting metric measures	***Measurement***	• 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 up to three decimal places.	
		Lesson 3 – Problem solving – metric measures	Measurement	• 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 up to three decimal places.	
		Lesson 4 – Miles and km	***Measurement***	• 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 up to three decimal places.	
		Lesson 5 – Imperial measures	Measurement	• 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 up to three decimal places.	
10	***Unit 11 – Measure – perimeter, area and volume***	Lesson 1 – Shapes with the same area	Measurement	• Recognise that shapes with the same areas can have different perimeters and vice versa.	**6G–1** Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.
		Lesson 2 – Area and perimeter (1)	***Measurement***	• Recognise that shapes with the same areas can have different perimeters and vice versa.	
		Lesson 3 – Area and perimeter (2)	Measurement	• Recognise that shapes with the same areas can have different perimeters and vice versa.	
		Lesson 4 – Area of a parallelogram	Measurement	• Recognise when it is possible to use formulae for area and volume of shapes.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

				• Calculate the area of parallelograms and triangles.	
11		Lesson 5 – Area of a triangle (1)	***Measurement***	• Calculate the area of parallelograms and triangles.	
		Lesson 6 – Area of a triangle (2)	Measurement	• Calculate the area of parallelograms and triangles.	
		Lesson 7 – Area of a triangle (3)	Measurement	• Calculate the area of parallelograms and triangles.	
		Lesson 8 – Problem solving – area	***Measurement***	• Calculate the area of parallelograms and triangles.	
12		Lesson 9 – Problem solving – perimeter	Measurement	• Recognise that shapes with the same areas can have different perimeters and vice versa.	
		Lesson 10 – Volume of a cuboid (1)	***Measurement***	• Recognise when it is possible to use formulae for area and volume of shapes. • Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units (for example, mm^3 and km^3).	
		Lesson 11- Volume of a cuboid (2)	Measurement	• Recognise when it is possible to use formulae for area and volume of shapes. • Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units (for example, mm^3 and km^3).	
	Unit 12 – Ratio and proportion	Lesson 1 – Ratio (1)	Ratio and proportion	• 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 unequal sharing and grouping using knowledge of fractions and multiples.	**6AS/MD–3** Solve problems involving ratio relationships.
1		Lesson 2 – Ratio (2)	Ratio and proportion	• Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

				• Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.	
		Lesson 3 – Ratio (3)	Ratio and proportion	• 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 unequal sharing and grouping using knowledge of fractions and multiples.	
		Lesson 4 – Ratio (4)	Ratio and proportion	• 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 unequal sharing and grouping using knowledge of fractions and multiples.	
		Lesson 5 – Scale drawings	Ratio and proportion	• Solve problems involving similar shapes where the scale factor is known or can be found.	
2		Lesson 6 – Scale factors	Ratio and proportion	• Solve problems involving similar shapes where the scale factor is known or can be found.	
		Lesson 7 – Similar shapes	Ratio and proportion	• Solve problems involving similar shapes where the scale factor is known or can be found.	
		Lesson 8 – Problem solving – ratio and proportion (1)	Ratio and proportion	• 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 unequal sharing and grouping using knowledge of fractions and multiples.	
		Lesson 9 – Problem solving – ratio and proportion (2)	Ratio and proportion	• 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 unequal sharing and grouping using knowledge of fractions and multiples.	
3	***Unit 13 – Geometry – properties of shapes***	Lesson 1 – Measuring with a protractor	Geometry	• Draw 2D shapes using given dimensions and angles.	**6G–1** Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.
		Lesson 2 – Drawing shapes accurately	Geometry	• Draw 2D shapes using given dimensions and angles.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

		Lesson 3 – Angles in triangles (1)	Geometry	• Compare and classify geometric shapes based on their properties and sizes, and find unknown angles in any triangles, quadrilaterals and regular polygons.	
		Lesson 4 – Angles in triangles (2)	Geometry	• Compare and classify geometric shapes based on their properties and sizes, and find unknown angles in any triangles, quadrilaterals and regular polygons.	
4		Lesson 5 – Angles in triangles (3)	Geometry	• Compare and classify geometric shapes based on their properties and sizes, and find unknown angles in any triangles, quadrilaterals and regular polygons.	
		Lesson 6 – Angles in polygons (1)	Geometry	• Compare and classify geometric shapes based on their properties and sizes, and find unknown angles in any triangles, quadrilaterals and regular polygons.	
		Lesson 7 – Angles in polygons (2)	Geometry	• Compare and classify geometric shapes based on their properties and sizes, and find unknown angles in any triangles, quadrilaterals and regular polygons.	
		Lesson 8 – Vertical opposite angles	Geometry	• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	
5		Lesson 9 – Equal distance	Geometry	• Illustrate and name parts of circles, including radius, diameter and circumference, and know that the diameter is twice the radius.	
		Lesson 10 – Parts of a circle	Geometry	• Illustrate and name parts of circles, including radius, diameter and circumference, and know that the diameter is twice the radius.	
		Lesson 11 – Nets (1)	Geometry	• Recognise, describe and build simple 3D shapes, including making nets.	
		Lesson 12 – Nets (2)	Geometry	• Recognise, describe and build simple 3D shapes, including making nets.	
6	***Unit 15 - Statistics***	Lesson 1 – The mean (1)	Statistics	• Calculate and interpret the mean as an average.	**6NPV–4** Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.
		Lesson 2 – The mean (2)	Statistics	• Calculate and interpret the mean as an average.	
		Lesson 3 - The mean (3)	Statistics	• Calculate and interpret the mean as an average.	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

		Lesson 4 – Introducing pie charts	Statistics	• Interpret and construct pie charts and line graphs and use these to solve problems.	
7		Lesson 5 – Reading and interpreting pie charts	Statistics	• Interpret and construct pie charts and line graphs and use these to solve problems.	
		Lesson 6 – Fractions and pie charts (1)	Statistics	• Interpret and construct pie charts and line graphs and use these to solve problems.	
		Lesson 7 - Fractions and pie charts (2)	Statistics	• Interpret and construct pie charts and line graphs and use these to solve problems.	
		Lesson 8 – Percentages and pie charts	Number- addition, subtraction, multiplication and division Ratio and proportion Statistics	• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. • Solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison. • Interpret and construct pie charts and line graphs and use these to solve problems.	
8		Lesson 9 – Interpreting line graphs	Number- addition, subtraction, multiplication and division Statistics	• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. • Interpret and construct pie charts and line graphs and use these to solve problems.	
		Lesson 10 – Constructing line graphs.	Statistics	• Interpret and construct pie charts and line graphs and use these to solve problems.	
	RTP	**6NPV–1**	Number- Place value and number	Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).	

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

	RTP	**6NPV–2**	Number- Place value and number	Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.
9	**RTP**	**6NPV–3**	Number- Place value and number	Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.
	RTP	**6NPV–4**	Number- Place value and number	Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.
	RTP	**6AS/MD–1**	Number- Addition, subtraction, multiplication and division	Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).
	RTP	**6AS/MD–2**	Number- Addition, subtraction, multiplication and division	Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.
10	**RTP**	**6AS/MD–3**	Number- Addition, subtraction, multiplication and division	Solve problems involving ratio relationships.
	RTP	**6AS/MD–4**	Number- Addition, subtraction, multiplication and division	Solve problems with 2 unknowns.
	RTP	**6F–1**	Number – Fraction (including decimals and percentages)	Recognise when fractions can be simplified, and use common factors to simplify fractions.
	RTP	**6F–2**	Number – Fraction (including decimals and percentages)	Express fractions in a common denomination and use this to compare fractions that are similar in value.

YEAR SIX MATHEMATICS LONG TERM OVERVIEW

KEY: NUMBER, GEOMETRY, STATISTICS, RATIO AND PROPORTION, ALGEBRA and MEASUREMENT

AUTUMN TERM, SPRING TERM and SUMMER TERM

11	**RTP**	**6F–3**	Number – Fraction (including decimals and percentages)	Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.
	RTP	**6G–1**	Geometry	Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.
	Transition work			
	Transition work			
12	**Transition work**			
	Transition work			
	Transition work			
	Transition work			