UKS2 Long Term Maths Overview

Year 5 Advent Term - 12 weeks		
Weeks	**Maths Topic**	**Objectives Covered**
1	Place Value	• Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals. • Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit. • Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000. • Solve number problems and practical problems involving the above. • Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000.
2	Place Value	
3	Place Value	
4	Addition and Subtraction	• Add and subtract numbers mentally with increasingly large numbers. • Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction). • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. • Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000. • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. • Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction).
5	Addition and Subtraction	

6	Multiplication and Division	• Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
7	Multiplication and Division	• Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.
8	Multiplication and Division	• Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. • Establish whether a number up to 100 is prime and recall prime numbers up to 19. • Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3). • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000. • Multiply and divide numbers mentally, drawing upon known facts.
9	Fractions A	• Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
10	Fractions A	• Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number.
11	Fractions A	• Compare and order fractions whose denominators are all multiples of the same number.
12	Fractions A	• Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. • Add and subtract fractions with the same denominator, and denominators that are multiples of the same number.

Year 5 Lent Term - 12 weeks		
Weeks	**Maths Topic**	**Objectives Covered**
1	Multiplication and Division	● Multiply numbers up to four digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2-digit numbers (overarching objective broken down below).
2	Multiplication and Division	-Multiply up to a 4 digit number by a 1 digit number
3	Multiplication and Division	-Multiply a 2 digit number by a 2 digit number -Multiply a 3 digit number by a 2 digit number -Multiply a 4 digit number by a 2 digit number -Using these skills (listed above) to solve problems ● Divide up to four digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context (overarching objective broken down below). -Using short division with smaller than a 4 digit number (with exchanges) -Dividing a 4 digit number by a 1 digit number (with exchanges) -Dividing with remainders -Make decisions about most efficient division methods in context -Use these skills (listed above) to solve problems
4	Fractions B	● Multiply proper fractions (unit and non-unit) and mixed numbers by whole numbers, supported by materials and diagrams (overarching objective broken down below).
5	Fractions B	-Multiply a unit fraction by an integer -Multiply a non-unit fraction by an integer -Multiply a mixed number by an integer -Calculate a fraction of amounts -Use fractions of amounts to find a whole ● 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 (Y4 linked objective).

6	Decimals and Percentages	● Read, write, order and compare numbers with up to 3 decimal places (focusing on 2dp only building to this objective).
7	Decimals and Percentages	● Read and write decimal numbers as fractions.
8	Decimals and Percentages	● Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. ● Solve problems which require knowing percentage and decimal equivalents of 1 2 , 1 4 , 1 5 , 2 5 , 4 5 and those fractions with a denominator of a multiple of 10 or 25. ● Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. ● Read, write, order and compare numbers with up to 3 decimal places. ● Solve problems involving numbers up to 3 decimal places. ● Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place. ● Recognise the percent symbol (%) and understand that per cent relates to "number of parts per 100", and write percentages as a fraction with denominator 100, and as a decimal fraction
9	Perimeter and Area	● Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres (overarching objective broken down below). -Perimeter of rectangles -Perimeter of rectilinear shapes -Perimeter of polygons
10	Perimeter and Area	● Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm2) and square metres (m2), and estimate the area of irregular shapes (overarching objective broken down below). -Area of rectangles -Area of compound shapes -Estimating area

| 11 | Statistics | • Solve comparison, sum and difference problems using information presented in a line graph (including drawing line graphs). |
| 12 | Statistics | • Complete, read and interpret information in tables, including timetables. |

Year 5 Pentecost Term - 12 weeks		
Weeks	**Maths Topic**	**Objectives Covered**
1	Shape	• Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. -understanding and using degrees -classifying angles -estimating angles • Draw given angles, and measure them in degrees (°) • Identify: angles at a point and 1 whole turn (total 360°) • Identify angles at a point on a straight line and half a turn (total 180°) • Use the properties of rectangles to deduce related facts and find missing lengths and angles • Distinguish between regular and irregular polygons
2	Shape	
3	Shape	

		based on reasoning about equal sides and angles ● Identify 3-D shapes, including cubes and other cuboids, from 2-D representations
4	Position and Direction	● 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 -Read and plot coordinates -Translate between quadrants -Translate with coordinates -Recognise lines of symmetry -Reflection in horizontal and vertical lines
5	Position and Direction	
6	Decimals	● Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents ● Solve problems involving number up to 3 decimal places -Add and subtract decimals within 1 -Add and subtract decimals across 1 -Add decimals with the same number of decimal places -Add decimals with different numbers of decimal places -Subtract decimals with the same number of decimal places -Subtract decimals with a different number of decimal places ● Read, write, order and compare numbers with up to 3 decimal places ● Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000
7	Decimals	
8	Decimals	
9	Negative Numbers	● Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero -Understanding negative numbers -Counting through 0 in ones

		-Counting through 0 in multiples -Comparing and ordering negative numbers -Find the difference between negative numbers
10	Converting Units	• Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre] • Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • Solve problems involving converting between units of time
11	Converting Units	
12	Measurement (Volume)	• Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity

Year 5/Y6 mixed Advent Term - 12 weeks (WRM old mixed)		
Weeks	**Maths Topic**	**Objectives Covered**
1-3	Place Value	- Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals. - Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit. - Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000. - Solve number problems and practical problems involving the above. - Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000. - Round any whole number to a required degree of accuracy. - Use negative numbers in context, and calculate intervals across zero. - Solve number and practical problems that involve the above.
4-8	Four Operations	- Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction). - Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. - Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers - Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes. - Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. - Establish whether a number up to 100 is prime and recall prime numbers up to 19. - Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).

		- Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000. - Multiply and divide numbers mentally, drawing upon known facts. - Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication. - Divide numbers up to four digits by a 2-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. - Use their knowledge of the order of operations to carry out calculations involving the four operations.
9	Fractions A	- Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. - Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number. - Compare and order fractions whose denominators are all multiples of the same number. - Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. - Add and subtract fractions with the same denominator, and denominators that are multiples of the same number. - Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (Y5). - Multiply simple pairs of proper fractions, writing the answer in its simplest form. - Divide proper fractions by whole numbers. - Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. - Solve problems involving addition, subtraction, multiplication and division. - Associate a fraction with division and calculate decimal
10	Fractions A	
11	Fractions B	
12	Fractions B	

		fraction equivalents

Year 5 Year 6 Mixed Lent Term - 12 weeks		
Weeks	**Maths Topic**	**Objectives Covered**
1	Ratio	- 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. - Solve problems involving similar shapes where the scale factor is known or can be found.
2-5	Fractions,Decimals and Percentages	- Read write order and compare numbers with up to 3 decimal places - Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents - Solve problems which require knowing percentage and decimal equivalence - Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. - Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction. - Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. - Compare and order fractions, including fractions >1. - Solve problems involving the calculation of percentages and the use of percentages for comparison. - Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. - Solve problems which require answers to be rounded to

		• specified degrees of accuracy. • Multiply 1-digit numbers with up to 2 decimal places by whole numbers. • Use written division methods in cases where the answer has up to 2 decimal places. • Solve problems involving addition, subtraction, multiplication and division.
6	Algebra	• Use simple formulae • Generate and describe linear number sequences. • Find pairs of numbers that satisfy an equation with two unknowns. • Enumerate possibilities of combinations of two variables. • Express missing number problems algebraically.
7-8	Converting Units of Measure	• Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate. • 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 3 decimal places.
9-10	Perimeter, Area and Volume	• Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. • Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres ($cm2$) and square metres ($m2$), and estimate the area of irregular shapes • Recognise that shapes with the same areas can have different perimeters and vice versa. • Recognise when it is possible to use formulae for area and volume of shapes. • Calculate the area of parallelograms and triangles.

		• Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units.
11-12	Statistics	• Solve comparison, sum and difference problems using information presented in a line graph • Complete, read and interpret information in tables, including timetables. • Interpret and construct pie charts and line graphs and use these to solve problems. • Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs (Year 4). • Calculate and interpret the mean as an average.

Year 5 Y6 mixed Pentecost Term - 12 weeks		
Weeks	**Maths Topic**	**Objectives Covered**
1-2	Shape	• Use the properties of rectangles to deduce related facts and find missing lengths and angles • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. • Draw given angles, and measure them in degrees (°). • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter

		is twice the radius. ● Draw 2-D shapes using given dimensions and angles. ● Recognise, describe and build simple 3-D shapes, including making nets.
3	Position and direction	● Describe positions on the full coordinate grid (all four quadrants). ● Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
4	SATS	

5-12	Themed Projects
	Investigations & Consolidation
		Example content
		
		● 2D names and properties
		  ● 3D nets
		  ● Tangrams
		  ● Number - puzzles
		    ● Money

Year 6 Advent Term - 12 weeks

Weeks	Maths Topic	Objectives Covered
1-2	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 the above. - Round any whole number to a required degree of accuracy. - Solve number and practical problems that involve the above. - Use negative numbers in context, and calculate intervals across zero. - Solve number and practical problems that involve the above.
3-7	Addition, Subtraction, Multiplication and Division	- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. - Solve problems involving addition, subtraction, multiplication and division. - Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. - Identify common factors, common multiples and prime numbers. - Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication. - Perform mental calculations, including with mixed operations and large numbers. - Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. - Divide numbers up to four digits by a 2-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. - Use their knowledge of the order of operations to carry

		out calculations involving the four operations.
8-9	Fractions A	- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. - Compare and order fractions, including fractions > 1. - Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. - Identify common factors, common multiples and prime numbers. - Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. - Solve problems involving addition, subtraction, multiplication and division.
10-11	Fractions B	- Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (Y5). - Multiply simple pairs of proper fractions, writing the answer in its simplest form. - Divide proper fractions by whole numbers. - Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. - Solve problems involving addition, subtraction, multiplication and division. - Associate a fraction with division and calculate decimal fraction equivalents.
12	Measurement (converting units)	- Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate. - 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 3 decimal places.

Year 6 Lent Term - 12 weeks		
Weeks	**Maths Topic**	**Objectives Covered**
1-2	Ratio	- 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. - Solve problems involving similar shapes where the scale factor is known or can be found.
3-4	Algebra	- Use simple formulae - Generate and describe linear number sequences. - Find pairs of numbers that satisfy an equation with two unknowns. - Enumerate possibilities of combinations of two variables. - Express missing number problems algebraically.
5-6	Decimals	- Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. - Solve problems which require answers to be rounded to specified degrees of accuracy. - Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. - Multiply 1-digit numbers with up to 2 decimal places by whole numbers. - Use written division methods in cases where the answer

		has up to 2 decimal places. ● Solve problems involving addition, subtraction, multiplication and division.
7-8	Fractions, Decimals & Percentages	● Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. ● Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction. ● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. ● Compare and order fractions, including fractions >1. ● Solve problems involving the calculation of percentages and the use of percentages for comparison.
9-10	Area, Perimeter & Volume	● Recognise that shapes with the same areas can have different perimeters and vice versa. ● Recognise when it is possible to use formulae for area and volume of shapes. ● Calculate the area of parallelograms and triangles. ● Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units.
11-12	Statistics	● Interpret and construct pie charts and line graphs and use these to solve problems. ● Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs (Year 4). ● Calculate and interpret the mean as an average.

Year 6 Pentecost Term - 12 weeks

Weeks	Maths Topic	Objectives Covered
1-3	Geometry- Shape	• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. • Draw given angles, and measure them in degrees (°). (Y5) • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. (Y5) • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. • Draw 2-D shapes using given dimensions and angles. • Recognise, describe and build simple 3-D shapes, including making nets.
4	Geometry - Position and Direction	• Describe positions on the full coordinate grid (all four quadrants). • Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
5-End of Term	Themed Projects,Consolidation	