Year 5 - Maths Termly Overview

	AUTUMN		SPRING		SUMMER	
	WK		WK		WK	
Year 5	1-3	Place Value to 100,000	1-3	Multiplication and Division continued	1-6	Decimals/Percentages
	4-7	Addition and Subtraction	4-11	Fractions	7-9	Decimals – conversions
					9-11	Negative numbers
	8-12	Multiplications/Division				
	1 day each week	Geometry – Shape	1 day each week	Measure – Area/Perimeter	1 day each week	Measure - Volume
		Geometry – Angles and Circles		Statistics		Position and Direction

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Autumn Term Weeks 1-3	**Place Value to 100,000**			
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
	National Curriculum	- Count in multiples of 6, 7, 9, 25 and 1,000 - Find 1,000 more or less than a given number - Count backwards through zero to include negative numbers - Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) - Order and compare numbers beyond 1,000 - Identify, represent and estimate numbers using different representations - Round any number to the nearest 10, 100 or 1,000 - Solve number and practical problems that involve all of the above and with increasingly large positive numbers -- - Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and 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	Approximation Compare Estimate Exchange Integer Interval Odd number Place holder Positive number Rational number Reciprocal Representation Roman numerals Round
	Ready to Progress	4NPV-1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many hundreds there are in other four-digit multiples of 100. 4NPV-2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning. 4NPV-3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.	5NPV-1 Recognise the place value of each digit in numbers up to 1,000,000 and use this to partition numbers in different ways. 5NPV-2 Compare and order numbers up to 1,000,000 and round numbers to the nearest 10, 100, 1,000, 10,000 and 100,000. 5NPV-3 Interpret negative numbers in context, count forwards and backwards through zero. 5NPV-4 Understand that multiplying or dividing by 10, 100 and 1,000 shifts digits and changes their value. 5NPV-5 Read and write Roman numerals up to 1,000 (M) and recognise years written in Roman numerals.	

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<table>
<tr><td rowspan="3">Autumn Term
Weeks – 4-7</td><td colspan="4">Addition and Subtraction</td></tr>
<tr><td></td><td>Previous Year Group</td><td>Current Year Group</td><td>Key Vocabulary</td></tr>
<tr><td>National Curriculum</td><td>- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
- Estimate and use inverse operations to check answers to a calculation.
- Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</td><td>- 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</td><td rowspan="2">Addition
Addend
Algebra
Associative
Commutative
Double
Equal
Inverse operations
Operation
Plus
Repeated addition
Sign
Sum
Total
Columnar addition
Complement
Formal written methods
Order of operation</td></tr>
<tr><td>Ready to Progress</td><td>4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)</td><td>5AS-1 Add and subtract numbers with more than 4 digits using efficient written methods (column addition and subtraction).
5AS-2 Use mental strategies for addition and subtraction of large numbers, including compensation and partitioning.
5AS-3 Solve multi-step problems involving addition and subtraction in context, deciding which operations and methods to use and why.
5AS-4 Use inverse operations to check calculations and solve missing number problems.</td></tr>
</table>

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	Multiplication and Division			
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
Autumn Term Weeks 8-12	**National Curriculum**	- Recall multiplication and division facts for multiplication tables up to 12 × 12. - Count in multiples of 6, 7, 9, 25 and 1000. - Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1, dividing by 1, multiplying together three numbers - Recognise and use factor pairs and commutativity in mental calculations. - Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. - Solve problems involving multiplying and adding, including: using the distributive law to multiply two-digit numbers by one digit, integer scaling problems, harder correspondence problems (e.g., n objects are connected to m objects).	- 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	Array Commutative Double Equal Inverse operations Multiple Multiplicand Multiplication Multiplication table Operation Multiply Product Repeated addition Brackets Common factor Common multiple Cube number Factor Factorise Formal written methods Highest Common Factor (HCF) Long multiplication Multiplicative reasoning Order of operation Power (of ten) Prime factor Prime number Short multiplication Square number
	Ready to Progress	4NF–1 Recall multiplication and division facts up to , and recognise products in multiplication tables as multiples of the corresponding number. 4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) 4MD–1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. 4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. 4MD–3 Understand and apply the distributive property of multiplication.	5NF-1 - Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. 5MD-1 - Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size. 5MD-2 - Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.	

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Autumn Term Topic 1	**Geometry - Shape**			
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
	National Curriculum	- Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. - Identify acute and obtuse angles and compare and order angles up to two right angles by size. - Identify lines of symmetry in 2-D shapes presented in different orientations. - Complete a simple symmetric figure with respect to a specific line of symmetry. - Pupils should also continue to classify shapes using geometrical properties, including different triangles (isosceles, equilateral, scalene) and quadrilaterals (parallelogram, rhombus, trapezium). - Compare lengths and angles to decide if a polygon is regular or irregular. - Draw symmetric patterns using a variety of media to become familiar with different orientations of lines of symmetry	- Distinguish between regular and irregular polygons based on reasoning about equal sides and angles - Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Angle Acute Obtuse Reflex Face Vertex Edge
	Ready to Progress	4G–2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons 4G–3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.	5G-1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.	

Year 5 - Maths Termly Overview

		Geometry – Angles and Circles		
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
Autumn Term Topic 2	**National Curriculum**	- Identify acute and obtuse angles and compare and order angles up to two right angles by size. - Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. - Recognise lines of symmetry and complete symmetric figures (linked to properties of shapes).	- Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles - Draw given angles, and measure them in degrees (°) Identify angles at a point and 1 whole turn (total 360°) 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 length and angles	Angle Acute Obtuse Reflex Face Vertex Edge Circumference Diameter
	Ready to Progress	4G–2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.	5G–1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.	

Year 5 - Maths Termly Overview

	Multiplication and Division (Continued)			
		Previous Year Group	Current Year Group	Key Vocabulary
Spring Term Weeks 1-3	National Curriculum	- Multiply two-digit and three-digit numbers by a one-digit number using formal written layout - Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	- 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 - 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 - Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign - Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Array Commutative Double Equal Inverse operations Multiple Multiplicand Multiplication Multiplication table Operation Multiply Product Repeated addition Brackets Common factor Common multiple Cube number Factor Factorise Formal written methods Highest Common Factor (HCF) Long multiplication Multiplicative reasoning Order of operation Power (of ten) Prime factor Prime number Short multiplication Square number
	Ready to Progress	4NF–1 Recall multiplication and division facts up to , and recognise products in multiplication tables as multiples of the corresponding number 4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. 4MD–3 Understand and apply the distributive property of multiplication.	5NF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. 5MD–3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method. 5MD–4 Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.	

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Spring Term Weeks 4-11	**Fractions**			
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
	National Curriculum	- Recognise and show, using diagrams, families of common equivalent fractions - Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten - 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 - 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 - 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 - Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	- Compare and order fractions whose denominators are all multiples of the same number - Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths - Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example,2/5 + 4/5 = 6/5 = 1 1/5] - 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	Decimal Decimal system Denominator Improper fraction Mixed fraction Mixed number Numerator Proper fraction Simplify
	Ready to Progress	4MD–1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. 4F–1 Reason about the location of mixed numbers in the linear number system. 4F–2 Convert mixed numbers to improper fractions and vice versa. 4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.	5NPV–5 Convert between units of measure, including using common decimals and fractions 5MD–1 Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size. 5F–1 Find non-unit fractions of quantities. 5F–2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system. 5F–3 Recall decimal fraction equivalents for 1/2, 1/4, 1/5 and 1/10 , and for multiples of these proper fractions.	

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Spring Term Topic 1	**Measurement – Area and Perimeter**			
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
	National Curriculum	- Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres - Find the area of rectilinear shapes by counting squares Estimate, compare and calculate different measures, including money in pounds and pence	- Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres - Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes	Area Squared Millimetre Centimetre Kilometre Metre
	Ready to Progress	4G–2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.	5G–2 Compare areas and calculate the area of rectangles (including squares) using standard units.	

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Spring Term Topic 2	**Measure - Time**			
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
	National Curriculum	- Read, write and convert time between analogue and digital 12- and 24-hour clocks - Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	- Solve problems involving converting between units of time	Analogue Digital O clack Half past Quarter to Quarter past Past To Minute Hour Frequency Convert
	Ready to Progress			

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	Decimals/Percentages			
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
Summer Term Weeks 1-6	**National Curriculum**	- Recognise and write decimal equivalents to 1/4, 1/2, ¾ - Round decimals with one decimal place to the nearest whole number - Round decimals with one decimal place to the nearest whole number - Round decimals with one decimal place to the nearest whole number	- Read and write decimal numbers as fractions [for example, 0.71 = 71/100] - Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents - Round decimals with two decimal places to the nearest whole number and to one decimal place - Read, write, order and compare numbers with up to three decimal places - Solve problems involving number up to three decimal places - Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal - 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	Decimal Decimal system Percentage Recurring decimal Tenths Hundredths
	Ready to Progress		5F–3 Recall decimal fraction equivalents for 1/2, 1/4, 1/5 and 1/10, and for multiples of the 5NPV–2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and nonstandard partitioning. 5NPV–3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each. 5NPV–5 Convert between units of measure, including using common decimals and fractions.	

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Spring Term Weeks 7-8	**Statistics**			
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
	National Curriculum	- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	- Solve comparison, sum and difference problems using information presented in a line graph - Complete, read and interpret information in tables, including timetables	Bar Chart Block Graph Carroll diagram Column graph Continuous data Data Frequency Pictogram Set Table Tally Average Bar line chart Column Graph Interpret Interval Mean Median Mode Pie chart
	Ready to Progress			

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Summer Term Weeks 9-10	**Negative Numbers**			
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
	National Curriculum	- Count backwards through zero to include negative numbers	- Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero - Solve number problems and practical problems that involve all of the above	Negative Positive Zero
	Ready to Progress			

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Summer Term Topic 1	**Measure**			
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
	National Curriculum	- Convert between different units of measure [for example, kilometre to metre; hour to minute] - Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres - Find the area of rectilinear shapes by counting squares - Estimate, compare and calculate different measures, including money in pounds and pence	- 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 - Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres - Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes - Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water] - Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	Capacity Volume
	Ready to Progress			

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		Geometry – Position and Direction		
		Previous Year Group	**Current Year Group**	**Key Vocabulary**
Summer Term Topic 2	**National Curriculum**	- Describe positions on a 2-D grid as coordinates in the first quadrant - Describe movements between positions as translations of a given unit to the left/right and up/down - Plot specified points and draw sides to complete a given polygon	- 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	Turn Quarter Half Full Translate Coordinate Axis
	Ready to Progress	4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.		