# Thomas Willingale School and Nursery: Maths Progression Map Years 1-6

We broadly follow the White Rose timetable (Years I-6) and have adapted their progression document according to our own programme of teaching.

Years I- 6 timetables are included, after the progression map.

EYFS follows the EYFS Development Matters Statements.

### EYFS Development Matters 2020 Statements Three and Four-Year-Olds - Specific Areas

# **Mathematics**

- Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').
- Recite numbers past 5.
- Say one number for each item in order: 1,2,3,4,5.
- Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').
- Show 'finger numbers' up to 5.
- Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
- Experiment with their own symbols and marks as well as numerals.
- Solve real world mathematical problems with numbers up to 5. Compare quantities using language: 'more than', 'fewer than'.
- Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'.
- Understand position through words alone for example, "The bag is under the table," with no pointing.
- · Describe a familiar route.
- Discuss routes and locations, using words like 'in front of' and 'behind'.
- Make comparisons between objects relating to size, length, weight and capacity.
- Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc.
- Combine shapes to make new ones an arch, a bigger triangle etc.
- Talk about and identifies the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc.
- Extend and create ABAB patterns stick, leaf, stick, leaf.
- Notice and correct an error in a repeating pattern. Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'

### EYFS Development Matters 2020 Statements Children in Reception - Specific Areas

# **Mathematics**

- · Count objects, actions and sounds.
- Subitise. Link the number symbol (numeral) with its cardinal number value.
- · Count beyond ten.
- Compare numbers.
- Understand the 'one more than/one less than' relationship between consecutive numbers.
- Explore the composition of numbers to 10.
- Automatically recall number bonds for numbers 0-5 and some to 10.
- Select, rotate and manipulate shapes to develop spatial reasoning skills.
- Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.
- Continue, copy and create repeating patterns. Compare length, weight and capacity

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place Value: Counting	<ul> <li>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</li> <li>Count numbers to 100 in numerals; count in multiples of twos, fives and tens</li> <li>Autumn 1         Autumn 4         Spring 2         Summer 4     </li> </ul>	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward  Autumn 1	count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number  Autumn 1 Autumn 3	count in multiples of 6, 7, 9, 25 and 1000     count backwards through zero to include negative numbers  Autumn 1 Autumn 4	count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000  count forwards and backwards with positive and negative whole numbers, including through zero  Autumn 1	Revision of previous learning  Autumn 1
Place Value: Represent	identify and represent numbers using objects and pictorial representations     read and write numbers to 100 in numerals     read and write numbers from 1 to 20 in numerals and words.  Autumn 1 Autumn 4 Spring 2	read and write numbers to at least 100 in numerals and in words  identify, represent and estimate numbers using different representations, including the number line  Autumn 1	identify, represent and estimate numbers using different representations     read and write numbers up to 1000 in numerals and in words  Autumn 1	identify, represent and estimate numbers using different representations     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  Autumn 1	<ul> <li>read, write, (order and compare) numbers to at least 1 000 000 and determine the value of each digit</li> <li>read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</li> </ul> Autumn 1	read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit  Autumn 1

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place Value : se PV and Compare	given a number, identify one more and one less  Autumn 1	<ul> <li>recognise the place value of each digit in a two-digit number (tens, ones)</li> <li>compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs</li> <li>Autumn 1</li> </ul>	<ul> <li>recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> <li>compare and order numbers up to 1000</li> </ul> Autumn 1	<ul> <li>find 1000 more or less than a given number</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> <li>Autumn 1</li> </ul>	(read, write) order and compare numbers to at least 1 000 000 and determine the value of each digit  Autumn 1	and compare numbers up to 10 000 000 and determine the value of each digit
Use	Autumn 4 Spring 2 Summer 4					
Place Value: Problems& Rounding		use place value and number facts to solve problems.	solve number problems and practical problems involving these ideas	<ul> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	interpret negative numbers in context     round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000     solve number problems and practical problems that involve all of the above	<ul> <li>round any whole number to a required degree of accuracy</li> <li>in context, and calculate intervals across zero</li> <li>solve number and practical problems that involve all of the above</li> </ul>
Pr		Autumn 1	Autumn 1	Autumn 1	Autumn 1	Autumn 1

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Recall, Represent, Use	read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs represent and use number bonds and related subtraction facts within 20	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	estimate the answer to a calculation and use inverse operations to check answers	inverse operations to check answers to a calculation	answers to calculations and determine, in the context of a problem, levels of accuracy	
	Autumn 2 Spring 1	Autumn 1 Autumn 2	Autumn 2	Autumn 2	Autumn 2	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Calculations	digit and two-digit numbers to 20, including zero	add and subtract numbers using concrete objects, pictorial representations, and mentally, including:     and ones     and tens     numbers     numbers	<ul> <li>add and subtract numbers mentally, including:</li> <li>and ones</li> <li>and tens</li> <li>and hundreds</li> <li>add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</li> </ul>	add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	<ul> <li>whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</li> <li>add and subtract numbers mentally with increasingly large numbers</li> </ul>	<ul> <li>calculations, including with mixed operations and large numbers</li> <li>use their knowledge of the order of operations to carry out calculations involving the four operations</li> </ul>
	Autumn 2 Spring 1	Autumn 2	Autumn 2	Autumn 2	Autumn 2	Autumn 2

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Solve Problems	problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 =	<ul> <li>solve problems with addition and subtraction:</li> <li>using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>applying their increasing knowledge of mental and written methods</li> </ul>	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	subtraction multi-step problems in contexts, deciding which operations and methods to use and why solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	subtraction multi-step problems in contexts, deciding which operations and methods to use and why
	Autumn 2 Spring 1	Autumn 2	Autumn 2	Autumn 2	Autumn 2	Autumn 2

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Recall, Represent, Use		recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers  show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	recall multiplication and division facts for multiplication tables up to 12 × 12  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	factors, including finding all factor pairs of a number, and common factors of two numbers  know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers  establish whether a number up to 100 is prime and recall prime numbers up to 19  recognise and use square numbers, and the notation for squared (2) and cubed (3)	factors, common multiples and prime numbers  use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
		Autumn 4 Spring 1	Autumn 3	Autumn 4 Spring 1	Autumn 4	Autumn 2

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Calculations		• calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs	write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	three-digit numbers by a one-digit number using formal written layout	<ul> <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> <li>multiply and divide numbers mentally drawing upon known facts</li> <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> <li>multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</li> </ul>	numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication divide numbers up to 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 divide numbers up to digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
		Autumn 4 Spring 1	Autumn 3 Spring 1	Spring 1	Autumn 4 Spring 1 Summer 1	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Solve Problems	problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher	solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	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	<ul> <li>involving         multiplication and         division including         using their knowledge         of factors and         multiples, squares         and cubes</li> <li>solve problems         involving         multiplication and         division, including         scaling by simple         fractions and         problems involving         simple rates</li> </ul>	involving addition, subtraction, multiplication and division
2	Summer 1	Autumn 4 Spring 1	Spring 1	Spring 1	Autumn 4 Spring 1	Autumn 2
Multiplication & Division: Combined Operations					solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	use their knowledge of the order of operations to carry out calculations involving the four operations
Mul					Spring 1	Autumn 2



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions: Recognise and Write	<ul> <li>recognise, find and name a half as one of two equal parts of an object, shape or quantity</li> <li>recognise, find and name a quarter as one of four equal parts of an object, shape or quantity</li> </ul>	• recognise, find, name and write fractions $\frac{1}{3}, \frac{1}{4}, \frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity	count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators with small denominators	count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	<ul> <li>identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</li> <li>recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements &gt; 1 as a mixed number [for example, <sup>2</sup>/<sub>5</sub> + <sup>4</sup>/<sub>5</sub> = <sup>6</sup>/<sub>5</sub></li> <li>1 <sup>1</sup>/<sub>5</sub>]</li> <li>Spring 2</li> </ul>	
	Summer 2	Spring 4	Spring 5	Spring 3		
Fractions: Compare		• Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	•	recognise and show, using diagrams, families of common equivalent fractions	compare and order fractions whose denominators are all multiples of the same number	<ul> <li>use common factors         to simplify fractions;         use common         multiples to express         fractions in the same         denomination</li> <li>compare and order         fractions, including         fractions &gt; 1</li> </ul>
		Spring 4		Spring 3	Spring 2	Autumn 3



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions: Calculations		• write simple fractions for example, $\frac{1}{2}$ of 6 = 3	• add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ ]	add and subtract fractions with the same denominator	<ul> <li>add and subtract fractions with the same denominator and denominators that are multiples of the same number</li> <li>multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams</li> </ul>	<ul> <li>add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions</li> <li>multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, \frac{1}{4} \times \frac{1}{2} = \frac{1}{8}\$]</li> <li>divide proper fractions by whole numbers [for example, \frac{1}{3} \div 2 = \frac{1}{6}]</li> </ul>
		Spring 4	Summer 1	Spring 3	Spring 3	Autumn 3
Fractions: Solve Problems			solve problems that involve all of the above  Spring 5 Summer 1	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  Spring 3		



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Decimals: Recognise and Write				<ul> <li>recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>recognise and write decimal equivalents to \(\frac{1}{4}\), \(\frac{1}{2}\), \(\frac{3}{4}\)</li> <li>Spring 4 Summer 1</li> </ul>	<ul> <li>read and write decimal numbers as fractions [for example, 0.71 = \frac{71}{100}]</li> <li>recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li> </ul> Spring 3	identify the value of each digit in numbers given to three decimal places  Spring 1
Decimals: Compare				round decimals with one decimal place to the nearest whole number     compare numbers with the same number of decimal places up to two decimal places  Summer 1	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  Spring 3	



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Decimals: Calculations & Problems				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	solve problems involving number up to three decimal places	<ul> <li>multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places</li> <li>numbers with up to two decimal places by whole numbers</li> <li>use written division methods in cases where the answer has up to two decimal places</li> <li>solve problems which require answers to be rounded to specified degrees of accuracy</li> </ul>
				Spring 4	Summer 1	Spring 1



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Fractions, Decimals and Percentages				solve simple measure and money problems involving fractions and decimals to two decimal places	<ul> <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> <li>solve problems which require knowing percentage and decimal equivalents of \(\frac{1}{2}\), \(\frac{1}{4}\), \(\frac{1}{8}\), \(\frac{2}{8}\), \(\frac{5}{8}\), and those fractions with a denominator of a multiple of 10 or 25</li> </ul>	<ul> <li>associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, -3/8]</li> <li>recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</li> </ul>	
Fraction				Spring 3 Spring 4 Summer 1	Spring 3	Spring 1 Spring 2	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Ratio and Proportion						<ul> <li>solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts</li> <li>solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison</li> <li>solve problems involving similar shapes where the scale factor is known or can be found</li> <li>solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</li> <li>Spring 6</li> </ul>

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Algebra	problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	solve problems, including missing number problems			<ul> <li>use simple formulae</li> <li>linear number sequences</li> <li>express missing number problems algebraically</li> <li>find pairs of numbers that satisfy an equation with two unknowns</li> <li>enumerate possibilities of combinations of two variables.</li> <li>Spring 3</li> </ul>

Note – although algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the 'missing number' objectives from Y1/2/3

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Using Measures	<ul> <li>compare, describe and solve practical problems for:</li> <li>lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]</li> <li>mass/weight [for example, heavy/light, heavier than, lighter than]</li> <li>capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</li> <li>time [for example, quicker, slower, earlier, later]</li> <li>measure and begin to record the following:</li> <li>lengths and heights</li> <li>mass/weight</li> <li>capacity and volume</li> <li>time (hours, minutes, seconds)</li> </ul>	<ul> <li>choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°G); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels</li> <li>compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =</li> </ul>	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)  Spring 4	different units of measure [for example, kilometre to metre; hour to minute] estimate, compare and calculate different measures	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  use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	involving the calculation and conversion of units of measure, using decimal notation up to three 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 three decimal places  convert between miles and kilometres
	Spring 3 Spring 4 Summer 6		Spring 4 Summer 4	Autumn 3 Spring 1 Spring 2 Summer 3	Summer 1 Summer 4 Summer 5	Spring 4

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Money	recognise and know the value of different denominations of coins and notes	recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value find different combinations of coins that equal the same amounts of money solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	add and subtract amounts of money to give change, using both £ and p in practical contexts	estimate, compare and calculate different measures, including money in pounds and pence	use all four operations to solve problems involving measure [for example, money]	
	Summer 5	Autumn 3	Spring 2	Summer 2	Summer 1	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Time	<ul> <li>sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</li> <li>recognise and use language relating to dates, including days of the week, weeks, months and years</li> <li>tell the time to the hour and half past the hour and draw the hands on a clock face to show these times</li> </ul>	compare and sequence intervals of time tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times know the number of minutes in an hour and the number of hours in a day	tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks  estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight  know the number of seconds in a minute and the number of days in each month, year and leap year  compare durations of events [for example to calculate the time taken by particular events or tasks]	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		convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa
	Summer 6	Summer 4	Summer 2	Summer 3		Year 5 Summer 4

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Perimeter, Area, Volume			measure the perimeter of simple 2-D shapes	measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres     find the area of rectilinear shapes by counting squares	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres     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]	<ul> <li>recognise that shapes with the same areas can have different perimeters and vice versa</li> <li>recognise when it is possible to use formulae for area and volume of shapes</li> <li>calculate the area of parallelograms and triangles</li> <li>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 [for example, mm³ and km³]</li> </ul>
			Spring 4	Autumn 3 Spring 2	Autumn 5 Summer 5	Spring 5

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Geometry: 2-D Shapes	recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles]	identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line     on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]     compare and sort common 2-D shapes and everyday objects	•	<ul> <li>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>identify lines of symmetry in 2-D shapes presented in different orientations</li> </ul>	distinguish between regular and irregular polygons based on reasoning about equal sides and angles.     use the properties of rectangles to deduce related facts and find missing lengths and angles	using given dimensions and angles compare and classify geometric shapes based on their properties and sizes illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius	
	Autumn 3	Summer 4	Summer 3	Summer 5	Summer 2	Summer 1	
Geometry: 3-D Shapes	<ul> <li>recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]</li> <li>recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].</li> <li>compare and sort common 3-D shapes and everyday objects</li> </ul>		using modelling materials; recognise 3-D shapes in different orientations and describe them		including cubes and other cuboids, from 2-D representations	recognise, describe and build simple 3-D shapes, including making nets	
	Autumn 3	Summer 4	Summer 3		Summer 2	Summer 1	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: Angles & Lines			recognise angles as a property of shape or a description of a turn identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle identify horizontal and vertical lines and pairs of perpendicular and parallel lines	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	<ul> <li>know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</li> <li>draw given angles, and measure them in degrees</li> <li>identify:</li> <li>angles at a point and one whole turn (total 360°)</li> <li>angles at a point on a straight line and ½ a turn (total 180°)</li> <li>other multiples of 90°</li> </ul>	<ul> <li>find unknown angles in any triangles, quadrilaterals, and regular polygons</li> <li>recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles</li> </ul>
			Summer 3	Summer 5	Summer 2	Summer 1

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: Position & Direction	describe position, direction and movement, including whole, half, quarter and three-quarter turns	order and arrange combinations of mathematical objects in patterns and sequences     use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise)		<ul> <li>describe positions on a 2-D grid as coordinates in the first quadrant</li> <li>describe movements between positions as translations of a given unit to the left/right and up/down</li> <li>plot specified points and draw sides to complete a given polygon</li> </ul>	represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	the full coordinate grid (all four quadrants) draw and translate simple shapes on the coordinate plane, and reflect them in the axes
	Summer 3	Summer 5		Summer 6	Summer 3	Autumn 4

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Statistics: Present and Interpret	interpret and construct simple pictograms, tally charts, block diagrams and simple tables  Spring 2		interpret and present data using bar charts, pictograms and tables  Spring 3	interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs  Summer 4	complete, read and interpret information in tables, including timetables  Autumn 3 Summer 1	interpret and construct pie charts and line graphs and use these to solve problems  Summer 3	
Statistics: Solve Problems		ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity     ask and answer questions about totalling and comparing categorical data      Spring 2	two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables  Spring 3  solve comparisor sum and differen problems using information presented in bar charts, pictogram tables and other graphs  Spring 3  Summer 4  Solve comparisor sum and differen problems using information presented in bar charts, pictogram tables and other graphs		solve comparison, sum and difference problems using information presented in a line graph  Autumn 3 Summer 1	calculate and interpret the mean as an average  Summer 3	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value (within 10)				Number: Addition and Subtraction (within 10)				Shape Shape Shape (Alne (within 50)		Consolidation	
Spring	Number: Addition and Subtraction (within 20)			Number: Place Value (within 50) (Multiples of 2, 5 and 10 included)				Weigh	rement: nt and ume	Consolidation		
Summer	and Div multiple	er: Multip vision (Re es of 2, 5 be includ	inforce and 10		nber: tions	Geometry: Position and Direction	Numbe Va (within	r: Place lue n 100)	Measurement: Money		ement: ne	Consolidation

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Numb	er: Place	Value	Nui	mber: Ado	dition and	l Subtrac	tion		rement: ney	Number: <u>Multiplication</u> and Division	
Spring	Multipl	nber: lication ivision	tion Statistics			Geometry: Properties of Shape				Number: Fractions		
Summer	Geometry: Position and Direction			solvir effic	olem ng and cient hods		rement: me	C	urement: apacity a emperatu	Investi	gations	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value Number: Add						l Subtrac	tion	Numbe a	Consolidation		
Spring		er: Multip nd Divisio		Tatistics				Measurement: Length and Perimeter Fractions				Consolidation
Summer	Num	ber: Frac	tions	Meas	urement:	Time	Prope	netry: rties of ape		ement: M Capacity	Consolidation	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Ni	umber: P	lace Valu	je		er: Additi Subtractio		Measurement: Length and Perimeter	Number: Multiplication and Division			Consolidation
Spring		r: Multipl nd Divisio		Measurement: Area		Number:	Fractions		Num	Consolidation		
Summer	Num Decir			rement: ney	Measurement: Time	Statistics			try: Prope Shape	Geometry: Position and Direction	Consolidation	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn					lumber: dition and btraction			Multip	nber: lication ivision	Measui Perime Ar	Consolidation	
Spring		er: Multip nd Divisio				Number:	Num Decim Percei	Consolidation				
Summer	Number: Decimals				Geome	try: Prope Shape	erties of	Geometry: Position and Direction	Measurement: Converting Units		Measurement: Volume	Consolidation

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn		r: Place lue			on, Subtr n and Divi	•	Number: Fractions					Consolidation
Spring	Num Deci	nber: mals	Number: Num Percentages Alge				Measurement: Converting Units	Perimet	rement: er, Area olume	Numbe	Consolidation	
Summer		netry: ties of ape	Prol	blem Sol	ving	Stati	istics	Investigations				Consolidation