



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – Place Value	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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. 	<p>Count:</p> <ul style="list-style-type: none"> Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number Count numbers to 100 in numerals; count in multiples of twos, fives and tens <p>Represent:</p> <ul style="list-style-type: none"> 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 <p>Use and compare:</p> <ul style="list-style-type: none"> Given a number, identify one more and one less 	<p>Count:</p> <ul style="list-style-type: none"> Count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward. <p>Represent:</p> <ul style="list-style-type: none"> 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 Compare and order numbers from 0 up to 100; use <, > and = signs. <p>Use and compare:</p> <ul style="list-style-type: none"> Recognise the place value of each digit in a two-digit number (tens, ones) Compare and order numbers from 0 up to 	<p>Count:</p> <ul style="list-style-type: none"> Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. <p>Represent:</p> <ul style="list-style-type: none"> Identify, represent and estimate numbers using different representations Read and write numbers up to 1000 in numerals and in words <p>Use and compare:</p> <ul style="list-style-type: none"> Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) Compare and order numbers up to 1000 <p>Problems/rounding:</p> <ul style="list-style-type: none"> Solve number problems and practical problems 	<p>Count:</p> <ul style="list-style-type: none"> Count in multiples of 6, 7, 9, 25 and 1000. Count backwards through zero to include negative numbers. <p>Represent:</p> <ul style="list-style-type: none"> 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 <p>Use and compare:</p> <ul style="list-style-type: none"> Find 1000 more or less than a given number Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) 	<p>Count:</p> <ul style="list-style-type: none"> 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 <p>Represent:</p> <ul style="list-style-type: none"> Read, write, order and compare numbers up to at least 1,000,000 and determine the value of each digit. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals <p>Use and compare:</p> <ul style="list-style-type: none"> (read, write) order and compare numbers to at least 1 000 000 and determine 	<p>Represent:</p> <ul style="list-style-type: none"> Read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit <p>Use and compare:</p> <ul style="list-style-type: none"> (read, write), order and compare numbers up to 10 000 000 and determine the value of each digit <p>Problems/rounding:</p> <ul style="list-style-type: none"> 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 all of the above



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

	<ul style="list-style-type: none"> Compare quantities using language: 'more than', 'fewer than'. 			<p>100; use <, > and = signs</p> <p>Problems/rounding:</p> <ul style="list-style-type: none"> Use place value and number facts to solve problems 	<p>involving these ideas</p>	<ul style="list-style-type: none"> Order and compare numbers beyond 1000 <p>Problems/rounding:</p> <ul style="list-style-type: none"> Round any number to the nearest 10, 100 or 1000. Solve number and practical problems that involve all of the above and with increasingly large positive numbers 	<p>the value of each digit</p> <p>Problems/rounding:</p> <ul style="list-style-type: none"> 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 	
	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – Addition and Subtraction		<ul style="list-style-type: none"> Explore the composition of numbers to 10. Automatically recall number bonds for numbers 0–5 and some to 10. 	<p>Calculations:</p> <ul style="list-style-type: none"> Add and subtract one-digit and two-digit numbers to 20, including zero <p>Problems:</p> <ul style="list-style-type: none"> Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number 	<p>Calculations:</p> <ul style="list-style-type: none"> Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> a two-digit number and ones a two-digit number and tens two two-digit numbers 	<p>Calculations:</p> <ul style="list-style-type: none"> Add and subtract numbers mentally, including: <ul style="list-style-type: none"> a three-digit number and ones a three-digit number and tens a three-digit number and hundreds Add and subtract numbers with up to three 	<p>Calculations:</p> <ul style="list-style-type: none"> Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate <p>Problems:</p> <ul style="list-style-type: none"> Solve addition and subtraction two-step problems in contexts, deciding which operations 	<p>Calculations:</p> <ul style="list-style-type: none"> Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Add and subtract numbers mentally with increasingly large numbers 	<p>Calculations:</p> <ul style="list-style-type: none"> Perform mental calculations, including with mixed operations and large numbers Use their knowledge of the order of operations to carry out calculations involving the four operations <p>Problems:</p>



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

			<p>problems such as $7 = \square - 9$</p> <ul style="list-style-type: none"> ➤ adding three one-digit numbers <p>Problems:</p> <ul style="list-style-type: none"> • Solve problems with addition and subtraction: <ul style="list-style-type: none"> ➤ using concrete objects and pictorial representations, including those involving numbers, quantities and measures ➤ applying their increasing knowledge of mental and written methods 	<p>digits, using formal written methods of columnar addition and subtraction</p> <p>Problems:</p> <ul style="list-style-type: none"> • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction 	<p>and methods to use and why</p>	<p>Problems:</p> <ul style="list-style-type: none"> • Solve addition and subtraction multistep 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 	<ul style="list-style-type: none"> • Solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why 	
	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – x ÷			<p>Problems:</p> <ul style="list-style-type: none"> • solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial 	<p>Recall/use:</p> <ul style="list-style-type: none"> • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers 	<p>Recall/use:</p> <ul style="list-style-type: none"> • Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables <p>Calculations:</p>	<p>Recall/use:</p> <ul style="list-style-type: none"> • Recall multiplication and division facts for multiplication tables up to 12×12 • Use place value, known and derived facts to multiply 	<p>Recall/use:</p> <ul style="list-style-type: none"> • Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • Know and use the vocabulary of 	<p>Recall/use:</p> <ul style="list-style-type: none"> • Identify common factors, common multiples and prime numbers • Use estimation to check answers to calculations and determine, in the context of a



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

Number – Multiplication and division			<p>representations and arrays with the support of the teacher</p>	<ul style="list-style-type: none"> Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot <p>Calculations:</p> <ul style="list-style-type: none"> 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 <p>Problems:</p> <ul style="list-style-type: none"> Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, 	<ul style="list-style-type: none"> 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 <p>Problems:</p> <ul style="list-style-type: none"> 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 	<p>and divide mentally, including:</p> <ul style="list-style-type: none"> multiplying by 0 and 1; dividing by 1; multiplying together three numbers <p>• Recognise and use factor pairs and commutativity in mental calculations</p> <p>Calculations:</p> <ul style="list-style-type: none"> Multiply two-digit and three-digit numbers by a one-digit number using formal written layout <p>Problems:</p> <ul style="list-style-type: none"> 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 	<p>prime numbers, prime factors and composite (nonprime) numbers</p> <ul style="list-style-type: none"> 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) <p>Calculations:</p> <ul style="list-style-type: none"> 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 Multiply and divide numbers mentally drawing upon known facts Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders 	<p>problem, an appropriate degree of accuracy</p> <p>Calculations:</p> <ul style="list-style-type: none"> Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication 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 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



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

				including problems in contexts			<p>appropriately for the context</p> <ul style="list-style-type: none"> • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 <p>Problems:</p> <ul style="list-style-type: none"> • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates <p>Combined:</p> <ul style="list-style-type: none"> • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding 	<ul style="list-style-type: none"> • Perform mental calculations, including with mixed operations and large numbers <p>Problems:</p> <ul style="list-style-type: none"> • Solve problems involving addition, subtraction, multiplication and division <p>Combined:</p> <ul style="list-style-type: none"> • Use knowledge of the order of operations to carry out calculations involving the four operations
--	--	--	--	--------------------------------	--	--	---	---



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

					<p>fractions, and fractions with the same denominators</p> <p>Calculations:</p> <ul style="list-style-type: none"> Add and subtract fractions with the same denominator within one whole [for example, $5/7 + 1/7 = 6/7$] <p>Solve problems:</p> <ul style="list-style-type: none"> Solve problems that involve all of the above 	<p>fractions where the answer is a whole number</p> <p>Decimals - recognise, write, compare:</p> <ul style="list-style-type: none"> Recognise and write decimal equivalents of any number of tenths or hundredths Recognise and write decimal equivalents to $1/4$, $1/2$, $3/4$ 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 <p>Fractions, decimals and percentages:</p> <ul style="list-style-type: none"> Solve simple measure and money problems involving fractions and decimals to two decimal places 	<p>are multiples of the same number</p> <ul style="list-style-type: none"> Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams <p>Decimals - recognise, write, compare:</p> <ul style="list-style-type: none"> 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 <p>Fractions, decimals and percentages:</p> <ul style="list-style-type: none"> Recognise the per cent symbol (%) and understand 	<p>numbers given to three decimal places</p> <p>Fractions, decimals and percentages:</p> <ul style="list-style-type: none"> Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $3/8$] Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
--	--	--	--	--	---	--	---	--



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
							<p>that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal</p> <ul style="list-style-type: none"> Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25 	
Ratio, proportion and algebra			<p><u>Algebra:</u></p> <ul style="list-style-type: none"> Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ 	<p><u>Algebra:</u></p> <ul style="list-style-type: none"> Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems 	<p><u>Algebra:</u></p> <ul style="list-style-type: none"> Solve problems, including missing number problems 			<p><u>Algebra:</u></p> <ul style="list-style-type: none"> Use simple formulae Generate and describe linear number sequences Express missing number problems algebraically Find pairs of numbers that satisfy an equation with two unknowns Enumerate possibilities of combinations of two variables



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement	<ul style="list-style-type: none"> • Make comparisons between objects relating to size, length, weight and capacity. 	<ul style="list-style-type: none"> • Compare length, weight and capacity. 	<p>Using measures:</p> <ul style="list-style-type: none"> • Compare, describe and solve practical problems for: <ul style="list-style-type: none"> ➢ lengths and heights ➢ mass/weight 	<p>Using measures:</p> <ul style="list-style-type: none"> • Choose and use appropriate standard units to estimate and measure length/height in any direction 	<p>Using measures:</p> <ul style="list-style-type: none"> • Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) 	<p>Using measures:</p> <ul style="list-style-type: none"> • Convert between different units of measure [for example, kilometre to metre; hour to minute] 	<p>Using measures:</p> <ul style="list-style-type: none"> • Convert between different units of metric measure • Understand and use approximate equivalences between metric 	<p>Ratio and proportion:</p> <ul style="list-style-type: none"> • 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 the calculation/use of percentages for comparison • Solve problems involving similar shapes where the scale factor is known or can be found • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

		<ul style="list-style-type: none"> ➤ capacity and volume ➤ time <ul style="list-style-type: none"> • Measure and begin to record the following: <ul style="list-style-type: none"> ➤ lengths and heights ➤ mass/weight ➤ capacity and volume ➤ time (hours, minutes, seconds) <p>Money:</p> <ul style="list-style-type: none"> • Recognise and know the value of different denominations of coins and notes <p>Time:</p> <ul style="list-style-type: none"> • Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] • Recognise and use language relating to dates, including days of the week, 	<p>(m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels</p> <ul style="list-style-type: none"> • Compare and order lengths, mass, volume/capacity and record the results using >, < and = <p>Money:</p> <ul style="list-style-type: none"> • 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 	<p>Money:</p> <ul style="list-style-type: none"> • Add and subtract amounts of money to give change, using both £ and p in practical contexts <p>Time:</p> <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Estimate, compare and calculate different measures <p>Money:</p> <ul style="list-style-type: none"> • Estimate, compare and calculate different measures, including money in pounds and pence <p>Time:</p> <ul style="list-style-type: none"> • 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 <p>Perimeter, area, volume:</p> <ul style="list-style-type: none"> • Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres 	<p>units and common imperial units such as inches, pounds and pints</p> <ul style="list-style-type: none"> • Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling <p>Money:</p> <ul style="list-style-type: none"> • Use all four operations to solve problems involving measure [for example, money] <p>Time:</p> <ul style="list-style-type: none"> • Solve problems involving converting between units of time <p>Perimeter, area, volume:</p> <ul style="list-style-type: none"> • Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • Calculate and compare the area of rectangles 	<p>up to 3 d.p. where appropriate</p> <ul style="list-style-type: none"> • 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 d.p. • Convert between miles and kilometres <p>Time:</p> <ul style="list-style-type: none"> • Use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa <p>Perimeter, area, volume:</p> <ul style="list-style-type: none"> • Recognise that shapes with the same areas can have different perimeters and vice versa • Recognise when it is possible to use
--	--	---	---	--	--	---	--



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

			<p>weeks, months and years</p> <ul style="list-style-type: none"> Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times 	<p>same unit, including giving change</p> <p>Time:</p> <ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Compare durations of events [for example to calculate the time taken by particular events or tasks] <p>Perimeter, area, volume:</p> <ul style="list-style-type: none"> Measure the perimeter of simple 2-D shapes 	<ul style="list-style-type: none"> Find the area of rectilinear shapes by counting squares 	<p>(including squares) and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes</p> <ul style="list-style-type: none"> Estimate volume [for example, using blocks to build cuboids] and capacity [for example, using water] 	<p>formulae for area and volume of shapes • calculate the area of parallelograms and triangles</p> <ul style="list-style-type: none"> 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
	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry	<ul style="list-style-type: none"> 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'. Select shapes appropriately: flat surfaces for 	<ul style="list-style-type: none"> 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 	<p>2-D shapes:</p> <ul style="list-style-type: none"> Recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles] <p>3-D shapes:</p> <ul style="list-style-type: none"> Recognise and name common 3-D shapes [for example, cuboids (including cubes), 	<p>2-D shapes:</p> <ul style="list-style-type: none"> Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] 	<p>2-D shapes:</p> <ul style="list-style-type: none"> Draw 2-D shapes <p>3-D shapes:</p> <ul style="list-style-type: none"> Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them <p>Angles and lines:</p> <ul style="list-style-type: none"> Recognise angles as a property of shape or a 	<p>2-D shapes:</p> <ul style="list-style-type: none"> Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes Identify lines of symmetry in 2-D shapes presented in different orientations <p>Angles and lines:</p> <ul style="list-style-type: none"> Identify acute and obtuse angles and 	<p>2-D shapes:</p> <ul style="list-style-type: none"> 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 <p>3-D shapes:</p>	<p>2-D shapes:</p> <ul style="list-style-type: none"> Draw 2-D shapes 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



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

	<p>building, a triangular prism for a roof, etc.</p> <ul style="list-style-type: none"> Combine shapes to make new ones – an arch, a bigger triangle, etc. 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’. Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like ‘pointy’, ‘spotty’, ‘blobs’, etc. 		<p>pyramids and spheres]</p> <p>Position and direction:</p> <ul style="list-style-type: none"> Describe position, direction and movement, including whole, half, quarter and three-quarter turns 	<ul style="list-style-type: none"> Compare and sort common 2-D shapes and everyday objects <p>3-D shapes:</p> <ul style="list-style-type: none"> Recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] Compare and sort common 3-D shapes and everyday objects <p>Position and direction:</p> <ul style="list-style-type: none"> 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 	<p>description of a turn</p> <ul style="list-style-type: none"> 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 	<p>compare and order angles up to two right angles by size</p> <ul style="list-style-type: none"> 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 <p>Position and direction:</p> <ul style="list-style-type: none"> 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 	<p>Identify 3-D shapes, including cubes and other cuboids, from 2-D representations</p> <p>Angles and lines:</p> <ul style="list-style-type: none"> Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles Draw given angles, and measure them in degrees Identify: <ul style="list-style-type: none"> angles at a point and one whole turn (total 360°) angles at a point on a straight line and 1/2 a turn (total 180°) other multiples of 90° <p>Position and direction:</p> <ul style="list-style-type: none"> Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the 	<p>diameter is twice the radius</p> <p>3-D shapes:</p> <ul style="list-style-type: none"> Recognise, describe and build simple 3-D shapes, including making nets <p>Angles and lines:</p> <ul style="list-style-type: none"> Find unknown angles in any triangles, quadrilaterals, and regular polygons Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles <p>Position and direction:</p> <ul style="list-style-type: none"> 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
--	--	--	--	---	---	---	---	---



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

	<ul style="list-style-type: none"> 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...’ 			quarter, half and three-quarter turns (clockwise and anticlockwise)			shape has not changed	
	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Statistics				<p><u>Present and interpret data:</u></p> <ul style="list-style-type: none"> Interpret and construct simple pictograms, tally charts, block diagrams and simple tables <p><u>Solve statistical problems:</u></p> <ul style="list-style-type: none"> 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 	<p><u>Present and interpret data:</u></p> <ul style="list-style-type: none"> Interpret and present data using bar charts, pictograms and tables <p><u>Solve statistical problems:</u></p> <ul style="list-style-type: none"> Solve one-step and two-step questions [for example, ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts 	<p><u>Present and interpret data:</u></p> <ul style="list-style-type: none"> Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs <p><u>Solve statistical problems:</u></p> <ul style="list-style-type: none"> Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs 	<p><u>Present and interpret data:</u></p> <ul style="list-style-type: none"> Complete, read and interpret information in tables, including timetables <p><u>Solve statistical problems:</u></p> <ul style="list-style-type: none"> Solve comparison, sum and difference problems using information presented in a line graph 	<p><u>Present and interpret data:</u></p> <ul style="list-style-type: none"> Interpret and construct pie charts and line graphs and use these to solve problems <p><u>Solve statistical problems:</u></p> <ul style="list-style-type: none"> Calculate and interpret the mean as an average



Millfields CE Primary School

Faith, Respect, Courtesy and Endeavour

Progression of Knowledge and Skills – Maths

				comparing categorical data	and pictograms and tables			
--	--	--	--	-------------------------------	------------------------------	--	--	--