St George's Central CE Primary School and Nursery

Progression in Maths

Place Value				
Nursery	**Reception**	**Year 1/Year 2**	**Year 3/Year 4**	**Year 5/Year 6**
2 – 3 year olds • Use all available opportunities for finger play, outdoors and indoors. • Sing finger rymes which invove hiding and returning, like 'Two little dicky birds'. • Offer repeated experiences with the counting sequence in meaningful and varied contexts, outdoors and indoors. Count fingers and toes, stairs, toys, food items, sounds and actions. • Help children to match their counting words with objects. • Compare amounts, saying 'lots', 'more' or 'same'. • Children show counting like behaviour, such as making sounds, pointing or saying some numbers in sequence. • Children begin to count sometimes skipping numbers saying 1-2-3-5. **3-4 year olds** • Fast recognition of up to 3 objects. • Recite numbers past 5.	• Match and sort items for a variety of criteria. • Count objects, actions and sounds. • Say how many there are after counting. • Count out a smaller number from a larger group. • Estimate how mant there might be before counting. • Compare amounts saying which has less and which has more. • Link the number symbol (numeral) with it's cardinal number value. • Can partition and recombine sets of numbers. • Children can use fingers, dice, tens frames etc. to show their understanding of composition. • Have a deep understanding of number to 10, including the composition of each number; • Subitise up to 5. • Verbally count beyond 20, recognising the pattern of the counting system.	**Year 1** • Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. • Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens. • Given a number, identify one more and one less. • Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. • Read and write numbers from 1 to 20 in numerals and words. **Year 2** • Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward • Recognise the place value of each digit in a two-digit number (tens, ones).	**Year 3** • Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. • Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). • Compare and order numbers up to 1000. • Identify, represent and estimate numbers using different representations. • Read and write numbers up to 1000 in numerals and in words. • Solve number problems and practical problems involving these ideas. **Year 4** • Count in multiples of 6, 7, 9, 25 and 1000. • Find 1000 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).	**Year 5** • 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. • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. • 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. • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. **Year 6** • Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.

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• 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 principal). • Show 'finger numbers' up to 5. • Links numerals to amounts: for example, showing the right number of objects to match the numeral, up to 5 initially. • Experiment with their own symbols and marks as well as numerals to represent amounts. • Solve real world mathematical problems with numbers up to 5 initially. • Be able to subitise with amounts up to 5. • Can compare two small amounts and say which is more and then touch count to say how many altogether.	• Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.	• Identify, represent and estimate numbers using different representations, including the number line. • Compare and order numbers from 0 up to 100; use <, > and = signs. • Read and write numbers to at least 100 in numerals and in words. • Use place value and number facts to solve problems.	• Order and compare numbers beyond 1000 • identify, represent and estimate numbers using different representations. • 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. • 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.	• 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.

Addition and Subtraction				
Nursery	**Reception**	**Year 1/Year 2**	**Year 3/Year 4**	**Year 5/Year 6**
2 – 3 year olds • Draw attention to changes in amounts, for example, by adding more bricks to a tower, or eating things up. • Childen regularly play with loose parts and bowls and baskets to experience amounts and changes in amounts. **3-4 year olds** • Knows what one more than a given amount is.	• Understand the 'one more than/one less than' relationship between consecutive numbers. • Can automatically recall number bonds for numbers 0-10. • Children use every day experiences to apply their number bonds learning, for example 'There are 6 of us but only two clipboards. How many more do we need?'.	**Year 1** • Read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs. • Represent and use number bonds and related subtraction facts within 20. • Add and subtract one-digit and two-digit numbers to 20, including zero.	**Year 3** • Add and subtract numbers mentally, including: 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 digits, using formal written methods of columnar addition and subtraction. • Estimate the answer to a calculation and use inverse operations to check answers.	**Year 5** • 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. • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.

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• Can compare quantities using language: 'more than', 'fewer than'.	• Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.	• Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ☐ − 9. **Year 2** • Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures, applying their increasing knowledge of mental and written methods. • Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers. • 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 to check calculations and solve missing number problems.	• Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. **Year 4** • 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.	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. **Year 6** • 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. • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. • Solve problems involving addition, subtraction, multiplication and division. • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

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Multiplication and Division				
Nursery	**Reception**	**Year 1/Year 2**	**Year 3/Year 4**	**Year 5/Year 6**
2 – 3 year olds • Children react to changes of amount in a group of up to three items. **3-4 year olds** • Children react to changes of amount in a group of up to five items.	• Count verbally beyond 10, pausing at each multiple of 10 to draw out the structure. • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.	**Year 1** • Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. **Year 2** • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. • Calculate statements for multiplication and division within the multiplication tables and write them using multiplication, division and equals signs. • Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. • Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	**Year 3** • Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. • 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. • 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. **Year 4** • 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. • Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.	**Year 5** • Identify multiples and 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, composite numbers. • Establish whether a number up to 100 is prime and recall prime numbers up to 19. • 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 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 appropriately for the context. • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. • Recognise and use square numbers/ cube numbers, and the notation for squared (^{2}) and cubed (^{3}). • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.

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			• 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.	• Solve problems involving addition, subtraction, multiplication, division and a combination of these, understanding the meaning of the = sign. • Solve problems involving multiplication/ division, including scaling by simple fractions and problems. **Year 6** • 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 methods and interpret remainders as whole number remainders, fractions, or by rounding. • Perform mental calculations, including with mixed operations and large numbers. • Identify common factors, common multiples and prime numbers. • Use their knowledge of the order of operations to carry out calculations involving the four operations. • Solve problems involving addition, subtraction, multiplication and division. • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

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Fractions, Decimals and Percentages				
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		<u>Year 1</u> • Recognise, find and name a half as one of two equal parts of an object, shape or quantity. • Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. **<u>Year 2</u>** • Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$ of a length, shape, set of objects or quantity. • Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.	**<u>Year 3</u>** • 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 nonunit fractions with small denominators. • Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. • Recognise and show, using diagrams, equivalent fractions with small denominators. • Add and subtract fractions with the same denominator within one whole. • Compare and order unit fractions, and fractions with the same denominators. • Solve problems that involve all of the above. **<u>Year 4</u>** • 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.	**<u>Year 5</u>** • 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. • 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. • Read and write decimal numbers as fractions. • 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.

			• 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. • Add and subtract fractions with the same denominator • Recognise and write decimal equivalents of any number of tenths or hundredths. • Recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$ • 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. • 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.	• 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 $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25. **Year 6** • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • Compare and order fractions, including fractions > 1. • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. • Multiply simple pairs of proper fractions, writing the answer in its simplest form. • Divide proper fractions by whole numbers. • Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction. • Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.

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				• Multiply one-digit numbers with up to two decimal places by whole numbers.
				• Use written division methods in cases where the answer has up to two decimal places.
				• Solve problems which require answers to be rounded to specified degrees of accuracy.
				• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

Measurement				
Nursery	**Reception**	**Year 1/Year 2**	**Year 3/Year 4**	**Year 5/Year 6**
<u>**2 – 3 year olds**</u> • Provide blocks and boxes to play freely with and build with, outdoors and indoors. • Compare sizes, weights etc. using gesture and language, 'bigger/little/smaller', 'high/low', 'tall', 'heavy'. • Children begin to use the language of size and weight in everyday context. <u>**3-4 year olds**</u> • Children can talk about what comes next during the day and knows the difference between day and night. • Make comparisons between objects relating to size, length and weight. • Make comparisons between objects relating to capacity. • Children can use some associated language with capacity, for example, 'full', 'empty'' 'holds more', 'holds less'.	• Can talk about the passing of the day and time in general. • Can use comparative language to compare length, mass and capacity. • Children can make and test predictions, eg – 'what if we pour the water from the jug into the teapot? Which holds more?'	<u>**Year 1**</u> • Compare, describe and solve practical problems for lengths and heights, mass/weight and capacity, volume and time • Measure and begin to record lengths and heights, mass/weight, capacity, volume and time. • Recognise and know the value of different denominations of coins and notes. • 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, weeks, months and years. • Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	<u>**Year 3**</u> • Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). • Measure the perimeter of simple 2-D shapes. • Add and subtract amounts of money to give change, using both £ and p in practical contexts. • 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	<u>**Year 5**</u> • 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.

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		Year 2 • Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. • Compare and order lengths, mass, volume/capacity and record the results using >, < and =. • Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. • Find 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. • 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.	days in each month, year and leap year. • Compare durations of events. **Year 4** • Convert between different units of measure (including time). • 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. • 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.	• Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]. • Solve problems involving converting between units of time. • Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. **Year 6** • Solve problems 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 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. • Recognise that shapes with the same areas can have different perimeters and vice versa. • Recognise when it is possible to use formulae for area and volume of shapes. • Calculate the area of parallelograms and triangles.

				• Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3].
Properties of shape				
Nursery	**Reception**	**Year 1/Year 2**	**Year 3/Year 4**	**Year 5/Year 6**
2 – 3 year olds • Children play daily with large and small blocks indoors and outdoors. • Provide inset puzzles and jigsaws at different levels of ability. • Children begin to notice patterns that they see all around them. • Children begin to arrange things in patterns. **3-4 year olds** • Talk about and explore 2D shapes using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. • Can talk about and identify patterns around them. Uses informal language like 'pointy', 'spotty' etc. to describe pattern. • Create ABABAB patterns • Selects shapes appropriately for desired outcome. • Combines shapes to make new ones. .	• Name and recognise 2D shapes. • Select, rotate and manipulate 2D shapes in order to develop spatial reasoning skills. • Can continue, copy and create repeating patterns. • Name and recognise 3D shapes. • Select, rotate and manipulate 3D shapes in order 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. • Find 2D shapes within 3D shapes, including through printing or shadow play.	**Year 1** • Recognise and name common 2-D and 3-D shapes. **Year 2** • Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. • Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. • Identify 2-D shapes on the surface of 3-D shapes. Compare and sort common 2-D and 3-D shapes and everyday objects.	**Year 3** • Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them. • 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. **Year 4** • 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.	**Year 5** • Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. • Draw given angles, and measure them in degrees (^{o}). • Identify: angles at a point and one whole turn (total 360°); angles at a point on a straight line and a $\frac{1}{2}$ turn (total 180°); other multiples of 90°. • Use the properties of rectangles to deduce related facts and find missing lengths and angles. • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. **Year 6** • Draw 2-D shapes using given dimensions and angles. • Recognise, describe and build simple 3-D shapes, including making nets.

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			• 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.	• Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
Position and Direction				
Nursery	**Reception**	**Year 1/Year 2**	**Year 3/Year 4**	**Year 5/Year 6**
2 – 3 year olds • Encourage children to climb and squeeze selves into different types of spaces. • Describe children's climbing, tunnelling and hiding using spatial words like 'on top of', 'up', 'down' and 'through'. **3-4 year olds** • Understand position through words alone, for example, 'The bag is under the table', with no pointing. • Children use spatial words in play.	• Select, rotate and manipulate 2D shapes in order to develop spatial reasoning skills. • Select, rotate and manipulate 3D shapes in order to develop spatial reasoning skills.	**Year 1** • Describe position/ direction/ movement, including whole, half, quarter and three-quarter turns. **Year 2** • 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).	**Year 4** • 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.	**Year 5** • 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. **Year 6** • 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.

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Statistics				
Nursery	**Reception**	**Year 1/Year 2**	**Year 3/Year 4**	**Year 5/Year 6**
<u>**2 – 3 year olds**</u> • Adults use the words 'same' over and over so the children will understand when something is the same or different. <u>**3-4 year olds**</u> • Notice and correct an error in a simple repeating pattern.	• Can sequence 4 and then 6 pictures	<u>**Year 2**</u> • Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. • 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.	<u>**Year 3**</u> • Interpret and present data using bar charts, pictograms and tables. • Solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables. <u>**Year 4**</u> • 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 bar charts, pictograms, tables and other graphs.	<u>**Year 5**</u> • Solve comparison, sum and difference problems using information presented in a line graph. • Complete, read and interpret information in tables, including timetables. <u>**Year 6**</u> • Interpret and construct pie charts and line graphs and use these to solve problems. • Calculate and interpret the mean as an average.

Ratio and Proportion	Algebra
<u>**Year 6**</u> • 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 of percentages [such as 15% of 360º] and the 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 or multiples.	<u>**Year 6**</u> • 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.

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