BRITISH SCHOOL TENERIFE

Whole-School Maths Progression Map

	EYFS	KS1		KS2			
	Playgroup **Nursery** **Reception** **Early Learning Goals**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Number and Place Value	Count in everyday contexts, sometimes skipping numbers - '1-2-3-5.' 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'). Count objects, actions and sounds. Count beyond ten. Verbally count beyond 20, recognising the	**Counting:** Count from 0 to and across 100, forward and backwards, beginning with 0 or 1,and from any given number Count, numbers to 100 innumerals, count in different multiples including: twos, fives and tens **Represent:** Identify using objectsand pictorial representations Read and write numbers from 1 to 100in numerals Read and write numbers from 1 to 20 innumerals and	**Counting:** Count in steps of 2, 3, and 5 from 0 and in tens from any number,forwards and backwards. **Represent:** Read and write numbers to at least 100in numerals and in words. Identify, represent and estimate numbers usingdifferent representations including number line. **Use PV & Compare**: Recognise the place value of each digit in atwo-digit number (tens,ones) Compare and order numbers from 0 up to100; use <, > and = signs	**Counting:** Count from 0 in multiples of 4, 8, 50 and 100 Find 10 or 100 more orless than a given number **Represent:** Identify, represent and estimate numbers using different representations Read and write numbers up to 1,000 innumerals and in words **Use PV & Compare:** Recognise the place value of each digit in a3-digit number (100s, 10s, 1s)	**Counting:** Count in multiples of 6,7, 9, 25 and 1,000 Count backwards through 0 to include negative numbers **Represent:** Identify, represent and estimate numbers using different representation Read Roman numerals to 100 (I to C) and knowthat over time, the numeral system changed to include the concept of 0 and place value. **Use PV & Compare:** Find 1,000 more or less than a given number Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s	**Counting:** Count forwards or backwards in steps ofpowers of 10 for any given number up to 1,000,000 Count forwards and backwards with positiveand negative whole numbers, including through zero **Represent:** Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit Read Roman numeralsto 1000 (M) and recognise years writtenin Roman numerals	**Counting:** Revise previous years'coverage **Represent:** Read, write, order and compare numbers up to10 000 000 and determine the value ofeach digit **Use PV & Compare:** Read, write, order and compare numbers up to10 000 000 and determine the value ofeach digit **Problems & Rounding:** Round any whole number to a requireddegree of accuracy Use negative numbers in context,

	pattern of the counting system.	words. **Use PV & Compare:** Given a number, identify one more and one less	**Problems & Rounding:** Use place value & number facts to solve problems.	Compare and order numbers up to 1,000 **Problems & Rounding:** Solve number problemsand practical problems involving these ideas	Order and compare numbers beyond 1,000 **Problems & Rounding:** Round any number to the nearest 10, 100 or 1,000 Solve number and practical problems thatinvolve all of the aboveand with increasingly large positive numbers	**Use PV & Compare:** Read, write, order and compare numbers to atleast 1,000,000 and determine the value of each digit **Problems & Rounding:** Interpret negative numbers in context Round any number upto 1,000,000 to the nearest 10; 100; 1000; 10,000 and 100,000. Solve number problemsand practical problems that involve all of the above	and calculateintervals across zero- Solve number and practical problems thatinvolve all of the above
Key Vocabulary	Numbers to 5 Count Bigger than Little More than Smaller than Less than How many Lots/more/same Number zero	Number Zero, one, two, three totwenty, and beyond None Count (on/up/to/from/ down) Before, after More, less, many, few, fewer, least, fewest, smallest, greater, lesser	Numbers to onehundred Hundreds Partition, recombine Hundred more/less Related numbers Relationship	Numbers to one thousand	Thousand more/less than Negative integers Count through zero Roman numerals (I to C) Consecutive	Powers of 10	Numbers to 10 million

	One, two, three to twenty and beyond. None Count on/up/to/from/down Before, after More, less, many, few, fewer, fewest, smaller, smallest Equal to, the same as Odd, even Digit Numeral Compare sort Order Size Value Between, halfwaybetween	Equal to, the same as,odd, even Pair Units, ones, tens Ten more/less DigitNumeral Figure(s) Compare (In) order/a differentorder Size, value Between, halfway between Above, below					
Addition and Subtraction	Take part in finger rhymes with numbers. React to changes of amount in a group of up to three items Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). 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.	**Recall, Represent & Use:** Read, write and interpret mathematical statementsinvolving addition (+), subtraction (-) and equals(=) signs Represent and use number bonds and related subtraction facts within 20 **Calculations:** Add and subtract one- digit and two-digit numbers to 20, includingzero **Solve Problems:** Solve one-step	**Recall, Represent &Use:** Recall and use addition & subtraction facts to 20fluently and derive and use related facts up to 100. Show that addition of twonumbers can be done in any order (commutative) and subtraction of one number from another cannot. Recognise and use theinverse relationship between addition and subtraction and use this to check calculations andsolve missing number problems. **Calculations:**	**Recall, Represent & Use:** Estimate the answer toa calculation and use inverse operations to check answers **Calculations:** Add and subtract numbers mentally, including: a three-digit number and 1s; a three-digit number and10s; a three-digit number and 100s Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition andsubtraction	**Recall, Represent & Use:** Estimate and use inverse operations to check answers to a calculation **Calculations:** Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where Appropriate **Solve Problems:** Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	**Recall, Represent & Use:** Use rounding to check answers to calculationsand determine, in the context of a problem, levels of accuracy **Calculations:** Add and subtract whole numbers with more than4 digits, including using formal written methods (columnar addition and subtraction) Add and subtract numbers mentally with increasingly	**Recall, Represent &Use:** Revise previous years'coverage **Calculations:** Perform mental calculations includingwith mixed operations and large numbers Use their knowledge ofthe order of operations to carry out calculations involving the four operations. **Solve Problems:** Solve addition & subtraction multi-stepproblems in context, deciding

	Subitise. Explore the composition of numbers to 10. Automatically recall number bonds 0-5 and some to 10. 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. Have a deep understanding of numbers to 10, including the composition of each number. Subitise (recognise quantities without counting) up to 5.	problemsthat involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ +9	Add and subtract numbers using concreteobjects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit numberand tens; two two-digit numbers; adding three one-digit numbers. **Solve Problems:** Solve problems with addition and subtraction:Using concrete objects and pictorial representations, including those involvingnumbers, quantities and measures and Applying their increasing knowledge of mental and written methods	**Solve Problems:** Solve problems, including missing number problems, using number facts, place value, and morecomplex addition and subtraction		large numbers **Solve Problems:** Solve addition and subtraction multi-step problems in contexts, deciding which operations and methodsto use and why Solve problems involving addition, subtraction, multiplication & divisionand a combination of these including understanding the meaning of the equals (=) sign.	which operations and methodsto use and why.

Key Vocabulary	How many lots more more/fewer than same altogether more thanless than add Take away subtract estimat e	equal to number bond/fact greater than part whole not whole 1 more/less partition(ing) addend	part-part- whole combine total sum plus minus difference equation commutative bridging	complements (to 100) column/columnar calculate/calculati on minuend subtrahend inverse exchange equivalent regroup			
Multiplication and Division	Solve real world mathematical problems with numbers up to 5. Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10 Explore and represent patterns with numbers up to 10, including evens and odds, double facts and how quantities can be distributed	Revise & consolidate the EYFS objective(s)	**Recall, Represent &Use:** Recall and use multiplication & divisionfacts for the 2, 5 and 10multiplication tables, including recognising odd and even numbers. Show that multiplicationof two numbers can be done in any order (commutative) and division of one number by another cannot. **Calculations:** Calculate mathematical statements for multiplication and division within the multiplication tables andwrite them using the multiplication (?), division (?) and equals (=) signs	**Recall, Represent &Use:** Recall and use multiplication and division facts for the 3,4 and 8 multiplication tables **Calculations:** Write and calculate mathematical statements for multiplication and division using the multiplication tablesthat they know, including for two-digitnumbers times one- digit numbers, using mental and progressing to formalwritten methods **Solve Problems:**	**Recall, Represent & Use:** Recall multiplication and division facts for multiplication tables up to 12 x 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 **Calculations:** Multiply two-digit and three-digit numbers by a one-digit number using formal written layout **Solve Problems:** Solve problems involving multiplying andadding, including using the distributive law to multiply two-digit numbers by one digit,	**Recall, Represent & Use:** Identify multiples and factors, including finding all factor pairs ofa number, and common factors oftwo numbers Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19 Recognise and use square numbers and cube numbers, andthe notation for squared (^{2}) and cubed (^{3}) **Calculations:** Multiply numbers	**Recall, Represent & Use:** Identify common factors,common multiples and prime numbers Use estimation to checkanswers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. **Calculations:** Multiply multi-digit numbers up to 4 digits bya two-digit whole numberusing the formal written method of long multiplication Divide numbers up to 4 digits by a two-digit wholenumber using the formal written method of long division, and

	equally		**Solve Problems:** Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problemsin contexts	Solve problems, including missing number problems, involving multiplicationand division, including positive integer scalingproblems and correspondence problems in which n objects are connected to m objects	integer scaling problemsand harder correspondence problems such as n objects are connected tom objects	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 knownfacts 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 **Solve Problems:** Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares andcubes Solve problems involving multiplication and division, including scaling	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 formalwritten method of short division where appropriate, interpreting remainders according tothe context Perform mental calculations, including withmixed operations and large numbers **Solve Problems:** Solve problems involving addition, subtraction, multiplication and division **Combined Operations** Use their knowledge of the order of operations to carry out calculations involving the four operations

						by simple fractions and problems involvingsimple rates **Combined Operations:** Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding themeaning of the equals sign.	
Key Vocabulary	Groups, share, share equally, lots Double Half/halve Groups, share,	Odd, even Count in twos/fives Count in tens (forwards from/backwards from) How many times? Lots of Groups of Once, twice, Share equally Group in pairs, equal groups of	Three times, five timesMultiple of Times Multiply Multiply by Repeated addition Array, row, column,Divide Divide by Left, left over	Product, factor Multiples of 4, eight, fifty and one hundredScale up Divisibility Divisible by Exchange Remainder	Multiplication facts (up to 12X12) Division facts (associated facts) Inverse Inverse operation Derive	Factor pairs Composite numbers, prime numbers, prime factors, square numbers, cubed numbers Formal written method Dividend, divisor, quotient Multiplicand, multiplier	Order of operations (BODMAS) Common factors, commonmultiples Highest common factor Lowest common multiple, factorise,

Fractions, Decimals & Percentages	.	**Fractions: Recognise & Write:** Recognise, find and namea half as one of two equalparts of an object, shape or quantity Recognise, find and namea quarter as one of four equal parts of an object, shape or quantity	**Fractions: Recognise &Write:** Recognise, find, nameand write fractions 1/3;1/4; 1/2 1/4; 3/4 of a length, shape, set of objects or quantity. **Fractions: Compare:** Recognise the equivalence of 2/4 and ½. **Fractions: Calculation s:** Write simple fractions e.g. ½ of 8 = 4	**Fractions - Recognise& Write:** Count up and down intenths; recognise that tenths arise from dividing an object into10 equal parts and in dividing one-digit numbers or quantitiesby 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 **Fractions - Compare:** Recognise and show, using diagrams, equivalent fractions with small denominators Compareand order unitfractions, and fractionswith the same denominators	**Fractions - Recognise& Write:** Count up and down in hundredths; recognise that hundredths arise when dividing an objectby one hundred and dividing tenths by ten. **Fractions - Compare:** Recognise and show, using diagrams, families of common equivalent fractions. **Fractions - Calculations:** Add and subtract fractions with the same denominator **Fractions - Solve Problems:** Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is awhole number **Decimals - Recognise& Write** Recognise and write decimal equivalents of any number of tenths or hundredths Recognise and write decimal equivalents to1/4; 1/2; 3/4 **Decimals – Compare:** Round decimals with one decimal place to the	**Fractions - Recognise& Write:** Identify, name and write equivalent fractions of agiven fraction, represented visually, including tenths and hundredths Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5]. **Fractions - Compare:** Compare and order fractions whose denominators are all multiples of the same number. **Fractio ns – Calculat ions:** Add and subtract fractions with the same denominator and denominators that are multiples of the same	**Fractions – Compare:**Use common factors to simplify fractions; use common multiples to express fractions in thesame denomination Compare and order fractions, including fractions greater than 1 **Fractions - Calculatio ns:** Add and subtract fractions with different denominators and mixednumbers, using the concept of equivalent fractions Multiply simple pairs of proper fractions, writingthe answer in its simplest form [for example, ? x ? = 1/8 Divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6] **Decimals - Recognise& Write** 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

				Fractions Calculations: Add and subtract fractions with the samedenominator within onewhole e.g. 5/7 + 1/7 = 6/7 **Fractions - Solve Problems:** Solve problems that involve all of the above.	nearest whole number Compare numbers with the same number of decimal places up to two decimal places **Decimals - Calculations & Problems:** Find the effect of dividing a one- or two- digit number by 10 and100, identifying the value of the digits in the answer as ones, tenths and hundredths **Fractions, Decimals and Percentages:** Solve simple measureand money problems involving fractions anddecimals to two decimal places	number Multiply proper fractionsand mixed numbers by whole numbers, supported by materials and diagrams **Decimals - Recognise & Write:** Read and write decimalnumbers as fractions [for example, 0.71 = 71/100] Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents **Decimals – Compare:**Round decimals with two decimal places to the nearest whole number and to one decimal place Read, write, order and compare numbers withup to three decimal places	**Decimals - Calculations & Problems:** Multiply & divide numbers by 10, 100 & 1,000, giving answersup to three decimal places Multiply one-digit numbers with up to two decimal places by wholenumbers Use written division methods in cases wherethe answer has up to two decimal places Solve problems which require answers to be rounded to specified degrees of accuracy **Fractions, Decimals and Percentages:** Associate a fraction withdivision 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 & percentages including in different contexts.

						Decimals - Calculations & Problem Solve problems involving number up tothree decimal places **Solve Problems Fractions, Decimals and Percentages:** Recognise the per cent symbol (%) and understand that per cent relates to number of parts per hundred, and write percentages as afraction with denominator 100, andas a decimal Solve problems which require knowing percentage and decimal equivalents of 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25	

Key Vocabulary	Whole Whole, half, halve	Equal parts, four equalparts, One half, two halves, a quarter, two quarters	Three quarters, one third,a third, Equivalence, equivalent	Numerat or denomin ator Unit fraction, non-unitfraction Compare and order Tenths	Equivalent decimalsand fractions Decimal point Decimal fraction Hundredths	Proper fractions, improper fractions, mixed numbers Percentage Out of 100 % Fifth, two fifth, threefifths, four fifths Ratio, proportion	Degree of accuracy Simplify
Measure	Compare sizes, weights etc. using gesture and language - 'bigger/little/smaller', 'high/low', 'tall', 'heavy'. Make comparisons between objects relating to size, length, weight and capacity. Compare length, weight and capacity	**Using Measures:** Compare, describe and solve practical problemsfor: lengths and heights, mass/weight, capacity and volume, time. Measure and begin to record the following: lengths and heights; mass/weight; capacity and volume; time-hours,minutes, seconds **Money:** Recognise and know thevalue of different denominations of coins and notes **Time:** Sequence events in chronological order using	**Using Measures:** Choose and use appropriate standard units to estimate and measure length/height inany 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 = **Money:** Recognise and use symbols for pounds (£) and pence (p); combineamounts to make a particular value Find different combinations of coinsthat equal the	**Using Measures:** Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) **Money:** Add and subtract amounts of money togive change, using both £ and p in practical contexts **Time:** Tell and write the time from an analogue clock, including using Roman numerals from Ito XII, and 12-hour and24-	**Using Measures:** Convert between different units of measure Estimate, compareand calculate different measures **Money:** Estimate, compareand calculate different measuresincluding money inpounds and pence **Time:** Read, write and convert time between analogueand digital 12- and 24-hour clocks Solve problems involving convertingfrom hours to minutes; minutes toseconds; years to months; weeks to days. **Perimeter, Area and Volume:** Measure and calculate	**Using Measures:** Convert between different units of metricmeasure Understand and use approximate equivalences betweenmetric units and common imperial unitssuch as inches, pounds and pints Use all four operationsto solve problems involving measure using decimal notation, including scaling. **Money:** Use all four operationsto solve problems involving measureusing decimal notation, including	**Using Measures:** 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 convertbetween 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 **Time:** Use read, write and convertbetween standard units, Converting

		language Recognise and use language relating to dates, including days of the week, weeks, monthsand years Tell the time to the hour and half past the hour anddraw the hands on a clockface to show these times	same amounts of money Solve simple problems ina practical context involving addition and subtraction of money of the same unit, including giving change **Time:** Compare and sequenceintervals of time Tell and write the time tofive minutes, including quarter past/to the hour and draw the hands on a clock face to show thesetimes Know the number of minutes in an hourand the number ofhours in a day	hour clocks Estimate and read time with increasing accuracy to the nearestminute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, 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 **Perimeter, Area andVolume:** measure the perimete rof simple 2-D shapes	the perimeter of a rectilinear figure (including squares)in centimetres and metres Find the area of rectilinear shapes by counting squares	money. **Time:** Use all four operationsto solve problems involving converting between units of time **Perimeter, Area andVolume:** Measure and calculatethe perimeter of composite rectilinear shapes in centimetres and metres Calculate and compare the area of rectangles (including squares), and including using standard units, squarecentimetres (cm^2) andsquare metres (m^2) and estimate the area of irregular shapes Estimate volume and capacity.	measurements oftime from a smaller unit of measure to a larger unit of measure and vice versa. **Perimeter, Area and Volume:** Recognise that shapes with the same areas can have different perimeters and viceversa Recognise when it is possible to use formulae for area and volume of shapes Calculate the area of parallelograms and trianglesCalculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to otherunits [for example, mm3 and km3]

Key Vocabulary	Using measure: Bigger, little, smaller High, low Tall, heavy Money: Spend How muchPay Coin penny Time: Time Days of the week: Monday, Tuesday, etc. Birthday, holiday Using measures: Full/empty Measure Size Compare Guess Estimate Too many, too few, not enough, enough Nearly/close to About the same asJust over Just underWide Narrow Balances Morning, afternoon, evening, night, midnight Bedtime, dinnertime,	Using measures: half full Hol ds Co ntai ner Weigh, weighs, balancesHeavy, heavier, heaviest, light, lighter, lightest Length, width, height, depth Scales < > = Long, longer, longest, short, shorter shortest, tall, taller, tallest, high, higher, highest Low, wide, narrow, deep,shallow, thick, thin Far, near, close Metre, ruler, metre stick Money: Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear(er), expensive, costs more, costs less, cheaper, costs the same as How much? how many?Total Time: Seasons: spring,	Using measure: Centimetres m/km, g/kg, ml/l Temperature (degreescentigrade) < > = Money: Combinati on Estimate Compare Bought Sold Different amounts Time: Quarter past/to Fortnight	Using measure: Mm Distance apart/to/from/betwe en Money: Time: Calen dar Am/p m Durat ion Twelve-hour/twenty-four-hour clock Roman numerals I toXIII Century Leap year	Convert Using measure: Unit, standard unit, metric unit Breadth Edge Sq cmMass Money: Time: Noon Millennium Date of birthTimetable Arrive/depart	Measure: Square metre Square millimetre Pint Gal lon Inc hes Po und s Ou nce Ton Sca ling Concave and convexVolume Imperial units Money Currency discount Time: Converting	Using measure: Cubic mm/cm/m/km Yard Formula Circumf erence Centilitr e Money Profit Loss Time: Greenwich Mean Time (GMT) British Summer Time International Date line

	playtime Money: Money Coin Penny Pence Pound Price Cost Buy Sell Spend Spent pay Time: Time Days of the week: Monday, Tuesday,etc. Birthday, holiday Morning, afternoon, evening, night, midnight Bedtime, dinnertime, playtime	summer,autumn, winter Day, week, month, year, weekend Today, yesterday, tomorrow Before, after Next, last Now, soon, early, late Quick, quicker, quickest, quickly , fast, faster, fastest, slow, slower, slowest, slowly Old, older, oldest, new, newer, newest Takes longer, takes less time Hour, o'clock, half past Clock, watch, handsHow long ago?, how longwill it be to…?, how long will it take to…?, how often? Always, never, often, sometimes, usually Once, twice First, second, third, etc. Estimate, close to, aboutthe same as, just over, just under					

Shape and Geometry	Climb and squeeze themselves into different types of spaces. Build with a range of resources. Complete inset puzzles. 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 shape • Select, rotate and	**2D Shapes:** Recognise and namecommon 2D shapes, for example: rectangles, including squares, circles and triangles. **3D Shapes:** Recognise and name common 3D shapes including cuboids, including cubes, pyramids and spheres. **Position and Direction:** describe position, direction and movement, including whole, half, quarter and three-quarter turns	**2D Shapes**: Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line Identify 2D shapes on thesurface of 3D shapes, forexample a circle on a cylinder or a triangle on apyramid. Compare and sort common2-D shapes and everyday objects. **3D Shapes**: Recognise and namecommon 3D shapes including cuboids, includingcubes, pyramids and spheres. Compare and sort common3-D shapes and everyday objects. **Position and Direction:**Order and arrange combinations of mathematical objects in patterns and sequences Use mathematical vocabulary to describe position, direction and movement, including	**2D Shapes:** Draw 2-D shapes **3D Shapes:** Make 3D shapes, using modelling materials Recognise 3-D shapesin different orientations and describe them. **Angles and 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 perpendicul ar and parallel lines	**2D Shapes:** Compare and classifygeometric shapes, including quadrilaterals and triangles, based on their properties and sizes Identify lines of symmetryin 2-D shapes presented in different orientations **Angles and Lines:** Identify acute and obtuseangles and compare andorder angles up to two right angles by size Complete a simple symmetric figure with respect to a specific line ofsymmetry. **Position and Direction:** Describe positions on a 2-D grid as coordinates in the first quadrant Describe movements between positions as translations of a given unitto the left/right and up/down Plot specified points and draw sides to complete a given polygon	**2D Shapes:** Distinguish betweenregular and irregular polygons based on reasoning about equal sides and angles. Use the properties of rectangles to deducerelated facts and find missing lengths and angles **3D Shapes:** Identify 3-D shapes,including cubes andother cuboids, from 2-D representations **Angles and Lines:** know angles are measured in degrees:estimate and compare acute, obtuse and reflex angles draw given angles, and measure them in degrees (°) identify: angles at a point and one whole turn; angles at a pointon a straight line and 1/2-a-turn and other multiples of	**2D Shapes:** Draw 2-D shapes usinggiven dimensions and angles Compare and classify geometric shapes basedon their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons Illustrate and name partsof circles, including radius, diameter and circumference and knowthat the diameter is twicethe radius **3D Shapes:** Recognise, describe and build simple 3-D shapes, including making nets **Angles and Lines:** Find unknown angles inany triangles, quadrilaterals and regularpolygons Recognise angles wherethey meet at a point, areon a straight line, or are vertically opposite, and find missing angles **Position and Direction:** Describe positions on thefull

	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. Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and object		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 anti-clockwise			90 degrees **Position and Direction:** identify, describe andrepresent the positionof a shape following a reflection or translation, using the appropriate language , and know	coordinate grid (all four quadrants) Draw and translate simple shapes on the coordinate plane, and reflect them in the axes
Key Vocabulary (position and direction)	Over, under, underneath, above, below, top, bottom,side On, in outside, inside around, in front, behind front, back before, after beside, next to opposite Between Up down Forwards, backwardsTo, from Stretch, bend	Positi on Apart Middle, edge, centre,corner, Directi on Journe y Left, right Sidew ays Across Close, far, near Along, through towards, away fromMovement Slide, roll, turn, wholeturn, half turn	Rotate, rotation Clockwise, anti-clockwiseStraight line Ninety degree turn,right angle	Greater than/less than ninety degrees Orientation (same and different orientation)	Greater than/less thanninety degrees Orientation (same anddifferent orientation)	Revision of prior vocabulary	Four quadrants Translation Reflection

Key Vocabulary (shape)	**General:** Group Sort Shape Flat, curved, straight, round Corner Face, side, edge **2D:** circle, circular, triangle, square **3D:** Cube, cuboid, pyramid, sphere,cone, cylinder,	**General:** Hollow, solid Point, pointed Size – bigger, larger, smaller	**General:** Symmetry, symmetrical, lineof symmetry Fold Match Mirror line Reflection Pattern, repeating patternVertex, vertices **2D:** Octagon, kite, pentagon, **3D:** Prism (adjectival forms ofshapes e.g. triangular, hexagonal)	**General:** Horizontal, vertical, diagonal (distinguishfrom oblique), perpendicular and parallel lines rectilinear **2D:** Heptagon, hexagon, Parallelogram, rhombus, trapezium, and semi- circle **3D:** hemisphere	**General:** Right angle, acute andobtuse angles Net Compound rectilinear **2D:** Quadrilaterals Triangles – right angle,scalene, equilateral	**General:** Reflex angle dimensions **3D:** Regular and irregularpolygons Dodecahedron	**General:** Vertically opposite anglesOpposite angles Circumference, radius, diameter, arc, Bisecting, intersecting, Compasses (pair of) Congruent
Statistics			**Present and Interpret:** Interpret and construct simple pictograms, tally charts, block diagrams andsimple tables **Solve Problems:** Ask and answer simple questions by counting thenumber of objects in each category and sorting the categories by quantity Ask and answer questions about totalling and comparing categoricaldata.	**Present and Interpret:**Interpret and present data using bar charts, pictograms and tables **Solve Problems:** Solve one-step and two-step questions using information presented inscaled bar charts and pictograms and tables	**Present and Interpret:**Interpret and present discrete and continuousdata using appropriate graphical methods, including bar charts andtime graphs. **Solve Problems:** Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	**Present and Interpret** Complete, read andinterpret informationin tables, including timetables **Solve Problems:** Solve comparison, sum and difference problems using information	**Present and Interpret:** Calculate and interpret the mean as an average **Solve Problems:** Interpret and construct pie charts and line graphsand use these to solve problems.

						presente din a line graph	
Key Vocabulary			stics data repr esen t inter pret tally total picto gram key table (column + row)	bar chartscale axis/axes	discretecon tinuousline graph x and y axis		pie chart segment degrees percent protractormean average
Ratio and Proportion							Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplicationand division facts Solve problems involving the calculation of percentages and the use ofpercentages for comparison. Solve problems

							involving similar shapes where the scale factor is known or canbe found Solve problems involving unequal sharing and grouping using knowledge of fractions and multiple
Key Vocabu				equal part equal grouping equal sharing parts of a whole	unequal part unequal grouping unequal sharing	___in every ____ _____to_____ Simplify Common factorsscale	Ration, proportion, simplify,Common factor Scale up, scale down Scale factor Equivalent ratios Equivalence
Algebra		Solve one-step problems that involveaddition and subtraction, using concrete objects and pictorial representations and missing number problems, such as 7 = ? – 9	Recognise and use the inverse relationship between addition and subtraction and use this to chec	Solve problems includingmissing number problems	Solve problems including missing number problems	Calculate the area and perimeter of rectilinear shapes, using formulae.	Use simple formulae Generate and describe linear number sequences Express missing numberproblems algebraically Find pairs of numbers that satisfy an equation with two unknowns Enumerate possibilities of combinations of two variables

			k calc ulati ons and solv e missi ng num ber probl ems.				
Key Vocabulary	Swapping	Arrange Rearrange Missing numbers Number facts Best way Another way Not all Ev ery Ea ch Pattern Number sentence	Predict Inverse Describe the pattern Describe the rule Find Find all Find differentSequence	Statement	ConsecutiveJustify	Formula	For mula e Vari able Gen erat e Enu mer ate algebra, algebraically express rati o pro port ion linear number of sequence substitute, variables, symbol, known values

Note – although algebraic notation is not introduced until Y6, algebraic thinking startsmuch earlier as exemplified by the ‘missing number’ objectives from Y1/2/3/4 and theuse of formulae to calculate both area and perimeter in and Y5.