



Vocabulary Progression for Mathematics



	Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions
F1	<p>Count - the act of determining the quantity or the total number of objects in a set or a group</p> <p>Subitise - the ability to look at a small number of objects and instantly recognise how many objects there are without needing to count</p> <p>Counting forwards - to say numbers in ascending order</p> <p>Counting backwards - to say numbers in descending order</p> <p>More - a greater number /amount / quantity</p> <p>Fewer - a smaller amount / quantity</p>	<p>Altogether - the total number of objects when groups have been combined</p>	<p>Same - identical sized groups/ quantities</p> <p>Not the same - groups of differing sizes / quantities</p> <p>Share - how to share a number of objects into equal groups</p> <p>Double - to have two of the same amount</p>	
F2	<p>Order - putting numbers in the correct order according to size</p>	<p>Add - finding the total of 2 or more numbers</p>	<p>Half - splitting a whole into two equal parts</p>	

<p>Ascending order goes smallest to largest Descending order goes from largest to smallest</p> <p>Ordinal - describes a position in a number sequence Numbers which indicate order – 1st, 2nd, 3rd and so on</p> <p>Cardinal number - a number that shows quantity but not order</p> <p>Compare - the method where you look at a number in relation to another number and determine whether it is smaller, greater, or equal to another number according to their values</p> <p>Numerals - a symbol or name that stands for a number Examples: 3, 49 and twelve are all numerals</p> <p>Digit - any number from 0 to 9 (inclusive)</p>	<p>Plus – addition</p> <p>Total - the whole number or amount</p> <p>Take away – subtraction</p> <p>Minus – subtraction</p> <p>Number bonds - pairs of numbers that add up to a specific number</p> <p>Part - a section of the whole</p> <p>Whole - sum of the parts</p> <p>Digit - any number from 0 to 9 (inclusive)</p> <p>Expression - a set of terms combined using the operations +, -, x or ÷; for example 3+4, 7-3, 2x4, 12÷2</p> <p>Equation - a statement of equality between two expressions (e.g. $12 = 6 + 6$ or $3+2=6-1$)</p>	<p>Twice as many – double</p> <p>Equal - The equal symbol is placed between representations of the same value</p> <p>Unequal - two groups or expressions that are not equal / the same</p> <p>Group - a non-empty set</p> <p>Odd – a number not made of pairs</p> <p>Even - a number made of pairs</p>	
--	---	--	--

	<p>One more - addition of 1</p> <p>One less - subtraction of 1</p> <p>Equal to - the equal symbol is placed between representations of the same value</p> <p>More than - a larger quantity or amount</p> <p>Less than (fewer) - smaller quantity or amount</p>			
Y1	<p>Sort - to arrange by characteristics</p> <p>Represent - expresses an equivalence between objects, mathematical structures and symbols</p> <p>Multiple - the numbers you get when you multiply a certain number by an integer For example, multiples of 5 are: 10, 15, 20, 25, 30...etc.</p>	<p>Addition - finding the total value of two or more numbers denoted by the symbol '+'</p> <p>Subtraction - finding the difference between two numbers or quantities To subtract a number from another number is also referred to as 'taking away one number from another'</p> <p>Difference - by how much a number is bigger or smaller than another</p>	<p>Odd - a number not made of twos</p> <p>Even - a number made of twos</p> <p>Multiplication - finding how many altogether in a given number of equal sized groups</p> <p>Division - the process of dividing a number up into equal parts, and finding how many equal parts can be</p>	<p>Whole - there is no missing part</p> <p>Half - one of two equal parts of a whole</p> <p>Quarter - One of four equal parts of a whole</p> <p>Equal parts - the whole split into sections or quantities that are the same size or value</p>

<p>Partition - dividing a number into the individual values of its digits, and to understand the values of these digits For example 12 can be partitioned into $10 + 2$</p> <p>Recombining - putting the individual digit place values of a number back together to make the original number For example $50 + 3$ is recombined to make 53</p> <p>Tens - 1 or more groups of 10 ones</p> <p>Ones - single entity and it is our unit of counting</p> <p>2 digit number - a number between 10-99 made of a tens and ones number</p> <p>Greater than - an inequality between numbers The symbol used to represent greater than is an arrow pointing towards the smallest number</p>	<p>Equal - the equal symbol is placed between representations of the same value</p> <p>Number Facts - basic addition, subtraction, multiplication and division facts that should be learnt to recall instantly to support more complex calculations Examples include number bonds and multiplication tables</p> <p>Near doubles - those addends that are almost a double fact E.g. $4+5$ is almost $4+4$</p> <p>Expression - a set of terms combined using the operations $+$, $-$, \times or \div; for example $3+4$, $7-3$, 2×4, $12\div 2$</p> <p>Equation – a statement of equality between two expressions (e.g. $12 = 6 + 6$ or $3+2=6-1$)</p>	<p>made and whether there is a remainder</p> <p>Array - a pictorial representation to show multiplication and division typically shown as rows of dots, for example, 2×3 would be shown as two rows of three dots</p> <p>Unit - a known quantity to count or measure in for example the unit is 5 and I can count in 5s (5, 10, 15, 20,25,30 etc.)</p>	
--	--	--	--

	<p>Less than - an inequality between numbers The symbol used to represent less than is an arrow pointing towards the smallest number</p>	<p>Problem - a mathematical statement that lacks a solution/answer</p> <p>Missing number problem - an equation where a numeral is missing from the expression</p> <p>Inverse - the calculation which is opposite to a given calculation, and effectively reverses it Addition is the inverse of subtraction, multiplication is the inverse of division</p>		
Y2	<p>Count in steps/skip counting - counting in groups of a number other than 1 E.g. counting in groups of 2 - 2,4,6,8,10,12 etc.</p> <p>Count in multiples - the numbers you get when you multiply a certain number by an integer For example, multiples of 5 are: 10, 15, 20, 25, 30...etc.</p>	<p>Commutative - addition has the property of commutativity – when two numbers are added in any order and the same answer will be obtained: $3 + 2 = 5$, $2 + 3 = 5$</p> <p>Sum - the result when two or more numbers are added together</p>	<p>Multiplication - finding how many altogether in a given number of equal sized groups Represented by the symbol 'x'</p> <p>Division - the process of dividing a number up into equal parts, and finding how many equal parts can be made and whether there is a remainder It is represented by the symbol '÷' or sometimes '/'</p>	<p>Three quarters - three of four equal parts of the whole</p> <p>Third - one of three equal parts of the whole</p> <p>Equivalent fractions - fractions which represent the same amount but are expressed using different numbers For example $1/2$ is the same as $2/4$</p>

	<p>Place value - indicates the position of a numeral (e.g. the place value of the 3 in 38 is 30)</p> <p>Estimate - a way of approximately calculating an answer (getting a 'rough answer')</p> <p>Compare - the method where look at a number relation to a another number and determine whether it is smaller, greater, or equal to another number according to their values</p> <p>3 digit number - a number between 100-999 made of hundreds, tens and ones number</p>		<p>Commutative - multiplication has the property of commutativity – when two numbers are multiplied, this can be done in any order and the same answer will be obtained: $4 \times 6 = 24$, $6 \times 4 = 24$</p> <p>Repeated addition- multiplication represented as the repeated grouping of the same number For example, 4×2 is the same as four groups of 2, or $2 + 2 + 2 + 2$</p>	<p>Fraction - a fraction is a number which represents part of a whole</p> <p>Numerator - the number above the line in a fraction showing how many parts of the denominator there are</p> <p>Denominator - the number below the line in a fraction showing how many parts the whole has been split into</p> <p>One whole - a whole object or quantity with nothing missing</p>
--	---	--	--	---

	Measures - measure and length	Measures - weight, height and capacity	Measures - money	Measures - time
F1	Big (er)(est) - means that one thing is larger in size than	Tall(er)(est) - used to compare heights		First - coming before all others in time or order

	<p>another, and biggest refers to the largest of its category</p> <p>Small (er)(est) - means that one thing is littler in size than another, and smallest refers to the littlest of its category</p>	<p>Taller means bigger in height than another object and tallest means the highest in the category</p> <p>Short (er)(est) - used to compare heights Shorter means smaller in height than another object and shortest means the smallest in the category</p> <p>Long (er)(est) - used to compare heights Longer means bigger in length than another object and longest means the biggest in the category</p> <p>Heavy (ier)(iest) - used to compare weights Heavier means greater weight than another object and heaviest means the greatest weight in the category</p> <p>Light(er)(est)- used to compare weights. Lighter means weighs less than another object and</p>		<p>Then - soon after that</p> <p>Next - immediately after</p> <p>After - at a later or future time</p> <p>Today - the present day</p>
--	--	--	--	---

		<p>lightest means the least weight in the category</p> <p>Big (er)(est) - means that one thing is larger in size than another, and biggest refers to the largest of its category</p> <p>Small (er)(est) - means that one thing is littler in size than another, and smallest refers to the littlest of its category</p> <p>Full - a container has no space left in it</p> <p>Empty - a container has nothing in it</p>		
F2	<p>Measure - to know the size of something</p> <p>Wide (er)(est) - used to compare width of objects</p> <p>Wider means greater in width than another object and widest means the greatest width in the category</p>	<p>Height - a measurement for how tall someone or something is</p> <p>Long (er)(est) - used to compare heights</p> <p>Longer means bigger in length than another object and longest means the biggest in the category</p>		<p>Time - an ongoing and continuous sequence of events that occur in succession, from past through to present, and to the future</p> <p>Time is used to quantify, measure, or compare the duration of events</p>

<p>Narrow (er)(est) - used to compare width of objects Narrower means has less width than another object and narrowest means the least width in the category</p> <p>Compare - looking for points of similarity and points of difference as far as mathematical properties are concerned</p> <p>Long (er)(est) - used to compare heights Longer means bigger in length than another object and longest means the biggest in the category</p> <p>Tall(er)(est) - used to compare heights Taller means bigger in height than another object and tallest means the highest in the category</p> <p>Short (er)(est) - used to compare heights</p>	<p>Tall(er)(est) - used to compare heights Taller means bigger in height than another object and tallest means the highest in the category</p> <p>Short (er)(est) - used to compare heights Shorter means smaller in height than another object and shortest means the smallest in the category</p> <p>Weight - a measure of how heavy something is</p> <p>Capacity - the amount of space in an object (the amount of liquid or air it contains)</p> <p>Heavier than - has a greater weight than another object</p> <p>Lighter than - weighs less than another object</p>		<p>Quicker - moving fast or doing something in a short time</p> <p>Slower - moving at a slow speed</p> <p>Earlier - happening or done before the usual or expected time</p> <p>Later - after the present time</p> <p>Before - in advance of the expected time</p> <p>Yesterday - the day before today</p> <p>Tomorrow - the day after today</p> <p>Morning - the time between midnight and noon</p> <p>Afternoon - the time after midday</p> <p>Evening - the period of time at the end of the day usually between tea and bedtime</p>
---	---	--	--

	<p>Shorter means smaller in height than another object and shortest means the smallest in the category</p> <p>Length - measurement of something from end to end</p>	<p>More than - has more of an attribute than another object/ group</p> <p>Less than - has less of an attribute than another object/ group</p> <p>Half full/empty - holding or containing half its capacity</p>		<p>Day - a 24 hour period between midnight and midnight</p> <p>Week - 7 day period</p> <p>Hour - 60 minute period</p> <p>Minute - 60 seconds</p>
Y1	<p>Compare - looking for points of similarity and points of difference as far as mathematical properties are concerned</p>	<p>Mass - this refers to the weight of an object It is measured in grams (g) and kilograms (kg)</p> <p>Volume - the amount of space taken up by an object</p>	<p>Money - used for buying things Physical money is made of coins and notes but money can also be exchanged using digitally and using cards</p> <p>Coins - a piece of metal that represents a set amount of money</p> <p>Notes - a piece of plastic that represents a set amount of money</p> <p>Pound (£) - 100 pence</p> <p>Pence (p) - 1 penny</p>	<p>Chronological order - the order in which things have happened</p> <p>Days of the week - Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday</p> <p>Months of the year- January, February, March, April, May, June, July, August, September, October, November and December</p> <p>Month - 1/12 of a year about 30 days</p>

				<p>Year - 365 days the time it takes the earth to orbit the sun</p> <p>O'clock - the time at a specific hour The hour hand always point to 12 on an analogue clock</p> <p>Half past - when the minute hand of a clock has moved from 12 and travelled halfway round the clock to point at 6, this is half past the hour</p> <p>Second - 1/60 of a minute</p>
Y2	<p>Standard units - standard units are the common units used in measurement, for example centimetres, litres, grams</p> <p>Estimate - a way of approximately calculating an answer (getting a 'rough answer')</p> <p>Order - putting numbers, measures, events etc in the</p>	<p>Kilogram (kg) - a unit of measurement used to measure much heavier objects 1000g=1kg</p> <p>Gram (g) - a unit of measurement used to measure much heavier objects 1kg=1000g</p>	<p>Value - the total of a group of coins/ notes or coins and notes</p> <p>Change - change is the amount of money you receive back when you pay more for an item than it costs</p>	<p>Time interval - the length of time between two given times</p> <p>Quarter past/to - when the minute hand of a clock has moved from 12 and travelled $\frac{1}{4}$ / $\frac{3}{4}$ round the clock to point at 3/6, this is quarter past/to the hour</p> <p>Duration - the time during which something exists or lasts</p>

	<p>correct order according to an attribute Ascending order goes smallest to largest, descending order from largest to smallest</p> <p>Centimetres (cm) - a metric unit of measurement used for measuring the length of an object 1m=100cm</p> <p>Meters (m) - a metric unit of measurement used for measuring the length of an object 100cm=1m</p>	<p>Quarter full - holding or containing $\frac{1}{4}$ of its capacity</p> <p>Three quarters full - holding or containing $\frac{3}{4}$ of its capacity</p> <p>Litres (l) - a metric unit of volume primarily used to measure liquids 1000ml=1l</p> <p>Millilitres (ml) - a metric unit of volume primarily used to measure liquids 1l=1000ml</p> <p>Temperature - the amount of heat in something</p> <p>Celsius (C)- a unit of measurement used to measure temperature</p>		
--	--	---	--	--

	<p>Geometry - Properties of Shapes</p>	<p>Geometry - Position and Direction</p>	<p>Statistics</p>	
<p>F1</p>	<p>Square - a 2D shape with four equal sides, four vertices (corners) and four right angles</p>	<p>Under - directly below</p> <p>Over - directly above</p>		

	<p>A square is also a rectangle</p> <p>Circle - a 2D shape with one curved face and no vertices (corners)</p> <p>Triangle - a 2D shape with three straight sides and three vertices (corners)</p> <p>Rectangle - a 2D shape with four straight sides and four right angles (corners) Opposite sides are the same length</p>	<p>In - inside of something</p> <p>On - physically above and in contact with an object</p> <p>Through - movement into one side and out of the other side of an opening, channel, or location</p> <p>Behind - to the far side of (something), typically so as to be hidden by it</p> <p>Pattern - repeated design</p>		
F2	<p>2D shapes - shapes which are flat, having only two dimensions – height/length and width</p> <p>Characteristics - the distinguishing features or quality of shapes/objects</p> <p>3D shapes - shapes which have a solid form, having 3 dimensions – height/length, width and depth</p>	<p>Between - in the space separating two objects</p> <p>Next to - beside an object</p> <p>Beneath - under an object</p> <p>Order - putting numbers, measures, events etc. in the correct order according to an attribute</p> <p>Repeat - a unit of a pattern that is repeated</p>		

<p>Cube - a 3D shape with six identical square faces, 12 edges the same length and eight vertices A cube is also a cuboid</p> <p>Cuboid - a 3D shape with six faces, some or all of which are rectangular, 12 edges and eight vertices</p> <p>Sphere - a 3D shape with one curved face, no edges and no vertices</p> <p>Cone – 3D shape that has a circular base that narrows to a point at the top</p> <p>Curved - a continuous and smooth flowing line/face that bend without any sharp corners</p> <p>Straight - a line/face with no bends or corners</p> <p>Flat - a smooth surface with no bends</p>	<p>Turn - to rotate an object or person around a centre point</p>		
---	---	--	--

Y1	<p>Side - one of the lines, straight or curved, which encloses a 2D shape</p> <p>Corners - also known as a vertex The place on a 3D shape where three faces meet Also used to describe the angles of a 2D shape</p> <p>Pyramid- a 3D shape with triangular faces and a regular polygon as a base Typically, with 3/4 triangular faces and four/five vertices respectively</p> <p>Properties - features of a 2D/3D shape</p> <p>Face - the surface of a 3D shape Faces can be flat or curved and of many different shapes</p>	<p>Position - a place where someone or something is located or has been put</p> <p>Direction - a course along which someone or something moves</p> <p>Movement - the act of travel</p> <p>Whole turn - rotation of a full circle (360°)</p> <p>Quarter turn - rotation of 90° or a right angle</p> <p>Half turn - rotation of 180° facing the opposite direction</p> <p>Three quarter turn - rotation of 270° or three right angles</p>		
Y2	<p>Polygon - a 2D shape with straight, fully closed sides A polygon can have any number of sides</p>	<p>Clockwise/anticlockwise - a way of indicating the direction of a turn</p>	<p>Pictogram – a chart or graph which uses pictures to represent data</p>	

<p>Irregular shapes - 2D shapes whose sides and angles are not all the same</p> <p>Quadrilateral - any shape with four sides</p> <p>Pentagon - a 2D shape with 5 sides and 5 vertices</p> <p>Hexagon - a 2D shape with six sides and six vertices</p> <p>Line of symmetry - a shape that is identical on either side of a line dividing it into two parts</p> <p>Cylinder - a 3D shape with two circular faces, one rectangular face, two edges and no vertices</p> <p>Edge - the place on a 3D shape where two faces meet</p> <p>Vertex/Vertices - also known as corner/s The place on a 3D shape where three faces meet</p>	<p>Clockwise involves a turn to the right as if following the hands of a clock, anti-clockwise involves a turn to the left, against the direction of a clock's hands</p> <p>Straight line - a line with no bends or corners</p> <p>Rotation - turning around a central point</p> <p>Arrange- grouping/organising by a criteria</p> <p>Sequence - collection of objects in which repetitions are allowed and order matters</p>	<p>They are set out the same way as bar charts but use pictures instead of bars Each picture could represent one item or more than one</p> <p>Tally chart - a chart used for the initial collection of data Usually presented as a table with different categories along the top or down the side, and tallies (groups of 5 marks) used to show how many in each category One vertical mark represents one item, and when five are counted the fifth mark is crossed through the first four</p> <p>Block diagram – a simple chart which displays information using blocks, displayed on a horizontal axis labelled with categories, and a vertical axis labelled with numbers Each block represents one unit</p>	
---	---	--	--

	<p>Also commonly used to describe the corners of a 2D shape</p>		<p>Category - a collection of objects that are linked</p> <p>Sorting - the rearrangement of numbers (or other orderable objects) based on a category</p> <p>Total - the whole number or amount</p> <p>Comparing - looking for points of similarity and points of difference in representation of data including tables and charts</p> <p>Vertical - a line which is at right angles to a horizontal line</p> <p>Horizontal - describes a line parallel to the earth's surface</p>	
--	---	--	---	--