

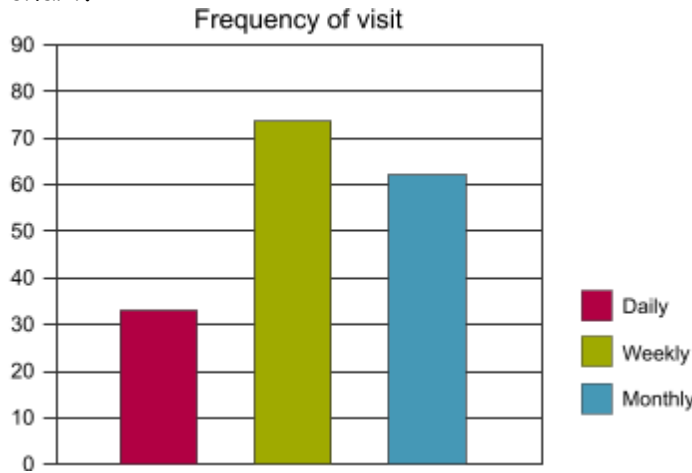
Mathematics Glossary

Aa

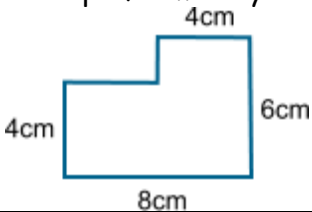
Addend (KS1)	A number to be added to another. See also dividend.
addition (KS1)	The binary operation of addition on the set of all real numbers that adds one number of the set to another in the set to form a third number which is also in the set. The result of the addition is called the sum or total. The operation is denoted by the + sign. When we write $5 + 3$ we mean 'add 3 to 5'; we can also read this as '5 plus 3'. In practice the order of addition does not matter: The answer to $5 + 3$ is the same as $3 + 5$ and in both cases the sum is 8. This holds for all pairs of numbers and therefore the operation of addition is said to be commutative. To add three numbers together, first two of the numbers must be added and then the third is added to this intermediate sum. For example, $(5 + 3) + 4$ means 'add 3 to 5 and then add 4 to the result' to give an overall total of 12. Note that $5 + (3 + 4)$ means 'add the result of adding 4 to 3 to 5' and that the total is again 12. The brackets indicate a priority of sub-calculation, and it is always true that $(a + b) + c$ gives the same result as $a + (b + c)$ for any three numbers a, b and c. This is the associative property of addition. Addition is the inverse operation to subtraction, and vice versa. There are two models for addition: Augmentation is when one quantity or measure is increased by another quantity. i.e. "I had £3.50 and I was given £1, then I had £4.50." Aggregation is the combining of two quantities or measures to find the total. E.g. "I had £3.50 and my friend had £1, we had £4.50 altogether."
algebra (KS1)	The part of mathematics that deals with generalised arithmetic. Letters are used to denote variables and unknown numbers and to state general properties. Example: $a(x + y) = ax + ay$ exemplifies a relationship that is true for any numbers a, x and y. Adjective: algebraic. See also equation, inequality, formula, identity and expression.
analogue clock (KS1)	A clock usually with 12 equal divisions labelled 'clockwise' from the top 12, 1, 2, 3 and so on up to 11 to represent hours. Commonly, each of the twelve divisions is further subdivided into five equal parts providing sixty minor divisions to represent minutes. The clock has two hands that rotate about the centre. The minute hand completes one revolution in one hour, whilst the hour hand completes one revolution in 12 hours. Sometimes the Roman numerals XII, I, II, III, IV, V, VI, VII, VIII, IX, X, XI are used instead of the standard numerals used today.
angle (KS1)	An angle is a measure of rotation and is often shown as the amount of rotation required to turn one line segment onto another where the two line segments meet at a point (insert diagram). See right angle, acute angle, obtuse angle, reflex angle

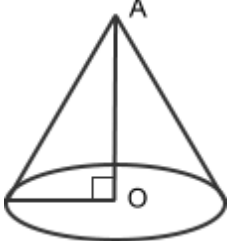
anticlockwise (KS1)	In the opposite direction from the normal direction of travel of the hands of an analogue clock.
array (KS1)	An ordered collection of counters, numbers etc. in rows and columns.
associative (KS1)	A binary operation $*$ on a set S is associative if $a * (b * c) = (a * b) * c$ for all a, b and c in the set S. Addition of real numbers is associative which means $a + (b + c) = (a + b) + c$ for all real numbers a, b, c. It follows that, for example, $1 + (2 + 3) = (1 + 2) + 3$. Similarly multiplication is associative. Subtraction and division are not associative because: $1 - (2 - 3) = 1 - (-1) = 2$, whereas $(1 - 2) - 3 = (-1) - 3 = -4$ and $1 \div (2 \div 3) = 1 \div \frac{2}{3} = \frac{3}{2}$, whereas $(1 \div 2) \div 3 = (\frac{1}{2}) \div 3 = \frac{1}{6}$.
axis of symmetry (KS1)	A line about which a geometrical figure, or shape, is symmetrical or about which a geometrical shape or figure is reflected in order to produce a symmetrical shape or picture. Reflective symmetry exists when for every point on one side of the line there is another point (its image) on the other side of the line which is the same perpendicular distance from the line as the initial point. Example: a regular hexagon has six lines of symmetry; an equilateral triangle has three lines of symmetry. See reflection symmetry

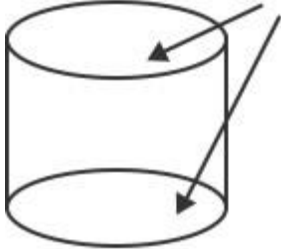
Bb

bar chart (KS1)	A format for representing statistical information. Bars, of equal width, represent frequencies and the lengths of the bars are proportional to the frequencies (and often equal to the frequencies). Sometimes called bar graph. The bars may be vertical or horizontal depending on the orientation of the chart.  <table><caption>Frequency of visit</caption><tr><th>Frequency</th><th>Daily</th><th>Weekly</th><th>Monthly</th></tr><tr><td>Frequency</td><td>33</td><td>74</td><td>62</td></tr></table>	Frequency	Daily	Weekly	Monthly	Frequency	33	74	62
Frequency	Daily	Weekly	Monthly						
Frequency	33	74	62						
binary operation (KS1)	A rule for combining two numbers in the set to produce a third also in the set. Addition, subtraction, multiplication and division of real numbers are all binary operations.								

block graph (KS1)	A simple format for representing statistical information. One block represents one observation. Example: A birthday graph where each child places one block, or colours one square, to represent himself / herself in the month in which he or she was born. 									
Cc										
capacity (KS1)	Capacity - the volume of a material (typically liquid or air) held in a vessel or container. Note: the term 'volume' is used as a general measure of 3-dimensional space and cannot always be used as synonymously with capacity. e.g. the volume of a cup is the space taken up by the actual material of the cup (a metal cup melted down would have the same volume); whereas the capacity of the cup is the volume of the liquid or other substance that the cup can contain. A solid cube has a volume but no capacity. Units include litres, decilitres, millilitres; cubic centimetres (cm3) and cubic metres (m3). A litre is equivalent to 1000 cm3.									
cardinal number (KS1)	A cardinal number denotes quantity, as opposed to an ordinal number which denotes position within a series. 1, 2, 5, 23 are examples of cardinal numbers First (1st), second (2nd), third (3rd) etc denote position in a series, and are ordinals.									
Carroll diagram (KS1)	A sorting diagram named after Lewis Carroll, author and mathematician, in which numbers (or objects) are classified as having a certain property or not having that property Example: Use the diagram below to classify all the integers from 1 to 33 <table><tr><td></td><td>Even</td><td>Not even</td></tr><tr><td>Multiple of three</td><td>6,12,18,24,30</td><td>3,9,15,21,27,33</td></tr><tr><td>Not multiple of three</td><td>2,4,8,10,14,16,20,22,24,26,28,32</td><td>1,5,7,11,13,15,17,19,23,25,29,31</td></tr></table>		Even	Not even	Multiple of three	6,12,18,24,30	3,9,15,21,27,33	Not multiple of three	2,4,8,10,14,16,20,22,24,26,28,32	1,5,7,11,13,15,17,19,23,25,29,31
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categorical data (KS1)	Data arising from situations where categories (unordered discrete) are used. Examples: pets, pupils' favourite colours; states of matter - solids, liquids, gases, gels etc; nutrient groups in foods - carbohydrates, proteins, fats etc; settlement types - hamlet, village, town, city etc; and types									
centi- (KS1)	Prefix meaning one-hundredth (of)									
Centilitre	Symbol: cl. A unit of capacity or volume equivalent to one-hundredth of a litre.									

Centimetre	Symbol: cm. A unit of linear measure equivalent to one hundredth of a metre.
chart (KS1)	Another word for a table or graph
chronological (KS1)	Relating to events that occur in a time ordered sequence.
circle (KS1)	The set of all points in a plane which are at a fixed distance (the radius) from a fixed point (the centre) also in the plane Alternatively, the path traced by a single point travelling in a plane at a fixed distance (the radius) from a fixed point (the centre) in the same plane. One half of a circle cut off by a diameter is a semi-circle. The area enclosed by a circle of radius r is πr^2 .
circular (KS1)	1. In the form of a circle. 2. Related to the circle, as in circular function.
clockwise (KS1)	In the direction in which the hands of an analogue clock travel. Anti-clockwise or counter-clockwise are terms used for the opposite direction.
column graph (KS1)	A bar graph where the bars are presented vertically.
common fraction (KS1)	A fraction where the numerator and denominator are both integers. Also known as simple or vulgar fraction. Contrast with a compound or complex fraction where the numerator or denominator or both contain fractions.
commutative (KS1)	A binary operation $*$ on a set S is commutative if $a * b = b * a$ for all a and $b \in S$. Addition and multiplication of real numbers are commutative where $a + b = b + a$ and $a \times b = b \times a$ for all real numbers a and b . It follows that, for example, $2 + 3 = 3 + 2$ and $2 \times 3 = 3 \times 2$. Subtraction and division are not commutative since, as counter examples, $2 - 3 \neq 3 - 2$ and $2 \div 3 \neq 3 \div 2$.
compensation (in calculation) (KS1/2)	A mental or written calculation strategy where one number is rounded to make the calculation easier. The calculation is then adjusted by an appropriate compensatory addition or subtraction. Examples: • $56 + 38$ is treated as $56 + 40$ and then 2 is subtracted to compensate. • 27×19 is treated as 27×20 and then 27 (i.e. 27×1) is subtracted to compensate. • $67 - 39$ is treated as $67 - 40$ and then 1 is added to compensate.
composite shape (KS1)	A shape formed by combining two or more shapes. 
concrete objects (KS1)	Objects that can be handled and manipulated to support understanding of the structure of a mathematical concept. Materials such as Dienes (Base 10 materials), Cuisenaire, Numicon, pattern blocks are all examples of concrete objects.

cone (KS1)	A cone is a 3-dimensional shape consisting of a circular base, a vertex in a different plane, and line segments joining all the points on the circle to the vertex. If the vertex A lies directly above the centre O of the base, then the axis of the cone AO is perpendicular to the base and the shape is a right circular cone. 
conjecture (KS1)	An educated guess (or otherwise!) of a particular result, which is as yet unverified.
consecutive (KS1)	Following in order. Consecutive numbers are adjacent in a count. Examples: 5, 6, 7 are consecutive numbers. 25, 30, 35 are consecutive multiples of 5. In a polygon, consecutive sides share a common vertex and consecutive angles share a common side.
continuous data (KS1)	Data arising from measurements taken on a continuous variable (examples: lengths of caterpillars; weight of crisp packets). Continuous data may be grouped into touching but non-overlapping categories. (Example height of pupils [x cm] can be grouped into $130 \leq x < 140$; $140 \leq x < 150$ etc.) Compare with discrete data.
corner (KS1)	In elementary geometry, a point where two or more lines or line segments meet. More correctly called vertex, vertices (plural). Examples: a rectangle has four corners or vertices; and a cube has eight corners or vertices.
count (verb) (KS1)	The act of assigning one number name to each of a set of objects (or sounds or movements) in order to determine how many objects there are. In order to count reliably children need to be able to: • Understand that the number words come in a fixed order • Say the numbers in the correct sequence; • Organise their counting (e.g. say one number for each object and keep track of which things they have counted); • Understand that the final word in the count gives the total • Understand that the last number of the count remains unchanged irrespective of the order (conservation of number)
counter example (KS1)	Where a hypothesis or general statement is offered, an example that clearly disproves it.
cube (KS1/2)	In geometry, a three-dimensional figure with six identical, square faces. Adjoining edges and faces are at right angles. In number and algebra, the result of multiplying to power of three, n^3 is read as 'n cubed' or 'n to the power of three' Example: Written 23, the cube of 2 is $(2 \times 2 \times 2) = 8$.
cuboid (KS1)	A three-dimensional figure with six rectangular faces.

cylinder (KS1)	A three-dimensional object whose uniform cross-section is a circle. A right cylinder can be defined as having circular bases with a curved surface joining them, this surface formed by line segments joining corresponding points on the circles. The centre of one base lies over the centre of the second. circular bases  Right cylinder
Dd	
2-D; 3-D (KS1)	Short for 2-dimensional and 3-dimensional. A figure is two-dimensional if it lies in a plane. A solid is three-dimensional and occupies space (in more than one plane). A plane is specified by ordered pairs of numbers called coordinates, typically (x,y). Points in 3-dimensional space are specified by an ordered triple of numbers, typically (x, y, z).
data (KS1)	Information of a quantitative nature consisting of counts or measurements. Initially data are nearly always counts or things like percentages derived from counts. When they refer to measurements that are separate and can be counted, the data are discrete. When they refer to quantities such as length or capacity that are measured, the data are continuous. Singular: datum.
database	A means of storing sets of data.
denomination (currency) (KS1)	The face value of coins. In the smallest denomination of UK currency (known as Sterling) is 1p and the largest denomination of currency is a £50 note.
describe (KS1) In mathematics (as distinct from its everyday meaning), difference means the numerical	When the curriculum asks pupils to 'describe' a mathematical object, transformation or the features of a graph, or anything else of a mathematical nature, it is asking pupils to refine their skills to hone in on the essential mathematical features and to describe these as accurately and as succinctly as possible. By KS3 pupils are expected to develop this skill to a good degree.
diagram (KS1)	A picture, a geometric figure or a representation.

difference (KS1)	In mathematics (as distinct from its everyday meaning), difference means the numerical difference between two numbers or sets of objects and is found by comparing the quantity of one set of objects with another. e.g. the difference between 12 and 5 is 7; 12 is 5 more than 7 or 7 is 5 fewer than 12. Difference is one way of thinking about subtraction and can, in some circumstances, be a more helpful image for subtraction than 'take-away' - e.g. $102 - 98$
digit (KS1)	One of the symbols of a number system most commonly the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. Examples: the number 29 is a 2-digit number; there are three digits in 2.95. The position or place of a digit in a number conveys its value.
digital clock (KS1)	A clock that displays the time as hours and minutes passed, usually since midnight. Example: four thirty in the afternoon is displayed as 16:30.
directed number (KS1)	A number having a direction as well as a size e.g. -7, +10, etc. Such numbers can be usefully represented on a number line extending in both directions from zero.
direction (KS1)	The orientation of a line in space. e.g. north, south, east, west; up, down, right, left are directions.
divide (KS1)	To carry out the operation of division.
dividend (KS1)	In division, the number that is divided. E.g. in $15 \div 3$, 15 is the dividend See also Addend
division (KS1)	1. An operation on numbers interpreted in a number of ways. Division can be sharing - the number to be divided is shared equally into the stated number of parts; or grouping - the number of groups of a given size is found. Division is the inverse operation to multiplication. 2. On a scale, one part. Example: Each division on a ruler might represent a millimetre.
double (KS1)	1. To multiply by 2. Example: Double 13 is $(13 \times 2) = 26$. 2. The number or quantity that is twice another. Example: 26 is double 13. In this context, a 'near double' is one away from a double. Example: 27 is a near double of 13 and of 14. (N.B. spotting near doubles can be a useful mental calculation strategy e.g. seeing $25 + 27$ as 2 more than double 25.
Ee	
edge (KS1)	A line segment, joining two vertices of a figure. A line segment formed by the intersection of two plane surfaces. Examples: a square has four edges; and a cuboid has twelve edges.
equal (KS1)	Symbol: =, read as 'is equal to' or 'equals'. and meaning 'having the same value as'. Example: $7 - 2 = 4 + 1$ since both expressions, $7 - 2$ and $4 + 1$ have the same value, 5.

equivalent fractions (KS1)	Fractions with the same value as another. For example: $\frac{4}{8}$, $\frac{5}{10}$, $\frac{8}{16}$ are all equivalent fractions and all are equal to $\frac{1}{2}$.
even number (KS1)	An integer that is divisible by 2.

Ff

face (KS1)	One of the flat surfaces of a solid shape. Example: a cube has six faces; each face being a square
facts (KS1)	i.e. Multiplication / division/ addition/ subtraction facts. The word 'fact' is related to the four operations and the instant recall of knowledge about the composition of a number. i.e. an addition fact for 20 could be $10+10$; a subtraction fact for 20 could be $20-9=11$. A multiplication fact for 20 could be 4×5 and a division fact for 20 could be $20 \div 5 = 4$.
fluency (KS1)	To be mathematically fluent one must have a mix of conceptual understanding, procedural fluency and knowledge of facts to enable you to tackle problems appropriate to your stage of development confidently, accurately and efficiently.
(the) four operations	Common shorthand for the four arithmetic operations of addition, subtraction, multiplication and division.
fraction (KS1)	The result of dividing one integer by a second integer, which must be non- zero. The dividend is the numerator and the non-zero divisor is the denominator. See also common fraction, decimal fraction, equivalent fraction, improper fraction, proper fraction, simple fraction, unit fraction and vulgar fraction.
frequency (KS1)	The number of times an event occurs; or the number of individuals (people, animals etc.) with some specific property.

Gg

general statement (KS1)	A statement that applies correctly to all relevant cases. e.g. the sum of two odd numbers is an even number.
generalise (KS1)	To formulate a general statement or rule.
geometrical (KS1)	Relating to geometry, the aspect of mathematics concerned with the properties of space and figures or shapes in space.
gram (KS1)	Symbol: g. The unit of mass equal to one thousandth of a kilogram.

Hh

hour (KS1)	A unit of time. One twenty-fourth of a day. 1 hour = 60 minutes = 3600 (60×60) seconds.
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hundred square (KS1)	A 10 by 10 square grid numbered 1 to 100. A similar grid could be numbered as a 0 - 99 grid.
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Ii

inequality (KS1)	When one number, or quantity, is not equal to another. Statements such as $a \neq b$, $a < b$, $a \leq b$, $a > b$ or $a \geq b$ are inequalities. The inequality signs in use are: $\neq$ means 'not equal to'; $A \neq B$ means 'A is not equal to B' $<$ means 'less than'; $A < B$ means 'A is less than B' $>$ means 'greater than'; $A > B$ means 'A is greater than B' $\leq$ means 'less than or equal to'; $A \leq B$ means 'A is less than or equal to B' $\geq$ means 'greater than or equal to'; $A \geq B$ means 'A is greater than or equal to B'
infinite (KS1)	Of a number, always bigger than any (finite) number that can be thought of. Of a sequence or set, going on forever. The set of integers is an infinite set.
inverse operations (KS1)	Operations that, when they are combined, leave the entity on which they operate unchanged. Examples: addition and subtraction are inverse operations e.g. $5 + 6 - 6 = 5$. Multiplication and division are inverse operations e.g. $6 \times 10 \div 10 = 6$. Squaring and taking the square root are inverse to each other: $\sqrt{x^2} = (\sqrt{x})^2 = x$; similarly with cube and cube root, and any integer power n and nth root. Some operations, such as reflection in the x-axis, or 'subtract from 10' are self-inverse i.e. they are inverses of themselves

Kk

kite (KS1)	A quadrilateral with two pairs of equal, adjacent sides whose diagonals consequently intersect at right angles.
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Ll

length (KS1)	The extent of a line segment between two points. Length is independent of the orientation of the line segment
Line (KS1)	A set of adjacent points that has length but no width. A straight line is completely determined by two of its points, say A and B. The part of the line between any two of its points is a line segment.
Litre (KS1)	Symbol: l. A metric unit used for measuring volume or capacity. A litre is equivalent to 1000 cm ³ .

Mm

mass (KS1)	A characteristic of a body, relating to the amount of matter within it. Mass differs from weight, the force with which a body is attracted towards the earth's centre. Whereas, under certain conditions, a body can become weightless, mass is constant. In a constant gravitational field weight is proportional to mass.
maximum value (in a non-calculus sense) (KS1)	The greatest value. Example: The maximum temperature in London yesterday was 18oC.
measure (KS1)	1. The size in terms of an agreed unit. See also compound measure. 2. Measure is also used as a verb, to find the size.
measuring tools (KS1)	These record numerical quantities of continuous variables, often by comparison with scaled calibrations on the device that is used, or using digital technology. For example, a ruler measures length, a protractor measures angles, a thermometer measures temperature; weighing scales measure mass, a stop watch measures time duration, measuring vessels to measure capacity, and so on.
mental calculation (KS1)	Referring to calculations that are largely carried out mentally, but may be supported with a few simple written jottings.
minimum value (in a non-calculus sense) (KS1)	The least value. Example: The expected minimum temperature overnight is 6oC.
minus (KS1)	A name for the symbol -, representing the operation of subtraction.
minute (KS1)	Unit of time. One-sixtieth of an hour. 1 minute = 60 seconds
missing number problems (KS1)	A problem of the type $7 = \square - 9$ often used as an introduction to algebra.
multiple (KS1)	For any integers a and b, a is a multiple of b if a third integer c exists so that $a = bc$ Example: 14, 49 and 70 are all multiples of 7 because $14 = 7 \times 2$, $49 = 7 \times 7$ and $70 = 7 \times 10$.. -21 is also a multiple of 7 since $-21 = 7 \times -3$.
multiplicand (KS1)	A number to be multiplied by another. e.g. in 5×3 , 5 is the multiplicand as it is the number to be multiplied by 3. See also Addend, subtrahend and dividend.

multiplication (KS1)	Multiplication (often denoted by the symbol "x") is the mathematical operation of scaling one number by another. It is one of the four binary operations in arithmetic (the others being addition, subtraction and division). Because the result of scaling by whole numbers can be thought of as consisting of some number of copies of the original, whole-number products greater than 1 can be computed by repeated addition; for example, 3 multiplied by 4 (often said as "3 times 4") can be calculated by adding 4 copies of 3 together: $3 \times 4 = 3 + 3 + 3 + 3 = 12$ Here 3 and 4 are the "factors" and 12 is the "product". Multiplication is the inverse operation of division, and it follows that $7 \div 5 \times 5 = 7$ Multiplication is commutative, associative and distributive over addition or subtraction.																																
multiplication table (KS1)	An array setting out sets of numbers that multiply together to form the entries in the array, for example <table><tr><td>Multipliers</td><td>1</td><td>2</td><td>3</td></tr><tr><td>1</td><td>1</td><td>2</td><td>3</td></tr><tr><td>2</td><td>2</td><td>4</td><td>6</td></tr><tr><td>3</td><td>3</td><td>6</td><td>9</td></tr><tr><td>4</td><td>4</td><td>8</td><td>12</td></tr><tr><td>5</td><td>5</td><td>10</td><td>15</td></tr><tr><td>6</td><td>6</td><td>12</td><td>18</td></tr><tr><td>7</td><td>7</td><td>14</td><td>21</td></tr></table>	Multipliers	1	2	3	1	1	2	3	2	2	4	6	3	3	6	9	4	4	8	12	5	5	10	15	6	6	12	18	7	7	14	21
Multipliers	1	2	3																														
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4	4	8	12																														
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6	6	12	18																														
7	7	14	21																														
multiply (KS1)	Carry out the process of multiplication.																																
Nn																																	
notation (KS1)	A convention for recording mathematical ideas. Examples: Money is recorded using decimal notation e.g. £2.50 Other examples of mathematical notation include $a + a = 2a$, $y = f(x)$ and $n \times n \times n = n^3$,																																
number bond (KS1)	A pair of numbers with a particular total e.g. number bonds for ten are all pairs of whole numbers with the total 10.																																
number line (KS1)	A line where numbers are represented by points upon it.																																
number sentence (KS1)	A mathematical sentence involving numbers. Examples: $3 + 6 = 9$ and $9 > 3$																																
number square (KS1)	A square grid in which cells are numbered in order.																																
number track (KS1)	A numbered track along which counters might be moved. The number in a region represents the number of single moves from the start.																																

numeral (KS1)	A symbol used to denote a number. The Roman numerals I, V, X, L, C, D and M represent the numbers one, five, ten, fifty, one hundred, five hundred and one thousand. The Arabic numerals 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 are used in the Hindu-Arabic system giving numbers in the form that is widely used today.
Oo	
oblong (KS1)	Sometimes used to describe a non-square rectangle - i.e. a rectangle where one dimension is greater than the other
octagon (KS1)	A polygon with eight sides. Adjective: octagonal, having the form of an octagon.
operation (KS1)	See binary operation
ordinal number (KS1)	A term that describes a position within an ordered set. Example: first, second, third, fourth ... twentieth etc.
Pp	
partition (KS1)	1. To separate a set into subsets. 2. To split a number into component parts. Example: the two-digit number 38 can be partitioned into $30 + 8$ or $19 + 19$. 3. A model of division. Example: $21 \div 7$ is treated as 'how many sevens in 21?'
pattern (KS1)	A systematic arrangement of numbers, shapes or other elements according to a rule.
pentagon (KS1)	A polygon with five sides and five interior angles. Adjective: pentagonal, having the form of a pentagon.
pictogram (KS1)	A format for representing statistical information. Suitable pictures, symbols or icons are used to represent objects. For large numbers one symbol may represent a number of objects and a part symbol then represents a rough proportion of the number.
pictorial representations (KS1)	Pictorial representations enable learners to use pictures and images to represent the structure of a mathematical concept. The pictorial representation may build on the familiarity with concrete objects. E.g. a square to represent a Dienes 'flat' (representation of the number 100). Pupils may interpret pictorial representations provided to them or create a pictorial representation themselves to help solve a mathematical problem.
place value (KS1)	The value of a digit that relates to its position or place in a number. Example: in 1482 the digits represent 1 thousand, 4 hundreds, 8 tens and 2 ones respectively; in 12.34 the digits represent 1 ten, 2 ones, 3 tenths and 4 hundredths respectively.
plus (KS1)	A name for the symbol +, representing the operation of addition.

polygon (KS1)	A closed plane figure bounded by straight lines. The name derives from many angles. If all interior angles are less than 180° the polygon is convex. If any interior angle is greater than 180°, the polygon is concave. If the sides are all of equal length and the angles are all of equal size, then the polygon is regular; otherwise it is irregular. Adjective: polygonal.
position (KS1)	Location as specified by a set of coordinates in a plane or in full 3-dimensional space. On the large scale, location on the earth is specified by latitude and longitude coordinates.
pound sterling (money) (KS1)	Symbol £. A unit of money. £1.00 = 100 pence. £1 is commonly called a pound.
prism (KS1)	A solid bounded by two congruent polygons that are parallel (the bases) and parallelograms (lateral faces) formed by joining the corresponding vertices of the polygons. Prisms are named according to the base e.g. triangular prism, quadrangular prism, pentagonal prism etc. Examples: If the lateral faces are rectangular and perpendicular to the bases, the prism is a right prism.
product (KS1)	The result of multiplying one number by another. Example: The product of 2 and 3 is 6 since $2 \times 3 = 6$.
property (KS1)	Any attribute. Example: One property of a square is that all its sides are equal.
property (KS1)	Any attribute. Example: One property of a square is that all its sides are equal.
Qq	
quadrilateral (KS1)	A polygon with four sides.
quantity (KS1)	Something that has a numerical value, for example: 5 bananas.
quarter turn (KS1)	A rotation through 90°, usually anticlockwise unless stated otherwise.

Rr

rectangle (KS1)	A parallelogram with an interior angle of 90° . Opposite sides are equal. If adjacent sides are also equal the rectangle is a square. If adjacent sides are not equal, the rectangle is sometimes referred to as an oblong. A square is a (special type) of rectangle but a rectangle is not a square. The use of the word 'oblong' (favoured by some) resolves this issue. An oblong is a rectangle which is not square.
relation, relationship (KS1)	A common property of two or more items. An association between two or more items.
repeated addition (KS1)	The process of repeatedly adding the same number or amount. One model for multiplication. Example $5 + 5 + 5 + 5 = 5 \times 4$.
repeated subtraction (KS1)	The process of repeatedly subtracting the same number or amount. One model for division. Example $35 - 5 - 5 - 5 - 5 - 5 - 5 - 5 = 0$ so $35 \div 5 = 7$ remainder 0.
rotation (KS1)	In 2-D, a transformation of the whole plane which turns about a fixed point, the centre of rotation. A is specified by a centre and an (anticlockwise) angle.
row	A horizontal arrangement.
rule (KS1)	Generally a procedure for carrying out a process. In the context of patterns and sequences a rule, expressed in words or algebraically, summarises the pattern or sequence and can be used to generate or extend it.

Ss

score (KS1)	1. To earn points or goals in a competition. The running total of points or goals. 2. The number twenty.
second (KS1)	1. A unit of time. One-sixtieth of a minute. 2. Ordinal number as in 'first, second, third, fourth ...'.
sequence (KS1)	A succession of terms formed according to a rule. There is a definite relation between one term and the next and between each term and its position in the sequence. Example: 1, 4, 9, 16, 25 etc.
set (KS1)	A well-defined collection of objects (called members or elements).
share (equally) (KS1)	Sections of this page that are currently empty will be filled over the coming weeks. One model for the process of division.
side (KS1)	A line segment that forms part of the boundary of a figure. Also edge.
sign (KS1)	A symbol used to denote an operation. Examples: addition sign +, subtraction sign -, multiplication sign $\times$, division sign $\div$, equals sign = etc. In the case of directed numbers, the positive + or negative - sign indicates the direction in

	which the number is located from the origin along the number line.
simple fraction (KS1)	A fraction where the numerator and denominator are both integers. Also known as common fraction or vulgar fraction.
simple fraction (KS1)	A fraction where the numerator and denominator are both integers. Also known as common fraction or vulgar fraction.
square (KS1)	1. A quadrilateral with four equal sides and four right angles. 2. The square of a number is the product of the number and itself. Example: the square of 5 is 25. This is written $5^2 = 25$ and read as five squared is equal to twenty-five. See also square number and square root.
standard unit (KS1)	Uniform units that are agreed throughout a community. Example: the metre is a standard unit of length. Units such as the handspan are not standard as they vary from person to person.
subtract (KS1)	Carry out the process of subtraction
subtraction (KS1)	The inverse operation to addition. Finding the difference when comparing magnitude. Take away.
subtrahend (KS1)	A number to be subtracted from another. See also Addend, dividend and multiplicand.
sum (KS1)	The result of one or more additions.
surface (KS1)	A set of points defining a space in two or three dimensions.
symbol (KS1)	A letter, numeral or other mark that represents a number, an operation or another mathematical idea. Example: L (Roman symbol for fifty), > (is greater than).
symmetry (KS1)	A plane figure has symmetry if it is invariant under a reflection or rotation i.e. if the effect of the reflection or rotation is to produce an identical-looking figure in the same position. See also reflection symmetry, rotation symmetry. Adjective: symmetrical.
Tt	
table (KS1)	1. An orderly arrangement of information, numbers or letters usually in rows and columns. 2. See multiplication table
take away (KS1)	1. Subtraction as reduction 2. Remove a number of items from a set.

tally (KS1)	Make marks to represent objects counted; usually by drawing vertical lines and crossing the fifth count with a horizontal or diagonal strike through. A Tally chart is a table representing a count using a Tally <table><tr><th colspan="3">Favourite Pets</th></tr><tr><th>Pet</th><th>Tally marks</th><th>Number</th></tr><tr><td>Cat</td><td></td><td>10</td></tr><tr><td>Dog</td><td></td><td>4</td></tr><tr><td>Rabbit</td><td></td><td>6</td></tr></table>	Favourite Pets			Pet	Tally marks	Number	Cat		10	Dog		4	Rabbit		6
Favourite Pets																
Pet	Tally marks	Number														
Cat		10														
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Rabbit		6														
temperature (KS1)	A measure of the hotness of a body, measured by a thermometer or other form of heat sensor. Two common scales of temperature are the Fahrenheit scale (°F) and the Celsius (or centigrade scale) which measures in °C. These scales have reference points for the freezing point of water (0°C or 32°F) and the boiling point of water (100°C or 212°F). The relation between °F and °C is $^{\circ}\text{F} = 9/5(^{\circ}\text{C}) + 32$.															
time (KS1)	1. Progress from past, to present and to future 2. Time of day, in hours, minutes and seconds; clocks and associated vocabulary 3. Duration and associated vocabulary 4. Calendar time in days, weeks, months, years 5. Associated vocabulary such as later, earlier, sooner, when, interval of time, clock today, yesterday, tomorrow, days of the week, the 12 months of a year, morning, a.m., afternoon, p.m., noon, etc.															
total (KS1)	1. The aggregate. Example: the total population - all in the population. 2. The sum found by adding.															
triangle (KS1)	A polygon with three sides. Adjective: triangular, having the form of a triangle.															
triangular number (KS1)	1. A number that can be represented by a triangular array of dots with the number of dots in each row from the base decreasing by one. Example:  The triangular number 10 represented as a triangular array of dots. 2. A number in the sequence 1, 1 + 2, 1 + 2 + 3, 1 + 2 + 3 + 4 etc. 55 is a triangular number since it can be expressed as, 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10.															
turn (KS1)	A rotation about a point: a quarter turn is a rotation of 90°. A half turn is a rotation of 180°, a whole turn is a rotation of 360°.															

Uu

unit (KS1)	A standard used in measuring e.g. the metre is a unit of length; the degree is a unit of turn/angle, etc.
unit fraction (KS1)	A fraction that has 1 as the numerator and whose denominator is a non-zero integer. Example: $\frac{1}{2}$, $\frac{1}{3}$

Vv

vertex (KS1)	The point at which two or more lines intersect. Plural: vertices.
vertical (KS1)	At right angles to the horizontal plane. The up-down direction on a graph or map.
volume (KS1)	A measure of three-dimensional space. Usually measured in cubic units; for example, cubic centimetres (cm ³) and cubic metres (m ³).

Ww

weight (KS1)	In everyday English weight is often confused with mass. In mathematics, and physics, the weight of a body is the force exerted on the body by the gravity of the earth, or any other gravitational body.
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Zz

zero (KS1)	1. Nought or nothing; zero is the only number that is neither positive nor negative. 2. Zero is needed to complete the number system. In our system of numbers : $a - a = 0$ for any number a. $a + (-a) = 0$ for any number a; $a + 0 = 0 + a = a$ for any number a; $a - 0 = a$ for any number a; $a \times 0 = 0 \times a = 0$ for any number a; division by zero is not defined as it leads to inconsistency. 3. In a place value system, a place-holder. Example: 105. 4. The cardinal number of an empty set.
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