This vocabulary list of words and phrases details the words and definitions that children may need to know and use by the end of Key Stage 2. It is adapted from the *‘Ultimate Maths Vocabulary List’* from Third Space Learning.

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| **Term** | **Definition** | **Notes** |
| **Acute** | Describes angles between 0 and 90  degrees. |  |
| **Addition** | One of the four calculation operations. It involves combining two or more numbers to create a sum/total. The  inverse of subtraction. |  |
| **Adjacent** | Adjoining (as used to describe lines and  angles). |  |
| **Alternate** | Every other one in a sequence. |  |
| **Angle** | A measure of turn - the number of  degrees rotated around a point. |  |
| **Area** | The measure of surface within a  perimeter expressed in square units. |  |
| **Array (rectangular)** | A set of items arranged in rows and columns in the shape of a rectangle. Each row has the same number of items in it. Each column has the same number  of items in it. |  |
| **Ascending order** | The arrangement of numbers from least  to greatest. |  |
| **Average** | A number representing a greater set of numbers. Can have three interpretations:  mean - dividing the total of the numbers by the numbers itself; median – the middle value when the  numbers are in ascending or descending order;  mode – the value that occurs most often in the set. |  |
| **Axis of symmetry** | A line dividing a shape into two  symmetrical parts. |  |
| **Term** | **Definition** | **Notes** |
| **Bar chart/graph** | A graphical representation of data in which values are represented by bars or columns and interpreted using the  scales on the axes. |  |
| **Bar model** | A way of representing relationships in a structured diagram in which numbers  are shown using bars (rectangles). |  |
| **Base** | The line or face on which a shape is  standing. |  |
| **Base angles** | Those angles adjacent to the base of a  shape. |  |
| **Bisect** | To divide into two equal parts. |  |
| **Block graph** | A way of representing discrete data in which each item is represented by one block/square arranged in columns. The frequency of a particular set is how  many blocks or squares are in it. |  |

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| **Breadth** | Breadth is another name for width. It is the distance across from side to side or the shorter measurement with the  longer one described as length. |  |
| **Term** | **Definition** | **Notes** |
| **Capacity** | The amount of space in an object (the maximum amount of liquid or air it can  contain). |  |
| **Cardinal number** | A number that shows quantity but not  order. |  |
| **Carroll diagram** | A diagram used for classification identifying whether members of the set  possess a given property or not. |  |
| **Circumference** | The distance around a circle (its  perimeter). |  |
| **Circle** | A 2-D shape in which all of the points on the edge are of equal distance from the  centre of the shape. |  |
| **Composite number** | A number with more than two factors. |  |
| **Cone** | A 3-D shape made of one circular face and a curved surface tapering to a point (apex) directly above the centre of the  circular face. |  |
| **Congruent** | Congruent shapes are the same shape  and size (equal). |  |
| **Consecutive** | Consecutive numbers follow in order  without interruption (e.g. 2,3,4,5). |  |
| **Continuous data** | Data that can take any value along a  continuum, e.g. as a child’s foot grows,  it will go through all the values of 18.1cm, 18.2cm, 18.3cm etc. |  |
| **Coordinates** | Numbers used to describe position of a  point on a grid. |  |
| **Cube** | A regular six-sided polyhedron in which  the faces are all congruent squares. |  |
| **Cuboid** | A six-sided polyhedron in which all the faces are rectangles. Otherwise known  as a rectangular prism. |  |
| **Cylinder** | A 3-D shape made of two congruent circular faces that are opposite each other and a curved surface joining  them. |  |
| **Term** | **Definition** | **Notes** |
| **Decagon** | A polygon with ten sides and angles. |  |
| **Decimal** | A way of expressing fractions in the Base 10 number system. Fractional parts are expressed in tenths,  hundredths, thousandths etc. |  |
| **Denominator** | The number below the line in a fraction which shows how many equal parts the  whole has been split into. |  |
| **Descending order** | The arrangement of numbers from the  greatest to least. |  |

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| **Diagonal** | A straight line connecting two non-  adjacent vertices (corners) of a polygon. |  |
| **Diameter** | A line across a circle that passes through the centre and touches the  circumference at each end. |  |
| **Difference** | The answer to a subtraction calculation. A form of subtraction in which two amounts/numbers are compared. By how much a number is greater or less  than another. |  |
| **Digit** | The numerical symbols from 0 to 9  (inclusive). Digits can be arranged to numerically represent numbers. |  |
| **Digital root** | The digital root of 58 is 4 because 5 + 8  = 13 and 1 + 3 = 4 |  |
| **Dimensions** | The measurements of a shape (i.e.  length, width, height). |  |
| **Discrete data** | Data that can only take specific values,  e.g. as a child’s foot grows, the shoe  sizes needed can only have given sizes. |  |
| **Division** | One of the four calculation operations. It can be interpreted as:  repeated subtraction (grouping) – finding how many groups of a given equal size can be made from a number; sharing a number into equal parts.  It is the inverse of multiplication. |  |
| **Dodecagon** | A twelve sided polygon. |  |
| **Term** | **Definition** | **Notes** |
| **Edge** | The intersection of two faces/curved  surfaces of a three-dimensional object. |  |
| **Equation** | A statement of equality between two  expressions (e.g. 3 x 4 = 6 + 6). |  |
| **Equilateral triangle** | A triangle with congruent (equal) sides and angles. It also has three axes (lines)  of symmetry. |  |
| **Even number** | A positive or negative number exactly  divisible by 2. |  |
| **Exterior** | Outside. |  |
| **Term** | **Definition** | **Notes** |
| **Face** | A plane (flat) surface of a three-  dimensional object. |  |
| **Factor** | A number which will divide exactly into  another number. |  |
| **Fraction** | A number in its own right that can be positioned on a number line.  A way of expressing a proportion (part of a whole).  The outcome when you divide an integer by another integer (e.g. 3 ÷ 4 =  ¾) |  |
| **Frequency** | The number of times something occurs  within a study. |  |
| **Term** | **Definition** | **Notes** |

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| **Greater than** | An inequality between numbers. The symbol used to represent greater than is an arrow pointing towards the  smallest number. |  |
| **Term** | **Definition** | **Notes** |
| **Hemisphere** | A 3-D shape made up of a circular face and a curved surface. It is half of a  sphere. |  |
| **Hendecagon** | A polygon with eleven sides and eleven  angles: also called an undecagon. |  |
| **Heptagon** | A polygon with seven sides and seven  angles: also called a septagon. |  |
| **Hexagon** | A polygon with six sides. |  |
| **Horizontal** | Describes a line or plane parallel to the  horizon. |  |
| **Term** | **Definition** | **Notes** |
| **Improper fraction** | A fraction whose numerator is equal to  or greater than its denominator. |  |
| **Integer** | A negative or positive whole number. |  |
| **Interior** | Inside. |  |
| **Intersection** | The point or line where two lines or two  faces meet. |  |
| **Irregular shapes** | Polygons which do not have all equal sides and angles or polyhedrons which do not have all congruent faces and  angles. |  |
| **Isosceles triangle** | A triangle which has two sides of equal  length and two equal angles. It also has one axis (line) of symmetry. |  |
| **Term** | **Definition** | **Notes** |
| **Kite** | A quadrilateral that has two adjacent pairs of sides that are equal in length, and at least one pair of opposite angles  are equal. |  |
| **Term** | **Definition** | **Notes** |
| **Less than** | An inequality between numbers. The symbol used to represent less than is an arrow pointing towards the smallest  number. |  |
| **Line of symmetry** | (See axis of symmetry). |  |
| **Line graph** | A representation of data collected over  time. Each point along the line has a meaningful value. |  |
| **Term** | **Definition** | **Notes** |
| **Mass** | The measurement of the quantity of matter in an object, measured in grams  and kilograms. |  |
| **Mean** | An average of a set of numbers. The sum of the values in a set of data divided by the total number of items in  that set. |  |
| **Median** | An average of a set of numbers. The  middle value when the numbers are in ascending or descending order. |  |

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| **Mode** | An average of a set of numbers. The value that occurs the most often in a set  of data. |  |
| **Multiple** | The product of a given number with  another factor. |  |
| **Multiplication** | One of the four calculation operations. It can be interpreted as:  repeated addition – adding the same number to itself a number of times; scaling – making a number so many times greater (or smaller)  It is the inverse of division. |  |
| **Term** | **Definition** | **Notes** |
| **Negative number** | A number less than 0. Indicated by a  - sign before the numeral and read as ‘negative 4’ for -4. Colloquially said as ‘minus 4’, especially when referring to  temperature. |  |
| **Nonagon** | A polygon with nine sides and angles. |  |
| **Number** | A quantity, measurement or label  indicating a value. |  |
| **Numeral** | The written symbol used to represent an amount, value or label. For example the number three hundred can be represented by the numeral 300 or CCC  using Roman numerals. |  |
| **Numerator** | The number above the line in a fraction which shows the number of denominator parts considered in a  fraction. |  |
| **Term** | **Definition** | **Notes** |
| **Oblique** | Oblique means sloping or slanting. |  |
| **Oblong** | A polygon with two pairs of straight, unequal sides and four right angles. An  irregular rectangle. |  |
| **Obtuse angle** | An angle between 90 and 180 degrees. |  |
| **Octagon** | A polygon with eight sides and eight  angles. |  |
| **Octahedron** | A polyhedron with eight faces. |  |
| **Odd number** | A number that when divided by two  leaves a remainder of one. |  |
| **Ordinal number** | Describes a position in a sequence e.g.  first, second, third etc. |  |
| **Term** | **Definition** | **Notes** |
| **Parallel lines** | Lines with no common points and  always the same distance apart. |  |
| **Parallelogram** | A four-sided polygon with opposite sides equal and parallel and the  opposite angles are equal in size. |  |
| **Part-part-whole** | The understanding of how a number (whole) can be shown to be the sum of two parts. It can be used to represent  the relationship between the four operations. |  |

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| **Partition** | The action of splitting a number into  parts. |  |
| **Pentagon** | A polygon with five sides and angles. |  |
| **Percentage** | A way of describing a proportion of an amount by expressing it out of (every)  100. |  |
| **Perimeter** | The distance around the boundary of a  shape. |  |
| **Perpendicular line** | A line at right angles to another line or plane. *NB The lines do not have to be*  *touching.* |  |
| **Pictogram** | A way of representing discrete data in which a picture or icon is used to represent each item or a given number  of items. |  |
| **Pie chart** | A way of representing data where the total is represented by a circle (pie) and each category shown by a sector of the circle which indicates the frequency of  the category. |  |
| **Polygon** | A plane (flat) shape with straight sides. |  |
| **Polyhedron** | A three dimensional shape with plane  (flat) faces. |  |
| **Place value** | Indicates the position of a numeral (e.g. the place value of the 3 in 738 is 30) and how numbers relate to other numbers  within the Base 10 number system. |  |
| **Prime number** | A number with only two factors, 1 and  itself (e.g. 2,3,5,7,11, 13, 17, 19, 23…) |  |
| **Prism** | A polyhedron (3-D shape with faces and no curved surfaces) in which opposite ends are congruent and these are  joined by rectangular faces. |  |
| **Product** | The result when two or more numbers  are multiplied. |  |
| **Pyramid** | A polyhedron made of a polygon base with straight edges coming from each vertex of the base meeting at a single  point (apex). All the other faces are therefore triangular. |  |
| **Term** | **Definition** | **Notes** |
| **Quadrant** | The sectors of a coordinate grid are called quadrants. They are named first (+,+), second (-,+), third (-,-) and fourth (+,-)  A quarter of the area of a circle which  also contains a right angle. |  |
| **Quadrilateral** | A polygon with four sides and angles. |  |
| **Quotient** | The result when one number is divided  by another number. |  |
| **Term** | **Definition** | **Notes** |
| **Radius** | A line in a circle from the centre to the  edge. It is half the diameter. |  |

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| **Ratio** | An expression of the comparison between two or more quantities found  by dividing one quantity by the other. |  |
| **Rectangle** | A quadrilateral with opposite sides equal and parallel and containing four  right angles. |  |
| **Rectilinear** | A polygon made of lines meeting at  right angles. |  |
| **Reflection** | The image of a shape in a ‘mirror line’. Corresponding points of the shape and its reflection are equidistant from the  ‘mirror line’. |  |
| **Reflex angle** | An angle greater than 180 degrees. |  |
| **Regular** | In geometry when a polygon has sides of equal length and angles of equal size or when a polyhedron has congruent faces and internal angles where faces meet. The only regular polyhedrons are  tetrahedron, cube, octahedron, dodecahedron and icosahedron. |  |
| **Rhombus** | A parallelogram with equal length sides. Opposite sides are parallel and opposite  sides are equal in size. |  |
| **Roman numerals** | Seven letters are used in combination to write numbers: I = 1 V = 5 X = 10 L =  50 C = 100 D = 500 M = 1000 |  |
| **Rotation** | Turning around a given point – the  centre of rotation. |  |
| **Rotational symmetry** | A shape is said to have rotational symmetry if it looks the same in different positions when rotated about  its centre. |  |
| **Rounding** | An approximation used to express a  number in a more convenient way. |  |
| **Term** | **Definition** | **Notes** |
| **Scalene triangle** | A triangle that has three sides of  different length and no equal angles. |  |
| **Semi-circle** | A 2-D shape with one straight side and  one curved edge. It is one half of a circle. |  |
| **Sphere** | A 3-D shape with one curved surface in which every point on the surface is equidistant from the centre of the  shape. |  |
| **Squared** | A number squared is a number  multiplied by itself. |  |
| **Square number** | The product of a number multiplied by itself. A number whose units can be arranged into a square (e.g. 1, 4, 9, 16,  25, 36, 49, 64…). |  |
| **Subtraction** | One of the four calculation operations. It can be interpreted as:  - take away, in which one number is removed from another; |  |

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|  | - difference, in which two numbers are  compared. |  |
| **Sum** | The result when two or more numbers  are added together. |  |
| **Symmetrical** | A shape is symmetrical if it is identical on either side of a line dividing it into  two parts. |  |
| **Term** | **Definition** | **Notes** |
| **Tally** | A system of collecting data when the final total for each category cannot be determined immediately. Items are recorded using vertical lines for numbers less than 5 and an oblique line across the vertical lines to show a group  of 5. |  |
| **Temperature** | The measure of hot and cold. |  |
| **Tessellation** | Shapes fitted together with a number of exact copies and with no overlaps or  gaps. |  |
| **Tetrahedron** | A polyhedron with four faces. |  |
| **Translation** | This takes place when a shape is moved from one place to another just by sliding it (without rotating, reflecting or  enlarging). |  |
| **Trapezium** | A quadrilateral with only one pair of  parallel sides. |  |
| **Triangle** | A polygon with three sides and angles. They can be scalene, isosceles or equilateral, and also described as right  angled. |  |
| **Triangular number** | A number created by adding consecutive numbers from starting from 1). A number whose units can be arranged into a triangle (e.g. 1, 3, 6, 10,  15, 21…) |  |
| **Term** | **Definition** | **Notes** |
| **Venn diagram** | A diagram used for classification identifying whether members of the set  possess given properties. |  |
| **Vertex** | The point at which two sides of a 2-D shape meet or two or more edges of a  polyhedron meet. |  |
| **Vertical line** | A line which is at right angles to a  horizontal line. |  |
| **Volume** | The amount of liquid in a container or the amount of three-dimensional space taken up by an object, measured in  cubic units. |  |
| **Term** | **Definition** | **Notes** |
| **Weight** | The force of gravity on an object,  measured in newtons. |  |
| **Term** | **Definition** | **Notes** |
| **x axis** | The horizontal line on a graph or  coordinate grid. |  |

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| **Term** | **Definition** | **Notes** |
| **y axis** | The vertical line on a graph or  coordinate grid. |  |