WOODFALL PRIMARY SCHOOL
MATHS GLOSSARY

-A-

Acute angle	an angle less than 90 degrees
Addition	two or more numbers are combined (put together) to find their total; recorded with a + sign
Adjacent	next to
Analogue time	the time that is shown on a clock-face, which is read according to the position of the hour (short) and minute (long) hands.
Angle	the measure of the amount of rotation (turn) between two lines e.g. 90 degrees (1/4 turn)
Anticlockwise	moving in a circular path in the opposite direction to the hands on a clock, starting to the left
Apex	the highest point (vertex) of a triangle, cone or pyramid
Approximate	another word meaning estimate
Area	a measure of the size of a surface (measured in square units**)**
Ascending order	numbers are in order from smallest to largest (increasing)
Asymmetrical	a shape that does not have any lines of symmetry
Average	see **Mean**
Axis	the lines on a graph or co-ordinates grid, on which scales are marked x = horizontal (a-cross), y = vertical (y to the sky);

-B-

Bar chart	a graph which is used to represent discrete data on bars or rows
Bar line graph	like a bar chart, but categories of discrete data are represented by lines
Base	supporting face of a shape (at the bottom)
Biased	one outcome is favoured over another (making it more likely to be chosen)
Bisect	2 lines which intersect at their half way point
Brackets	used for grouping steps of a calculation and these are performed first
Breadth	width of a shape (distance from side to side)

-C-

Cancelled	a fraction is reduced or cancelled to its lowest terms when numerator and denominator have been divided by same amount as far as possible
Capacity	the amount of liquid that will fit into a container (measured in ml or l)
Carroll diagram	a diagram which sorts information into boxes according to common features
Circle	a flat shape with one curved side
Circumference	the distance around the outside of a circle
Clockwise	moving in a circular path like the hands on a clock, starting to the right
Common denominator	two fractions can be changed into equivalent fractions if they have the same denominator –a multiple shared by both denominators from them
Common multiple	multiple that appears in both multiplication tables e.g. a common multiple of 3 and 5 is 15; another is 30 (10x3 and 6x5)

Compasses	instrument used for drawing circles
Concave	a face which curves inwards, like the inside of a sphere
Cone	3D shape with a circular base and a curved face forming an apex (point)
Congruent	two shapes are congruent if they are the same size and shape but may be a different orientation
Consecutive number	numbers which follow on from another, usually adjacent e.g. 3,4,5 or in a particular sequence e.g. the next consecutive even number after 4 is 6
Continuous data	information which happens often without a break and can be represented on a line graph as it is related
Conversion	a change from one form to another e.g. mm to cm, £ to p, l to ml
Convex	a face, which curves outwards, like the outside of a sphere
Co-ordinates	a pair of numbers which give a position. e.g. (5,2) means move 5 right, 2 up. A negative sign before either number means move left or down instead
Cube	a 3D shape with 6 faces which are all squares of equal size
Cube Number	product made by multiplying a number by itself 3 times e.g. 2^3= 2x2x2 = 8
Cuboid	a 3D shape with 6 faces which may be square or rectangular, where opposite faces are identical
Currency	the type of money used in a particular country e.g. pounds (£), dollars ($)
Cylinder	a 3D prism which has two circular end faces

-D-

Data	given information or detail
Database	a method for storing data, often in the form of a table
Decagon	a 10 sided flat shape
Decimal places	5.6 is to one decimal place; 5.64 is to two decimal places
Decrease	to make something smaller (usually subtract**)**
Degree	the unit used to measure angle. Part of a revolution (turn)
Denominator	the lower part of a fraction (the total number of parts)
Depth	height of a 3D shape
Descending order	numbers are in order from largest to smallest (decreasing)
Diagonal	a line joining any two corners of a shape which are not next to each other
Diameter	line passing through the centre of a circle from one point on the edge of the circle to another
Difference	the resulting number after the operation of subtraction
Digit	one place in a number e.g. 678 has 3 digits (also **figure** and **numeral**)
Digital time	a method of recording the time where hours : minutes are shown on a display in numerical form. This method can be used to record 24 hour time.
Discount	a saving made on a purchase, often given as a percentage or fraction of the original amount
Discrete data	information which is unrelated – separate measurements which are recorded on a bar graph
Divisible	a number is divisible by another number if it can be divided exactly by that number e.g. 6 is divisible by 2

Divisibility test a test which can be applied to a number to check if it is divisible by a particular number:

Divisible by…	Test
2	even (ends in 0,2,4,6,8)
3	digits add to 3,6,9
4	even; TU digits divisible by 4
5	ends in 5 or 0
6	even; digits add to 3,6,9
7	double U digit and subtract from rest of number, result is 0 or multiple of 7
8	even; halve and test divisibility by 4
9	digits add to 9
10	ends in 0

Division dividing a number into equal groups or sharing; recorded with a ÷ sign

Divisor the number you divide by in a division calculation

Double multiply by 2 or add a number to itself

-E-

Edge a straight line in a solid shape where two plane faces meet

Equation see **Formula**

Equilateral triangle a triangle with all sides and angles of equal length

Equivalent equivalent fractions have the same value and can be changed into other equivalent fractions so they can be compared e.g. 1/2 is equivalent to 2/4

Estimate rough guess towards correct answer, so for 4.2 x 4.9, a good estimate is 20

Even chance two or more outcomes are equally likely to happen and have a probability of 50:50 or 1/2

Even number an integer (whole number) which has no remainder when divided by 2

Exterior angle the angle outside a shape when the side is extended to form a straight line

-F-

Face The outer plane surface of a solid shape

Factor a number which will divide exactly into a whole number with no remainders e.g. factors of 6 (1, 2, 3, 6)

Factorise a number can be factorised or split into two or more of its factors to make calculations easier e.g. 12 x 24 = (3 x 4) x (4 x 6) = 156

Fair two or more outcomes have an even chance of happening - there is no bias towards one

Figure see **digit**

Flat shape a 2D shape (also known as plane)

Formula a set of rules which will calculate the answer to a problem e.g. C = M-P will find the change C to give from amount of money M if a price P is charged

Frequency how often something happens

-H-

Half/halve divide by 2
Hemisphere half of a sphere
Hexagon a 6 sided flat shape
Horizontal a line parallel to the Earth's surface (flat)

-I-

Imperial measure the old units of measure:

		Metric
1 pint	≈	570ml
1 ounce	≈	30g
1 pound (16oz)	≈	450g
1 stone (14lbs)	≈	6.5kg
1 inch	≈	2.5cm
1 foot (12 inches)	≈	30cm
1 yard (3 feet)	≈	90cm
1 mile	≈	1600m or 1.6km

Improper fraction a common fraction which is greater than one whole, since it has a larger numerator than denominator e.g. 5/4
Increase to make bigger (usually by adding)
Integer a whole number which can be positive or negative, including zero
Interior angle the angle inside the corner of a shape
Intersect two lines intersect where they cross over one another
Inverse the inverse is generally the opposite of an operation e.g. addition is the inverse of subtraction: it reverses the process
Irregular shape a shape with uneven sides and angles
Isosceles triangle a triangle with two equal sides and two equal angles

-K-

Kite 2D shape with 2 pairs of equal adjacent sides

-L-

Length distance from one end to the other (usually longer side)
Line graph representing continuous data where points are joined together with a continuous line
Likelihood how likely an event is to happen; the amount of chance
Long division division by a 2 or 3 digit number using any method
Lowest terms a fraction can be cancelled or simplified to its simplest form e.g. 3/6 = 1/2

-M-

Mass a measure of how heavy an object is
Maximum the greatest possible amount

Mean another word for average. Add a set of numbers and divide by how many there are e.g. 8, 7, 3: 6 is the mean

Median the middle number when a set of numbers are put into numerical order e.g. 4, 7, 8, 11, 13: 8 is the median

Metric the decimal units of measure we use to measure length, mass, volume, etc. e.g. kg, cm, ml, m

Conversions

Length		Mass		Capacity
10mm =	1cm	1000g =	1kg	1000ml = 1litre
100cm =	1 metre	1000kg =	1 tonne	
1000m =	1km			

Minimum the smallest possible amount

Mixed number number which has a whole number coupled with a fractional number e.g. $1\frac{1}{2}$

Mode the highest in a list of numbers, the one that comes up the most often e.g. 4, 12, 3, 10, 2, 3: 3 is the mode

Multiples the numbers which a given number will divide into e.g multiples of 10 are 10, 20, 30 …; multiples of 3 are 3, 6, 9, 12, …

Multiplication a quick way of adding the same number to itself several times e.g. 2x3 = 2+2+2; recorded with a **x** sign

-N-

Negative number a number less than zero (O) shown by a negative (minus) sign before the value e.g. –4, -3.2, -450

Net the shape that would result if a 3D shape were unfolded and laid out flat

Numeral see **digit**

Numerator the top part of a fraction which represents the number of parts being considered

-O-

Obtuse angle an angle greater than 90 degrees but less than 180 degrees

Octagon an 8 sided flat shape

Odd number an integer (whole number) which has a remainder when divided by 2

-P-

Parallel two parallel lines are the same distance apart at every point along them and will never meet

Parallelogram a 4-sided shape with opposite sides equal in length and parallel

Partition to split a number into the values of its digits in order to carry out a calculation

Pentagon a 5 sided flat shape

Percentage number expressed in fractional form as part of a hundred: $\frac{1}{2}$ is 50/100 or 50%

Perimeter the distance around the boundary (outside edge) of a shape

Perpendicular two perpendicular lines join at right angles to one another

Pie chart/graph	a circular graph in which the sectors represent the frequency of an event (like slices of a cake)
Plane shape	two dimensional or flat shape
Polygon	A plane (two dimensional) shape with three or more straight-line sides e.g. pentagon (5 sides), decagon (10 sides)
Polyhedron	A solid (three dimensional) shape with four or more plane faces e.g. tetrahedron (4 faces), dodecahedron (12 faces), octahedron (8 faces)
Positive number	a number greater than zero. Unlike negative numbers, it is not necessary to show this with a positive (plus) sign
Prime factor	factors of a number which are prime – useful in calculations
Prime number	any integer which has only itself and 1 as factors e.g. 2, 3, 5, 7, 11, 13, …
Prism	a 3D shape which has identical end faces and keeps this shape throughout
Probability	how likely it is that something will happen 0 = impossible; 1 = certain, so a probability may be $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{4}$, etc
Product	the result of a multiplication
Profit	an amount of money made by a business where something is sold for more money than was originally paid
Proper fraction	a fraction whose numerator is less than its denominator and whose value is less than 1
Proportion	a way of describing the number of objects out of a complete set e.g. 2 out of 5 children had hot dinner. Written as 2 in 5 or 2/5 or 0.4 or 40%
Protractor	an instrument used to measure the size of angles
Pyramid	a 3D shape with a base and all other triangular faces meet at a point. A triangular based pyramid has a triangular base and 3 triangular faces, whereas a square based pyramid has a square base and 4 triangular faces

-Q-

Quadrant	one quarter of an area that has been divided
Quadrilateral	a four sided shape
Quotient	the answer when one number is divided by another

-R-

Radius	a straight line joining the centre of a circle to any point on the circumference (half of the diameter)
Random	numbers generated without any plan or regularity
Range	the smallest taken from the biggest in a set of numbers e.g. 2, 3, 5, 8, 11: range = 11-2 = 9
Ratio	a relationship between two or more events where e.g. for every 2 girls in a class, there are 3 boys. Written 2:3
Rectangle	a quadrilateral with 2 pairs of equal, opposite and parallel sides and 4 right angles
Recurring	another word for repeating e.g. 1.3333333 is 1.3 recurring
Reduced	see **Cancelled**
Reflex angle	angle greater than 180 degrees and smaller than 360 degrees (a full turn)
Regular shape	a shape with all its sides and angles equal in size

Remainder the amount left over when a number is divided into equal groups
Rhombus a four sided shape with opposite sides parallel and all sides equal in length
Right angle an angle measuring 90 degrees or a quarter turn
Rotate a shape is turned around a fixed point by a given angle
Rotational symmetry a shape can fit inside itself when rotated (turned). A square has rotational symmetry (order 4), a scalene triangle hasn't, but a rectangle has (order 2)
Rounding a number is estimated to the nearest unit, ten, hundred, etc (5 or more in the next lowest value place means we round up; 4 or less we round down)

-S-

Scalene triangle a triangle with all sides and angles unequal
Sequence a set of numbers written in a particular order and following a pattern e.g. the sequence of numbers 2, 4, 6, 8, 10 are an even number sequence between 0 &10
Semi-circle half of a circle
Sharing dividing by giving out a set of objects one at a time, on a "one for me one for you" basis
Short division dividing by a single digit number using any method
Side the border of a surface in a plane shape
Simplify see **cancelled**
Solid shape a three dimensional shape e.g. sphere
Sphere a 3D shape with only one curved face
Square a quadrilateral with 4 equal sides (opposite sides parallel) and 4 right angles
Square number the result when a number is multiplied by itself e.g. 3x3=9, so 9 is a square number.
Square root the number that when multiplied by itself makes a square number; 3 is the square root of 9
Straight angle an angle of 180 degrees
Strategy the method used to solve a problem
Subtraction one number is taken away from another number to find the difference; recorded with a – sign
Sum the result of an addition
Surface area area covering surface of a 3D shape
Symmetry or reflective symmetry. A shape has reflective or line symmetry it if it takes the same shape either side of a line running through it. A square has 4 lines of symmetry, a rectangle has 2

-T-

Tally a method for counting the frequency in "bunches" of 5
Tessellate shapes fit together without any gaps
Tetrahedron 3D shape with 4 faces
Translation the movement of an object following given directions e.g. right 3, up 2
Transformation changing a shape by turning, moving, stretching, reflecting, enlarging, etc
Trapezium a quadrilateral with just one pair of parallel sides
Triangle a 3 sided polygon

Triangular number	a sequence of numbers 1, 3, 6, 10, 15 ….. which can be shown as triangles of different sizes
Triangular prism	a 3D shape with two triangular end faces and 3 rectangular faces

-V-

Vertex	corner point of a plane or solid shape, where two or more sides or edges meet (plural vertices)
Vertical	a line which is perpendicular (at right angles) to a horizontal line
Venn diagram	a diagram used to represent sets in which information can be sorted
Volume	a measure of how much space something takes up. The volume of a cuboid is length x width x height

-W-

Width	distance across a shape from one side to another (also known as breadth)

Vocabulary for Calculation with the four Operations:

Addition	**Subtraction**	**Multiplication**	**Division**
add	subtract	lots of	divide
more	take away	(4x3 is 3 lots of 4)	share
plus	minus	groups of	share equally
increase	decrease	product	equal groups of
sum	leave	multiply	divided by
total	how many left	multiplied by	divided into
altogether	difference	multiple of	divisible by
how many more	how many fewer	repeated addition	what is remaining
double	halve, half	… times as big	halve, half
how many less		double	remainder
		row	
		column	
		times	

Mrs K Smith (Maths Subject Leader) Updated 2013