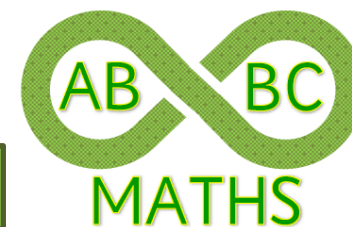


National Curriculum 2014

Glossary of Terms



A	
Acute angle	An angle between 0° and 90°
Adjacent	Adjacent sides are next to each other and are joined by a common vertex.
Algebra	The branch of mathematics where symbols or letters are used to represent numbers and to state general properties
Algorithm	A standard, written procedure for doing a calculation, which, if followed correctly, step by step, will always lead to the required result; e.g. subtraction by decomposition, long multiplication and long division
Analogue clock	A clock with the numbers 1 to 12 (or Roman Numerals) around the face and rotating hands to show the hours, minutes and seconds
Angle	An angle is a measure of turn or rotation. The size of an angle is measured by the amount one line has been turned in relation to the other. An angle is formed when two straight lines cross or meet each other at a point
Angle at a point	The complete angle at a point is 360°
Angle at a point on a line	The sum of angles on a straight line is 180°
Anticlockwise	The opposite direction to that of the hands on a clock
Approximate \approx	An approximate value is a value that is close to the actual value of a number
Arc	Part of a circumference of a circle – a curve
Area	The amount of space a 2D shape takes up. E.g. the area of the lawn is 35 square metres
Array	A set of objects or pictures arranged in columns and rows
Associative Law	For any three numbers a , b and c , $(a + b) + c = a + (b + c)$ or $(a \times b) \times c = a \times (b \times c)$
Asymmetrical	A shape which has no lines of symmetry
Average	A value to best represent a set of data. There are three type of average - the mean, the median and the mode
Axis	An axis is one of the lines used to locate a point in a coordinate system

B	
Bar chart / graph	Uses bars (of equal width) to show quantities or numbers so they can be easily compared
Bar line/chart	As a bar chart but uses lines instead of bars
Block graph	A block represents one piece of data
Bond	A pair of numbers with a particular total
Brackets	Used to determine the order in which operations are carried out. For example, $3 + 4 \times 2 = 11$ but $(3 + 4) \times 2 = 14$

C	
Capacity	The volume of material (usually liquid) that a container can hold; usually measured in litres and millilitres
Celsius scale ($^\circ\text{C}$)	A metric scale for measuring temperature, also called the centigrade scale
Centilitre (cl)	A measure of volume. 100 centilitres = 1 litre (100 cl = 1 l). 1 centilitre = 10 millilitres (1 cl = 10 ml).
Centimetre (cm)	A measure of distance. 1 centimetre = 10 millimetres. (1 cm = 10 mm). 100 centimetres = 1 metre. (100 cm = 1 m).
Circle	A 2-D shape
Circumference	The perimeter of a circle.
Clockwise	The direction in which the hands of a clock turn
Column	A vertical arrangement
Columnar addition and subtraction	Ways of setting out an addition or subtraction calculation in which the ones, tens, hundreds and thousands (and so on) in the numbers in the calculation are arranged in columns. (Column methods)
Common factor	A number which as a factor of 2 or more other numbers e.g. 5 is a common factor of 10 and 15
Commutative law	The order of two numbers in an addition/multiplication calculation makes no difference to their sum a and b , $a + b = b + a$ and $a \times b = b \times a$.
Composite number	A number that has more than 2 factors. It can be shown as a rectangular array with more than one row; e.g. 21 is a composite number (with factors 1, 3, 7 and 21) and can be arranged as 3 rows of 7. All non-prime numbers except 1 are composite.
Cone	A 3-D shape consisting of a circular base and one continuous curved surface tapering to a point (the apex) directly above the centre of the circular base.
Congruent	If you can place a shape exactly on top of another then they are said to be congruent. You may rotate, reflect or translate the shape.
Co-ordinates	Starting from the origin, the distance moved in the x -direction followed by the distance moved in the y -direction to reach a particular point; recorded as (x, y) .
Correspondence problem	E.g. I have 3 hats and 4 jackets- how many different outfits can I wear?
Cross section	The end section created when you slice through a 3-D shape
Cube	A 3-D shape with six square faces and all its edges equal in length.
Cube number	The product when an integer is multiplied by itself twice. For example 5 cubed = $5 \times 5 \times 5 = 125$.
Cubic centimetre (cm^3)	The volume of a cube of side one centimetre; written 1 cm^3 but read as 'one cubic centimetre'.
Cuboid	A 3-D shape with all sides made from rectangles.
Cylinder	A 3-D shape, like a baked-bean tin, consisting of two identical circular ends joined by one continuous curved surface.

D	
Day	A time period of 24 hours. There are 7 days in a week.
Decagon	A ten sided polygon.
Decimal	Not a whole number or integer. For example, 3.6 or 0.235.
Decrease	To make an amount smaller.
Degree	A measure of angle; 360 degrees (360°) is a complete turn.
Denominator	The bottom part of a fraction.
Diagonal	A line joining any two non-adjacent vertices of a polygon
Diameter	The distance across a circle which passes through the centre. Twice the radius.
Difference	Found by comparing two quantities. Subtract the smaller value from the larger value to find the difference between two numbers
Digit sum	The sum of all the digits in a given natural number; e.g. the digital sum of 8937 is 27 (8+ 9 + 3 + 7).
Digits	The individual symbols used to build up numerals; the digits are 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9
Direct proportion	The relationship between two variables where the ratio of one to the other is constant. E.g. , the number of fingers on a hand and the number of hands would normally be in direct proportion.
Distance	How far away an object is. For example, it is a distance of 3 miles to the city centre.
Distributive law	The laws that allow you to distribute a multiplication or division across an addition or across a subtraction. E.g. 28×4 can be split up into 20×4 add $x \times 4$.
Dividend	The amount you are dividing e.g. $27 \div 3 = 9$, 27 is the dividend
Divisor	The number you divide by e.g. $27 \div 3 = 9$, 3 is the divisor
Dodecahedron	A polyhedron with 12 faces

E	
Edge	The intersection of two surfaces; in particular, the straight line where two faces of a polyhedron meet.
Equal =	Used to show two quantities have the same value.
Equation	Two expressions which have the same value, separated by an '=' sign. E.g. $3y = 9 + y$
Equilateral triangle	A triangle with all sides and angles the same size.
Equivalent fractions	Two or more fractions that represent the same part of a unit or the same ratio. For example, $\frac{2}{3}$, $\frac{4}{6}$, $\frac{6}{9}$, $\frac{8}{12}$ are all equivalent fractions.
Estimate	To find an approximate answer to a more difficult problem. E.g. 31.2×5.94 is roughly equal to $30 \times 6 = 180$.
Even number	Any number which is a multiple of 2. Even numbers always end in 2, 4, 6, 8 or 0.
Exchange	When ten in one place can be exchanged for one in the next place to the left, and vice versa; e.g. 10 hundreds can be exchanged for 1 thousand, and 1 thousand can be exchanged for 10 hundreds.
Expand	To multiply out brackets in an expression. For example, $2(3x + 7) = 6x + 14$.
Expression	A collection of terms which can contain variables (letters) and numbers. E.g. $4b + 7$

F	
Face	One of the flat surfaces of a solid shape. Example: a cube has six faces.
Fact	Recall of knowledge e.g. addition fact for 10 could be $5 + 5$
Factor	A whole number that divides into another whole number exactly. E.g. 4 is a factor of 12.
Factor pairs	A pair of whole numbers that when multiplied together give a number e.g. 2 and 6 are factor pairs of 12, 4 and 4 are factor pairs of 16
Figures	Another name for numbers. For example one thousand and fifty in figures is 1050.
First quadrant	The quadrant consisting of all those points with positive coordinates.
Formula	An equation used to describe a relationship between two or more variables.
Fraction	a way of (a) representing a part of a whole or unit, (b) representing a part of a set, (c) modelling a division problem, (d) expressing a ratio
Frequency	How many times something happens. Another word for 'total'.

G	
Gram (g)	A measure of mass. 1 gram = 1000 milligrams. (1 g = 1000 mg)
Grouping	Dividing things into equal groups (sets)

H	
Half	One of two equal parts, $\frac{1}{2}$
Heptagon	A seven sided polygon.
Hexagon	A six sided polygon.
Horizontal	Parallel to the horizon
Hour	A unit of time equal to 60 minutes. 24 hours make 1 day.

I	
Imperial units	Units of measurement that were at one time statutory in the UK, most of which have now been officially replaced by metric units; e.g. pints, ounces
Improper fraction	A fraction in which the top number is greater than the bottom number; a fraction greater than 1; informally, a top-heavy fraction.
Increase	To make an amount larger.
Indices	Another name for powers such as 2 or 3 .
Inequality	A statement that one number is greater than another ($>$) or less than another ($<$). For example, $80 < 87$ (80 is less than 87) and $100 > 87$ (100 is greater than 87).
Integer	A whole number, positive, negative or zero
Interpret	Get key information from a graph or chart...
Inverse operations	Opposite or reverse operations e.g. addition and subtraction, multiplication and division are inverse operations
Irrational	A decimal which is never ending. It must also not be a recurring decimal.
Irregular	A shape that is not regular.
Isosceles triangle	A triangle with two equal sides; the two angles opposite these two equal sides are also equal

J

K	
Kilogram (Kg)	A measure of mass. 1 kilogram = 1000 grams. (1 kg = 1000 g)
Kilometre (Km)	A measure of distance. 1 kilometre = 1000 metres. (1 km = 1000 m)
Kite	A quadrilateral that has two sets of equal sides and one set of opposite angles that are equal

L	
Length	A measure of distance, from one end to another.
Line graph / chart	Uses lines to join points that represent data.
Line of symmetry	The mirror line in which a shape with reflective symmetry is reflected onto itself.
Litre (l)	A measure of volume. 1 litre = 100 centilitres (1 l = 100 cl). 1 litre = 1000 millilitres (1l = 1000 ml).
Long division	A formal written method for division by a two-digit number (and larger) e.g. $645 \div 14$
Long multiplication	A formal written method for multiplying by a two-digit number (and larger). e.g. 438×23

M	
Mass	A measurement of the quantity of matter in an object, measured, for example, in grams and kilograms; technically not the same thing as weight
Mean	A type of average found by adding up a list of numbers and dividing by how many numbers are in the list.
Metre (m)	A measure of distance. 1 metre = 100 centimetres. (1 m = 1000 cm).
Midpoint	The point in the middle of a line, the point dividing a line in half.
Millilitre (ml)	A measure of volume. 10 millilitres = 1 centilitre (10 ml = 1 cl). 1000 millilitres = 1 litre (1000 ml = 1 l).
Millimetre (mm)	A measure of distance. 10 millimetres = 1 centimetre. (10 mm = 1 cm).
Minute	A unit of time that is equal to 60 seconds. 60 minutes make 1 hour.
Mixed number	A way of writing a fraction greater than 1 as a whole number plus a proper fraction. For example, $\frac{18}{5}$ as a mixed number is $2\frac{1}{5}$
Month	A time period of either 28, 29, 30 or 31 days. There are 12 months in a year.
Multiple	A number which is part of another number's times table. E.g. 35 is a multiple of 5.

N	
Negative	A value less than zero
Net	A 2-D arrangement of shapes that can be cut and folded up to make a polyhedron
Nonagon	A nine sided polygon.
Numeral	The symbol used to represent a number; e.g. the number of children in a class might be represented by the numeral 28.
Numerator	The top part of a fraction.

O	
Oblong	A rectangle that is not a square.
Obtuse angle	An angle between 90° and 180° .
Octagon	An eight sided polygon.
Octahedron	A 3-D shape with 8 faces
Odd number	A number that is not a multiple of 2. Odd numbers always end in 1, 3, 5, 7 or 9.
Operation	An action which when applied to one or more values gives an output value. The 4 most common operations are addition, subtraction, multiplication and division.

P	
Parallel	Two or more lines which are always the same distance apart.
Parallelogram	A quadrilateral with two pairs of parallel sides.
Partition	Splitting a number into smaller amounts e.g. 35 can be partitioned into 30 and 5 or 20 and 15 or 31 and 4 or 20 and 10 and 5
Pattern	A repeated design or recurring sequence.
Pentagon	A five sided polygon.
Percent %	In (or 'for') each hundred; for example, 25% means 25 in each hundred.
Perimeter	The distance around a shape.
Perpendicular	Two or more lines which meet at right angles.
Pictogram	A graph using pictures to represent quantities.
Pie chart	A graph using a divided circle where each section represents part of the whole.
Place value	The value of digit depending on its position in a number.
Polygon	A closed 2-D shape made from straight lines.
Polyhedron	A 3-D shape with only straight edges and plane surfaces; plural is polyhedral.
Positive number	A number greater than zero.
Prime	A number which has exactly two factors. The number one and itself. The first ten prime numbers are 2, 3, 5, 7, 11, 13, 17, 19, 23 and 29.
Prime factors	Factors of a number that are prime
Prism	A 3-D shape with the same cross section all along its length.
Product	The answer when two values are multiplied together.
Proper fraction	A fraction in which the numerator is smaller than the denominator; a fraction less than 1.
Proportion	A comparative part of a quantity or set. A proportion (such as 3 out of 10) can be expressed as a fraction ($\frac{3}{10}$), as a percentage (30%) or as a decimal (0.3).
Pyramid	A 3-D shape with a polygon as a base and triangular faces that meet at a point (vertex, apex)

Q	
Quadrant	One of the four regions into which the plane is divided by the two axes in a coordinate system.
Quadrilateral	A four sided polygon.
Quarter	One of four equal parts, $\frac{1}{4}$
Quarter turn	A turn or rotation of 90°
Quotient	The answer from a division calculation e.g. $45 \div 5 = 9$, 9 is the quotient

R	
Radius	The distance from the centre of a circle to its circumference. The plural of radius is radii.
Range	The largest number take away the smallest value in a set of data.
Rate	A ratio that compares quantities measured in different units.
Ratio (:)	A comparative value of two or more amounts. Maybe written as a fraction, 3:4, three 'for every' four.
Rational	A decimal number which ends or is recurring.
Rectangle	A quadrilateral with four right angles and two pairs of opposite equal parallel sides.
Rectilinear shape	A 2-D shape whose straight sides meet at right angles.
Reflection	A transformation in a mirror line
Reflex angle	An angle greater than 180° .
Regular	A shape with all sides and angles the same size.
Remainder	The amount left over when a number cannot be divided exactly. For example, 21 divided by 4 is 5 remainder 1.
Rhombus	A parallelogram with four equal sides and equal opposite angles.
Right angle	An angle of 90° .
Roman Numerals	The capital letters used by Romans to denote numbers I for 1; V for 5; X for 10; L for 50; C for 100; D for 500; M for 1000.
Rotation	To transformation of a shape relating to turn using an angle, direction and centre of rotation.
Round	To reduce the amount of significant figures or decimal places a number has. For example £178 rounded to the nearest £10 is £180.
Row	A horizontal arrangement

S	
Scale factor	How many times larger or smaller an enlarged shape will be. Ratio
Scalene triangle	A triangle with no sides/angles equal
Scatter gram	A diagram with points plotted to show a relationships between two variables
Second	A unit of time. 60 seconds = 1 minute
Sequence	A list of numbers which follows a pattern. For example 6, 11, 16, 21, ...
Sharing	Dividing between a known number of groups.
Short division	A formal written method for division by one-digit numbers e.g. $252 \div 6$
Short multiplication	A formal written method for multiplying by a one-digit number e.g. 138×6
Speed	How fast an object is moving. Average speed = Total distance \div time taken.
Sphere	A 3-D shape that is perfectly round e.g. a ball
Square	A quadrilateral with four right angles and four equal sides.
Square number	The product when an integer is multiplied by itself. For example, 1, 4, 9, 16, 25, 36, 49, 64, 81, 100.
Statistics	The collection, organisation, presentation, interpretation and analysis of data.
Sum	The answer when two or more values are added together.
Surface area	To total area of all sides on a 3-D shape.
Symmetrical	A shape which has at least one line of symmetry.

T	
Table	Arrangement of information usually in columns and rows
Tally	A system of counting where every group of four vertical lines is followed by a horizontal line to count in steps of five.
Term	A number, variable or combination of both which forms part of an expression.
Tetrahedron	A 3-D shape with four triangular faces.
Transformation	The collective name for reflections, rotations, translations and enlargements.
Translation	To move a shape from one position to another by sliding in the x-axis followed by the y-axis.
Trapezium	A quadrilateral with one pair of parallel sides.
Triangle	A 2-D shape with three straight sides.
Triangular number	A sequence of numbers generated by adding one more than was added to find the previous term. For example, 1, 3, 6, 10, 15, 21, ...
Turn	To rotate around a point.

U	
Unit fraction	A fraction with a numerator of 1.
Units	A quantity used to describe a measurement. Examples are kilograms, metres and centilitres.

V	
Value	A numerical amount or quantity.
Variable	A letter which we don't know the value of.
Vertex	A point at which 2 or more lines meet. Vertices
Vertical	At right angles to the horizon.
Volume	A 3-D measure of space. The amount an object can hold. E.g. a bottle of cola has a volume of 2 litres.

W	
Week	A time period of 7 days.
Weight	A measure of heaviness (the force a mass exerts)
Whole	All, everything, the total amount. All the parts.
Wide	Used to describe the width of something
Width	The distance from side to side. E.g. 'The swimming pool is 10 metres wide.'

X	
X-Axis	The horizontal axis on a graph. The line going across the page.

Y	
Y-Axis	The vertical axis on a graph. The line going from top to bottom.
Year	A time period of 12 months or 365 days. (366 in a leap year.)

Z	
Zero	A number with no quantity; it is neither positive or negative