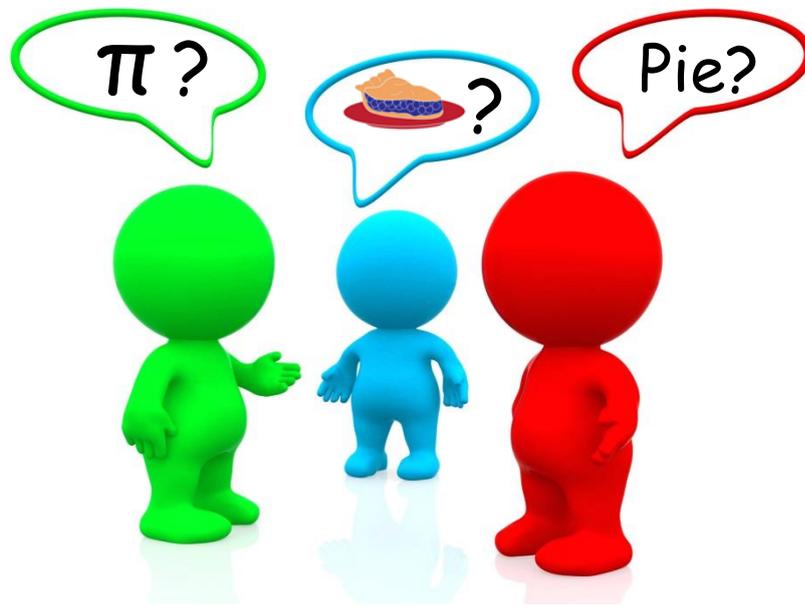


Now we're Talking...Maths

A guide to maths vocabulary



This booklet is intended to explain some common maths vocabulary used to teach and explain maths ideas at Twydall Primary. Terms are explained relative to the learning of different year groups although this is not to be taken as a firm guideline. Pupils in any year group should obviously know vocabulary from previous years and will have some exposure to upcoming vocabulary.

There is some overlap and repetition between ideas as the language is used in different contexts as pupils continue to progress through the school. Additionally, some vocabulary is continually emphasised to ensure it is securely grasped.

Year 1

Number Facts and Place Value

Number sentence an equation made out of numbers

e.g. $4 + 6 = 10$ or $17 - 3 = 14$

Operation means add, subtract, multiply or divide. These are the 4 operations in maths.

Digit means a numerical symbol (1,2,3,4,5,6,7,8,9,0) A number is made up of digits.

A digit is not a number. They are different.

Partition means split the number into the values of each digit e.g. 27 is 20 and 7.

It is usually written as a number sentence: $27 = 20 + 7$

Addition and Subtraction

Sum means add

Total means add

Altogether means add

How many means to find the total of a group of items

Difference means take away

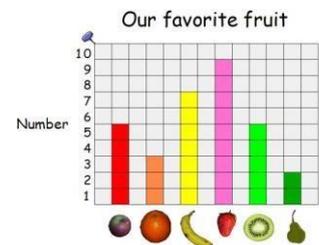
Calculate means work it out

Fraction means part of a whole each of which are equal in size.

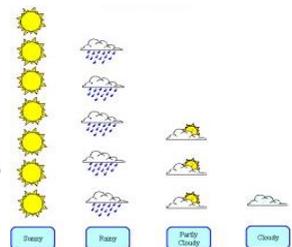
Double begin with a given number then add on the same number.

Measurement and Statistics

Block graph means a simple bar graph made from blocks



Pictogram means a graph where pictures represent the data. For example if recording eye colour you could draw coloured eyes to pile up to make a graph. You can also extend the task by one car on the graph representing 2 cars in real life, so half a car on the graph would equal one real car. In this case a key is needed.

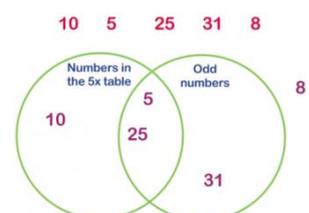


Capacity means the maximum amount that can be contained in a 3D shape.

Carrol Diagram is a two way table to sort information.

	Odd numbers			Even numbers		
Less than 20	1	3	5	2	4	6
	7	9	11	8	10	12
	13	15	19	14	16	18
Not Less than 20	21	23	25	22	24	26
	27	29	31	28	30	32
	33	35	37	34	36	38

Venn diagrams is used to show relationships between and amongst sets, groups of items that share something in common.



Year 2

Number Facts and Place Value

Partition means split the number into the values of each digit e.g 120 is 100 and 20. It is usually written as a number sentence: $120 = 100 + 20$

Tens boundary means a multiple of 10. For example $12 + 9$ crosses a tens boundary as the answer is greater than 20 which is the next multiple of 10 from 12.

Hundreds boundary means a multiple of 100. For example $184 + 23$ crosses a hundreds boundary as the answer is greater than 200 which is the next multiple of 100 from 184.

Double Multiplying a given number by 2.

Calculation means use one of the 4 operations to create number sentences

Difference means subtract

Multiple means a number in a particular times table e.g. 50 is a multiple of 10 as it is in the 10 x table.

Measurement and Statistics

Calculate means work it out

Tally means count using a bar and gate to total collected data in groups of up to 5.



Calculating, Measuring and Geometry

Inverse means the opposite. For example \times is the inverse operation to \div

Operation means $+$ $-$ \times or \div

Multiple of means in the times table of. For example 20 is a multiple of 5 as it is in the 5 x table

Remainder means the number that is left over if a number does not divide exactly by another

Year 3

Number Facts and Place Value

Digit means a numerical symbol (1 2 3 4 5 6 7 8 9 0) A number is made up of digits. A digit is not a number. They are different. Eg. 753 is made up of the digits 7, 5 and 3.

Inverse means the opposite e.g. addition is the inverse of subtraction

Estimate means make a sensible guess e.g. 16×9 . Estimate it will be slightly less than 16×10 which is 160

Product means multiply for example the product of 6 and 2 is 12

Fraction means part of a whole. If a whole is split into sixths then the whole will now consist of 6 equally sized pieces.

Unit fraction means a fraction where the numerator (top number) is 1.

Measurement and Statistics

Frequency table shows the number of times that certain things e.g. marks, occur within a set of data

Mark	Tally	Frequency
4		2
5		2
6		4
7	+	5
8		4
9		2
10		1

Capacity means the amount something can hold, usually measured in ml or l

Calculating, Measuring and Geometry

Remainder means the number that is left over if a number does not divide exactly by another

Approximate means a logical answer that is not accurate e.g. 1.2×4.9 will be approximately 5 as $1 \times 5 = 5$

Quadrilateral means a 4 sided shape

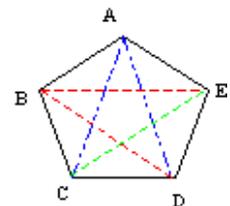
Vertex means a point where 2 sides or 2 edges meet (used for 2D and 3D shapes) Plural: **vertices**

Diagonal means a straight line that joins to non-adjacent vertices (corners) within a shape

Ascend means go up

Descend means go down

Interval means the marked division of a scale that are of an equal and known value



Year 4

Number Facts and Place Value

Calculation means using an operation to work out an answer.

Product means multiply.

Tenths means the value of the digit in the column directly after the decimal point for example the number 6.78 contains 7 tenths.

Hundredths means the value of the digit in the 2nd column after the decimal point for example the number 6.78 contains 8 hundredths.

Quotient means the number obtained as the result of a division calculation. For example the quotient of 45 and 3 is 15.

Factor means a whole number (integer) that will divide exactly into another number without any remainders e.g. 5 is a factor of 10

Divisor means the quantity by which another quantity is divided e.g. in $17 \div 4$, the 4 is the divisor

Numerator means the number on the top of a fraction

Denominator means the number on the bottom of a fraction

Mixed Number or Mixed Fraction means a whole number and a fraction combined e.g. $2\frac{1}{2}$

Proper fraction means any fraction where the numerator (top number) is less than the denominator (bottom number) e.g. $\frac{1}{4}$ or $\frac{5}{6}$ or $\frac{20}{100}$

Improper fraction means any fraction where the numerator (top number) is greater than the denominator (bottom number) e.g. $\frac{6}{4}$ or $\frac{9}{6}$ or $\frac{100}{24}$

Measurement and Statistics

Regular means the sides and angles of a shape are all equal

Irregular means the sides and angles of a shape are not all equal

Concave means a shape that curves inwards e.g. the inside of a sphere

Convex means a shape that curves outwards e.g. the outside of a sphere

Polygon means a 2D shape with 3 or more sides

Calculating, Measuring and Geometry

Decimal point means the point or dot used to separate the whole number part of a decimal number from the fractional part

Perimeter means the distance around the outside of a 2D shape

Area means the space within the perimeter of a 2D shape. The formula for the area of a rectangle is length x width

Year 5

Number Facts and Place Value

Consecutive means next door numbers without gaps e.g. 141, 142 and 143 are consecutive.

Ascending means ordering a set of numbers from smallest to biggest.

Descending means ordering a set of numbers from biggest to smallest.

Integer means a whole number (also includes 0).

Square Number means the answer to a number times itself e.g. 64 is square as it is the answer to 8×8

Measurement and Statistics

Equation a maths statement where 2 sides are equal e.g. $72 + 52 = 124$

Parallel means two sides that will not get any closer together or any further apart. E.g. a square has 2 sets of parallel sides.

Quotient means the answer once you have divided one number by another

For example: **dividend** \div **divisor** = **quotient** $12 \div 3 = 4$ $4 = \text{quotient}$

Percentage means out of 100. So 25% means 25 out of 100.

Equivalent means the same size as

e.g. 2×6 is equivalent to $13 - 1$; $\frac{2}{4}$ is equivalent to $\frac{1}{2}$

Calculating, Measuring and Geometry

Acute means an angle less than 90° .

Obtuse means an angle greater than 90° but less than 180° .

Parallel means the same distance apart, never touching.

Perpendicular means at right angles (90°) to another line.

Reflective symmetry means a type of symmetry where one half is the reflection of the other half. The image could be folded down the middle and the 2 sides would match perfectly.

Line of symmetry means the line you would fold down so that the 2 sides would match exactly.

Translation means moving a shape without rotating, resizing or flipping it. The shape should look exactly the shape just in a different position on a grid. (Sliding)

Origin means the starting point. It is 0 on a number line and (0,0) on a coordinates grid.

Year 6

Number Facts and Place Value

Equation a maths statement where 2 sides are equal e.g. $32 + 52 = 40 + 44$

Formula means a statement, usually an equation that states a rule, fact or principle
e.g. area of a rectangle = length x width

Prime Number means a number with only 2 factors, 1 and itself e.g. 23 has only 1 and

Prime Factor means a factor of a number that is also *prime*. For example, the following numbers are all factors of 36 - 1, 2, 3, 4, 6, 9, 12, 18, 36. The prime factors are 2 and 3.

Circumference means the distance around the outside of a circle

Diameter means the distance across the middle of the circle

Radius means the distance from the edge of the circle to the centre

Product means multiple. The product of 4 and 3 is 12

Mean means the average of a numerical set of data. It is calculated by adding up all of the amounts within the set of data and dividing your total by the amount of numbers added. For example: 2, 4, 5, 6, 6, 2, 3, 2, 5, 6

$$\begin{aligned}\text{Mean} &= (2 + 2 + 2 + 3 + 4 + 5 + 5 + 6 + 6 + 6) \div 10 \\ &= 41 \div 10 = 4.1\end{aligned}$$

Calculating, Measuring and Geometry

Numerator means the number on the top of a fraction

Denominator means the number on the bottom of a fraction.

Factor means an integer that will divide exactly into another number without any remainders. For example 3 is a factor of 12.

Common denominator means that 2 or more fractions will have the same denominator. E.g. $\frac{3}{4}$ and $\frac{7}{8}$. If I multiply $\frac{3}{4}$ by 2 then I will get $\frac{6}{8}$. Now both fractions have a common denominator.

Ratio means the relative sizes of 2 or more values. For example in a class there are 6 boys and 4 girls so there is a ratio 6:4 (boys : girls) or simplified this is 3:2.