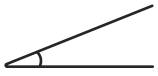


Maths Vocabulary

Vocabulary

Description



acute angle

An **angle** of less than 90° .



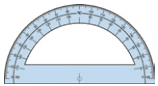
addition

Finding the total value of two or more numbers. Denoted by the symbol '+'.



analogue clock

A clock that uses an hour hand to show the hour and a minute hand to show minutes to and past the hour.



angle

The space between two intersecting lines, measured in **degrees**.



apex

The point furthest from the base of an object.



area

The amount of space taken up by a **2D shape**. Measured in square centimetres (cm^2), square metres (m^2) and so on.



arithmetic

Maths that deals with the properties of numbers and how to calculate using the four **operations**.



array

A pictorial representation to help children understand **multiplication** and **division**. Typically shown as rows of dots, for example 2×4 would be shown as two rows of four dots.

Maths Vocabulary

Vocabulary

1000

100

10

arrow cards

Description

Used to help children understand **partitioning** and **recombining** in **place value**. Each card shows a hundreds, tens or ones number.

$$6 + 8 + 5 + 5 = 24$$
$$24 \div 4 = 6$$

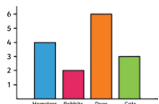
average

The average of a set of values is the 'typical' value, most commonly calculated by finding the total of the values and then dividing by the number of values. See also **mean**.



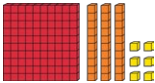
axes

The **horizontal** and **vertical** lines used to frame a **graph** or **chart**.



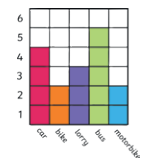
bar chart

A **chart** that displays information using bars of different heights/lengths displayed on the axes.



base ten blocks

Wooden or plastic **cubes**, rods and flats used to support children in understanding **place value**. Each small cube represents 1, a rod represents 10, a flat represents 100 and a large cube represents 1000. Also known as MAB blocks.



block graph

A simple **chart** that displays information using blocks, with the **horizontal** axis labelled with categories and the **vertical** axis labelled with numbers. Each block represents one unit.



BODMAS

This acronym helps children to remember the order that they should do **calculations** in a multi-step calculation. It stands for Brackets, Orders, Division, Multiplication, Addition, Subtraction.

$$7 + 9 = 7 + (3 + 6)$$
$$7 + 3 = 10$$
$$10 + 6 = 16$$

bridging through ten

A mental method of adding two numbers whose total is greater than ten. Students are taught to count on to the next ten, and then add the **remainder** of the number to ten. For example, take $7 + 9$: bridging from 7 to 10 requires 3, which leaves 6 (from the original 9). $10 + 6 = 16$.

Maths Vocabulary

Vocabulary



calculation

Description

Working out the amount or number of something, usually by using one of the four **operations**. $3 + 4 = 7$ is an **addition** calculation; $7 - 3 = 4$ is a subtraction calculation; $3 \times 5 = 15$ is a **multiplication** calculation; and $15 \div 3 = 5$ is a **division** calculation.



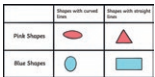
capacity

The term used when measuring how much fluid a container can hold. Measured in millilitres and litres.



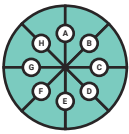
cardinal numbers

Numbers used to count a set of objects and give information about quantity – one, two, three, four and so on.



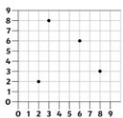
Carroll diagram

A way of sorting and presenting information in a table that uses columns and rows.



chance

See **probability**.



chart

Another term for a **graph** or other way of presenting information.



chunking

Chunking is a maths method for dividing large numbers which can't be done mentally. It involves repeatedly subtracting the **divisor** and its **multiples**.



grouping

A method used for dividing large numbers. Children are taught to group objects into equal parts.

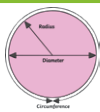


circle

A **2D shape** with one curved **side** and no **vertices**.

Maths Vocabulary

Vocabulary



circumference

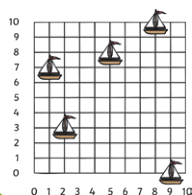
Description

The **measurement** of the distance around the outside of a **circle**.



clockwise,
anticlockwise

A way of indicating the direction of a turn. Clockwise involves a turn to the right as if following the hands of a clock; anticlockwise involves a turn to the left, against the direction of a clock's hands.



coordinates

Numbers that show the position of a particular point in space – on a map or a **graph**. The points are marked according to numbers of the **horizontal** axis (x-axis) and **vertical** axis (y-axis). For example, (2,6) would mean 2 along the x-axis and 6 up on the y-axis.

$$\begin{array}{r} \text{HTO} \\ 123 \\ +231 \\ \hline \end{array}$$

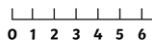
column method

A method of **calculation** where the numbers to be added or subtracted are set out above one another in columns. The calculation is done by 'regrouping' or 'exchanging' numbers from column to column.

$$\begin{array}{l} 3 + 2 = 5 \\ 2 + 3 = 5 \end{array}$$

commutativity

Addition and **multiplication** have the property of commutativity. This means that when two numbers are added or multiplied, this can be done in any order and the same answer will be obtained. $3 + 2 = 5$ and $2 + 3 = 5$. $4 \times 6 = 24$ and $6 \times 4 = 24$. Subtraction and **division** are not commutative. These are also known as turnaround facts.



complementary
addition

Also known as the '**jump method**'. A method of **addition** using a **number line** where children are taught to start with the largest number in the **calculation** and count on along the number line to find the total. This method helps children count in tens and ones.



concrete materials

Anything which children may use to help them carry out practical maths activities, e.g. counters to help with addition, **cubes** and rods for **place value** or playdough to make a 3D object.

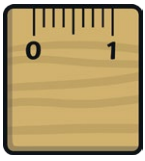


cone

A 3D object with a circular **face** (base) and one continuous curved surface that tapers to a point (the **apex**).

Maths Vocabulary

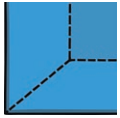
Vocabulary



converting into the same units

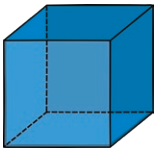
Description

Understanding the connection between units of **measurement** and how they can be converted one to another. For example, length can be measured in centimetres or metres; there are 100cm in a metre. $500\text{cm} = 5\text{m}$.



corner

Also known as a **vertex**. The place on a 3D object where three or more **edges** meet. Also used to describe the angles of a **2D shape** where two **sides** meet.



cube

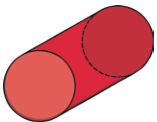
A 3D object with six **square faces**, 12 **edges** and eight **vertices**.

33

cube numbers

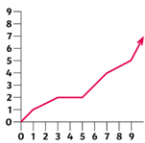
A number that is the result of multiplying a number by itself and then by itself again.

For example, 27 is the **cube** number of 3: $3 \times 3 \times 3 = 27$. This can also be written as $3^3 = 27$.



cylinder

A 3D object with two circular **faces**, one curved surface, two curved **edges** and no **vertices**.



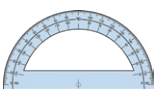
data handling

Now known as **statistics**. The area of maths which looks at representation and analysis of information through **charts** and **graphs**.

1.6

decimal

Numbers are referred to as decimal if they contain a decimal point and represent an **integer** plus a **fraction** (tenths, hundredths, etc). For example, 5.2 or 6.08.

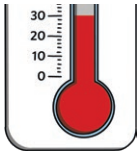


degree (angles)

The unit of **measurement** for angles, represented by the symbol $^\circ$. This describes how large the **angle** is, for example 90° or 180° .

Maths Vocabulary

Vocabulary



degree
(temperature)

Description

The unit of **measurement** for temperature, represented by the symbol °C (degrees Celsius) or °F (degrees Fahrenheit). This describes the temperature, for example 10°C or 50°F.



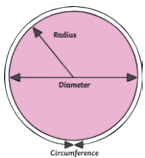
denominator

The 'bottom number' in a **fraction**. This describes how many equal parts the whole has been divided into.



diagonal

A straight line that joins two **vertices** of a shape that are not next to each other.



diameter

A straight line that joins two points on the **circumference** of a **circle** and passes through the centre.



digital clock

A clock that tells the time using numbers only.



division

Division in maths is the process of breaking a number up into equal parts, finding out how many equal parts can be made and whether there is a **remainder**. For example, dividing 15 by 3 means splitting 15 into 3 equal groups of 5 or 5 equal groups of 3. Division is represented by the symbol '÷' or sometimes '/'.

$$16 \div 4 = 4$$

division fact

A division **calculation** related to the times tables. For example, the division fact $16 \div 4 = 4$ is related to the 4 times table.

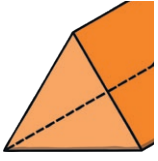
$$10 \div 5$$

divisor

The number of groups that a number is divided into in a division calculation. For example, in the calculation $10 \div 5$, the divisor is 5.

Vocabulary

Description



edge

The place on a 3D object where two **faces** or surfaces meet.

$$10 + 2$$

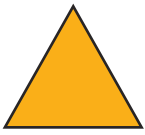
=

equation

A **calculation** where both **sides** are equal.

$$8 + 4$$

For example: $10 + 2 = 8 + 4$.



equilateral triangle

A **triangle** with three **sides** of equal length and three equal angles.



equivalent fractions

Two or more **fractions** that are equal. They represent the same amount, but have been divided into different numbers of equal parts. For example, $\frac{1}{3}$ is the same as $\frac{2}{6}$ and $\frac{4}{12}$.



estimate

Sometimes called an 'educated guess'. Estimating is roughly judging the number of objects or the answer to a **calculation** based on existing knowledge.

2 4 6

8 10

even numbers

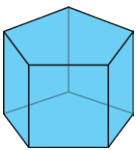
Numbers that are divisible by two with no **remainder**. Even numbers always end with 0, 2, 4, 6 or 8.

$$43 = 40 + 3$$

$$26 = 20 + 6$$

expanded notation

Writing **calculations** where the numbers have been partitioned. For example, $43 + 26$ could be written as $40 + 3 + 20 + 6$.



face

Any flat surface of a 3D object. Faces can be many different shapes.

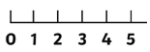
Maths Vocabulary

Vocabulary

$$4 \times 5 = 20$$

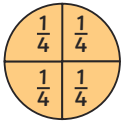
$$20 \div 5 = 4$$
 factor

$$20 \div 4 = 5$$



finding the difference

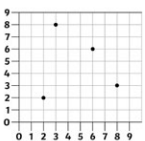
$$P = 2a + 2b$$
 formula



fraction



geometry



graph



greater than (>) and less than (<)

$$13 \times 9$$

×	10	3
9	90	27

grid method

Description

A factor is a number that another number can divide by exactly, without a **remainder**. In a **number sentence** $4 \times 5 = 20$, both 5 and 4 are factors of 20.

A way to work out subtraction **calculations** by finding the numerical difference between two numbers. For example, to solve the calculation $47 - 34$, we can find the difference between 34 and 47. Most often taught by using a **number line** to count on from the smaller to the greater number. See also **jump method**.

A formula is a fact or a rule that uses mathematical symbols and numbers to show how to work something out. Primary school examples include the formula for calculating the **perimeter** and **area** of **2D shapes** and the formula for the **volume** of **3D objects**.

A fraction is a number that represents part of a whole. It is represented using a **numerator** and **denominator**, e.g. $\frac{1}{2}$, $\frac{3}{4}$.

The study of shape, position and movement. Includes aspects such as **2D shapes** and **3D objects**, angles, symmetry, pattern, tessellation, turns and position.

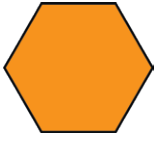
A pictorial way of representing and comparing information. Types taught in primary school include **block graphs**, **bar charts**, **pictograms**, **pie charts** and **line graphs**.

Symbols used to compare numbers. The wide end of the symbol always faces the larger number, e.g. $25 > 10$. Also known as inequality symbols or comparison symbols.

The grid method is a written technique used to teach children **multiplication**. It involves **partitioning** numbers into tens and ones (units) before they are multiplied and placing them in a grid. The numbers are then multiplied two by two and the results are added together to give a total answer.

Maths Vocabulary

Vocabulary



hexagon

Description

A **2D shape** with six **sides** and six **vertices**.



highest common factor

The highest common **factor** of two numbers is the largest whole number that is a factor of both. For example, the highest common factor of 8 and 12 is 4.



horizontal

A horizontal line runs from left to right. It can join equivalent points on two opposite **sides** of a shape.

$\frac{15}{4}$

improper fraction

An improper **fraction** represents a number that is more than one whole. The **numerator** is a larger number than the **denominator**, meaning that there are more parts than the one whole is divided into.

2

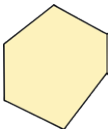
integer

See whole number. Integers can be positive or negative. 0 is also an integer but is neither positive nor negative.



inverse operation

The **operation** opposite to a given operation. Addition is the inverse of subtraction and **multiplication** is the inverse of **division**. So for the calculation $4 + 3 = 7$, the following calculations also apply: $3 + 4 = 7$ (**commutativity**), $7 - 4 = 3$ and $7 - 3 = 4$. For the calculation $3 \times 2 = 6$, we can also say $2 \times 3 = 6$ (**commutativity**), $6 \div 2 = 3$ and $6 \div 3 = 2$.



irregular shapes

2D shapes whose **sides** and angles are not all equal.



investigation

Maths investigations require children to apply skills and knowledge to solve problems. Investigations differ from word problems as there isn't always just one way of working them out and the solution might have to be found through trial and error. Sometimes, there may be several answers.

Maths Vocabulary

Vocabulary



isosceles triangle

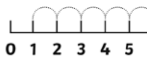
Description

A **triangle** with two **sides** the same length and two angles the same size.



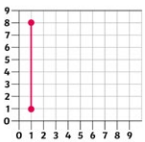
jottings

Informal written work done to help work out the answer to a **calculation** or a problem.



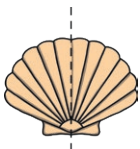
jump method

See **complementary addition**.



line graph

A **graph** used to show changes over time, for example changes in temperature throughout a day. It is created by plotting points and joining them with straight lines.



line of symmetry

An imaginary line that can be used to divide a shape into two identical halves. Also see **reflective symmetry**.

$$\begin{array}{r} 28 \overline{)304} \\ \underline{56} \\ 248 \\ \underline{248} \\ 0 \end{array}$$

long division

A written method of dividing a large number, usually by another large (at least 2-digit) number.

$$\begin{array}{r} 248 \\ \times 22 \\ \hline 496 \\ 4960 \\ \hline 5456 \end{array}$$

long multiplication

A written method of multiplying two large numbers. This is also known as the **column method** of **multiplication**.

$$\frac{1}{2}$$

lowest common denominator

The lowest common **denominator** of a set of **fractions** is the lowest number that is exactly divisible by all the denominators. For example, the lowest common denominator of $\frac{1}{2}$, $\frac{3}{4}$ and $\frac{5}{6}$ would be 12, as it is the smallest number divisible by 2, 4 and 6.

Maths Vocabulary

Vocabulary

1 2 3
4 5

lowest common multiple



mass



mastery

$$6 + 8 + 5 + 5 = 24$$
$$24 \div 4 = 6$$

mean



measurement

1233345

median



mental method

3 $\frac{1}{2}$

mixed number

Description

The lowest common **multiple** of two whole numbers is the smallest number that is a multiple of both. For example, the lowest common multiple of 3 and 4 is 12.

A measurement of the quantity of matter in an object, measured for example in grams (g) and kilograms (kg). The word 'weight' is used in year 1, however from year 2 onwards the word 'mass' should be used, as these are technically not the same thing.

Mastery is a teaching approach that aims for children to develop a deep and solid understanding of key mathematical concepts, able to apply these to reason and solve unfamiliar problems.

In a set of data, the mean is the total sum of all the values divided by the number of values in the set. See also **average**.

In maths, children learn about different forms of measurement including length, **mass, capacity** and **volume**, time and temperature.

The middle number in a list of numbers that has been ordered from smallest to largest. In the list 2, 2, 3, 3, 3, 4, 5, 6, 6, the median value is 3.

Calculations and problem-solving carried out mentally without the need to write down any working-out.

A number that is made up of a whole number and a **fraction**, for example $3\frac{1}{2}$.

Vocabulary

2234555 mode

$4 \times 5 = 20$
 $20 \div 5 = 4$
 $20 \div 4 = 5$ multiple

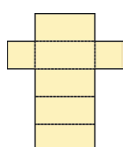
X multiplication

$3 \times 3 = 9$ multiplication fact

$1 \times 1 = 1$
 $2 \times 2 = 4$
 $3 \times 3 = 9$ multiplication tables

$5 \times 3 = 15$ multiplier

-20 negative number

 net

Description

The value that appears most often in a set of data. So in the list 2, 2, 3, 4, 5, 5, 5, the modal number is 5 as it appears most often.

A multiple is a number that can be divided by another number a certain number of times without a **remainder**. In the **number sentence** $4 \times 5 = 20$, 20 is a multiple of 4 and a multiple of 5.

Finding how many altogether in a given number of groups of equal sizes. Represented by the symbol 'x'.

A multiplication **calculation** from the **multiplication tables**, including its answer. For example, $3 \times 3 = 9$.

The multiplication **calculations** for all numbers from 1×1 to 12×12 . Usually grouped by the number being multiplied. Children begin by learning the 2x, 5x and 10x tables and the Australia Curriculum requires that multiplication tables and the related **division facts** are known by heart by the end of year 6.

The number by which a given quantity is multiplied. So in the calculation $5 \times 3 = 15$, the multiplier is 5.

A number that is less than zero, for example -3, -52.

What a 3D object would look like if it were opened out flat.

Maths Vocabulary

Vocabulary

$$9 + 1 = 10$$

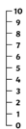
$$8 + 2 = 10$$

$$7 + 3 = 10$$

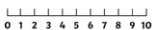
number bonds

1 2 3
4 5

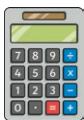
number facts



number ladder



number line



number sentence

100	90	80	70	60	50	40	30	20	10
10	20	30	40	50	60	70	80	90	100

number square

$\frac{1}{2}$

numerator



Numicon

Description

Pairs of numbers that add up to a specific number. For example, the number bonds of 10 are $10 + 0$, $9 + 1$, $8 + 2$, $7 + 3$, $6 + 4$ and $5 + 5$. Children are taught these bonds early on as they help **calculation** skills and also show patterns that are repeated for other number bonds, for example of 20 or 100.

Basic **addition**, subtraction, **multiplication** and **division** facts that children should learn to recall instantly to support more complex **calculations**. Examples include number bonds and **multiplication tables**.

A **vertical** version of a **number line**.

A visual representation of numbers along a horizontal line. Can start at zero or represent a set of numbers from elsewhere in the number system. Used to support counting, **place value** and **calculation** skills.

A number sentence is an arrangement of numbers and symbols. Also referred to as a **sum** or problem.

A set of numbers written in sequence in a square format. Often used with numbers from 1 to 100, it is a valuable primary school teaching aid as it teaches number sequences and patterns as well as basic **addition** and subtraction. Also known as a hundreds chart or hundreds square.

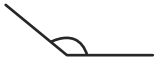
The top number in a **fraction**. This describes how many of the equal parts are being counted.

A primary school teaching aid consisting of plastic tiles with holes that represent the numbers 1 to 10. This equipment can be used to teach **place value**, **ordering** and **calculation**.

Maths Vocabulary

Vocabulary

Description



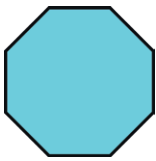
obtuse angle

An **angle** greater than 90° but less than 180° .

3 5 7
9 11

odd numbers

Whole numbers that are not exactly divisible by 2. Odd numbers always end in 1, 3, 5, 7 or 9.



octagon

A **2D shape** with eight **sides** and eight **vertices**.



operation

The four mathematical operations are **addition**, subtraction, **multiplication** and **division**.

1234567
7654321

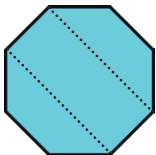
ordering

Putting numbers in the correct order according to size. Ascending order goes from smallest to greatest; descending order goes from greatest to smallest. Ordering also involves using the greater than, less than and equals symbols ($<$, $>$ and $=$).

1st
2nd
3rd

ordinal numbers

Numbers that indicate order - 1st, 2nd, 3rd, etc.



parallel

Lines that are always the same distance apart and will never meet.

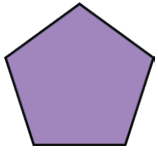
7 = 700
8 = 80
2 = 2

partitioning

See also **recombining**. Partitioning is dividing a number into the individual values of its digits. For example, 782 can be partitioned into $700 + 80 + 2$. We can use partitioning to help children to understand the values of these digits.

Maths Vocabulary

Vocabulary



pentagon

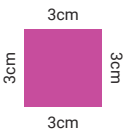
Description

A **2D shape** with five **sides** and five **vertices**.

50%

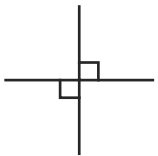
percentage

A number or **ratio** expressed as a **fraction** of 100. The % sign stands for 'per cent' which means 'out of 100'.



perimeter

The distance all the way around a **2D shape** – the total length of its **sides**.



perpendicular

Lines that cross each other at a **right angle** are perpendicular.



pictogram

A **chart** or **graph** that uses pictures to represent data. They are set out the same way as **bar charts** but use pictures instead of bars. Each picture could represent one item or more than one. Also known as a pictograph.



pie chart

A circular **chart** divided into sections to represent different values in a set of data.

6 = 600
2 = 20
7 = 7

place value

The value of all the digits in a number according to their positions. For example, in the number 627, the 6 is worth 600, the 2 is worth 20 and the 7 is worth 7.

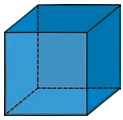


polygon

A **2D shape** with straight **sides** that are fully closed (they join up). A polygon can have any number of sides. Examples of polygons include **triangles**, **squares** and **hexagons**.

Maths Vocabulary

Vocabulary



polyhedron

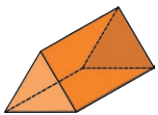
Description

A 3D object whose **faces** are all **polygons**. These include the **cube**, **rectangular prism**, triangular prism and **square-based pyramid**.

2 3 5
7 11

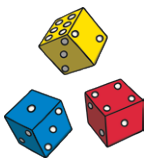
prime numbers

A number greater than one that cannot be divided exactly by any number except one and itself. The first few prime numbers are 2, 3, 5, 7, 11 and 13.



prism

A 3D object with two opposite identical **faces** with their **vertices** joined by **parallel** lines. The cross-section of a prism is the same all the way through. Examples are a triangular prism and a **rectangular prism** (cuboid). A **cylinder** is not a prism because it has a curved surface instead of all flat faces.



probability

Also known as **chance** or likelihood. Probability describes how likely something is to happen. It can be described in words (e.g. 'it is certain that the sun will set tonight'; 'it is unlikely that my face will turn green') or using numbers or **percentages** (e.g. 'I have a one in six chance of rolling a three using a normal dice.')

$5 \times 3 = 9$ product

The number that you get when you multiply two numbers together.



proportion

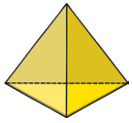
Proportion is a mathematical comparison between two numbers, where one can be seen as a part or share of the other. See also **ratio**.



pyramid
(square-based)

A 3D object with four triangular **faces**, one square **face** and five **vertices**.

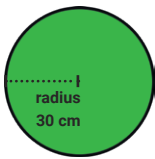
Vocabulary



pyramid
(triangular-based)



quadrilateral



radius

2, 3, 3, 4, 5
= 5 - 2
= 3

range

4:3

ratio

200 + 50
+ 3
= 253

recombining



rectangle



rectangular prism

Description

A 3D object with four triangular **faces** and four **vertices**.

Any **2D shape** with four **sides**.

A straight line drawn from the centre of a **circle** to any point on its **circumference**.

The difference between the smallest and largest number in a set of data. In the data set 2, 3, 3, 4, 5, 6, 6, 7, the range is 5 as this is the difference between 2 (smallest number) and 7 (largest number).

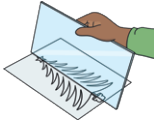
Comparing values in relation to one another; looking at how much of one thing there is in relation to another. See also **proportion**.

See also **partitioning**. Recombining is putting the individual digit place values of a number back together to make the original number. For example, 200 + 50 + 3 is recombined to make 253.

A **quadrilateral** with two pairs of **parallel sides** and adjacent sides of different lengths. A **2D shape** with four straight sides and four **right angles**. Opposite sides are the same length.

A 3D object with six **faces** (all of which are rectangular, some of which may be square), 12 **edges** and eight **vertices**.

Vocabulary



reflection of shapes



reflective symmetry



reflex angle



regular shapes

$$7 \div 2 = 3r1$$

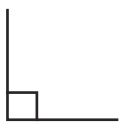
remainder

$$2 + 2 = 2 + 2$$

repeated addition

$$15 - 5 - 5 - 5 = 0$$

repeated subtraction



right angle

Description

Drawing the reflection of a shape in a line of symmetry means drawing the shape on the other side of the line as if it has been flipped over the line.

When a shape or pattern is reflected in a mirror line or line of symmetry. The reflected shape will be an exact mirror image of the original, the same size and the same distance from the mirror line.

An **angle** of between 180° and 360° .

2D shapes with closed **sides**, where all sides are the same length and all angles are the same.

The amount left over when a number cannot be exactly divided by another number. For example, if we divide 10 by 3, we get three groups of 3 with a remainder of 1.

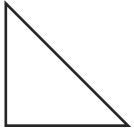
A way of teaching about **multiplication** as the repeated **grouping** of the same number. For example, 4×2 is the same as four groups of 2 or $2 + 2 + 2 + 2$.

A way of teaching about **division** as the repeated subtraction of the same number down to zero. For example, $15 \div 5$ is the same as 15 shared into 3 groups of 5 or $15 - 5 - 5 - 5 = 0$.

An **angle** of exactly 90° . The two lines that make a right angle are **perpendicular**. A right angle can also be known as a quarter turn, because it is one quarter of a full turn (360°).

Vocabulary

Description



right-angled triangle

A **triangle** with one **angle** of 90° .



Roman numerals

The numbers that were used in ancient Rome. They are written as combinations of letters from the Roman alphabet (I, V, X, L, C, D, M).



rotation of shapes

The movement of shapes around a fixed point by a given number of **degrees** and in a certain direction (**clockwise** or **anticlockwise**). The shape itself will remain the same but its position in the space will change.



rotational symmetry

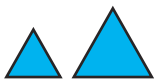
When a shape or a pattern can be rotated around a fixed point but remains the same.

5

Five or more raise the score!

rounding numbers

Adjusting digits up or down to the nearest tens, hundreds, thousands number (etc.) in order to make rough calculations easier.



scale factor

When increasing the size of a **2D shape**, the scale factor is the amount by which the size is increased.



scalene triangle

A **triangle** with three **sides** of different lengths and three different angles.



sharing

Children learn early on how to share a number of objects into equal groups. This develops an early understanding of **division**.

Maths Vocabulary

Vocabulary



side

Description

One of the lines, straight or curved, which encloses a **2D shape**.

$$\frac{16}{24} = \frac{2}{3}$$

simplifying fractions

Finding an equivalent **fraction** where the numbers are made as simple as possible. You can simplify a **fraction** if the **numerator** and **denominator** can both be divided by the same number. For example, the fraction $\frac{16}{24}$ in its simplest form would be $\frac{2}{3}$.



sphere

A 3D object with one curved surface, no **edges** and no **vertices**. Every point on the surface is exactly the same distance from the centre.



square

A **2D shape** with four **sides** of equal length, four **vertices** and four **right angles**.

$$4^2 = 16$$

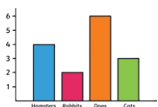
square number

A number that is the result of multiplying a number by itself. For example, 16 is the square of 4: $4 \times 4 = 16$. This can be written as $4^2 = 16$.



standard and non-standard units

Standard units are the common units used in measurement, for example centimetres, litres or grams. Non-standard units are used for measurement with younger children, to introduce them to the concept of measuring - for example, they might investigate how many cupfuls of sand fill a bucket or how many cubes weigh the same as a book.



statistics

The term used for teaching the collection, presentation and analysis of information or data. This includes all forms of **graphs** and **charts** as well as analysis tools such as finding the **mean**, **median**, **mode** and **range**.

$$\begin{array}{r} 30 \\ 6 \overline{) 186} \end{array}$$

short division

This is a **division** technique taught once children are confident with the '**chunking**' method of division.

Maths Vocabulary

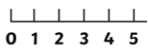
Vocabulary



subtraction

Description

Taking one number away from another; finding the difference between the two. Denoted by the symbol '-'.



subtraction on a number line

Children are taught to use a **number line** to carry out subtraction **calculations**, either by counting back from the starting number or by finding the difference between the smaller and the greater number in the calculation. See also **finding the difference**.

$$10 + 5 = 15$$
 sum

The result of adding two or more numbers together.



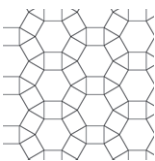
surface

Some **3D objects**, such as **cones**, **cylinders** and **spheres** have curved surfaces. These are not faces as they are not flat.



tally chart

A **chart** used for the initial collection of data. Usually presented as a table with different categories along the top or down the side, and tallies (groups of five marks) used to show how many in each category. One vertical mark represents one item, and when five are counted the fifth mark is crossed through the first four.



tessellation

When **2D shapes** fit together exactly with no gaps. Tessellating shapes are commonly found in floor tiles.



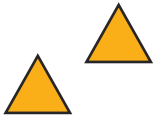
time interval

The length of time between two given times.

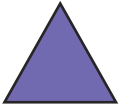
$$1 \times 1 = 1$$
$$2 \times 2 = 4$$
$$3 \times 3 = 9$$
 times tables

See **multiplication tables**.

Vocabulary



translation of shapes



triangle



triangular numbers

180°

turns

$$7 + 9 = 7 + (3 + 6)$$

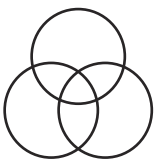
$$7 + 3 = 10$$

$$10 + 6 = 16$$

two-step and multi-step problems

$\frac{1}{4}$

unit fractions



Venn diagram



vertex/vertices

Description

Moving a **2D shape** into a different position without turning it.

A **2D shape** with three straight **sides** and three vertices. Can be equilateral, isosceles, right-angled or scalene.

A sequence of numbers created by organising rows of dots into **equilateral triangles**. The first few triangular numbers are 1, 3, 6, 10 and 15.

A movement in a space, either **clockwise** or **anticlockwise** around a point. A quarter turn is 90° , a half turn is 180° , a three-quarter turn is 270° and a full turn is 360° .

Word problems that require children to work out more than one step in order to find the eventual answer. Answering the second part of the question requires information derived from the first part.

A **fraction** where the **numerator** is one and the **denominator** is a whole number. It represents one equal part.

A way of sorting information using two or more **circles** that may or may not overlap.

The place on a 3D object where three or more **edges** meet. Also used to describe the corners of a **2D shape**. See also **corners**.

Maths Vocabulary

Vocabulary



vertical

Description

A line that runs up and down from top to bottom. It will intersect a horizontal line at **right angles**.



volume

The amount of space taken up by an object, which can be measured in litres or cubic centimetres.



whole number

A number which contains no **fractions** or parts of a whole such as **decimal** numbers. Also called an **integer**.

Rachel has 17 apples. She gives 9 to Sarah. How many apples does Rachel have now?

word problem

A mathematical **calculation** presented in words. Children are taught to find the key information, work out what type of calculation is needed and then work out the answer.

HTO
123
+ 123

working-out

Written work that supports finding an eventual answer to a **calculation** or a problem. Important as it shows how a child tackled the problem and the skills they used to work out the problem.



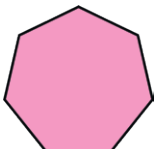
written method

A way of carrying out a **calculation** which is done on paper rather than entirely mentally.



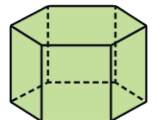
24-hour clock

The 12-hour clock runs from 12 o'clock to 12 o'clock twice per day. The 24-hour clock runs from 00:00 (12 a.m.) through 24 hours to 23:59 (11:59 p.m.).



2D shapes

Shapes that are flat, having only two dimensions – length (sometimes called height) and width.



3D objects

Shapes that have a solid form, having three dimensions – length (sometimes called height), width and depth.