Glossary of Mathematical Vocabulary

Addend - a number to be added to another – each one represents a part.

Aggregation - combining two or more quantities or measures (parts) to find a total (whole).

Array - an ordered collection of counters, cubes or other item in rows and columns.

Augmentation - increasing a quantity or measure by another quantity.

Cardinality - refers to the capacity to link numbers to collections; *for example, to know that "4" is the correct representation to denote a group of four objects.*

Commutative (addition) - numbers can be added in any order. If the order of the addends changes, the sum remains the same.

Commutative (multiplication) - numbers can be multiplied in any order. If the order of the factors changes, the product remains the same.

Difference - the numerical difference between two numbers is found by comparing the quantity in each group.

Dividend - the number that is divided.

Divisor - the number by which another is divided.

Factor - a number that multiplies with another to make a product.

Inverse -an opposite operation that reverses a previous operation.
Addition and subtraction are inverse operations; *for example: 5 + 3 = 8 and 8 – 3 = 5*
Multiplication and division are inverse operations; *for example: 3 x 5 = 15 and 15 ÷ 5 = 3*

Minuend - a quantity or number from which another is subtracted.

Multiple - a multiple is a number that can be divided by another number (without leaving a remainder).

Multiplicand - a number to be multiplied by another.

Multiplier – a number by which another number is multiplied.

Ordinal Numbers - show a position or rank and not a set of objects.
For example: first, second, third…

Ordinality - refers to the capacity to place numbers in sequence; *for example, to know that 4 comes before 5 and after 3 in the sequence of natural numbers.*

Partitioning - splitting a number (the whole) into its component parts.

Partitive division - division as sharing. A total quantity is divided into a known number of equal shares, and the goal is to find the size of each individual share.
For example: 20 conkers are shared equally among 5 children. How many conkers does each child get?

Product - the result of multiplying one number by another.

Quotient - the result of a division.

Quotitive division - division as grouping. The total quantity and the group size are both known, while the number of groups is unknown.
For example: There are fifteen biscuits. If I put them into bags (groups) of five, how many bags (groups) will I need?

Reduction - subtraction as take away. One quantity is decreased by another quantity.

Remainder – the amount left over after dividing one number by another when the division is not exact or even. A remainder occurs when the dividend is not a multiple of the divisor. The remainder is always less than the divisor.

Repeated addition – adding equal groups together multiple times. This can be developed into a multiplication equation.
For example: 5 + 5 + 5 = 15 is the same as 3 x 5 = 15

Skip counting - a method of counting where we count in **multiples** of a particular number, missing out all the numbers in between.
For example: you can skip count by 2s, 3s, 5s or 10s.

Subitise - instantly recognise the number of objects in a small group without needing to count them individually.
Most adults can subitise up to five objects through **perceptual subitising**. However, larger numbers of objects can be subitised by 'breaking' or 'seeing' smaller groups of numbers within the larger one. This is referred to as **conceptual subitising**.

Subtrahend - a number to be subtracted from another.

Sum - the result of one or more additions.

Unitising - being able to consider many as one. The ability to count groups of items as a single unit.
For example: A packet of ten biscuits is one packet, but it also represents a unit of ten biscuits. Five pairs of shoes is a unit of five pairs, with each pair being a unit of two shoes. A 5p coin is a single unit that has a value of five 1p coins.