Mathematical Vocabulary

Year 6

St Mary's C.E. Primary School

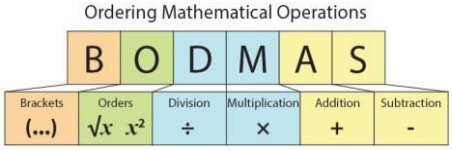
Every Child Flourishing...

Mathematics vocabulary list Year 6

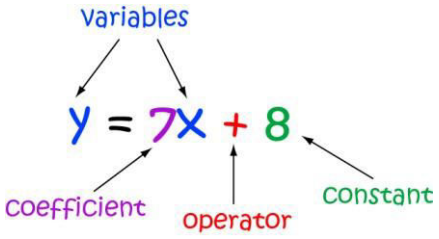
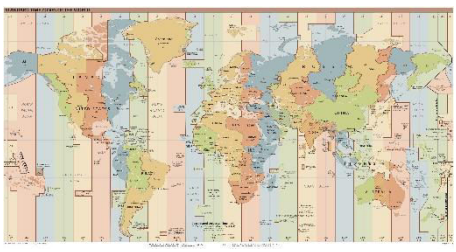
Maths is its own language. Sometimes that language looks like written word and sometimes it looks like symbols, but it is a language and it must be learned for math fluency and competency. If your child does not have a good understanding of key mathematical vocabulary, it can hinder them in making good progress in maths and in other areas of the curriculum.

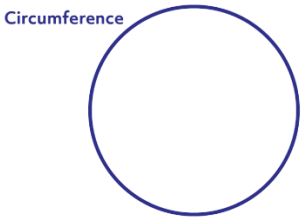
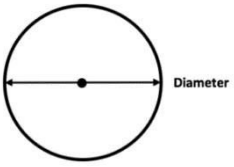
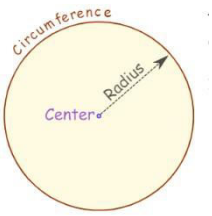
We explicitly teach maths vocabulary, giving it a context and allowing children to apply it in a variety of problems.

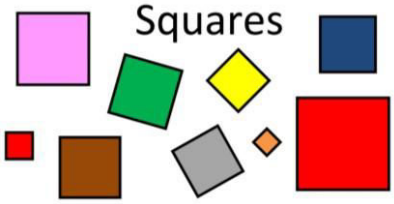
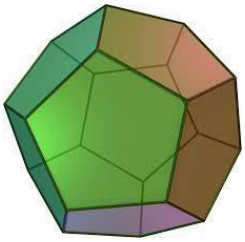
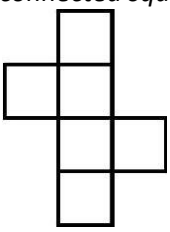
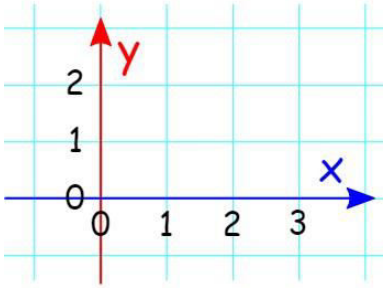
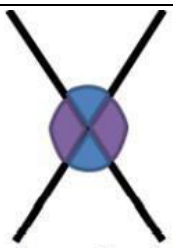
Listed below are the key mathematical terms your child will learn this year. This is the minimum we expect children to learn; however, we know children are curious and will undoubtedly want to learn more and we encourage this.

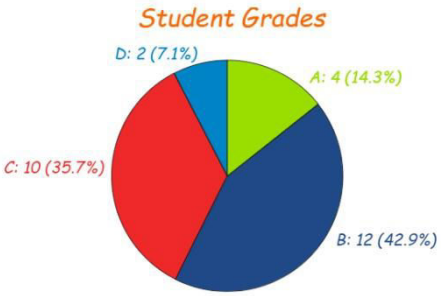
Vocabulary	**Definition**	**Example**
Number and Place Value		
Brackets	The symbols ( ) used to separate parts of a multi-step calculation.	*'(10 – 2) × 3 = 24'*
Degree of accuracy	A description of how accurately a value is communicated.	*'The **degree of accuracy** needed for the answer is one decimal place.'* **Round off to 1 decimal place.** (a) 0.38 ≈ 0.4
Equivalent expression	An expression, which can be algebraic, which is equal in value to another expression.	*'Find an **equivalent expression** to 17 + 10. 18 + 9 is an **equivalent expression** to 17 + 10. '*
Order of operations	The internationally agreed order to complete operations in a multi-step equation with multiple operations.	*'(3 + 4) × 2 =* *The **order of operations** dictates that the operation within the brackets is completed first.'* 
Addition and subtraction		

Multiplication and division		
Factorise	To identify factors of a given number. To express a number as factors.	*'I can **factorise** 12 by looking at its factor pairs. 1 × 12 = 12, 2 × 6 = 12, 3 × 4 = 12. So the factors of 12 are 1, 2, 3, 4, 6 and 12.'*
Prime factor	A factor that is a prime number. In other words: any of the prime numbers that can be multiplied to give the original number	*'The **prime factors** of 15 are 3 and 5 (because 3×5=15, and 3 and 5 are prime numbers)'.*
Fractions, decimals, percentages		
Ratio	A ratio shows the relative sizes of two or more values.	*Example:* There are 3 triangles and 2 squares.  We can write the ratio as 3 : 2 or 3 to 2 or $\frac{3}{2}$
Proportion	A comparison between two or more parts of a whole or group. Proportion expresses a partwhole relationship. This may be represented as a fraction, a percentage or a decimal.	*'Two thirds of a group of children were boys. The **proportion** of the group that is girls is one third.'* 
Algebra		
Equation	An equation says that two things are equal. It will have an equals "=" sign	*'That **equation** says: what is on the left (7 + 2) is equal to what is on the right (10 − 1)'* *7 + 2 = 10 - 1*
Formula	An algebraic expression of a rule.	*'The area of a rectangle can be found by multiplying the width and height. a = w × h. This is the **formula**'.*
Unknown	A number we do not know.	*'In the equation below, y is **unknown** but can be calculated.* *y + 17 = 100'*

Variable	A symbol for a value we don't know yet. It is usually a letter like x or y.	
Length		
Feet/foot	An imperial unit of measure of length.	*'I am approximately five **feet** tall.'*
Mile	An imperial unit of measure of length.	*'Five **miles** is equivalent to eight kilometres.'*
Yard	A unit of length (or distance) equal to 3 feet or 36 inches.	*'In football, the penalty spot in 12 **yards** from the goal line.'*
Weight		
Ounce	An imperial unit of measure of mass.	*'The new born baby had a mass of 6 pounds and 3 **ounces**'.*
Tonne	A unit of mass equal to 1000 kilograms.	*'A small car weighs about 1 **tonne**'.*
Capacity and volume		
Centilitre	A metric unit of capacity, equal to one hundredth of a litre	*'There are 500 **centilitres** in this beaker. It is about the same 5 litres'.*
Gallon	An imperial unit of measure of volume/capacity.	*'A **gallon** is approximately 4.5 litres.'*
Temperature		
Time		
British Summer Time	Time as advanced one hour ahead of Greenwich Mean Time for daylight saving in the UK between March and October.	*'During **British Summer Time**, there are more daylight in the evening and less in the morning'.*
Greenwich Mean Time	Greenwich Mean Time is an internationally standard time format. It is the main time zone in several countries, including the United Kingdom.	

Money		
Loss	If the income is less than the expenses.	*'Two days ago. Sam's Bakery received $480, but expenses were $520. $480 − $520 = −$40, which is a $40* ***loss****'.*
Profit	Income minus all expenses.	*'Sam's Bakery received $900 yesterday, but expenses such as wages, food and electricity came to $650. So the* ***profit*** *was $900 − $650 = $250.'*
2d shape		
Arc	A portion of the circumference of a circle	
Circumference	The perimeter/boundary of a circle.	
Compass	A tool for creating curved lines, arcs and circles.	*'I can use a pair of* ***compasses*** *to draw a circle with a radius of 4 cm. '*
Intersect	The point at which two (or more) lines meet is where they intersect.	*'The x and y axes* ***intersect*** *at (0,0)'*
Diameter	A line from one point of the circumference of a circle to another on the opposite side, which must pass through the centre of the circle.	
Radius	A line from one point of the circumference of a circle to the centre of the circle.	

Similar	Similar shapes are those which have the same internal angles and where the side lengths are in the same ratio or proportion. Enlarging a shape by a scale factor (for example by doubling all side lengths) creates a similar shape.	*'All squares are **similar** to one another.'* 
	3d shape	
Dodecahedron	A polyhedron (a flat-sided solid object) with 12 Faces.	
Net	A group of 2-D shapes which, when folded and connected, forms a 3-D polyhedron.	*'The **net** of a cube is comprised of six connected squares. '* 
	Position and direction	
Origin	The point at which axes in a coordinates grid cross; the point (0,0).	
Vertically opposite angles	Angles which are positioned opposite to one another when two lines intersect.	 The purple angles indicated are **vertically opposite angles.**

Statistics		
Mean	The Arithmetic Mean is the average of the numbers: a calculated "central" value of a set of numbers. To calculate it: • add up all the numbers, • then divide by how many numbers there are.	*'What is the **mean** of 2, 7 and 9?* *Add the numbers: 2 + 7 + 9 = 18* *Divide by how many numbers (i.e. we added 3 numbers): 18 ÷ 3 = 6* *So the **mean** is 6'.*
Pie chart	A representation of a set of data where each segment represents one group in proportion to the whole.	
Statistics	The study of data: how to collect, analyse, summarise and present it.