## Mathematical Vocabulary

## Year 5

St Mary's C.E.
Primary School Every Child Flourishing...

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.

At St Mary's, 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 |  |  |
| Ascending order | Arranged from smallest to largest. Increasing. | ${ }^{\prime} 3,9,12,55$ are in ascending order.' |
| Descending order | Arranged from largest to smallest. Decreasing. | ' $100,45,22,18,2$ are in descending order.' |
| $\geq$ Greater than or equal to | Something is either greater than or equal to another thing. | 'Marbles $\geq 1$ ' |
| sLess than or equal to | Something is either less than or equal to another thing. | ${ }^{\prime}$ Dogs $\leq 3$ ' |
| Addition and subtraction |  |  |
|  |  |  |
| Multiplication and division |  |  |
| Common factor | A factor of two (or more) given numbers. | ' A common factor of 12 and 9 is 3 because $3 \times 4=12$ and $3 \times 3=12$.' |
| Common multiple | A multiple of two (or more) given numbers. | 'A common multiple of 3 and 6 is 12 because $3 \times 4=12$ and $6 \times 2=12$.' |
| Cube number | The result of multiplying a whole number by itself twice. | ' $3 \times 3 \times 3=27$, so 27 is a cube number.' |
| Divisible | A number is said to be divisible by another if it can be divided by that number without a remainder. | '24 is divisible by 8 . When divided by 8 it gives a quotient of 3 , with no remainder. |
| Factor pair | A factor pair is a pair of numbers that, when multiplied will result in a given product. | 'The factor pairs of 10 are shown below: <br> 1 and 10 <br> 2 and $5^{\prime}$ |


| Long division | The formal written algorithm that can be used to divide by a number with two or more digits. | $\begin{array}{r} 34 \\ 12 \begin{array}{\|} 408 \\ 36 \\ 48 \\ \frac{48}{0} \end{array} \end{array}$ |
| :---: | :---: | :---: |
| Long multiplication | The formal written algorithm that can be used to multiply a number by a number with two or more digits. | $\begin{array}{r} 34 \\ \times 12 \\ \hline 68 \\ 340 \\ \hline 408 \end{array}$ |
| Prime factor | A factor that is a prime number. | '3 and 2 are prime factors of 6.' |
| Prime number | A whole number with only two factors, one and the number itself. | $' 2,3,5,7,11,13,17$ and 19 are the prime numbers less than 20.' |
| Square number | The product of two equal factors. | '9 is a square number because $9=3 \times$ 3.' |
| Fractions |  |  |
| Percentage | The number of parts per hundred which is written using the \% symbol. | '30\% means for every 100 there are 30. |
| Thousandths | The third decimal digit from the decimal point is the thousandths digit. | 'The thousandths digit below is 6 . $4.426^{\prime}$ |
| Length |  |  |
| Imperial unit | A system of measurement in use in the United Kingdom now mostly superseded by the metric system. | 'The metric length of the line is 3 cm . The imperial length of the line is 1.18 inches'. |
| Inches | A measure of length. | 'One inch is exactly 2.54 centimetres.' |


| Scale | The ratio of lengths, in a drawing, are in proportion to the measurements of the real object. The lengths are not in proportion when not to scale. | 'The diagram was not drawn to scale. That means I can't use a ruler to measure the sides, because they are not in proportion to the real object.' Here is a sketch of a quadrilateral. It is not drawn to scale. |
| :---: | :---: | :---: |
| Square millimetre ( $\mathrm{mm}^{2}$ ) | The area equal to a square that is 1 mm on each side' | 'The area of that square is $\mathbf{1 m m}{ }^{2}$. |
| Square metre ( $\mathrm{m}^{2}$ ) | The area equal to a square that is 1 m on each side. | 'The area of that square is $\mathbf{1 \mathbf { k m }}{ }^{2}$. |
| Weight |  |  |
| Pounds | A measure of mass in the Imperial measurement systems. | 'An average adult male weighs 180 lb ' |
| Capacity and volume |  |  |
| Cubic centimetre | A unit used to measure volume. The space taken up by a cube with edges of length 1 cm or which measures $1 \mathrm{~cm} \times 1 \mathrm{~cm} \times 1 \mathrm{~cm}$. | 'The volume of this multilink cube model is eight cubic centimetres.' |
| Cubic metre | A unit used to measure volume. The space taken up by a cube with edges of length 1 metre. | 'The volume of this fridge is two cubic metres. |
| Pint | A measure of volume in the Imperial systems of measurement. | 'A pint is equal to about half a litre.' |


| Temperature |  |  |
| :---: | :---: | :---: |
| Time |  |  |
| Money |  |  |
| Currency | A system of money in general use in a particular country. | 'The currency in England is Pound Sterling.' |
| Discount | A reduction in price. | 'The item below has been discounted from \$10 to \$8.' |
| 2d shape |  |  |
| Congruent | Used to describe two shapes or figures which are exactly the same size. | 'The two triangles are congruent. If I place one on top of the other, there is no overlap.' |
| Decagon | A polygon with ten sides and ten angles. |  |
| Diagonal | A line segment that goes from one corner to another, but is not an edge. |  |
| Dodecagon | A polygon with twelve sides and twelve angles. |  |
| Nonagon | A polygon with nine sides and nine angles. |   |


| Quadrant | Any of the 4 areas made when we divide up a plane by an $x$ and $y$ axis. |  |
| :---: | :---: | :---: |
| X-axis | The line on a graph that runs horizontally (left-right) through zero. <br> It is used as a reference line so you can measure from it. | $\begin{gathered} 2 \\ 1 \\ 1 \end{gathered}{ }^{4}$ |
| Y-axis | The line on a graph that runs vertically (up-down) through zero. <br> It is used as a reference line so you can measure from it. |  |
| 3d shape |  |  |
| Octahedron | A polyhedron (a flat-sided solid object) with 8 Faces. |  |
| Position and directio 1 |  |  |
| Angle at a point | Angles that meet at a point that sum to $360^{\circ}$. |  |
| Angle on a line | Angles formed on a straight line that sum to $180^{\circ}$. | 'Angle $b$ below is equal to 55 degrees because angles on a line add to 180 degrees.' |



