Year 8 Maths Vocabulary List

(Tier 2 and Tier 3)

Compass - An instrument for constructing circles and circular arcs and for marking points at a given distance from a fixed point.

Coordinate - In geometry, a coordinate system is a system which uses one or more numbers, or coordinates, to uniquely determine the position of a point in space

Equivalent expression - A numerical or algebraic expression which is the same as the original expression, but is in a different form which might be more useful as a starting point to solve a particular problem.

Error - The difference between an accurate calculation and an approximate calculation or estimate; the difference between an exact representation of a number and an approximation to it obtained by rounding or some other process. In a calculation, if all numbers are rounded to some degree of accuracy the errors become more significant.

Linear - In algebra, describing an expression or equation of degree one. Example: $2x + 3y = 7$ is a linear equation. All linear equations can be represented as straight line graphs. Non-linear would be a graph that is not a straight line.

Percentage - A fraction expressed as the number of parts per hundred and recorded using the notation %. Example: One half can be expressed as 50%; the whole can be expressed as 100%

Protractor - An instrument for measuring angles.

Pythagoras Theorem - In a right-angled triangle, the square of the length of the hypotenuse is equal to the sum of the squares of the lengths of the other sides i.e. the sides that bound the right angle.

Example: When ∠DEF is a right angle, $a^2 + b^2 = h^2$
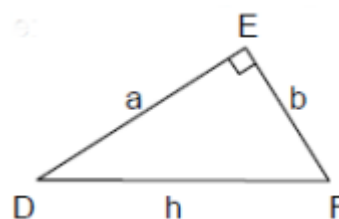
Sequence - A succession of terms formed according to a rule. There is a definite relation between one term and the next and between each term and its position in the sequence. Example: 1, 4, 9, 16, 25 etc.

Significant figure - The run of digits in a number that are needed to specify the number to a required degree of accuracy. Additional zero digits may also be needed to indicate the number's magnitude. Examples: To the nearest thousand, the numbers 125 000, 2 376 000 and 22 000 have 3, 4 and 2 significant figures respectively; to 3 significant figures 98.765 is written 98.8

Simple interest - In savings (or loans) banks pay (or charge) interest on the amount invested (or borrowed). An interest rate is usually specified, and this is applied at specified periods, for example annually. The simple interest is what is added to the savings (loan) at the end of the specified period. Example: a saver invests £10000 in a savings account that gives 1% interest per year. At the end of the year the simple interest is 1% of £10000 = £10000 × 1/100 = £100. Usually, this is then added to the original £10000, so that the amount now invested is £10100. When interest is added over and over again in this way it is called compound interest.

Standard index - A form in which numbers are recorded as a number between 1 and 10 multiplied by a power of ten. Example: 193 in standard index form is recorded as 1.93×10^2 and 0.193 as 1.93×10^{-1} This form is often used as a succinct notation for very large and very small numbers.

Term – a value in a sequence. In the sequence 3, 5, 7, 9, 11… the third term is 7.

Venn diagram - A simple visual diagram to describe used to describe the relationships between two sets. With two or three sets each set is often represented by a circular region. The intersection of two sets is represented by the overlap region between the two sets. With more than three sets Venn diagrams can become very complicated. The boundary of the Venn Diagram represents the Universal Set of interest.