## Glossary of Terms

| Term | Definition |
| :---: | :---: |
| 2-D | Stands for two-dimensional. A 2-D shape will only have two dimensions for example length and height. Squares and circles are examples of 2-D shapes. |
| 3-D | Stands for three-dimensional. A 3-D shape will have three dimensions for example length, height and depth. Cubes and spheres are examples of 3-D shapes. |
| Activity Time | Games and group activities to help pupils explore the concepts covered in the lesson further and reinforce their learning. |
| Acute Angle | An angle that is between $0^{\circ}$ and $90^{\circ}$. |
| Addend | Any number that is added to another number. For example: $2+3=5$ both 2 and 3 are addends. |
| Addition | The process of putting things together. Mathematically this means calculating the total of two or more numbers. We usually use + to show addition. |
| Algebra | A part of mathematics that studies symbols and the rules for manipulating these symbols. In basic algebra, symbols (usually Latin or greek letters) are used to represent unknown quantities or quantities without a fixed value. |
| Alternate Angles | A pair of angles that are formed when a transversal intersects two other lines. When the two lines intersected are parallel, the alternate angles are equal. |
| Anchor Task | The problem presented to a class that the whole lesson will be based around. The tasks have been designed to motivate exploration and learning. |
| Angle | The way mathematicians measure the space between two intersecting lines. It is usually measured in degrees and uses this symbol $\left({ }^{\circ}\right)$. |
| Angle At A Point | Refers to the sum of angles around a point or a complete turn of a circle being equal to $360^{\circ}$. <br> For example: in one hour, the minute hand of a clock travels $360^{\circ}$. |
| Angles On a Straight Line | Angles on a straight line always add up to $180^{\circ}$. <br> For example: a straight line could be represented by the diameter of a circle, a line that splits a circle in half. So the angle of a straight line can be calculated by dividing $360^{\circ}$ by 2 . |
| Anticlockwise | The opposite direction to which the hands of a clock move. |
| Approximately Equal To | When two quantities are close enough in value that they can be considered similar for the specific calculation or purpose. We usually use $\approx$ to show two numbers are approximately equal to. |

$\left.\begin{array}{|l|l|}\hline \text { Approximation } & \begin{array}{l}\text { A rough calculation that is similar enough for the specific purpose to the } \\ \text { exact result. }\end{array} \\ \hline \text { Arc } & \begin{array}{l}\text { A portion of the circumference of a circle. } \\ \hline \text { Area } \\ \text { A measure of how much space there is on a flat surface. Area is } \\ \text { meare units. }\end{array} \\ \hline \text { Assessment } & \begin{array}{l}\text { A set of items (objects or numbers) that are ordered into an } \\ \text { arrangement, normally in rows and columns. }\end{array} \\ \hline \text { Assessment is used to try and identify where a learner is in their } \\ \text { learning: what do they know and what don't they know yet? } \\ \text { It can be used by the teacher or by the learner themselves } \\ \text { (self-assessment). It helps with planning (what to do next?) and } \\ \text { evaluating teaching and learning strategies (what worked and what } \\ \text { didn't work?). } \\ \text { Assessment can be: a test, a quiz, observing group work, marking } \\ \text { workbooks, reflecting on learning etc. It takes many forms. }\end{array}\right\}$

| Circumference | The length of the circle if it were opened up and straightened to form a line i.e. the distance around the edge of the circle. Circumference $=2 \pi r$, where $r$ is the radius of the circle. |
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| Clockwise | The direction the hands of a clock move. |
| Column | A vertical array, normally found in a table or matrix. |
| Common Factor | A number that can be divided exactly into two or more different numbers without leaving a remainder. <br> For example: 5 is a common factor for 25 and 40. |
| Common Multiple | A number that is a multiple of two or more numbers. <br> For example: the common multiples of 3 and 5 are 15, 30, 45 etc. |
| Commutative | A mathematical operation where the order of the numbers does not affect the answer. For example: both addition and multiplication are commutative, but subtraction and division are not. |
| Compare | To study the difference between numbers or quantities, we usually use terms like 'greater than', 'less than' or 'equal' to define the differences. |
| Comparison model | A type of bar model where there are two or more vertically aligned bars usually drawn to compare two or more amounts. Brackets can usually be used to show the whole amount. These models are most commonly used for finding the difference between amounts. |
| Compass | A tool for drawing circles and arcs. It can also be used to measure the distances between points or to bisect lines or angles. |
| Composite Number | A positive number that has at least one divisor other than 1 and itself. For example: 6 and 15 are both composite numbers. |
| Cone | A 3-D shape that tapers smoothly from a flat (usually circular) base to a point. |
| Convert | Change a value or expression from one form to another. We usually are changing the units when we convert in mathematics. |
| Coordinate | A set of values that show the exact position of a point. Usually on a graph, it is two numbers that show the distance from the $x$ and $y$-axis. For example: $(6,3)$ is a coordinate, it tells us that 6 units to the right from the $y$-axis and 3 units above the $x$-axis. |
| Counting Backwards | A process for subtraction where you count backwards from the first number to find the difference. |
| Counting On | A process for addition where you begin counting from the larger number to find the sum. |
| CPA | Stands for Concrete, Pictorial, Abstract which is an approach to teaching developed by Jerome Bruner. This approach introduces all abstract concepts, firstly in a concrete and tangible way before moving on to pictorial representations then finally introducing the abstract approach. This way learners should develop a strong, conceptual understanding of the topics. |
| Cube | A 3-D solid formed by six equal squares at right angles to each other. |
| Cube Number | The product of a number multiplied by itself twice. To cube is the process of multiplying a number by itself two times and is shown by a ${ }^{3}$. |


|  | For example: $5 \times 5 \times 5=125$, where 125 is a cube number. |
| :---: | :---: |
| Cube Units | Units usually used to measure volume. |
| Cuboid | A 3-D solid formed by 6 rectangular faces at right angles to each other. |
| Day | A period of 24 hours. |
| Decimal | Is a system that has 10 as its base, meaning it uses the number 0 to 9 . It refers to fractions being shown in this numbering system. For example: $11 / 2$ can be written as 1.5 , which is its decimal format. The decimal place separates the ones place from the tenths place. |
| Degrees Celsius | A common unit used to measure temperature. We use ${ }^{\circ} \mathrm{C}$ as the symbol for degrees celsius. The Celsius scale is based on $0^{\circ} \mathrm{C}$ being the freezing point of water (where water turns from a liquid to a solid) and $100^{\circ} \mathrm{C}$ being the boiling point of water (where water turns from a liquid to a gas). |
| Denominator | Refers to how many equal parts make up the whole. It is the bottom number in a fraction. <br> For example: $2 / 5,5$ is the denominator, it means the whole amount has been split into 5 equal parts. |
| Diameter | A straight line that passes through the centre of a circle and with both end points lying on the circumference of the circle. It is equal to twice the radius. |
| Difference | The answer in a subtraction problem. For example: 6-4=2, 2 is the difference. |
| Differentiation | The process of adapting lesson content so that all pupils are engaged in the learning process while still keeping the whole class learning together. It means the same anchor task can not only support struggling learners but also challenge advanced learners. It aims to strengthen mastery of the underlying concepts or ideas. |
| Digit | A single numerical symbol, usually from 0 to 9 . <br> For example: 5 is both a digit and a number, but 13 is a two-digit number. |
| Dividend | A number being divided by another number. |
| Division | The opposite process of multiplication. It is the process of splitting into equal parts or groups. We usually use $\div$ or $/$ as the symbol for division. |
| Division As Sharing | Also known as equal sharing, it is probably the most common way of thinking about division. Here the quotient represents the number of shared objects in each group. <br> For example: I want to put 32 cookies into 4 equally-sized boxes, each box will hold 8 cookies - is an example of a division as sharing story for the equation $32 \div 4=8$. |
| Division By Grouping | Also known as equal grouping. Here the quotient represents the number of groups the original quantity is split into. Some people see division as grouping as repeated subtraction. <br> For example: I want to put 32 cookies into packs of 4 , then there will be 8 packs - is an example of a division as grouping story for the equation $32 \div 4=8$. |


| Divisor | The number which the dividend is divided by. |
| :---: | :---: |
| Edge | A line segment where two faces meet. |
| Enlargement | A type of transformation. Expanding or contracting an object without changing its shape or orientation. |
| Equal To | When two or more things have exactly the same amount of value. We usually use $=$ to show equality. |
| Equation | A statement that shows the values of two mathematical expressions are equal. <br> For example: $1+3=4$ or $5 x+2=12$ |
| Equilateral Triangle | A triangle with all three sides of equal length and all three angles equal ( $60^{\circ}$ ). |
| Equivalent | When two or more things are equal in value, function or meaning. In maths, we usually use this term when two numbers are the same but written in different formats. <br> For example: $1 / 4$ is equivalent to $2 / 8$. |
| Estimation | To find a value that is close enough (this can change depending on the situation) to the right answer, usually with some justification to the estimated value. |
| Even Number | Any integer that can be divided exactly by 2 . Even numbers have 0,2 , 4,6 or 8 as the digit in the ones place. |
| Exploration | One component of an MNP lesson. Pupils are presented with a problem (the anchor task which can be found in the In Focus section of the textbook) and are encouraged to collaboratively investigate the question without teacher interruptions. |
| Expression | A collection of terms which can contain variables and/or numbers separated by operations. <br> For example: $5 \mathrm{x}+2$ is an expression. |
| Face | A flat surface that makes up a 3-D solid. |
| Factor | The numbers that can be divided into another number without a remainder. <br> For example: 8 has four factors: 1, 2, 4 and 8 . |
| Figure | A geometric form. |
| Fluency | The ability to complete mathematical problems accurately and efficiently, and being able to flexibly manipulate mathematical concepts. |
| Foot | An imperial unit of length or distance. It is equal to $1 / 3$ of a yard or 12 inches. 1 foot $=30.48 \mathrm{~cm}$. We usually use ft as the symbol for feet. |
| Formative Assessment | Assessment information that is used to inform the next steps for teaching and learning. Also called "Assessment for Learning". |
| Formula | A mathematical relationship, fact or rule expressed using symbols. It usually has two or more variables that represent values that we do not know yet and an equals symbol. <br> For example: The formula for the area of a circle is $\mathrm{A}=\pi \mathrm{r}^{2}$. |
| Formulae | Plural of formula. |


| Fraction | A numerical quantity that is not a whole number. |
| :---: | :---: |
| Geometry | The area of mathematics that is concerned with the measurement, properties and relationships of points, lines, angles, surfaces and solids. |
| Gram | A metric unit of mass. It is equal to $1 / 1000$ of a kilogram. We usually use g as the symbol for grammes. |
| Graph | A pictorial representation used to show the relationship between variables. |
| Greater Depth | Having a deep understanding of mathematical concepts so learners are able to fluently and flexibly manipulate mathematical rules and ideas. |
| Greater Than | It is an inequality used to compare two numbers or quantities. It means that one number/quantity is larger than the second number/quantity. We usually use > to show the term 'greater than'. <br> For example: $10>4$ |
| Greater Than Or Equal To | Used when one number/quantity is larger than or the same as the second number/quantity. We usually use $\geq$ to show the term 'greater than or equal to'. <br> For example: $\mathrm{a} \geq \mathrm{b}$ |
| Growth Mindset | Based on the work by Carol Dweck, it is the belief that learners can learn anything and that their intelligence can grow regardless of their starting point. |
| Height | The vertical distance that spans from the top of an object or figure to the base. |
| Heptagon | A seven-sided polygon. |
| Hexagon | A six-sided polygon. |
| Highest Common Factor (HCF) | The greatest number that can be divided exactly into two or more numbers without leaving a remainder. <br> For example: The highest common factor of 24 and 16 is 8 . |
| Horizontal | At right angles to the vertical plane. |
| Hour | A period of 60 minutes. We use h as the symbol for hours. |
| Hundred-thousands Place | Refers to the place six to the left of the decimal place. The digit in the hundred-thousands place tells you how many groups of 100000 are in that number. |
| Hundreds Place | Refers to the place three to the left of the decimal place. The digit in the hundreds place tells you how many groups of 100 are in that number. |
| Hundredths Place | Refers to the second place to the right of the decimal place. One hundredth means you have one out of 100 equal parts of a whole. The digit in the hundredths place tells you how many groups of $1 / 100$ are in that number. |
| Improper Fraction | A fraction which has a numerator greater than the denominator. An improper fraction has a value greater than 1. |
| In Focus | Includes questions/anchor task related to various lesson objectives as an introductory activity for pupils to explore. |


| Inch | An imperial unit of length or distance. It is $1 / 12$ of a foot and equal to 2.54 centimetres. We usually use in as the symbol for inches. |
| :---: | :---: |
| Integer | A number which is not a fraction or a decimal. It is a whole number and can be positive, negative or 0. E.g. ...-4. -3. $-2,-1,0,1,2,3,4 \ldots$ |
| Irregular Polygon | A polygon where all the sides are not equal and all the angles are not equal. |
| Isosceles Triangle | A triangle with two equal lengths and two equal angles. |
| Journaling | One component of an MNP lesson. Pupils are given a question or task based on the lesson's problem. It allows learners to explore new ideas and to create a completely personal journal entry, making it easier for teachers to assess which individuals have truly grasped the concept and who in the class is working at a greater depth. There are four types of journaling - descriptive, evaluative, creative and investigative. |
| Kilogram | A metric unit of mass. It is equal to 1000 g . It is very nearly equal to the mass of 1000 cubic cm or 1 litre of water. We usually use kg as the symbol for kilograms. |
| Kilometre | A metric unit of length or distance equal to 1000 m . We usually use km as the symbol for kilometres. |
| Length | The measurement of something from one end to the other. |
| Less Than | It is an inequality used to compare two numbers or quantities. It means that one number/quantity is smaller than the second number/quantity. We usually use < to show the term 'less than'. <br> For example: $4<10$ |
| Less Than Or Equal To | Used when one number/quantity is smaller than or the same as the second number/quantity. We usually use $\leq$ to show the term 'less than or equal to'. <br> For example: $\mathrm{a} \leq \mathrm{b}$ |
| Lesson Objective | The aims for what you want pupils to be able to achieve at the end of the lesson. |
| Let's Learn | This is a section of the textbook and can provide some anticipated methods for solving the lesson's problem. Teachers can use this section to guide the Structured Discussion. |
| Line Graph | A graph that displays information as a series of points joined by straight line segments. It shows how the value of something changes, usually over time. |
| Line Of Symmetry | The line in which an image could be split in half so each part is a mirror image of the other. In other words, if you folded the image down the line of symmetry each half would match exactly. |
| Litre | A metric unit of capacity. It is equal to 1000 ml . We usually use I as the symbol for litres. |
| Locus | A set of points all satisfying a certain condition. |
| Lowest Common Multiple (LCM) | The smallest number that is a multiple of two or more numbers. For example: 15 is the lowest common multiple of 3 and 5 . |


| Manipulatives | An object designed to help learners perceive mathematical concepts by manipulating it. It provides a way for pupils to learn concepts through developmentally appropriate hands-on experience. |
| :---: | :---: |
| Mass | A measure of how much matter is in an object. It is usually measured by weighing the object, however mass is not affected by gravity whereas weight is. Mass can be measured in grams, kilograms, tonnes, ounces, pounds etc. |
| Maths Mastery | Teaching maths for mastery is a transformational approach to maths teaching which stems from high performing Asian nations such as Singapore. When taught to master maths, children develop their mathematical fluency without resorting to rote learning and are able to solve non-routine maths problems without having to memorise procedures. |
| Mean | A type of average of a set of numbers. Calculated by adding up all the numbers and then dividing by how many numbers there are. |
| Measure | To find the exact size or amount of something, usually using a tool to find out. |
| Median | A type of average of a set of numbers. Calculated by ordering the numbers, normally in ascending order, and the median number is the middle number in the list. |
| Mental Calculation | Completing calculations using only the human brain with no assistance from any resources. |
| Metre | A metric unit of length or distance. It is equal to 100 cm or $1 / 1000 \mathrm{~km}$. We usually use $m$ as the symbol for metres. |
| Mile | An imperial unit of length or distance. It is equal to 1760 yards or 5280 feet. 1 mile is equal to 1.6 kilometres. |
| Millilitre | A metric unit of capacity. It is equal to $1 / 1000$ of a litre. We usually use ml as the symbol for millilitres. |
| Millions Place | Refers to the place seven to the left of the decimal place. The digit in the millions place tells you how many groups of 1000000 are in that number. |
| Mind Workout | A non-routine problem found at the end of each chapter in the textbook and workbook. It has been designed to encourage pupils to work on their greater depth thinking. |
| Minuend | The value you are subtracting from. For example: $6-4=2,6$ is the minuend. |
| Minute | A period of 60 seconds. We use min as the symbol for minutes. |
| Misconceptions | A view or understanding that is incorrect and usually based on faulty thinking or misunderstandings. |
| Mixed Number | A number that is made up of an integer and a proper fraction. |
| Mode | A type of average of a set of numbers. Calculated by finding the most common value or the number that appears most often in the set of numbers. |
| Multiple | The product of one number multiplied by another number. |

$\left.\begin{array}{|l|l|}\hline & \text { For example: } 8 \text { is a multiple of both } 4 \text { and } 2 . \\ \hline \text { Multiplicand } & \begin{array}{l}\text { The number that is being multiplied. Usually this number is placed } \\ \text { second in a multiplication calculation i.e. after the multiplication symbol. } \\ \text { Multiplication is commutative though, so it is better to refer to both the } \\ \text { multiplicand and the multiplier as a factor. }\end{array} \\ \hline \text { Multiplication } & \begin{array}{l}\text { The process of repeated addition. We usually use } \times \text { to show } \\ \text { multiplication. }\end{array} \\ \hline \text { For example: we can read } 4 \times 5 \text { as } 4 \text { lots of } 5 . \text { So } 4 \times 5=5+5+5+5 \\ \text { =20. }\end{array} \quad \begin{array}{l}\text { The number by which you multiply by. Usually this number is placed } \\ \text { first in a multiplication calculation i.e. before the multiplication symbol. } \\ \text { Multiplication is commutative though, so it is better to refer to both the } \\ \text { multiplicand and the multiplier as a factor. }\end{array}\right\}$

| Odd Number | Any integer that cannot be divided exactly by 2 . Odd numbers have 1, <br> $3,5,7$ or 9 as the digit in the ones place. |
| :--- | :--- |
| Ones Place | Refers to the first place to the left of the decimal place. The digit in the <br> ones place tells you how many groups of 1 are in that number. |
| Ounce | An imperial unit of weight. It is $1 / 16$ of a pound and is approximately <br> equal to 28 grams. We usually use oz as the symbol for ounces. |
| Parallel | Two lines that are always the same distance apart, they will never <br> touch. |
| Parallelogram | A quadrilateral with opposite sides parallel. Opposite sides are equal <br> and opposite angles are equal. |
| Part-part-whole model or | A type of bar model where the parts are compared to the whole <br> amount. It can be used to find out the unknown amount either one of <br> the parts or the whole. It can be used for question involving all four <br> operations, fractions, measure, algebra, time, ratio, proportion etc. |
| Partitioning model | The process of splitting large numbers into smaller units to make it <br> easier to work out mathematical problems. |
| Pentagon | A five-sided polygon. |
| Per Cent | Means 'out of 100 . We usually use \% as the symbol for per cent. |
| Percentage | A part of a whole expressed in hundredths. Does not need to be <br> accompanied by a number. |
| Perimeter | The total length of the sides of a polygon. |
| Perpendicular | A line meeting another line at a right angle. |
| Pi | A mathematical constant. It is a number which is equal to the <br> circumference of a circle divided by its diameter. It is approximately <br> equal to 3.1416 and we usually use the greek symbol $\pi$ as the symbol <br> for this constant. |
| Pound (£) | Every digit in a number has a place value. It is the value represented by <br> that digit in the number. <br> For example: In the number 34567 : The digit 3 has a place value of 30 <br> 000, the digit 4 has a place value of 4000, the digit 5 has a place value <br> of 500, the digit 6 has a place value of 60 and the digit 7 has a place <br> value of 7. |
| Pound (Ib) |  |
| It is an evaluative part of the lesson and either during or at the end of a |  |
| lesson by teachers to review the lesson objectives and consolidate the |  |
| pupils' learning. |  |


| Practice | One component of an MNP lesson. Pupils are able to practice what they have learnt. There are two types of practice: Guided Practice which can be found in the textbook and Independent Practice which can be found in the workbook. Both sets of questions have been designed with variation in mind. |
| :---: | :---: |
| Prime Number | A number that only has two factors, 1 and itself. |
| Prism | A 3-D solid with two identical, parallel faces, so that it will have the same cross-section the whole way along the length. |
| Problem Solving | Exploring a task where the solution method is not known in advance. |
| Product | The result of multiplication. |
| Proper Fraction | A fraction which has a numerator that is less than the denominator. A proper fraction has a value less than 1 . |
| Protractor | A tool for measuring angles. |
| Quadrilateral | A four-sided polygon. |
| Quotient | The result of division, where one number has been divided by another. |
| Radius | A straight line from the centre of a circle to the circumference of the circle. It is equal to half the diameter. |
| Rational Number | Is a number that satisfies the following: $\mathrm{a} / \mathrm{b}$, where a and b are both integers and $b$ is not equal to 0 . |
| Reading | One component of an MNP lesson. Pupils read through the lesson content in the textbook and discuss the different sections of the lesson. |
| Rectangle | A quadrilateral with two pair of equal, parallel sides and four right angles. |
| Reflection | A type of transformation. An image of how it would be seen in a mirror. Each point of the mirror image is the same distance from the mirror line as the equivalent point in the original image. |
| Reflex Angle | An angle that is between $180^{\circ}$ and $360^{\circ}$. |
| Regular Polygon | A polygon where all the sides are equal and all the angles are equal. |
| Remainder | The number left over after one number has been divided by another to produce an integer quotient. |
| Renaming | The process of re-writing something as its equivalent to make a mathematical process easier. <br> For example: renaming 324 to 32 tens and 8 ones so it is easier to divide it by 4 . |
| Right Angle | An angle that is equal to $90^{\circ}$. |
| Right-angled Triangle | A triangle where one angle is $90^{\circ}$. |
| Roman Numerals | The symbols the Romans used to write and refer to numbers. It is based on seven symbols: $\mathrm{I}=1, \mathrm{~V}=5, \mathrm{X}=10, \mathrm{~L}=50, \mathrm{C}=100, \mathrm{D}=500$ and $\mathrm{M}=1000$ |
| Rotation | A type of transformation. Rotating an object about a fixed point without changing its size or shape. |


| Rounding | Simplifying a number but still keeping its value close to what it was. <br> Rounding is a type of estimating. We normally round to the nearest <br> whole number, the nearest 10 or nearest 100 etc. |
| :--- | :--- |
| Row | A horizontal array, normally found in a table or matrix. |
| Scalene Triangle | A triangle with all three sides unequal and all three angles unequal. |
| Second | The base unit of time. It is equal to $1 / 60$ of a minute or $1 / 86400$ of a <br> day. We use s as the symbol for seconds. |
| Self Check | Found at the end of each chapter in the textbook and allows pupils to <br> assess their own learning after each section of learning. |
| Set | A collection of distinct objects. Distinct meaning all the objects in the <br> set are different. |
| Simplify | To put something in its simplest form. <br> For example: for fractions this could mean dividing both the numerator <br> and the denominator by their highest common factor or for an <br> expression it could be collecting all like terms. |
| Singapore Maths | Refers to the style of teaching maths in Singapore, that is based on <br> over 30 years of research and practice. |
| Skip Counting | Counting forwards or backwards in groups larger than 1. . It is an early <br> form of learning multiplication. |
| Solve | To find a solution. |


| Summative Assessment | Assessment information that is used to understand what has been learned from the content that has already been taught. It can be thought of as 'learning so far summed up'. |
| :---: | :---: |
| Symmetry | When one shape becomes exactly like another when you move it in some way. Two or more shapes can be symmetrical or one shape can be symmetrical if it has a mirror line that divides the shape in half and both sides are exactly the same as each other. |
| Table | Information arranged in rows and columns. |
| Tangent | A line that touches a curve at one point. |
| Temperature | The measure of how hot or cold something is. It is measured with a thermometer and we usually measure temperature using degrees Celsius ( ${ }^{\circ} \mathrm{C}$ ) or degrees Fahrenheit ( ${ }^{\circ} \mathrm{F}$ ). |
| Ten-thousands Place | Refers to the place five to the left of the decimal place. The digit in the ten-thousands place tells you how many groups of 10000 are in that number. |
| Tens Place | Refers to the place two to the left of the decimal place. The digit in the tens place tells you how many groups of 10 are in that number. |
| Tenths Place | Refers to the first place to the right of the decimal place. One tenth means you have one out of 10 equal parts of a whole. The digit in the tenths place tells you how many groups of $1 / 10$ are in that number. |
| Term | A combination of a number and variables separated by mathematical operations that make up an expression or equation. <br> For example: There are three terms ( $5 x, 2$ and 12) in the following equation $5 x+2=12$. |
| Textbook | A resource for both teachers and pupils that provides the anchor task for the lesson, various methods to solve the anchor task, practice questions and a self-check. The MNP textbook follows the 2014 English National Curriculum. |
| Thousands Place | Refers to the place four to the left of the decimal place. The digit in the thousands place tells you how many groups of 1000 are in that number |
| Thousandths Place | Refers to the third place to the right of the decimal place. One thousandth means you have one out of 1000 equal parts of a whole. The digit in the thousandths place tells you how many groups of $1 / 1000$ are in that number. |
| Time | The ongoing sequence of events taking place including the past, present and future. It is measured usually using clocks and calendars. And the units we use for time are seconds, minutes, hours, days, weeks, months, years etc. |
| Transformation | The movement of objects in the coordinate plane. There are four main types of transformations: Enlargement, Reflection, Rotation, Translation. |
| Translation | A type of transformation. Moving an object or image without changing its size, shape or orientation. |
| Transversal | A line that intersects two or more lines. |
| Trapezium | A quadrilateral with only one pair of parallel sides. |


| Triangle | A three-sided polygon. |
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| Unit | A standard used in measuring |
| Unit Fraction | A fraction that has a numerator of 1 and a denominator that is a non-zero integer. |
| Variable | A quantity with an unknown value. We usually use a letter like $x$ or $y$ to represent a variable. <br> For example: in the expression, $5 \mathrm{x}+2$, x is the variable. |
| Variation | Pupils are not just learning through repetition they are experiencing variation. And it's more than just mathematical variation, where we vary the numbers used, but it is variation of skills and approaches needed to solve the problems. |
| Vertex | A point where two or more lines meet, or a corner of a shape. |
| Vertical | At right angles to the horizontal plane. |
| Vertices | Plural of vertex. |
| Volume | Refers to the amount of space an object occupies. Both solid and hollow objects can have volume. It is usually measured in cubic units. |
| Week | A period of seven days. |
| Weight | The force exerted on an object by the gravity of the earth. Mass and weight are sometimes used interchangeably, however mass is not affected by gravity. |
| Whole-Class Teaching | Pupils are not set by ability but learn the curriculum in mixed-ability groups. |
| Whole Numbers | They are all positive integers (not fractions or decimals) including 0 . E.g. 0, 1, 2, 3, 4 and so on... |
| Width | A measurement from one end to the other, it usually refers to the shortest length of an object. |
| Word Problems | A mathematical problem where information on the problem is presented as text rather than in mathematical notation. |
| Workbook | A practice book that complements the textbooks for pupils to extend learning with well-structured exercises. |
| Yard | An imperial unit of length or distance. It is equal to 3 feet. 1 yard is equal to 0.91 metres. |
| Year | A period of 365 days (or 366 days in a leap year). It is the time taken by the earth to travel once around the sun. |
| Zero | Refers to an empty set. It is neither positive nor negative. |

If you think anything is missing from this document, please contact us at hello@mathsnoproblem.com to let us know.

