Mathematics Vocabulary list for Year 3 and 4

Maths has its own language. Sometimes that language is written words and sometimes it is symbols but it is a language and it must be learned for fluency and competency. If your child doesn’t have a good understanding of the vocabulary, it can hinder their performance in Maths. At Millbrook, we teach this vocabulary and give it context which allows the children to apply it to a variety of problems. Listed below is the vocabulary your child will learn this year.

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| Number and place value |
| Vocabulary | Definition | Example |
| Approximate  | Anything that is similar but not exactly equal to something else.  | The approximate answer to 199+100 is 300 because 199 is very close to 200.  |
| Consecutive  | Following each other continuously.  | 1,2,3,4,5…21,22,23,24,25,26…..These are consecutive number examples. |
| Formal written method  | A way of carrying out calculations which is done on paper rather than entirely mentally.  |  |
| Integer | A whole number that can be positive or negative.  | 5 is an integer. 0.05 is not an integer.  |
| Negative number | A number that is less than 0.  | -6 is a negative number.  |
| Place holder  | A place holder is the number 0 used in any place value column.  | I need to add a place holder when I multiply by 10. So 2 x 10 becomes 20.  |
| Positive number | A number that is greater than 0.  | 3, 7, 9 are all positive numbers.  |
| Relationship | The relationship between sets of numbers or elements.  | The relationship between multiplication and division is that it’s the inverse.  |
| Round  | Approximate a number normally to the nearest ten.  | I would round 6 up to 10 as its closer to 10 than 0. If it’s a 5 in the ones round up.  |

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| Addition and subtraction |
| Column addition and subtraction | The formal written method used for addition and subtraction.  |  |

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| Multiplication and division |
| Factor  | A number that when multiplied with one or more other factors makes a given number.  | The number 8 has the factors 1,2,4 and 8.  |
| Short division | A formal written layout where the answer is calculated showing only one written step.  |  |
| Short multiplication  | A formal written layout where the multiplier is usually 9 or less.  |  |
| Product  | The result you get when you multiply two numbers  | 21 is the product of 3 and 7.  |
| Remainder | When dividing in Maths the groups can be the same amounts however there can be some left over.  |  |

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| Fractions  |
| Decimal equivalent  | Two decimal numbers that are equivalent, that is, they represent the same value or amount.  |  |
| Decimal fraction | A fraction expressed in its decimal form.  | Half written as a decimal fraction is 0.5.  |
| Decimal place | The position of a digit to the right of the decimal point.  | Image result for picture showing a decimal place |
| Hundredths  | Each of one hundred equal parts into which something is or may be divided.  |
| Mixed number  | Numbers consisting of an integer and a fractional part.  | 1 ½ is a mixed number.  |
| Proper fractions  | A fraction with a value less than one.  | ½ ¾ are proper fractions.  |
| Proportion  | Harmonious relation of parts to each other or to the whole.  |  |
| Simplify  | To write a number or equation in its simplest form.  | You can simplify 4/8 to 1/2  |

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| Length |
| Area | The space a surface takes up inside its perimeter. Area is always measured in square units.  |  |
| Convert | To change from one unit of measurement to another.  | 10,000 m can be converted to 10km |
| Distance from/to  | How far something is  | The track is 80m long.  |
| Kilometre (km)  | A metric unit measure used to measure length that is equal to 1000m.  | A mile is 1.6km |
| Millimetre (mm)  | A metric unit of measure used to measure length 10mm make 1 cm | The length of a 30cm ruler is 300 mm. |
| Perimeter  | The perimeter of a 2D shape is the total distance around the outside.  | The perimeter of this shape is 24cm. |
| Square centimetre (cm2) | A unit of measure for area equal to a square with the dimensions 1 cm by 1cm.  | Sometimes referered to as cm squared or cm2. |

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| Weight |
| Mass  | Commonly measured by how much something weighs.  | How much do the apples weigh? What is there mass?  |
| Weight  | The measure of how heavy an object is. | The weight of those rocks is 500g.  |

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| Capacity and Volume |
| Measuring cylinder  | They are used for holding and measuring the amount of a liquid.  | Image result for measuring cylinder |

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| Temperature |
| Centigrade  | The Celsius scale of temperature.  | The temperature outside is 15 degrees centigrade.  |

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| Time |
| 12 hour clock  | A clock using am and pm to indicate morning and afternoon.  | Image result for 12 hour clock |
| 24 hour clock  | A clock which runs from midnight to midnight and has numbers 0-24.  | Image result for 24 hour digital clock |
| Am | The morning between 12 mid night and 12 mid-day.  | I woke up at 9 am.  |
| Arrive  | The time you are going to reach your destination.  | The bus will arrive at 11am.  |
| Calendar  | A chart showing the days, weeks and months of a particular year.  | Image result for a calendar |
| Century  | A period of 100 years.  | World war one happened over a century ago.  |
| Depart  | Leave or start a journey.  | The bus is expected to depart at 11:10am. |
| Earliest  | Happening or done before the usual or expected time.  | What is the earliest you can arrive at school.  |
| Latest | Of most recent date.  | The latest I can be out till is 6pm.  |
| Leap year  | A year which has 366 days and occurs every four years.  | There are 366 days in a leap year how many are there in a normal year?  |
| Millennium  | A period of 1000 years.  | The year 2000 was a millennium.  |
| Noon  | 12 oclock in the middle of the day. Midday.  | C:\Users\abrown\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\7AE94B5C.tmp |
| PM | The time between midday and midnight.  | You have your lunch at 12:30pm. |
| Roman numerals  | Roman numerals are a system of symbols used to represent numbers that were developed and used by the Romans. They do not use a place value system. | Image result for roma numeral clock |
| Timetable  | A chart showing when something will happen.  | On the timetable at school the register comes first.  |

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| 2D shapes |
| Construct | Build or make.  | Can you construct a triangle using 3 lolly sticks? |
| Equilateral | Having all sides, the same length. | See the source image |
| Heptagon  | A plane figure with seven straight sides and angles. |  |
| Irregular  | In geometry, irregular is a term used to describe shapes that are not regular | Image result for irregular shape |
| Isosceles  | Having two sides of equal length. Isosceles triangles have two equal sides; isosceles trapezia have two equal, non-parallel sides. | Image result for iscloses triangle  |
| Kite | A flat shape with 4 straight sides that: • has two pairs of equal length sides. • each pair is made of two adjacent sides (they meet) that are equal in length. The angles are equal where the pairs meet.  | C:\Users\abrown\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\30D8DE6.tmp |
| Oblong  | A rectangle that is not a square. | C:\Users\abrown\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\16565595.tmp |
| Parallel  | Line segments that can be described as parallel must be on the same plane and will never meet, regardless of how far either or both line segments are extended. | Image result for parrelel lines |
| Parallelogram  | A 2-D shape that has two pairs of parallel sides and equal opposite angles. | Image result for parrelello gram |
| Perpendicular  | A pair of line segments (or surfaces) can be described as perpendicular if they intersect at (or form) a right angle. | C:\Users\abrown\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\AE979BC8.tmp |
| Polygon  | A plane 2D shape with straight sides. |  |
| Regular  | Regular 2-D shapes (regular polygons) have angles that are all equal and side lengths that are all equal. |  |
| Rhombus  | An equilateral parallelogram with four equal length sides. |  |
| Scalene  | A scalene triangle has three unequal sides and three unequal angles. |  |
| Trapezium | A quadrilateral with exactly one pair of parallel sides. |  |

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| 3D shapes |
| Cylinder  |  |
| Hemisphere  | A hemisphere is a 3D geometric figure that is half of a sphere.  |  |
| Polyhedron  | A solid with flat faces. Each flat face is a polygon.  |  |
| Prism  | A prism is a 3D solid with two identical, parallel bases and otherwise rectangular faces.  |  |
| Spherical  | Shaped like a sphere.  | The Earth is spherical.  |
| Square/ triangular based pyramid | A pyramid is a 3D shape with a 2D shape as a base and triangular faces that taper to point called the vertex.  |  |
| Tetrahedron | A polyhedron (a flat-sided solid object) with 4 faces. |  |

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| Position and direction  |
| Acute angle  | An angle that is smaller than a right angle.  |  |
| Compass point  | The directions on the magnetic compass. The 4 main points are North, South, East and West. | Image result for compass |
| Coordinate  | The position of a point, usually described using pairs of numbers. |  |
| Degree  | A measure for angles. There are 360 degrees in a full rotation.  | There are 180 degrees in a triangle.  |
| Diagonal  | A diagonal is a straight line joining two non-adjacent vertices of a shape, that is, two corners of a shape that are not next to each other.  |  |
| Grid  | A series of evenly divided and equally spaced shapes, usually squares.  |  |
| Obtuse angle | An angle that is greater than a right angle but less than 180 degrees. |  |
| Protractor  | A measuring device for measuring the size of an angle. Angles are measured in degrees (°). | C:\Users\abrown\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\6EA7025D.tmp |
| Reflection  | An image or shape as it would be seen in the mirror.  | See the source image |
| Rotation  | The action of rotating about an axis or centre.  | See the source image |
| Set square  | A right-angled triangular plate for drawing lines, especially at 90°, 45°, 60°, or 30°. |  |
| Translation  | The shape still looks exactly the same, just in a different place. | Image result for translation of a shapes show |
| Vertical  | A line that runs from top to bottom.  | A vertical line-  |

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| Statistics |
| Axis (plural axes)  | A real or imaginary reference line. The y-axis (vertical) and x-axis (horizontal) on charts and graphs are used to show the measuring scale or labels for the variables. | See the source image |
| Bar graph  | A representation of data in which the frequencies are represented by the height or length of the bars. | Image result for bar graph |
| Carroll diagram  | A way of sorting objects, numbers and shapes by their traits. | See the source image |
| Data  | A collection of facts, such as numbers, words, measurements, observations or even just descriptions of things. |  |
| Frequency  | The number of times an event or a value occurs.  | The colour blue was chose by most of the children in the class it was the most frequent colour choice.  |
| Interval  | An interval on a graph’s axis lies between two values.  | This shows intervals of one.  |
| Survey | To gather information by individual samples so we can learn about the whole thing. | The class completed a survey on the colours of cars that are in the car park.  |
| Time graph  | A graph that uses lines to connect the points on a data chart. Used to present continuous data, such as change over time. |  |
| Venn diagram  | An illustration that uses circles to show the relationships among things or finite groups of things. | Image result for venn diagram |