

# Bitterne Manor Primary School

## Maths Vocabulary Progression Document



This document sets out Key Stage 1 (KS1) and Key Stage 2 (KS2) maths vocabulary under the new National Curriculum, as well as vocabulary for EYFS. This table can be referred to as a guide for what learners are already expected to have been exposed to and what will be classed as 'new vocabulary', depending on their current year group. This vocabulary is expected to be used within lessons at appropriate times, to correspond with the current topic and reflected on working walls to support the learning and application of this mathematical vocabulary.



### EYFS – New Vocabulary

Number and Place Value	Addition and Subtraction	Multiplication and Division	Measure	Geometry (position and direction)	Fractions	Problem solving
Number Zero 1-20 Count on/back Lots, more Few, fewer Compare, sort, order Before, after Less Many Most The same as Ones Pair	Add More Altogether Takeaway Number line One more One less Equals Equal to Double Half How many? Make Total	Times Counting in ones Counting in twos Counting in fives Counting in tens Lots of Groups of Once Twice Five times Sharing Share Set Group Left Left over	Days of the week Week, month, year, weekend Birthday, holiday Morning, afternoon, evening, night, midnight Bedtime, dinnertime, playtime Today, yesterday, tomorrow Before, after, next, last Now, soon Early, late Quick, fast, slow Old, new Watch, clock Always, never First Size, weight, capacity, time, money Long, longer, longest Short, shorter, shortest Heavy, light Empty, full Tall, small, large Thick, thin Low, deep Ruler Far, near Holds, container Weigh, weighs coin Pound, pence, penny Cost, money Buy, sell, pay, price How many?	Position Distance After, before In, on, inside, under On top of Behind Next to Above, below Top, bottom Side, outside Around, underneath In front, front, back Before, middle Up, down Forwards, backwards Across Close, far, along To, from Slide, roll, turn Stretch, bend, move Geometry (properties of shape) Shape Group, sort Round, flat, straight Make, build, draw Square, circle, triangle Cube, cuboid, sphere	Double Half Whole	Listen Join in, say Think, imagine, remember Start from, start with, start at Look at, point to Put, place Fit, change, split Carry on What comes next? Find, choose, collect, use Make, build Tell me Pick out Talk about, explain, show me Read, write Finish, copy Colour, tick, cross, draw Draw a line between Join (up), ring, arrow Cost, count Work out, answer Fill in, check In order Every Each

# Year 1 – New Vocabulary + previous years vocabulary



Number and Place Value	Addition and Subtraction	Multiplication and Division	Measure (Time and Money)	Geometry (position and direction)	Fractions	Problem solving
20-100 Count on/to/from Count up/down Least, fewest, smallest Greater, lesser Equal to Odd, even Units, tens Ten more/less Digit, numeral, figure(s) Compare In order/a different order Size, value Between Halfway between Above, below	Number bonds Addition, plus Sum, greater Inverse Near double Halve Is the same as Equals sign Difference between How many more to make..? How, many more is...than..? How much more is..? Subtract, minus How many fewer is...than..? How much less is..?	Odd, even Count in twos Count in fives Count in tens Count forwards from/backwards from How many times? Multiple of Multiply Repeated addition Array Row Column Halve Share equally Group in pairs, threes, etc. Equal groups of Divide Divided by	Seasons: Spring, Summer, Autumn, Winter Quicker, quickest, quickly, faster, fastest Slower, slowest, slowly Older, oldest Newer, newest Takes longer, takes less time Hour, o clock, half past, hands How long ago? How long will it be to...? How long will it take to...? How often? Often, sometimes, usually Once, twice, second, third etc Estimate, close to, about the same as Just over/under, too many/few Not enough, enough Spend, spent, change Dear(er), costs more Costs less, cheaper Costs the same as How much?  <b>Measure (Length, Mass and Capacity)</b> Size, bigger, larger Length, width, height, depth Taller, tallest, high, higher, highest Wide, narrow, shallow, close Metre, metre stick Half full Balances Heavier, heaviest, lighter, lightest Scales	Over Beside Opposite Apart Between Edge, centre, corner Direction Journey Left, right Sideways Near Through Towards, away from Movement Whole turn, half turn  <b>Geometry (properties of shape)</b>  Pyramid, cone, cylinder Curved, hollow, solid Corner (point, pointed) Face Side Edge	Whole Equal parts Four equal parts One half Two halves A quarter Two quarters	Arrange, rearrange Change over Separate Continue, repeat Describe, explain Record, trace Complete Shade Same number(s) Different number(s) Missing number(s) Number facts Same way, different way Best way, another way In a different order Not all



## Year 2 – New Vocabulary + previous years vocabulary

Number and Place Value	Multiplication and Division	Measure	Geometry (position and direction)	Geometry (properties of shape)	Fractions	Statistics	Problem solving
Numbers to one hundred Hundreds Partition Recombine Hundred more/less Represents Exchange	Count in multiples of 3	Quarter past/to Fortnight Temperature (degrees) m/cm g/kg ml/l	Rotation Clockwise Anticlockwise Straight line Ninety degree turn Right angle.	Smaller Symmetrical Line of symmetry Fold, match Mirror line, reflection Pattern Repeating pattern Vertices, vertex Pentagon Hexagon Octagon Circular, triangular Right angle	Three quarters One third A third Equivalence Equivalent	Count Tally, sort, vote Graph, block graph Pictogram Represent group Set List Table, label, title Most popular Most common Least popular Least common.	Predict Describe the pattern Describe the rule Find, find all, find different Investigate



## Year 3 – New Vocabulary + previous years vocabulary

Number and Place Value	Addition and Subtraction	Multiplication and Division	Measure	Geometry (position and direction)	Geometry (properties of shape)	Fractions	Statistics
Numbers to 1,000	Column addition and subtraction.	Count in multiples of 4, 8 and 11 Product Scale up	Leap year Twelve-hour clock 24- hour clock am/pm century roman numerals I-XII mm	Greater/less than 90 degrees Same orientation Different orientation North, south, east, west	Horizontal, vertical Perpendicular lines Parallel lines Perimeter Hemi-sphere Prism Semi-circle	Numerator Denominator Unit fraction Non-unit fraction Compare and order Tenths	Chart Bar chart Frequency table Carroll diagram Venn diagram Axis Axes diagram



## Year 4 – New Vocabulary + *previous years vocabulary*

Number and Place Value	Multiplication and Division	Measure	Geometry (position and direction)	Geometry (properties of shape)	Fractions	Statistics
Tenths Hundredths Numeral Decimal places Round (to nearest) Thousand more/less Negative integers Count through zero Roman numerals I to C	Count in multiples of 6, 7, 9, 12 Inverse Derive Division facts	Convert Noon	Co-ordinates Translation Translate Quadrant X-axis Y-axis	Area, net Rectilinear Adjacent Quadrilaterals: (rhombus, parallelogram, trapezium, trapezoid, kite) Heptagon, polygon, tetrahedron, polyhedron Cylindrical triangles (isosceles, scalene) Right angle, acute angle, obtuse angles	Equivalent fractions Equivalent decimals Decimal point Decimal fraction Hundredths	Continuous data Line graphs



## Year 5 – New Vocabulary + *previous years vocabulary*

Number and Place Value	Multiplication and Division	Measure	Geometry (properties of shape)	Fractions	Statistics
Powers of 10 Numbers to 1,000,000 Roman numerals I to M	Count in multiples for all tables up to 12x12 Factor pairs Composite numbers Prime numbers Prime factors Square number Cubed number	Volume Concave, convex Breadth Imperial units/metric units Inches, pounds, pints, currency, ounce, tonne etc	Reflex angles Dimensions Regular/irregular polygons Octahedron	Proper fractions Improper fractions Mixed numbers Percentage	Average

# Year 6 – New Vocabulary + previous years vocabulary



Number and Place Value	Addition and Subtraction	Multiplication and Division	Algebra, Ration and Proportion	Geometry (position and direction)	Geometry (properties of shape)	Fractions	Statistics
Numbers to 10,000,000	Order of operations.	Order of operations Common factors Common multiples Factorise	Algebra Algebraically Express Ratio Proportion Linear Number of Sequence Substitute Variables Symbol Known values	Four quadrants	Circumference Radius Diameter Arc Congruent Dodecahedron	Degree of accuracy Simplify	Mean, median, range Pie chart Construct

## Glossary



<u>acute angle</u>	<u>An angle between 0 o and 90 o</u>
<u>addition</u>	<u>The binary operation of addition on the set of all real numbers that adds one number of the set to another in the set to form a third number which is also in the set. The result of the addition is called the sum or total. The operation is denoted by the + sign.</u>
<u>Algebra</u>	<u>Letters are used to denote variables and unknown numbers and to state general properties.</u>
<u>analogue clock</u>	<u>A clock usually with 12 equal divisions labelled 'clockwise' from the top 12, 1, 2, 3 and so on up to 11 to represent hours.</u>
<u>Angle</u>	<u>a measure of rotation</u>
<u>Anticlockwise</u>	<u>In the opposite direction from the normal direction of travel of the hands of an analogue clock</u>
<u>Area</u>	<u>A measure of the size of any plane surface.</u>
<u>arithmetic mean</u>	<u>The sum of a set of numbers, or quantities, divided by the number of terms in the set.</u>
<u>array</u>	<u>An ordered collection of counters, numbers etc. in rows and columns.</u>
<u>axis</u>	<u>A fixed, reference line along which or from which distances or angles are taken.</u>
<u>bar chart</u>	<u>A format for representing statistical information. Bars, of equal width, represent frequencies</u>
<u>block graph</u>	<u>A simple format for representing statistical information. One block represents one observation</u>
<u>Capacity</u>	<u>the volume of a material (typically liquid or air) held in a vessel or container.</u>

<u>Carroll diagram</u>	<u>A sorting diagram named after Lewis Carroll, author and mathematician, in which numbers (or objects) are classified as having a certain property or not having that property</u>
<u>Centilitre</u>	<u>Symbol: cl. A unit of capacity or volume equivalent to one-hundredth of a litre.</u>
<u>Centimetre</u>	<u>Symbol: cm. A unit of linear measure equivalent to one hundredth of a metre.</u>
<u>Centre</u>	<u>The middle point for example of a line or a circle</u>
<u>Chronological</u>	<u>Relating to events that occur in a time ordered sequence.</u>
<u>Circumference</u>	<u>The distance around a circle</u>
<u>Clockwise</u>	<u>In the direction in which the hands of an analogue clock travel.</u>
<u>columnar addition or subtraction</u>	<u>A formal method of setting out an addition or a subtraction in ordered columns with each column representing a decimal place value and ordered from right to left in increasing powers of 10.</u>
<u>common fraction</u>	<u>A fraction where the numerator and denominator are both integers.</u>
<u>common multiple</u>	<u>An integer which is a multiple of a given set of integers, e.g. 24 is a common multiple of 2, 3, 4, 6, 8 and 12.</u>
<u>commutative</u>	<u>A binary operation * on a set S is commutative if <math>a * b = b * a</math> – can be done in any order</u>
<u>composite shape</u>	<u>A shape formed by combining two or more shapes</u>
<u>concrete objects</u>	<u>Objects that can be handled and manipulated to support understanding of the structure of a mathematical concept.</u>
<u>consecutive</u>	<u>Following in order. Consecutive numbers are adjacent in a count.</u>
<u>convert</u>	<u>Changing from one quantity or measurement to another.</u>
<u>coordinate</u>	<u>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</u>
<u>cross-section</u>	<u>In geometry, a section in which the plane that cuts a figure is at right angles to an axis of the figure.</u>
<u>cube number</u>	<u>A number that can be expressed as the product of three equal integers.</u>
<u>2-D; 3-D</u>	<u>Short for 2-dimensional and 3-dimensional. A figure is two-dimensional if it lies in a plane. A solid is three-dimensional and occupies space (in more than one plane).</u>
<u>Decimal</u>	<u>Relating to the base ten. Most commonly used synonymously with decimal fractions where the number of tenths, hundredth, thousandths, etc. are represented as digits following a decimal point.</u>
<u>Degree</u>	<u>The most common unit of measurement for angle</u>
<u>Denominator</u>	<u>In the notation of common fractions, the number written below the line</u>
<u>Diameter</u>	<u>Any of the chords of a circle or sphere that pass through the centre.</u>
<u>digital clock</u>	<u>A clock that displays the time as hours and minutes passed, usually since midnight.</u>

<u>division</u>	<u>An operation on numbers interpreted in a number of ways. Division can be sharing – the number to be divided is shared equally into the stated number of parts; or grouping – the number of groups of a given size is found.</u>
<u>double</u>	<u>To multiply by 2.</u>
<u>equal</u>	<u>Symbol: =, read as 'is equal to' or 'equals'. and meaning 'having the same value as'.</u>
<u>equation</u>	<u>A mathematical statement showing that two expressions are equal.</u>
<u>equivalent fractions</u>	<u>Fractions with the same value as another</u>
<u>estimate</u>	<u>A rough or approximate answer.</u>
<u>even number</u>	<u>An integer that is divisible by 2.</u>
<u>exchange</u>	<u>Change a number or expression for another of equal value</u>
<u>expression</u>	<u>A mathematical form expressed symbolically.</u>