



**Emneth  
Academy**

## Mathematical Vocabulary Expectations by Year Group

Using the correct mathematical language is crucial for thinking, learning and communicating mathematically. We need to encourage children to explain what they are doing and why they are doing it. We must offer them opportunities to use mathematical vocabulary frequently. This will help children to learn new vocabulary, to use words which they already know and to express new ideas and thinking.

Using mathematical vocabulary can help all children to make links across areas of mathematics, across the curriculum as a whole and also real-life situations. It can especially support lower attainers, enabling them to build confidence, communicate and problem solve, so should be an integral part of every maths lesson.

## Reception

Number	Place Value	Estimating	Addition and subtraction	Multiplication and division	Fractions
zero number one, two, three... to twenty and beyond, teens numbers eleven, twelve none how many? count, count (up)to, count on (from, to) count back (from, to) count in ones, twos, fives, tens, is the same as more, less odd, even, few, pattern, pair	ones tens digit the same number as as many as more, larger, bigger, greater, fewer, smaller, less, fewest, smallest, least, most, biggest, largest, greatest one more, ten more one less, ten less compare, order size first, second, third... twentieth last, last but one before, after next between	guess how many...? estimate nearly close to about the same as just over, just under too many, too few enough, not enough	add, more, and make, sum, total altogether double one more, two more... ten more how many more to make...? how many more is _ than _ ? how much more is _? take away how many are left / left over? how many have gone? one less, two less... ten less how many fewer is _ than _ ? how much less is _? difference between	sharing doubling halving number patterns	parts of a whole half quarter
Measurement	Length	Weight	Capacity and volume	Time	Money
measure size compare guess estimate enough, not enough too much, too little too many, too few nearly, close to, about the same as just over, just under	metre length height width depth long short tall high, low wide, narrow thick, thin longer, shorter, taller, higher etc.	weigh weighs balances heavy light heavier than lighter than heaviest, lightest scales	full empty half full holds container	time days of the week day, week birthday, holiday morning, afternoon, evening, night, bedtime, dinner time, playtime today, yesterday, tomorrow before, after next, last now, soon early, late	money coin penny pence pound price cost buy sell spend spent pay

	longest, shortest, tallest, highest etc. far, near, close			quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest, new, newer, newest takes longer, takes less time hour o'clock clock, watch hands	
<b>Properties of shape</b>	<b>2D shape</b>	<b>3D shape</b>	<b>Position and direction</b>	<b>Statistics</b>	<b>General</b>
shape pattern flat curved straight round hollow solid sort make build draw size bigger larger smaller symmetrical pattern repeating pattern match	corner side rectangle (including square) circle triangle	face edge vertex vertices cube pyramid sphere cone	position, over, under, above, below, top, bottom, side, on, in outside, inside around in front of behind front, back beside, next to opposite apart between middle, edge, corner direction left, right up, down forwards, backwards, sideways across next to, close, near, far along, through to, from, towards, away from movement slide, roll, turn, stretch, bend whole turn, half turn	count sort group set list	pattern puzzle what could we try next? how did you work it out? recognise describe draw compare sort

# Year 1

As previous year and including the following new vocabulary

Number	Place Value	Estimating	Addition and subtraction	Multiplication and division	Fractions
numeral twenty-one...one hundred forwards, backwards equal to equivalent to most, least many multiple of	equal to half-way between above, below	roughly	addition near double half, halve subtract equals is the same as number bonds/pairs missing number	multiplication multiply multiplied by multiple division dividing grouping array	fraction equal part equal grouping equal sharing one of two equal parts one of four equal parts
Measurement	Length	Weight	Capacity and volume	Time	Money
measurement roughly	centimetre ruler metre stick	kilogram half kilogram	litre, half litre capacity, volume more than less than quarter full	months of the year seasons: spring, summer, autumn, winter weekend, month, year earlier, later first midnight date how long ago? how long will I be t...? how long will it take to...? how often? always, never, often, sometimes usually once, twice half past, quarter past quarter to clock face	change dear costs more cheap costs less cheaper costs the same as how much...? how many...? total

				hour hand minute hand hours minutes	
<b>Properties of shape</b>	<b>2D shape</b>	<b>3D shape</b>	<b>Position and direction</b>	<b>Statistics</b>	<b>General</b>
symmetry symmetrical pattern	point pointed	cube cylinder	underneath centre journey quarter turn three-quarter turn	vote table	problem problem solving mental mentally explain your thinking

## Year 2

As previous years and including the following new vocabulary

Number	Place Value	Estimating	Addition and subtraction	Multiplication and division	Fractions
two hundred... one thousand count in threes, fours, tally sequence continue predict rule > greater than < less than	hundreds one-, two- or three-digit number place, place value stands for represents exchange twenty-first...	exact exactly	one hundred more one hundred less number facts tens boundary	groups of times once twice, three times... ten times repeated addition divide divided by, divided into share share equally left, left over one each, two each, three each... ten each group in pairs, threes... tens equal groups of row, column multiplication table multiplication fact division fact	equivalent fraction mixed number numerator denominator two halves two quarters, three quarters one third, two thirds one of three equal parts
Measurement	Length	Weight	Capacity and volume	Time	Money
measuring scale	further, furthest tape measure	gram	millilitre contains	fortnight 5, 10, 15... minutes past digital, analogue timer	bought sold
Properties of shape	2D shape	3D shape	Position and direction	Statistics	General
surface line symmetry	rectangular circular pentagon hexagon octagon		route higher, lower clockwise anti-clockwise right angle	tally graph block graph pictogram represent	show how you... explain your method describe the pattern describe the rule investigate

			straight line	label title most popular, most common least popular, lease common	mental calculation written calculation
<b>Temperature</b>					
temperature degree					

## Year 3

As previous years and including the following new vocabulary

Number	Place Value	Estimating	Addition and subtraction	Multiplication and division	Fractions
count on in eights, fifties, to hundreds... factor of relationship Roman numerals	one hundred more one hundred less	approximate approximately round nearest round to the nearest ten/hundred round up, round down	hundreds boundary	factor product remainder	sixths, sevenths, eighths, tenths...
Measurement	Length	Weight	Capacity and volume	Time	Money
division approximately	millimetre, kilometre, mile distance apart... between... to... from... perimeter		<b>Temperature</b> centigrade	century calendar earliest, latest am pm Roman numerals 12-hour clock time 24-hour clock time	
Properties of shape	2D shape	3D shape	Position and direction	Statistics	General
perimeter	pentagonal hexagonal octagonal quadrilateral right angled parallel perpendicular	hemisphere prism triangular prism	compass point north, south, east, west, N,S,E,W horizontal, vertical, diagonal angle ... is a greater/ smaller angle than acute angle obtuse angle	chart, bar chart, frequency table Carroll diagram, Venn diagram axis, axes diagram	greatest value, least value, statement



# Year 4

As previous years and including the following new vocabulary

Number	Place Value	Estimating	Addition and subtraction	Multiplication and division	Fractions
ten thousand, hundred thousand, million count in sixes, sevens, nines, twenty fives to 100 next consecutive integer positive negative above/below zero misus negative numbers	one thousand more one thousand less	round to the nearest thousand	inverse	inverse square, squared cube, cubed	hundredths decimal, decimal fraction, decimal point, decimal place, decimal equivalent proportion
Measurement	Length	Weight	Capacity and volume	Time	Money
unit, standard unit metric unit	breadth edge area, covers square centimetres cm <sup>2</sup>	mass big, bigger small, smaller weight, heavy/ light heavier / lighter heaviset / lightest	measuring cylinder	leap year millennium noon date of birth timetable arrive depart	
Properties of shape	2D shape	3D shape	Position and direction	Statistics	General
line construct sketch centre angle right-angled base, square based reflect, reflection regular, irregular	two dimensional oblong rectilinear equilateral triangle, isosceles triangle scalene triangle heptagon parallelogram rhombus trapezium	three- dimensional spherical cylindrical tetrahedron polyhedron	north-east north-west south-east south-west NE, NW, SE, SW translate, translation rotate rotation degree reflection	survey questionnaire data	justify make a statement

	polygon		ruler set square angle measurer compass		
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## Year 5

As above and including the following new vocabulary

Number	Place Value	Estimating	Addition and subtraction	Multiplication and division	Fractions
factor pair $\geq$ greater than or equal to $\leq$ less than or equal to formula divisibility square number prime number ascending/ descending order		round to the nearest ten thousand	ones boundary tenths boundary		proper / improper fraction equivalent, reduced to , cancel thousandths in every, for every percentage per cent %
Measurement	Length	Weight	Capacity and volume	Time	Money
imperial unit	square metre (m <sup>2</sup> ) square millimetre (mm <sup>2</sup> )		pint, gallon		discount currency
Properties of shape	2D shape	3D shape	Position and direction	Statistics	General
radius diameter congruent axis of symmetry reflective symmetry	x-axis, y-axis, quadrant	octahedron	coordinate protractor	database bar line chart line graph maximum/ minimum value outcome	explain your reasoning

## Year 6

As previous years and including the following new vocabulary

Number	Place Value	Estimating	Addition and subtraction	Multiplication and division	Fractions
factorise prime factor digit total					ratio  <b>Algebra</b> formula equation unknown variable
Measurement	Length	Weight	Capacity and volume	Time	Money
	yard foot feet inch inches circumference	tonne pound, ounce	centilitre cubic centimetres (cm <sup>3</sup> ) cubic metres (m <sup>3</sup> ) cubic millimetres (mm <sup>3</sup> ) cubic kilometres (km <sup>3</sup> )	Greenwich Mean Time, British Summer Time, International Date Line	profit loss
Properties of shape	2D shape	3D shape	Position and direction	Statistics	General
circumference concentric arc net, open, closed intersecting, intersection, plane kite		dodecahedron net, open, closed	reflex angle	pie chart mean (mode, median, range as estimates for this) statistics, distribution	