



## Vocabulary Progression in Maths

*The national curriculum for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof. They must be assisted in making their thinking clear to themselves as well as others and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.*

*National Curriculum 2014*

At Hamble Primary School, we aim to build in language proficiency across all subjects to enable our children to articulate their understanding and to support themselves socially, cognitively and linguistically. Following research-based knowledge about the impact of Covid-19 on children's language and communication, we have a whole-school focus on vocabulary. To support children in their maths learning, we have invested in the use of narrative, ensure children are exposed to key vocabulary and encourage the application of vocabulary as a tool to children retaining knowledge. Children read and explore maths stories, have key vocabulary displayed on working walls and are encouraged to use vocabulary in their own maths conversations in lessons.

The rest of this document outlines the progression in math vocabulary and the words which children are exposed to for each year group. Each year group builds on the previous, so children would be exposed to all the previous words as well as the new ones which are identified below.

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## MATHS VOCABULARY FOR YEAR R

Number and place value

One more/less, digit, numeral, compare, (in) order/a different order, size, value, between, halfway between, above, below, tens, ones

Addition and subtraction

Number bonds, number line, add, more, plus, make, sum, total, altogether, inverse, double, near double, equals, is the same as (including equals sign), difference between, subtract, take away, minus

How many more to make ...?  
 How many more is ... than ... ?  
 How much more is ... ?  
 How many fewer is ... than... ?  
 How much less is ... ?

Multiplication and division

Once, twice, three

Multiply, multiply by, repeated addition, array, double, halve, share, share equally, group in pairs, equal groups of, divide, divided by, left over

Measure

Time, days of the week, seasons, day, 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, quicker, quickest, quickly, fast, faster, fastest, slow, slower, slowest, slowly, old, older, oldest, new, newer, newest

Takes longer, takes less time, hour, o'clock, half past, clock, watch, hands, how long ago?, How long will it be to ... ?, How long will it take to ... ?, How often?, always, never, often, sometimes, usually, once, twice, first, second, third, etc., estimate, close to, about the same as, just over, just under, too many, too few, not enough, enough

Length, width, height, depth, long, longer, longest, short, shorter, shortest, tall, taller, tallest, high, higher, highest, Low, wide, narrow, deep, shallow, thick, thin, far, near, close, metre, ruler, metre stick

How much?, How many?, money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear(er), costs more, costs less, cheaper, costs the same as, total

Geometry (position and direction)

Before, after, beside, next to, opposite, between, middle, edge, centre, corner, direction, left, right, up, down, forwards, backwards, sideways, across, close, far, near, along, through, to, from, towards, away from, movement, slide, roll, turn, whole turn, half turn, stretch, bend

Geometry (properties of shape)

Corner, face, side, edge, make, build, draw

Fractions

Whole, equal parts, one half, two halves

Problem solving	<p>Change, change over, split, separate, carry on, continue, repeat, what comes next?, find, choose, collect, use, make, build</p> <p>Tell me, describe, pick out, talk about, explain, show me, read, write, record, trace, copy, complete, finish, end, fill in, shade, colour, tick, cross, draw, draw a line between, join (up), ring, arrow</p> <p>Cost, count, work out, answer, check same number(s)/different number(s)/missing number(s)</p> <p>Number facts, number line, number track, number square, number cards, abacus, counters, cubes, blocks, die, dice, dominoes, pegs, peg board</p> <p>Same way, different way, best way, another way, in order, in a different order, not all, every, each</p>
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MATHS VOCABULARY FOR YEAR 1 (IN ADDITION TO THE YEAR R CONTENT)	
Number and place value	Ten more/less, figure(s),
Addition and subtraction	inverse
Multiplication and division	five times, multiple of times row, column, group in threes, etc.
Measure	temperature
Geometry (position and direction)	apart, journey, quarter turn
Geometry (properties of shape)	Corner (point, pointed)
Fractions	four equal parts, a quarter, two quarters
Problem solving	Rods, bar model, describe the pattern, find

## MATHS VOCABULARY FOR YEAR 2 (IN ADDITION TO YEARS R AND 1)

Number and place value	Numbers to one hundred, hundreds, partition, recombine, more/less
Measure	Quarter past/to, metres, kilometers, grams, kilograms, millimeters, liters, degrees
Geometry (position and direction)	Rotation, clockwise, anticlockwise, straight line, ninety degree turn, right angle
Geometry (properties of shape)	Size, bigger, larger, smaller, symmetrical, line of symmetry, fold, match, mirror line, reflection, pattern, repeating pattern
Fractions	Three quarters, one third, a third, equivalence, equivalent
Data/statistics	Count, tally, sort, vote, graph, block graph, pictogram, represent, group, set, list, table, label, title, most popular, most common, least popular, least common
Problem solving	Predict, describe the rule, find all, find different, investigate

## MATHS VOCABULARY FOR YEAR 3 (IN ADDITION TO YEARS R, 1, 2)

Number and place value	Numbers to one thousand
Addition and subtraction	Column addition and subtraction
Multiplication and division	Product, multiples of four, eight, fifty and one hundred, scale up
Measure	Leap year, twelve-hour/twenty-four-hour clock, Roman numerals I to XIII
Geometry (position and direction)	Greater/less than ninety degrees, orientation (same orientation, different orientation)
Geometry (properties of shape)	Horizontal, perpendicular and parallel lines
Fractions	Numerator, denominator, unit fraction, non-unit fraction, compare and order, tenths
Data/statistics	Chart, bar chart, frequency table, Carroll diagram, Venn diagram, axis, axe

### MATHS VOCABULARY FOR YEAR 4 (IN ADDITION TO YEARS R - 3)

Number and place value	Tenths, hundredths, decimal (places), round (to nearest), thousand more/less than, negative integers, count through zero, Roman numerals I to C
Multiplication and division	Multiplication facts (up to 12x12), division facts, inverse, derive
Measure	Convert
Geometry (position and direction)	Co-ordinate, translate, quadrant, X-axis, Y-axis, perimeter, area
Geometry (properties of shape)	Quadrilaterals, triangles, right, acute and obtuse angles
Fractions and decimals	Equivalent decimals and fractions
Data/statistics	Continuous data, line graph

### MATHS VOCABULARY FOR YEAR 5 (IN ADDITION TO YEARS R - 4)

Number and place value	Powers of 10
Addition and subtraction	Efficient written method
Multiplication and division	Factor pairs, composite numbers, prime number, prime factors, square number, cubed number, formal written method
Measure	Volume, imperial units, metric units
Geometry (position and direction)	Reflex angle, dimensions
Geometry (properties of shape)	Regular and irregular polygons
Fractions and decimals	Proper fractions, improper fractions, mixed numbers, percentage, half, quarter, fifth, two fifths, four fifths, ratio, proportion

## MATHS VOCABULARY FOR YEAR 6 (IN ADDITION TO YEARS R-5)

Number and place value	Numbers to ten million
Addition and subtraction	Order of operations
Multiplication and division	Common factors and common multiples
Geometry (position and direction)	Four quadrants (for co-ordinates)
Geometry (properties of shape)	Vertically opposite (angles), circumference, radius, diameter
Fractions and decimals	Degree of accuracy, simplify
Algebra	Linear number sequence, substitute, variables, symbol, known values
Data/statistics	Mean, pie chart, construct

Progression document taken from The Key and then adapted for Hamble Primary School.

<https://schoolleaders.thekeysupport.com/>