



# Mathematics

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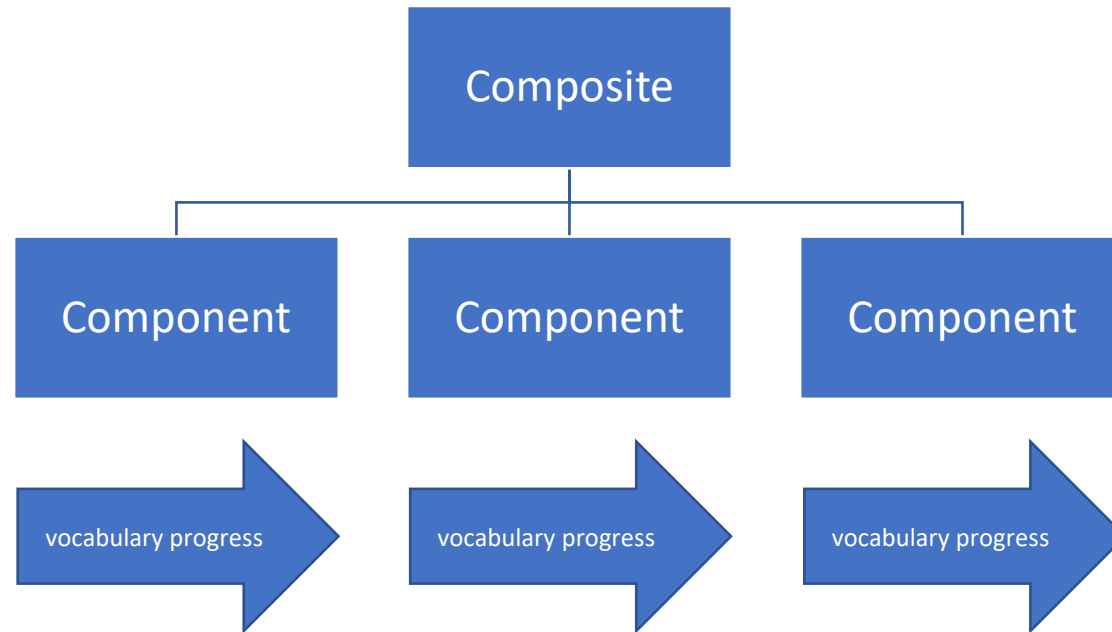
VOCABULARY FRAMEWORK FOR KEY STAGE 1 AND 2

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The National Curriculum is the top-level 'composite' outcomes but not the curricular components to get there – the intent. Each component has a skill set that shows progress through each key stage.

Subject leaders need to ensure that there is clear progression through each year group towards the national curriculum requirements for their subject.



Which words should we teach?

This document ensures that there is a clear year-on-year acquisition of key vocabulary within each component.


### Tier 1

- Everyday words
- Most often found in everyday talk
- eg. the 20 most common words: the, be, to, of, and, a, in, that, have, I it, for, not, on, with, he, as, you, do, at

### Tier 2

- General academic and literary words
- Most often found in academic speech and texts
- eg. relative, vary, formulate, accumulate, calibrate, itemise, misfortune, dignified, faltered, precede, periphery

### Tier 3

- Subject specific words
  - Most often found in Information texts within a specific subject or field
  - eg. lava, ventricle, timbre, circumference, deciduous
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Based on Isabel L. Beck, Margaret G. McKeown, and Linda Kucan (2013) Bringing Words To Life

Mathematics						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Number and place value</b>	backwards digit even exchange fewer first...second... forwards half-way between least most number line number square number track numbers to 100 (and beyond) odd ones repeating pattern roughly 'teens' number tens units	> and < consecutive continue exact exactly hundreds nearest numeral one- digit number partition place, place value predict represents round rule sequence sequence stands for thousand three-digit number twenty-first, twenty-second... two-digit number value	approximate approximately estimate near double one hundred less one hundred more place holder relationship round down round up zero to thousand+	above zero below zero classify consecutive hundred thousand integer minus negative integer negative number round up next numeral one thousand less one thousand more positive integer positive number property Roman numerals to 100 (I to C) round to the nearest 10 round to the nearest 100 round to the nearest 1000 sort ten thousand thousands	≈ is approximately equal to approximation ascending order composite number cube cubed number descending order greater than or equal to ≥ less than or equal to ≤ million one squared, two squared etc prime number Roman numerals to 1000 (M) round to the nearest 10000 round to the nearest 100000 square/d number term-to-term rule to the power of...	factorise numbers to ten million+ recurring

Mathematics						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition and subtraction	- operation + plus = put together add sign difference subtract between take away equal to total how much less is...? less than minus more than number bond number fact no. sentence	addition calculate calculation correct difference inverse one hundred less one hundred more subtraction sum symbol tens boundary	column(ar) addition column(ar) subtraction equation exchange hundreds boundary inverse operation	decrease increase	tenths boundary units boundary	brackets common multiple long division long multiplication order of operations - BODMAS quotient recurring decimal
Multiplication and division	array count on (2s, 5s, 10s) equal to group grouping multiple share sharing	lots of groups of x times multiply multiplied by multiplication multiple of product twice as big as as long as as wide as repeated addition row	column share equally group in pairs equal groups of ÷ divide divided by divided into division inverse	equation inverse operation remainder	divisible by factor factor pair	common factor divisibility divisor factorise prime factor
Fractions	fraction half halve quarter whole	equal parts four quarters fraction one half one quarter one third one whole part three quarters two halves two quarters	denominator numerator one tenth tenths three thirds two thirds	decimal decimal fraction decimal place decimal point eighth fifth for every hundredth in every proportion simplify sixth twentieth	cancel common fraction improper fraction mixed fraction mixed number ninth per cent % percentage proper fraction reduced to simple fraction thousandth twelfth vulgar fraction	common denominator rational number thousandth

Mathematics						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement	capacity container fast faster fastest height length line mass metre metre stick roughly ruler volume weighing scale weight width	about capacity Centigrade °C centimetre (cm) contains further furthest gram (g) half-kilogram half-litre kilogram (kg) litre (l) m to represent metre mass measuring scale millilitre (ml) tape measure temperature thermometer volume weight	approximately distance apart distance between distance from distance to kilometre (km) mile millimetre (mm) perimeter	area breadth convert measurement measuring cylinder metric unit pint square centimetre (cm <sup>2</sup> ) square metre (m <sup>2</sup> ) standard unit	gallon imperial unit inch pint pound (lb) square millimetre (mm <sup>2</sup> ) volume in cm <sup>3</sup>	centilitre (cl) cubic kilometre km <sup>3</sup> cubic metre m <sup>3</sup> cubic millimetre mm <sup>3</sup> feet foot miles per hour ounce (oz) tonne yard
	always autumn half past how long ago...? how long will it be to...? how long will it take to...? how often...? midnight month never once sometimes spring summer twice usually weekend winter year	analogue clock digital clock fortnight January, February...December minute quarter past quarter to second	amount least expensive less expensive more expensive most expensive value worth	amount least expensive less expensive more expensive most expensive value worth	date of birth millennium	arrive depart  currency discount
	names of coins	£ and p bought change note (and the names of notes) sold	Roman numerals I to XII			
			12-hour clock 24-hour clock am calendar century date earliest latest leap year noon pm			

Mathematics							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
<b>Properties of shapes</b>	cuboid cylinder point pointed set sort	2D 3D circular edge hexagon horizontal kite line of symmetry mirror line oblong octagon pentagon polygon prism property quadrilateral rectangular reflection surface triangular vertex vertical	vertices acute angle angle greater angle than... hemisphere hexagonal irregular non-symmetrical obtuse angle octagonal parallel pentagonal perpendicular polyhedron regular right angle right-angled triangle semi-circle smaller angle than...	base closed concave construct convex cylindrical equilateral triangle heptagon isosceles triangle line symmetry open parallelogram polygon polyhedron reflect rhombus scalene triangle sketch spherical square-based tetrahedron trapezium	angle(s) at a point angle(s) on a straight line axis of symmetry congruent degrees diagonal octahedron reflective symmetry reflex angle	arc circumference concentric cross-section diameter dodecahedron geometric icosahedron intersecting intersection kite net plane radius tangram vertically opposite angles	
<b>Position and direction</b>	anti-clockwise centre clockwise direction half turn journey position quarter turn three-quarter turn turn underneath whole turn	compass point east higher lower map north NSEW plan route south straight line west		angle measurer compasses coordinates degree first quadrant NE, NW, SE, SW north-east north-west origin plot rotate set square south-east south-west translation	protractor rotation symmetry	four quadrants	

Mathematics							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Statistics		block diagram category column diagram label least common least popular most common most popular pictogram represent row scale table tally	tally chart title  axes axis bar chart Carroll diagram chart column data frequency table grid interval row Venn diagram	interpret questionnaire survey time graph	bar line chart database line graph maximum minimum mode outcome range timetable value x-axis y-axis	average distribution mean median pie chart rate sample statistics	
Algebra						algebra algebraic equation equivalent expression evaluate expression formula formulae symbol unknown variable	
Ratio and proportion						comparison proportion quantities ratio scale scale factor	