Dalestorth Primary and Nursery School Mathematical Vocabulary Progression

At Dalestorth, we understand the importance that having a broad and in-depth vocabulary has on a child's mathematical understanding. When children leave KS2, we want them to have a broad and deep mathematical vocabulary. In order to achieve this, teachers must expose children to mathematical words and terminologies in the teaching of mathematics. This document shows in which academic year children will acquire specific mathematical words and terminologies. Similar to the findings in educational research, we understand that children need multiple exposure to words in order to fully embed words into their vocabulary. With this in mind, children will consolidate and deepen their understanding of the mathematical vocabulary from previous academic years whilst introducing them to new words.

Area of Mathematics	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number	count, count (up) to, count on (from, to), count back (from, to) equal few how many ...? is the same as more, less odd, even none number one, two, three ... to ten pair pattern zero	< less than >greater than backwards decreasing equal to forwards many most, least predict sequence teens numbers, eleven, twelve … twenty, twenty-one, twenty-two … one hundred twenty	calculate continue equivalent to relationship rule two hundred … one thousand etc	eights, fifties and so on to hundreds multiple of relationship Roman numerals	ascending order descending order count in sixes, sevens, nines, twenty-fives. factor pair integer minus negative numbers next consecutive ten thousand, hundred thousand, million.	common factor cube number divisibility factor of factors formula negative integer prime factor prime number square number	factorise
Reasoning and Problem-solving language	compare describe draw how did you work it out? pattern puzzle recognise sort what could we try next?	The calculation which represents this _____. I know that because ____. I chose this strategy because _____. My representation shows this because ____. I will use the ____ strategy to ____. Explain your thinking	The calculation which represents this is ____ I know that because ____ I have spotted that _____ My picture shows this because _____ This is the same because _____ Describe the pattern Describe the rule Explain your method investigate Show how you ____	The calculation which represents this is ____ I know that because ____ It is simpler if we _____. I solved this problem by ____. The is the same because ____. This is different because _____. Explain your reasoning Greatest value Least value Statement	The calculation which represents this is ____. It's possible if _____. It is simpler if we ____. I solved this problem, by ___. This is the same because _____. This is different because _____. Justify Make a statement	The calculation which represents this is ____ I can check my calculation by using the inverse with ____ I estimate the answer to be ___ because I know ____. I know ___ so I could work out ____. This method is efficient because ____. Justify Make a statement.	I know that I need to use ___ for this problem because _____. I can check my calculation by using the inverse with _____. I estimate the answer to be _____ because I know _____. I know _____ so I could work out ____. I know that this question will have a ____ answer because _____.

Place Value	above, below before, after between compare fewer, smaller, less fewest, smallest, least first, second, third… last, last but one more, larger, bigger, greater most, biggest, largest, greatest next one less, ten less one more, ten more ones/ units order size tens the same number as	above, below digit equal to half-way between ones/ units part whole model partition place, place value represent twentieth one-, two- or three-digit number-	exchange hundreds stands for, represents twenty-first, twenty second …	one hundred less one hundred more place holder	one thousand less one thousand more	powers of ten	numbers to ten million
Reasoning and Problem-solving language	compare describe draw how did you work it out? pattern puzzle recognise sort what could we try next?	The calculation which represents this _____. I know that because ____. I chose this strategy because _____. My representation shows this because ____. I will use the ____ strategy to ____. Explain your thinking	The calculation which represents this is ____ I know that because ____ I have spotted that _____ My picture shows this because _____ This is the same because _____ Describe the pattern Describe the rule Explain your method investigate Show how you ____	The calculation which represents this is ____ I know that because ____ It is simpler if we _____. I solved this problem by ____. The is the same because ____. This is different because _____. Explain your reasoning Greatest value Least value Statement	The calculation which represents this is ____. It's possible if _____. It is simpler if we ____. I solved this problem, by ___. This is the same because _____. This is different because _____. Justify Make a statement	The calculation which represents this is ____ I can check my calculation by using the inverse with ____ I estimate the answer to be ___ because I know ____. I know ___ so I could work out ____. This method is efficient because ____. Justify Make a statement.	I know that I need to use ___ for this problem because _____. I can check my calculation by using the inverse with _____. I estimate the answer to be _____ because I know _____. I know _____ so I could work out ____. I know that this question will have a ____ answer because _____.

Estimating	about the same as close to enough, not enough estimate guess how many …? just over, just under nearly too many, too few	roughly	approximate, approximately exact, exactly	nearest round round to the nearest ten, hundred round up, round down rounding	round to the nearest thousand	round to the nearest ten thousand	round to the nearest 100,000 round to the nearest million too
Addition and Subtraction	add, more addition altogether double how many are left/left over? how many fewer is … than …? how many have gone? how many more is … than …? how many more to make …? how much less is …? how much more is …? make one less, two less, ten less … one more, two more … ten more subtract, take away subtraction sum, total take away	difference between equals facts half, halve is the same as missing number near double number bonds number line part whole model	column addition column subtraction commutative efficient inverse operations one hundred less one hundred more operation tens boundary	compact method formal written methods hundreds boundary	associative law	ones/ unit boundary, tenths boundary	brackets BODMAS order of operations

Reasoning and Problem-solving language	compare describe draw how did you work it out? pattern puzzle recognise sort what could we try next?	The calculation which represents this _____. I know that because ____. I chose this strategy because _____. My representation shows this because ____. I will use the ____ strategy to ____. Explain your thinking	The calculation which represents this is ____ I know that because ____ I have spotted that _____ My picture shows this because _____ This is the same because _____ Describe the pattern Describe the rule Explain your method investigate Show how you ____	The calculation which represents this is ____ I know that because ____ It is simpler if we _____. I solved this problem by ____. The is the same because ____. This is different because _____. Explain your reasoning Greatest value Least value Statement	The calculation which represents this is ____. It's possible if _____. It is simpler if we ____. I solved this problem, by ___. This is the same because _____. This is different because _____. Justify Make a statement	The calculation which represents this is ____ I can check my calculation by using the inverse with ____ I estimate the answer to be ___ because I know ____. I know ___ so I could work out ____. This method is efficient because ____. Justify Make a statement.	I know that I need to use ___ for this problem because _____. I can check my calculation by using the inverse with _____. I estimate the answer to be _____ because I know _____. I know _____ so I could work out ____. I know that this question will have a ____ answer because _____.
Area of Mathematics	**EYFS**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Multiplication and Division	doubling halving number patterns sharing	divide dividing division equal groups of facts grouping multiplication multiplied by multiply one each, two each, three each … repeated addition repeated subtraction share, share equally	array commutative consecutive divided by divided into equal groups of – year 1 group in pairs, threes … tens groups of inverse operations multiple multiplication- year 1 multiplication fact, division fact multiplication table once, twice, three times … ten times operation row, column share, share equally – year 1 times	formal written method left, left over product remainder short multiplication	associative law distributive law factor pair inverse derive square, squared cube, cubed dividend divisor expression short division	common factor common multiple factor of factors long multiplication	BODMAS order of operations

Reasoning and Problem-solving language	compare describe draw how did you work it out? pattern puzzle recognise sort what could we try next?	The calculation which represents this _____. I know that because ____. I chose this strategy because _____. My representation shows this because ____. I will use the ____ strategy to ____. Explain your thinking	The calculation which represents this is ____ I know that because ____ I have spotted that _____ My picture shows this because _____ This is the same because _____ Describe the pattern Describe the rule Explain your method investigate Show how you ____	The calculation which represents this is ____ I know that because ____ It is simpler if we _____. I solved this problem by ____. The is the same because ____. This is different because _____. Explain your reasoning Greatest value Least value Statement	The calculation which represents this is ____. It's possible if _____. It is simpler if we ____. I solved this problem, by ___. This is the same because _____. This is different because _____. Justify Make a statement	The calculation which represents this is ____ I can check my calculation by using the inverse with ____ I estimate the answer to be ___ because I know ____. I know ___ so I could work out ____. This method is efficient because ____. Justify Make a statement.	I know that I need to use ___ for this problem because _____. I can check my calculation by using the inverse with _____. I estimate the answer to be _____ because I know _____. I know _____ so I could work out ____. I know that this question will have a ____ answer because _____.
Fractions (including decimals, percentages, ratio and proportion)	half parts of a whole	equal grouping equal part equal sharing fraction one of four equal parts one of two equal parts quarter	equivalent numerator, denominator one of three equal parts one third, two thirds two halves two quarters, three quarters	compare and order sixths, sevenths, eighths, tenths … unit fraction, non-unit fraction	hundredths decimal, decimal fraction, decimal point, decimal place, decimal decimal fraction proportion simplify mixed numbers	percentage, percent % proper/ improper fraction reduced to, cancel thousandths	common fraction degree of accuracy proportion ratio

Area of Mathematics	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Algebra							equation expression formula, formulae known values linear number substitute symbol variables
Measurement **General**	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	measurement roughly	measuring scale	approximately division	convert metric unit unit, standard unit	imperial unit	**Consolidation of vocabulary taught in previous years**
Measurement **Length**	far, near, close high, low length, height long, short, tall longer, shorter, taller, higher … and so on thick, thin wide, narrow	centimetre ruler	depth further furthest metre metre stick tape measure width	distance apart … between … to … from millimetre, kilometre, mile perimeter	area, covers breadth edge square centimetre (cm^2)	square metre (m^2), square millimetre (mm^2)	circumference foot, feet, inches yard
Measurement **Weight**	heavier than, lighter than heaviest, lightest heavy, light mass scales weigh, weighs, balances	balanced scales	kilogram, half kilogram gram	**Consolidation of vocabulary taught in previous years**	mass: big, bigger, small, smaller weight: heavy/light, heavier/ lighter, heaviest/ lightest	**Consolidation of vocabulary taught in previous years**	ounce pound tonne stone

Area of Mathematics	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement **Capacity and Volume**	container empty full half full holds	capacity contains	contains less than litre, half litre millilitre quarter full volume	**Consolidation of vocabulary taught in previous years**	measuring cylinder	pint, gallon	centilitre, cubic centimetres (cm^3), cubic metres (m^3), cubic millimetres (mm^3), cubic kilometres (km^3)
Measurement **Temperature**			degree temperature	centigrade	**Consolidation of vocabulary taught in previous years**	**Consolidation of vocabulary taught in previous years**	**Consolidation of vocabulary taught in previous years**
Measurement **Time**	bedtime, dinner time, playtime before, after birthday, holiday clock, watch, hands day, week days of the week, Monday, Tuesday … hour, o'clock morning, afternoon, evening, night new, newer, newest next, last now, soon, early, late old, older, oldest quick, quicker, quickest, quickly slow, slower, slowest, slowly takes longer, takes less time time today, yesterday, tomorrow	always, never, often sometimes clock face date earlier, later first hour hand, minute hand hours, minutes how long ago? how long will it be to …? how long will it take to …? how often? midnight months of the year (January, February …) o' clock, half past, - year 1 once, twice seasons: spring, summer, autumn, winter Usually weekend, month, year	5, 10, 15 … minutes past chronological digital/ analogue clock/ watch, timer fortnight quarter past, quarter to seconds	12-hour clock time, 24-hour clock time a.m., p.m. calendar century earliest latest Roman numerals	arrive, depart date of birth leap year, millennium noon timetable	**Consolidation of vocabulary taught in previous years**	**Consolidation of vocabulary taught in previous years**

Area of Mathematics	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement **Money**	buy, sell coin money pay penny, pence price, cost spend, spent	change cheap, costs less, cheaper costs the same as dear, costs more how many …? how much …? pound total	brought sold	**Consolidation of vocabulary taught in previous years**	currency discount	profit, loss	**Consolidation of vocabulary taught in previous years**
Geometry **Properties of Shape**	bigger, larger, smaller curved, straight flat hollow, solid make, build, draw match pattern, repeating pattern round shape, pattern size sort	property	line symmetry match surface symmetrical symmetrical pattern symmetry	greater/less than ninety degrees perimeter regular, irregular	angle centre construct, sketch line reflect, reflection right-angled scale (not to scale)	axis of symmetry, reflective symmetry congruent diagonal transformation translation	arc circumference compasses concentric diameter intersecting, intersection net open, closed radius
Geometry **2-D Shape**	circle corner, side rectangle (including square) triangle vertex (vertices)	oblong point, pointed	circular heptagon hexagon octagon pentagon quadrilateral rectangular triangular	hexagonal octagonal parallel pentagonal perpendicular right-angled	2-D, two-dimensional equilateral equilateral triangle isosceles triangle kite parallelogram polygon rectilinear rhombus scalene triangle trapezium	a-axis, y-axis, quadrant decagon dodecagon nonagon	**Consolidation of vocabulary taught in previous years**

Area of Mathematics	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry **3-D Shape**	cube sphere cuboid edge face vertex (vertices)	cone continuous surface cylinder pyramid	prism	hemisphere triangle-based pyramid triangle-based pyramid	3-D, three-dimensional spherical	cylindrical tetrahedron polyhedron octahedron	**Consolidation of vocabulary taught in previous years**

Area of Mathematics	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry **Position and Direction**	position over, under above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge corner direction up, down forwards, backwards, sideways across next to, close, near, far along through to, from, towards, away from movement slide roll turn stretch, bend	centre journey left, right underneath whole turn, half turn	angle clockwise, anticlockwise ninety-degree turn quarter turn right angle rotation route straight line three quarter turn	acute angle angle … is a greater/ smaller angle than compass point horizontal, vertical diagonal north, south, east, west, N, S,E,W obtuse angle	north-east, north-west, south-east, south-west, NE, NW, SE, SW translate, translation rotate, rotation degree reflection angle measurer coordinate	angle at a point angle of a line protractor reflex angle	vertically opposite angles
Statistics	count, sort group, set list	pictogram vote	chart data graph, block graph, label least popular, least common represent table tally title vote	axis, axes bar chart bar graph Carroll diagram diagram frequency table Venn diagram	continuous data interval line graph line graph plot survey questionnaire	average (mean) maximum/minimum value outcome	construct intersect mean, mode, median, range origin pie chart quadrant
