## Knutton St. Mary's

Mathematics Vocabulary Progression document 2023-2024

This document is designed to assist with the teaching of vocabulary across EYFS, KS1 and KS2 and is aligned with the White Rose schemes of learning, long-term overviews and knowledge organisers. This document identifies in which year group vocabulary should be explicitly taught and introduced. However, language should be revisited in subsequent year groups to ensure children are consolidating their understanding. This document is fully editable so language can be moved into earlier or later year groups where necessary.

Some vocabulary might be introduced earlier (shapes for instance) if necessary or as part of an activity, however this document ensures coverage is progressive.

| Number - Number and place value |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| count | sort | count in steps | ascending | negative numbers | ten thousands | millions |
| subitise | represent | count in multiples | descending | roman numerals | one hundred thousands | ten millions |
| order/ordinal | multiples | place value | 10 or 100 more | 1000 more | powers of |  |
| compare | partitioning | estimate | 10 or 100 less | 1000 less | integer |  |
| forwards | ones | compare | hundreds | thousands |  |  |
| backwards | tens |  |  | round |  |  |
| numerals |  |  |  |  |  |  |
| digit |  |  |  |  |  |  |
| one more |  |  |  |  |  |  |
| one less |  |  |  |  |  |  |
| equal to |  |  |  |  |  |  |
| more than |  |  |  |  |  |  |
| ess than (fewer) |  |  |  |  |  |  |


| Addition and subtraction |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| add | addition/add | sum | column addition | 4-digit number |  |  |
| plus | subtraction | 3-digit number | column subtraction | operations |  |  |
| altogether | difference | commutative | exchange | methods |  |  |
| total | equals |  | estimate |  |  |  |
| take away /minus | facts |  |  |  |  |  |
| number bonds | problems |  |  |  |  |  |
| part | missing number problems |  |  |  |  |  |
| whole | 2-digit number |  |  |  |  |  |
| digit | inverse |  |  |  |  |  |


| Multiplication and division |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| double | multiplication | multiplication tables | exchange | factor pairs | multiples | multi-digit numbers |
| half | division | commutative | mathematical statements | formal written layout | factors | long division |
| twice as many | arrays | repeated addition | missing number problems | distributive law | prime numbers |  |
| equal |  |  | integer scaling problems | remainders | square numbers |  |
| unequal |  |  | correspondence problems |  | cube numbers |  |
| share |  |  | derived facts |  | short division |  |
| group |  |  |  |  | product |  |
| odd |  |  |  |  | dividend |  |
| even |  |  |  |  | divisor |  |
|  |  |  |  |  | quotient |  |
|  |  |  |  |  | operations |  |


| Fractions/Decimals/Percentages |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  | whole | three quarters | tenths | decimal equivalence | fifth |  |
|  | half | third |  | hundredths | thousandths |  |
|  | quarter | equivalent fractions |  | convert | mixed numbers |  |
|  | equal parts | unit fractions |  | proper fractions | per cent \% |  |
|  |  | non unit fractions |  | improper fractions | factors |  |
|  |  | numerator |  | decimal point | integer |  |
|  |  | denominator |  |  | complements |  |
|  |  | one whole |  |  |  |  |


| Ratio and proportion |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  |  |  |  | relative size |
|  |  |  |  |  |  | missing values |
|  |  |  |  |  |  | integer multiplication |
|  |  |  |  |  |  | percentages |
|  |  |  |  |  |  | scale factor |
|  |  |  |  |  |  | unequal sharing \& grouping |


| Algebra |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  |  |  |  | formulae |
|  |  |  |  |  |  | linear number sequences |
|  |  |  |  |  |  | algebraically |
|  |  |  |  |  |  | equation |
|  |  |  |  |  |  | unknowns |
|  |  |  |  |  |  | combinations |
|  |  |  |  |  |  | variables |

Measurement (Measure and Length)

| Measurement (Measure and Length) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| measure | compare | standard units | millimetre mm | kilometres km | decimal notation | conversion |
| wide(er) |  | estimate | perimeter | rectilinear figure | scaling | miles |
| narrow(er) |  | order |  | area | metric units | formulae |
| compare |  | record results |  |  | imperial units | parallelograms |
| long(er)(est) |  | centimetre cm |  |  | inches | triangles |
| short(er)(est) |  | metre m |  |  | compound shape | feet |
| length |  |  |  |  | irregular shapes |  |
|  |  |  |  |  | square centimetres |  |
|  |  |  |  |  | square metres |  |


| Measurement (Height, Weight and Capacity) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| height | mass | kilogram kg |  |  | cubic centimetre | cubic metre |
| long(er)/short(er) | volume | gram g |  |  | pounds | cubic millimetre |
| tall(er)/short(er) |  | quarter full |  |  | pints | cubic kilometre |
| weight |  | three quarters full |  |  |  | gallons |
| capacity |  | litres I |  |  |  | stones |
| heavy/light |  | millilitres ml |  |  |  | ounces |
| heavier than |  | temperature |  |  |  |  |
| lighter than |  | Celsius |  |  |  |  |
| big/bigger/biggest |  |  |  |  |  |  |
| full/empty |  |  |  |  |  |  |
| more than |  |  |  |  |  |  |
| less than |  |  |  |  |  |  |
| half/half full |  |  |  |  |  |  |


| Measurement (Time) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| time | chronological order | intervals of time | analogue clock | convert |  |  |
| quicker | days of the week | quarter past/to | roman numerals |  |  |  |
| slower | months of the year | duration | 12-hour clock |  |  |  |
| earlier | month |  | 24-hour clock |  |  |  |
| later | year |  | a.m./p.m. |  |  |  |
| before | o'clock |  | noon |  |  |  |
| after | half past |  | midnight |  |  |  |
| first | second |  | leap year |  |  |  |
| next |  |  | digital |  |  |  |
| today |  |  |  |  |  |  |
| yesterday |  |  |  |  |  |  |
| tomorrow |  |  |  |  |  |  |
| morning |  |  |  |  |  |  |
| afternoon |  |  |  |  |  |  |
| evening |  |  |  |  |  |  |
| day |  |  |  |  |  |  |
| week |  |  |  |  |  |  |
| hour |  |  |  |  |  |  |
| minutes |  |  |  |  |  |  |

Measurement (Money)

| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | money | value |  |  |  |  |
|  | coins | change |  |  |  |  |
|  | notes |  |  |  |  |  |
|  | pounds $£$ |  |  |  |  |  |
|  | pence p |  |  |  |  |  |


| Geometry - Properties of Shape |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| 2-d shapes | sides | pentagon | right-angle triangle | isosceles | regular polygon | radius |
| rectangle | corners | hexagon | heptagon | equilateral | irregular polygon | diameter |
| square | properties | line of symmetry | octagon | scalene |  | circumference |
| circle | pyramids | properties | polygon | trapezium |  | dimensions |
| triangle | faces | cylinder | properties | rhombus |  |  |
| characteristics |  | edges | prism | parallelogram |  |  |
| 3-d shapes |  | vertices |  | kite |  |  |
| cuboids |  | vertex |  | geometric shapes |  |  |
| cubes |  |  |  | quadrilaterals |  |  |
| cone |  |  |  |  |  |  |
| spheres |  |  |  |  |  |  |
| curved |  |  |  |  |  |  |
| straight |  |  |  |  |  |  |
| flat |  |  |  |  |  |  |


| Geometry - Properties of shape (2) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  | orientations |  | reflex angles |  |
|  |  |  | angles |  | degrees |  |
|  |  |  | acute angle |  | one whole turn |  |
|  |  |  | obtuse angle |  | angles on straight line |  |
|  |  |  | turn |  | angles around a point |  |
|  |  |  | right angles |  | vertically opposite |  |
|  |  |  | half turn |  | missing angles |  |
|  |  |  | three quarters of a turn |  |  |  |
|  |  |  | greater than right angle |  |  |  |
|  |  |  | less than right angle |  |  |  |
|  |  |  | horizontal lines |  |  |  |
|  |  |  | vertical lines |  |  |  |
|  |  |  | perpendicular lines |  |  |  |
|  |  |  | parallel lines |  |  |  |


| Geometry - Position and direction |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| over | position | clockwise/anti-clockwise |  | co-ordinates | reflection | four quadrants |
| under | direction | straight line |  | first quadrant |  | co-ordinate plane |
| between | movement | rotation |  | grid |  |  |
| around | whole turn | arrange |  | translation |  |  |
| through | quarter turn | sequences |  | plot |  |  |
| on | half turn |  |  | polygon |  |  |
| into | three-quarter turn |  |  | axis |  |  |
| next to |  |  |  |  |  |  |
| behind |  |  |  |  |  |  |
| beneath |  |  |  |  |  |  |
| order |  |  |  |  |  |  |
| repeat |  |  |  |  |  |  |
| patterns |  |  |  |  |  |  |
| on top of |  |  |  |  |  |  |


| Statistics |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  | pictograms | table | time graph | timetable | pie chart |
|  |  | tally chart | bar chart | discrete data | two-way tables | mean |
|  |  | block diagram | one-step problem | continuous data |  |  |
|  |  | category | two-step problem | line graph |  |  |
|  |  | sorting |  | comparison problem |  |  |
|  |  | totalling |  | sum problem |  |  |
|  |  | comparing |  | difference problem |  |  |
|  |  | horizontal |  | calculate |  |  |
|  |  | vertical |  | interpret |  |  |

