## Maths Key Vocabulary Progression

The vocabulary within each unit of work is progressive. Pupils should have a sound understanding of what each word means. Each year group builds on the vocabulary from the previous year group. Therefore, ensure the pupils understand and can use the vocabulary from the previous year.

|  | Y2 | Y3 | Y4 | Y5 | Y6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Place value | digit <br> tens <br> ones <br> place value grid <br> partition <br> more <br> fewer <br> fewest <br> greatest <br> smallest <br> partition | hundreds (100s) <br> tens (10s) <br> ones (1s) <br> digit <br> place value <br> more <br> less <br> greater than (>) <br> less than ( $<$ ) <br> equal to <br> order <br> compare <br> partition <br> estimate <br> exchange | tens <br> hundreds <br> thousands <br> rounding <br> order <br> more than ( $>$ ) <br> less than (<) <br> partition <br> numeral <br> nearest <br> distance <br> ascending <br> descending <br> rounding <br> negative <br> multiple <br> greater than (>) <br> less than (<) | ```ones (1s) tens (10s) hundreds (100s) thousands (1,000s) ten thousands (10,000s) hundred thousands (100,000s) million \((1,000,000)\) round order ascending descending less than (<) greater than (>) sequence``` | ten thousands $(10,000 \mathrm{~s})$ <br> hundred thousands (100,000s) <br> millions ( $1,000,000 \mathrm{~s}$ ) <br> ten million $(10,000,000)$ <br> place value <br> partition <br> interval <br> estimate <br> compare <br> order <br> rounding <br> negative <br> positive |
| 2. Addition and subtraction | fact family number sentence number bond column 10 more 10 less total tens ones subtract difference bar model represent | addition subtraction mental method column method exchange estimate approximate/ly digit | addition total more than $(>)$ subtraction less than $(<)$ column method estimate how much strategy efficient accurate exact fact diagram | ```add subtract ones (1s) tens (10s) hundreds (100s) thousands (1,000s) ten thousands (10,000s) mentally inverse round estimate sum``` | column addition column subtraction estimate |
| 3. Multiplication and division | equal groups <br> multiplication ( x ) <br> times-table <br> times <br> divide ( $\div$ ) <br> division <br> share | equal <br> multiply <br> divide <br> times-table <br> sharing <br> grouping <br> array | multiply $(\times)$ divide $(\div)$ multiplication fact division fact lots of groups of times-table | prime number composite number square number cube number square (2) cube (3) inverse operation | multiplication short division long division remainder factor estimate common factor |


|  | group odd even | bar model remainder repeated addition multiplication sentence division statement division fact partition | array <br> partition <br> array <br> bar model part-whole model remainder factor pair factor commutative | multiply divide multiple factor prime factor | common multiple prime composite squared (2) cubed (3) order of operations brackets inverse operation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4. Fractions, decimals and percentages | whole <br> equal <br> equal parts <br> $1 / 2$ <br> fraction denominator fraction bar numerator $1 / 43 / 4$ third $1 / 3$ unit fraction non-unit fraction equivalent | equal parts <br> whole <br> unit fraction <br> equation <br> integer <br> non-unit fraction <br> numerator <br> denominator <br> represent <br> share <br> group <br> mixed number <br> whole number <br> divide <br> set of objects <br> multiply <br> tenth <br> interval <br> equivalent fraction <br> inequality <br> statement | tenths <br> hundredths <br> equivalent <br> simplify <br> numerator <br> denominator <br> fraction <br> mixed number <br> improper fraction <br> simplest fraction <br> fraction of an amount <br> decimal point <br> equivalent <br> decimal <br> 0.1 and 0.01 <br> decimal place |  | ```numerator denominator common denominator common factor equivalent simplify simplest form highest common factor lowest common multiple (LCM) compare order ascending descending proper fraction improper fraction mixed number convert lowest common denominator recurring decimal percent percentage (\%)``` |
| 5. Position and direction | clockwise anticlockwise forwards backwards left right |  | reflection rotation position horizontal vertical up | reflection translation vertex vertices coordinates mirror line | quadrant four quadrants translate translation $x$-axis $y$-axis |


|  | middle <br> turn <br> half turn quarter turn three-quarter turn |  | down <br> left <br> right <br> coordinates <br> square <br> rectangle <br> plot <br> vertex <br> vertices <br> point <br> grid | horizontal axis vertical axis | axis <br> axes <br> horizontal vertical vertex reflect reflection |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6. Shape | quadrilateral <br> polygon <br> pentagon <br> hexagon <br> vertex <br> vertices <br> line of symmetry <br> symmetrical <br> octagon <br> hemisphere <br> curved surface <br> edge <br> prism | right angle <br> acute <br> obtuse <br> parallel <br> perpendicular <br> vertical <br> horizontal <br> triangle <br> quadrilateral <br> kite <br> trapezium <br> rhombus <br> parallelogram <br> cuboid <br> triangular prism <br> square-based <br> pyramid <br> cone <br> cylinder <br> sphere <br> edge <br> face <br> vertices | ```rectangle square rectilinear shape unit triangle quadrilateral reflection rotation regular irregular interior angle angle acute obtuse right angle symmetrical isosceles scalene equilateral line of symmetry reflective symmetry``` | angle whole turn right angle acute angle obtuse angle reflex angle degree ( ${ }^{\circ}$ ) interior angle clockwise anticlockwise orientation parallel perpendicular angle right angle interior angle quadrilateral view regular irregular 3D shape pyramid sphere cone hexagon pentagon triangle top view plan view side view | ```area volume perimeter parallelogram height enclosed width length square centimetre (cm2) square metre (m2) base estimate formula compound shape cubic centimetre (cm3) cubic metre (m3)``` |
| 7. Measure | mass heavier than lighter than gram ( g ) | length height width perimeter | length width perimeter distance | perimeter <br> distance <br> area <br> space | metric imperial unit of measurement (or measure) gram (g) |


|  | hundreds <br> kilogram (kg) <br> volume <br> millilitre ( ml ) <br> litre (I) <br> temperature <br> degrees Celsius <br> ( ${ }^{\circ} \mathrm{C}$ ) <br> thermometer | distance centimetre (cm) millimetre (mm) metre ( m ) unit of measurement measure equivalent convert greater than (>) less than (<) ruler metre stick interval scale | rectangle square rectilinear shape centimetre (cm) metre (m) kilometre (km) equivalent to | ```length width centimetre square centimetre (cm2) metre square metre (m2) scale compare estimate formula convert metric unit imperial unit kilo kilogram gram millimetre centimetre metre kilometre litre millilitre pound (lb) ounce (oz) inch (in) foot (ft) yard (yd) pint gallon stone (st) approximately volume solid capacity calculate estimate unit cube``` | kilogram (kg) <br> pound (lbs) <br> ounce (oz) <br> mass <br> millilitre ( ml ) <br> litre (I) <br> pint <br> capacity <br> millimetre (mm) <br> centimetre (cm) <br> metre (m) <br> kilometre (km) <br> inch (in) <br> foot (ft) <br> yard (yd) <br> mile <br> length <br> convert <br> conversion table <br> conversion graph |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8. Time | o'clock half past quarter past quarter to minute hand | month year midnight midday am | convert compare unit of time second minute |  |  |


|  | hour hand duration | pm <br> duration <br> estimate <br> consecutive <br> hour <br> minute <br> second <br> past <br> to <br> start <br> end <br> digital clock <br> analogue clock | hour day week month year 12-hour 24-hour analogue digital am/pm |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9. Money | pound (£) <br> pence (p) <br> coin <br> note <br> change | ```pounds (£) pence (p) convert total difference change``` | ```notes coins pounds (£) pence (p) add subtract change round to the nearest order greater than (>) less than (<) cheaper more expensive estimate over estimate under estimate total``` |  |  |  |
| 10. Algebra |  |  |  |  |  | sequence <br> rule <br> term <br> algebra <br> expression <br> calculation <br> formula <br> substitute <br> generalise <br> operation <br> calculate <br> equation <br> inverse <br> solution |
| 11. Ratio |  |  |  |  |  | ratio |


|  |  |  |  |  | proportion part <br> whole <br> scale <br> scale factor <br> similar <br> notation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12. Statistics | tally chart pictogram key | pictogram <br> key <br> bar chart <br> scale <br> table <br> row <br> column <br> vertical axis <br> horizontal axis | data <br> line graph <br> pictogram <br> bar chart <br> table <br> altogether <br> more than ( $>$ ) <br> greatest <br> smallest <br> continuous data <br> compare | graph <br> line graph table dual line graph horizontal vertical two-way table scale axis/axes data plot/plotted tallies/tally digits | mean average pie chart segment line graph bar chart percentage fraction data |

