| Key: |  |  | Working Within | Mastery | Greater Depth |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Children can demonstrate their methods for solving mathematical problems using concrete apparatus or pictorial representations. |  |  |  |  |  |
|  | $\begin{gathered} 1 \\ \text { KPI } \end{gathered}$ | Read, write, order, compare and know place value of numbers to at least 1000000 |  |  |  |
|  | $\begin{gathered} 2 \\ \text { KPI } \end{gathered}$ | Add and subtract numbers mentally with increasingly large numbers and whole numbers with more than 4 digits, including using formal written methods (column addition and subtraction). |  |  |  |
|  | $\begin{gathered} 3 \\ \text { KPI } \end{gathered}$ | Multiply / divide numbers mentally using known facts and use formal written methods for 4 digit $\mathbf{x} 1$ or $\mathbf{2}$ digit, and $\mathbf{4}$ digit $\div 1$ digit short division (interpreting remainders in context). |  |  |  |
|  | $\begin{gathered} 4 \\ \text { KPI } \end{gathered}$ | Compare and order, add and subtract fractions whose denominators are the same or are all multiples of the same number. |  |  |  |
|  | $\begin{gathered} 5 \\ \text { KPI } \end{gathered}$ | Convert between decimal numbers, fractions and percentages and find percentages and fractions of quantities including solving problems. |  |  |  |
|  | 6 | Round any number up to 1000000 to the nearest $10,100,1000,10000$ and 100000. |  |  |  |
|  | 7 | Round decimals with two decimal places to the nearest whole number and to one decimal place and use rounding to check answers in the context of a problem. |  |  |  |
|  | 8 | Multiply and divide whole numbers and those involving decimals by 10,100 and 1000. |  |  |  |
|  | 9 | Solve problems involving addition, subtraction, multiplication and division and a combination of these, including using knowledge of factors and multiples, squares and cubes, including multistep problems |  |  |  |
|  | 10 | Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. |  |  |  |
|  | 11 | Interpret negative numbers in context, count forwards and backwards with + or - whole numbers, including through zero, in steps of powers of 10 for any given number up to 1000000 . |  |  |  |
|  | 12 | Recognise and convert between mixed numbers and improper fractions (for example, $6 / 5=11 / 5$ ) and multiply mixed numbers and proper fractions by a whole number (supported by materials and diagrams). |  |  |  |
|  | 13 | Read, write, order and compare numbers with up to three decimal places and solve problems involving up to 3 decimal places (Example, $0.71=71 / 100=71 \%$ ). |  |  |  |
|  | 14 | Can identify multiples and factors, find factor pairs of a number, common factors of two numbers and use prime numbers, prime factors and composite (non-prime) numbers and establish whether a number up to 100 is prime and recall prime numbers up to 19. Recognise and use square numbers and cube numbers, and the notation for squared $\left(2^{2}\right)$ and cubed $\left(2^{3}\right)$. |  |  |  |
|  | 15 | Read Roman Numerals to 1000 (M) and recognise years written in Roman Numerals. |  |  |  |
|  | 16 | Convert between different units of metric measure and understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. |  |  |  |
|  | 17 | Measure and calculate the perimeter of composite rectilinear shapes $(\mathrm{cm} / \mathrm{m})$ and calculate and compare the area of rectangles (including squares, $\mathrm{cm}^{2}, \mathrm{~m}^{2}$ ) and estimate area of irregular shapes. |  |  |  |
|  | 18 | Estimate volume (for example, using $1 \mathrm{~cm}^{3}$ blocks to build cuboids (including cubes) and capacity (for example, using water)). |  |  |  |
|  | 19 | Use all four operations to solve problems involving measure (for example, length, mass, volume, money, time) using decimal notation, including scaling and conversions, including converting units for calculation. |  |  |  |
| $\begin{aligned} & \text { 글 } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | 20 | Identify 3-D shapes, including cubes and other cuboids, from 2-D representations (e.g. nets). |  |  |  |
|  | 21 | Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. |  |  |  |
|  | 22 | Estimate, compare, measure and draw acute, obtuse and reflex angles. |  |  |  |
|  | 23 | Use the properties of rectangles and knowledge of angles at a point ( $360^{\circ}$ ) or on a straight line $\left(180^{\circ}\right)$ to deduce related facts and find missing lengths and angles. |  |  |  |
|  | 24 | Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed. |  |  |  |
| $\omega$ | 25 | Complete, read and interpret information in tables, including timetables, and line graphs to solve comparison, sum and difference problems. |  |  |  |

