

| Number and Place Value | B | W | N | A |
| :---: | :---: | :---: | :---: | :---: |
| Read, write, order and compare numbers to at least 1000000 and determine the value of each digit. |  |  |  |  |
| Count forwards or backwards in steps of powers of 10 for any given number up to 1000000. |  |  |  |  |
| Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. |  |  |  |  |
| Round any number up to 1000000 to the nearest $10,100,1000,10000$ and 100000. |  |  |  |  |
| Solve number problems and practical problems that involve all of the above. |  |  |  |  |
| Read Roman numerals to $1000(M)$ and recognise years written in Roman numerals. |  |  |  |  |
| Addition and Subtraction | B | W | N | A |
| Add and subtract whole numbers with more than 4 digits. |  |  |  |  |
| Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction). |  |  |  |  |
| Add and subtract numbers mentally with increasingly large numbers (example, 12 462-2300=10 162) |  |  |  |  |
| Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. |  |  |  |  |
| Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. |  |  |  |  |
| Multiplication and Division | B | W | N | A |
| Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. |  |  |  |  |
| Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. |  |  |  |  |
| Establish whether a number up to 100 is prime and recall prime numbers up to 19. |  |  |  |  |
| Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers. |  |  |  |  |
| Multiply and divide numbers mentally drawing upon known facts. |  |  |  |  |
| Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context. |  |  |  |  |
| Multiply and divide whole numbers and those involving decimals by 10,100 and 1000. |  |  |  |  |
| Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3). |  |  |  |  |
| Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. |  |  |  |  |
| Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. |  |  |  |  |
| Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. |  |  |  |  |


| Fractions | B | W | N | A |
| :---: | :---: | :---: | :---: | :---: |
| Compare and order fractions whose denominators are all multiples of the same number. |  |  |  |  |
| Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. |  |  |  |  |
| Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $>1$ as a mixed number [for example, $2 / 5+4 / 5=6 / 5=11 / 5$ ]. |  |  |  |  |
| Add and subtract fractions with the same denominator and denominators |  |  |  |  |
| Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. |  |  |  |  |
| Read and write decimal numbers as fractions [for example, $0.71=71 / 100$ ]. |  |  |  |  |
| Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. |  |  |  |  |
| Round decimals with two decimal places to the nearest whole number and to one decimal place. |  |  |  |  |
| Read, write, order and compare numbers with up to three decimal places. |  |  |  |  |
| Solve problems involving number up to three decimal places. |  |  |  |  |
| Recognise the per cent symbol (\%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal. |  |  |  |  |
| Solve problems which require knowing percentage and decimal equivalents of $1 / 2,1 / 4,1 / 5,2 / 5,4 / 5$ and those fractions with a denominator of a multiple of 10 or 25. |  |  |  |  |
| Measurement | B | W | N | A |
| Convert between different units of metric measure |  |  |  |  |
| Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. |  |  |  |  |
| Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres |  |  |  |  |
| Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2). |  |  |  |  |
| Estimate the area of irregular shapes. |  |  |  |  |
| Estimate volume |  |  |  |  |
| Solve problems involving converting between units of time. |  |  |  |  |
| Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. |  |  |  |  |
| Geometry - Properties of Shape | B | W | N | A |
| Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. |  |  |  |  |
| Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. |  |  |  |  |
| Draw given angles, and measure them in degrees (0). |  |  |  |  |
| Identify: angles at a point and one whole turn (total 3600); angles at a point on a straight line and 1/2 a turn (total 1800); other multiples of 900. |  |  |  |  |
| Use the properties of rectangles to deduce related facts and find missing lengths and angles. |  |  |  |  |
| Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. |  |  |  |  |
| Geometry - Position and Direction | B | W | N | A |
| 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. |  |  |  |  |
| Statistics | B | W | N | A |
| Solve comparison, sum and difference problems using information presented in a line graph. |  |  |  |  |
| Complete, read and interpret information in tables, |  |  |  |  |



