$\mathrm{B}=$ Below national expectations $\mathrm{W}=$ Working towards national expectations $\mathrm{N}=\mathrm{In}$ line with national expectations $\mathrm{A}=$ Above national expectations

| Number and Place Value | B | W | N | A |
| :---: | :---: | :---: | :---: | :---: |
| Read, write, order and compare numbers up to 10000000 and determine the value of each digit. |  |  |  |  |
| Round any whole number to a required degree of accuracy. |  |  |  |  |
| Use negative numbers in context, and calculate intervals across zero. |  |  |  |  |
| Solve number and practical problems that involve all of the above. |  |  |  |  |
| Addition, Subtraction, Multiplication and Division | B | W | N | A |
| Multiply multi-digit numbers up to 4 digits by a two-digit whole number. |  |  |  |  |
| Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. |  |  |  |  |
| Divide numbers up to 4 digits by a two-digit number and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. |  |  |  |  |
| Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. |  |  |  |  |
| Perform mental calculations, including with mixed operations and large numbers. |  |  |  |  |
| Identify common factors, common multiples and prime numbers. |  |  |  |  |
| Use their knowledge of the order of operations to carry out calculations involving the four operations. |  |  |  |  |
| Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. |  |  |  |  |
| Solve problems involving addition, subtraction, multiplication and division. |  |  |  |  |
| Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. |  |  |  |  |
| Fractions, Decimals and Percentages | B | W | N | A |
| Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. |  |  |  |  |
| Compare and order fractions, including fractions >1. |  |  |  |  |
| Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. |  |  |  |  |
| Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1 / 4 \times 1 / 2=1 / 8$ ]. |  |  |  |  |
| Divide proper fractions by whole numbers [for example, $1 / 3 \div 2=1 / 6$ ]. |  |  |  |  |
| Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375 ] for a simple fraction [for example, 3/8]. |  |  |  |  |
| Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10,100 and 1000 giving answers up to three decimal places. |  |  |  |  |
| Multiply one-digit numbers with up to two decimal places by whole numbers. |  |  |  |  |
| Use written division methods in cases where the answer has up to two decimal places. |  |  |  |  |
| Solve problems which require answers to be rounded to specified degrees of accuracy. |  |  |  |  |
| Recall and use equivalences between simple fractions, decimals and percentages, |  |  |  |  |


| Ratio and Proportion | B | W | N | A |
| :---: | :---: | :---: | :---: | :---: |
| Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. |  |  |  |  |
| Solve problems involving the calculation of percentages [for example, of measures, and such as $15 \%$ of 360 J and the use of percentages for comparison. |  |  |  |  |
| Solve problems involving similar shapes where the scale factor is known or can be found. |  |  |  |  |
| Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. |  |  |  |  |
| Algebra | B | W | N | A |
| Use simple formulae. |  |  |  |  |
| Generate and describe linear number sequences. |  |  |  |  |
| Express missing number problems algebraically. |  |  |  |  |
| Find pairs of numbers that satisfy an equation with two unknowns. |  |  |  |  |
| Enumerate possibilities of combinations of two variables. |  |  |  |  |
| Measurement | B | W | N | A |
| Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. |  |  |  |  |
| Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places. |  |  |  |  |
| Convert between miles and kilometres |  |  |  |  |
| Recognise that shapes with the same areas can have different perimeters and vice versa. |  |  |  |  |
| Recognise when it is possible to use formulae for area and volume of shapes. |  |  |  |  |
| Calculate the area of parallelograms and triangles. |  |  |  |  |
| Calculate, estimate and compare volume of cubes and cuboids using standard units. |  |  |  |  |
| Geometry - Properties of Shape | B | W | N | A |
| Draw 2-D shapes using given dimensions and angles. |  |  |  |  |
| Recognise, describe and build simple 3-D shapes, including making nets |  |  |  |  |
| Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. |  |  |  |  |
| Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. |  |  |  |  |
| Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. |  |  |  |  |
| Geometry - Position and Direction | B | W | N | A |
| Describe positions on the full coordinate grid (all four quadrants). |  |  |  |  |
| Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. |  |  |  |  |
| Statistics | B | W | N | A |
| Interpret pie charts and line graphs and use these to solve problems. |  |  |  |  |
| Construct pie charts and line graphs. |  |  |  |  |
| Calculate and interpret the mean as an average. |  |  |  |  |



