| NUMBER - number and place value | A1 | A2 | Sp1 | Sp2 | Sm1 | Sm2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 |  |  |  |  |  |  |
| NUMBER - addition and subtraction | A1 | A2 | Sp1 | Sp2 | Sm1 | Sm2 |
| Add and subtract whole numbers with more than 4 digits, including using formal written methods (column addition and subtraction) |  |  |  |  |  |  |
| Add and subtract numbers mentally with increasingly large numbers |  |  |  |  |  |  |
| 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 |  |  |  |  |  |  |
| NUMBER - multiplication and division | A1 | A2 | Sp1 | Sp2 | Sm1 | Sm2 |
| 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 (nonprime) 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 ( ) and cubed () |  |  |  |  |  |  |
| 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 |  |  |  |  |  |  |
| NUMBER - fractions (including decimals and percentages) | A1 | A2 | Sp1 | Sp2 | Sm1 | Sm2 |
| 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 $+4 / 5=6 / 5=1$ and $1 / 5$ ] |  |  |  |  |  |  |
| Add and subtract fractions with the same denominator and denominators that are multiples of the same number |  |  |  |  |  |  |
| 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 | A1 | A2 | Sp1 | Sp2 | Sm1 | Sm2 |
| Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) |  |  |  |  |  |  |
| 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 ( $\mathrm{cm}^{2}$ ) and square metres ( $\mathrm{m}^{2}$ ) and estimate the area of irregular shapes |  |  |  |  |  |  |
| Estimate volume [for example, using $1 \mathrm{~cm}^{3}$ blocks to build cuboids (including cubes)] and capacity [for example, using water] |  |  |  |  |  |  |


| 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 |  |  |  |  |  |  |
| GEOMERTY - properties of shapes | A1 | A2 | Sp1 | Sp2 | Sm1 | Sm2 |
| 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 ( ) |  |  |  |  |  |  |
| Identify: <br> - angles at a point and one whole turn (total $360^{\circ}$ ) <br> - angles at a point on a straight line and 2 <br> 1 a turn (total $180^{\circ}$ ) <br> - other multiples of $90^{\circ}$ |  |  |  |  |  |  |
| 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 | A1 | A2 | Sp1 | Sp2 | Sm1 | Sm2 |
| 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 | A1 | A2 | Sp1 | Sp2 | Sm1 | Sm2 |
| Solve comparison, sum and difference problems using information presented in a line graph |  |  |  |  |  |  |
| Complete, read and interpret information in tables, including timetables |  |  |  |  |  |  |

