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| **OVERVIEW****Year 6** | **AUTUMN 1** | **AUTUMN 2** | **SPRING 1**  | **SPRING 2** | **SUMMER 1**  | **SUMMER 2** |
| **Number & Place Value** | * read, write, order and compare numbers up to 10 000 000 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.
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 |
| **Number – addition, subtraction,****multiplication and division**  | * perform mental calculations, including with mixed operations and large numbers
 | * use their knowledge of the order of operations to carry out calculations involving the four operations
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| * 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 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
 | * divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders
* according to the context

identify common factors, common multiples and prime numbers* solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
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| **Fractions** | * use common factors to simplify fractions; use common multiples to express fractions in the same denomination
* compare and order fractions, including fractions > 1

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 | * add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
* associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, ]
 | * multiply simple pairs of proper fractions, writing the answer in its simplest form [for example,  × = ]
* divide proper fractions by whole numbers [for example,  ÷ 2 = ]
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* divide proper fractions by whole numbers [for example,  ÷ 2 = ]
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| **Measurement** | * solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
* 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
* 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
* 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,

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* including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3].
 |
| **Ratio and Proportion** | * 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 unequal sharing and grouping using knowledge of fractions and multiples
 | * solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
* solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
 | * solve problems involving similar shapes where the scale factor is known or can be found
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| **Algebra** | * . use simple formulae
* generate and describe linear number sequences
 | * express missing number problems algebraically
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| **Geometry** | * 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
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 | * recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
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* recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
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| **Position & Direction** | * 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.
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| **Statistics** |  | * interpret and construct pie charts and line graphs and use these to solve problems
* calculate and interpret the mean as an average.
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| **Using & Applying** | Solve problems involving +/-/x/÷ in different contexts. | Solve problems involving +/-/x/÷ in different contexts. | Solve problems involving +/-/x/÷ in different contexts. | Solve problems involving +/-/x/÷ in different contexts. | Solve problems involving +/-/x/÷ in different contexts. | Solve problems involving +/-/x/÷ in different contexts. |