

Year 6

| Aspect | Autumn | Spring | Summer |
|------------------------------------|---|---|---|
| Number and Place Value | <ul style="list-style-type: none"> I read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. | <ul style="list-style-type: none"> I use negative numbers in context and calculate intervals across zero. | <ul style="list-style-type: none"> I round any whole number to the required degree of accuracy. I solve number and practical problems that involve all other number and place value objectives. |
| Addition and Subtraction | <ul style="list-style-type: none"> I perform mental calculations, including with mixed operations and large numbers. I use knowledge of the order of operations to carry out calculations involving the four operations. I use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. | <ul style="list-style-type: none"> I use knowledge of the order of operations to carry out calculations involving the four operations. | <ul style="list-style-type: none"> I solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. I solve problems involving addition, subtraction, multiplication and division. |
| Multiplication and Division | <ul style="list-style-type: none"> I identify common factors, common multiples and prime numbers. I perform mental calculations, including with mixed numbers and large numbers. | <ul style="list-style-type: none"> I multiply multi-digit numbers up to 4-digits by a 2-digit whole number using the formal written method of long multiplication. I divide numbers up to 4-digits by a 2-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. I divide numbers up to 4-digits by a 2-digit number using the formal written method of short division, where appropriate, interpreting remainders according to the context. | <ul style="list-style-type: none"> I solve multiplication and division multi-step problems in contexts, deciding which operations and methods to use and why. |

Year 6 (continued)

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| Fraction | <ul style="list-style-type: none"> I compare and order fractions, including fractions. I use common factors to simplify fractions; use common multiples to express fractions in the same denomination. I recall and use equivalences between simple fractions, decimals and percentages, including different contexts. | <ul style="list-style-type: none"> I add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. | <ul style="list-style-type: none"> I multiply simple pairs of proper fractions, writing the answer in the simplest form. I divide proper fractions by whole numbers. I associate a fraction with division to calculate decimal fraction equivalents, for simple fractions. |
| Measures | <ul style="list-style-type: none"> I calculate, estimate and compare volume of cubes and cuboids using standard units, including cm^3 and m^3, and extending to other units such as mm^3 and km^3. I convert between miles and km. I 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 three decimal places. | <ul style="list-style-type: none"> I solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate. I recognise when it is possible to use formulae for area and volume of shapes. | <ul style="list-style-type: none"> I recognise that shapes with the same areas can have different perimeters and vice versa. I calculate the area of parallelograms and triangles. |
| Geometry | <ul style="list-style-type: none"> I compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. I draw 2D shapes using given dimensions and angles. | <ul style="list-style-type: none"> I describe positions on the full coordinate grid, (all four quadrants). I draw and translate simple shapes on the coordinate plane, and reflect them in the axes. I recognise, describe and build simple 3D shapes, including making nets. | <ul style="list-style-type: none"> I recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. I illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. |

Year 6 (continued)

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|-----------------------------|--------|---|--|
| Statistics | | <ul style="list-style-type: none"> I interpret and construct: pie charts and line graphs and use these to solve problems. | <ul style="list-style-type: none"> I calculate and interpret the mean as an average |
| Ratio and Proportion | | <ul style="list-style-type: none"> I solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. I solve problems involving the calculation of percentages of whole numbers or measures such as 15% of 360 and the use of percentages for comparison. | |
| Algebra | | | <ul style="list-style-type: none"> I express missing number problems algebraically and use simple formulae. I find pairs of numbers that satisfy number sentences with two unknowns. |

Year 6- Progression document
Maths