Year 6 Programme of Study - *'Term per page overview' 2017-2018 FINAL*

Term		National Curriculum requirements
Autumn	**Unit 1** **Place Value** **(2 weeks)**	• 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 • solve problems involving addition and subtraction • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • generate and describe linear number sequences
	Unit 2 **Multiplication and division** **(3 weeks)**	• 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 • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy • multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • multiply one-digit numbers with up to two decimal places by whole numbers • 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 • use written division methods in cases where the answer has up to two decimal places • identify common factors, common multiples and prime numbers • perform mental calculations, including with mixed operations and large numbers • solve problems which require answers to be rounded to specified degrees of accuracy
	Unit 3 **Calculation problems** **(2 weeks)**	• find pairs of numbers that satisfy an equation with two unknowns • use knowledge of the order of operations to carry out calculations involving the four operations • express missing number problems algebraically • solve problems involving addition, subtraction, multiplication and division
	Unit 4 **Fractions** **(2 weeks)**	• use common factors to simplify fractions; use common multiples to express fractions in the same denomination • compare and order fractions, including fractions > 1 • generate and describe linear number sequences (with fractions) • add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
	Unit 5 **Missing angles and lengths** **(1 week)**	• recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. • express missing number problems algebraically • compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons

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Spring	**Unit 6** **Coordinates and shape** **(2 weeks)**	• use negative numbers in context, and calculate intervals across zero • describe positions on the full coordinate grid (all four quadrants) • enumerate possibilities of combinations of two variables • draw 2-D shapes using given dimensions and angles • draw and translate simple shapes on the coordinate plane, and reflect them in the axes • recognise, describe and build simple 3-D shapes, including making nets • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • solve number and practical problems that involve all of the above
	Unit 7 **Fractions** **(1 week)**	• multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] • divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$] • associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] • recall and use equivalences between simple fractions and decimals, including in different contexts
	Unit 8 **Decimals and measures** **(3 weeks)**	• 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 • use simple formulae • calculate the area of parallelograms and triangles • calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3] • generate and describe linear number sequences (with decimals)
	Unit 9 **Percentages and statistics** **(2 weeks)**	• recall and use equivalences between simple fractions, decimals and percentages, including in different contexts • solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison • interpret and construct pie charts and line graphs and use these to solve problems • calculate and interpret the mean as an average
	Unit 10 **Proportion problems** **(2 weeks)**	• 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 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

Summer term

We do not provide specific guidance for Year 6 in the summer term. Schools should instead plan to use the term to consolidate and apply previously learnt topics using their own assessments to identify which areas need further development.

Schools should also allow time to prepare children for KS2 tests in May and transition to Year 7 in early July.