

Year 6 Mathematics Yearly Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Week 1	Place value incl. decimals	Percentages	Algebra and sequences	2D shape, coordinates, translation and reflection	Revision	Investigations
Week 2	Place value incl. decimals	Fractions, decimals, percentages,	2D and 3D shape Geometry - angles	Number properties, Negative numbers, mean	Revision	Investigations
Week 3	Mental and written addition and subtraction	Statistics - pie charts, line graphs	Calculations and word problems	Measurement, ratio and proportion	Revision	Algebra
Week 4	Mental and written multiplication	Area and Perimeter	Measure - Conversions, Time	Area, perimeter and volume of shapes	SATs	Calculations
Week 5	Mental and written division	Calculating with decimals	Calculating with fractions	Statistics	Maths Investigations	Statistics
Week 6	Fractions	Ratio and proportion	Coordinates		Maths Investigations	Fractions, decimals, percentages
Week 7	Fractions	Fractions, decimals, percentages				Review

Autumn 1	Programmes of Study / Objectives / Targets
Week 1	Place value incl. decimals • 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 • 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
Week 2	Place value incl. decimals • Use negative numbers in context, and calculate intervals across zero • Solve number and practical problems using place value. • 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
Week 3	Mental and written addition and subtraction • Perform mental calculations, including with mixed operations and large numbers • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Week 4	Mental and written multiplication • Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • Identify common factors, common multiples and prime numbers • Perform mental calculations, including with mixed operations and large numbers • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Week 5	Mental and written division • 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 • Perform mental calculations, including with mixed operations and large numbers
Week 6	Fractions • 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
Week 7	Fractions • Identify common factors, common multiples and prime numbers • 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

Autumn 2	Programmes of Study / Objectives / Targets
Week 1	Percentages Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
Week 2	Fractions, decimals, percentages, - 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, decimals and percentages, including in different contexts
Week 3	Statistics - pie charts, line graphs Interpret and construct pie charts and line graphs and use these to solve problems
Week 4	Area and Perimeter - 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
Week 5	Calculating with decimals - Use their knowledge of the order of operations to carry out calculations involving the four operations - Solve problems involving addition, subtraction, multiplication and division - 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
Week 6	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 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.

Week 7	Coordinates Describe positions on the full coordinate grid (all four quadrants)
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Spring 1	Programmes of Study / Objectives / Targets
Week 1	Algebra and sequences - Use simple formulae and 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.
Week 2	2D and 3D shape / Geometry - angles - 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.
Week 3	Calculations and word problems 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.
Week 4	Measure - Conversions, Time - 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
Week 5	Calculating with fractions - 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, $41 \times 21 = 81$] - Divide proper fractions by whole numbers [for example, $31 \div 2 = 61$]
Week 6	Fractions, decimals, percentages - 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, decimals and percentages, including in different contexts.

Spring 2	Programmes of Study / Objectives / Targets
Week 1	2D shape, coordinates, translation and reflection Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

	• 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 • Describe positions on the full coordinate grid (all four quadrants)
Week 2	Number properties, Negative numbers, mean • Identify common factors, common multiples and prime numbers • Use negative numbers in context, and calculate intervals across zero • Calculate and interpret the mean as an average.
Week 3	Measurement, 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 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.
Week 4	Area, perimeter and volume of shapes • 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, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³].
Week 5	Statistics • Interpret and construct pie charts and line graphs and use these to solve problems • Calculate and interpret the mean as an average.

Summer 1	Programmes of Study / Objectives / Targets
Week 1	Revision
Week 2	Revision
Week 3	Revision
Week 4	SATs
Week 5	Maths Investigations
Week 6	Maths Investigations

Summer 2	Programmes of Study / Objectives / Targets
Week 1	Maths Investigations
Week 2	Maths Investigations
Week 3	Algebra • Use simple formulae and 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..
Week 4	Calculations • 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.
Week 5	Statistics • Interpret and construct pie charts and line graphs and use these to solve problems • Calculate and interpret the mean as an average.
Week 6	Fractions, decimals, percentages • 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, decimals and percentages, including in different contexts