

Year 6: Medium Term Plan

Autumn	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
	Number: Place value			Number: Addition, subtraction, multiplication and division				Measurement: Converting units and reading scales		Number: Fractions				Consolidation
Spring	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
	Number: Decimals		Number: Percentages			Geometry: Properties of shape & Position and direction			Measurement: Perimeter, area and volume		Statistics			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Summer	Number: Algebra	Number: Ratio	Revision	SATs Week	Problem solving and investigations									

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Autumn Term

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

Addition, subtraction, multiplication and division

- Identify common factors, common multiples and prime numbers
- 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 written method of short division where appropriate interpreting remainders according to the context
- 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
- Use estimation 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
- Solve problems involving addition, subtraction, multiplication and division

Measurement – converting units and reading scales

- Convert between miles and kilometres
- 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

Fractions

- Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
- Use common factors to simplify fractions; use common multiples to express fractions in the same denominator
- Compare and order fractions, including fractions >1
- Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$)
- Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$)

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Spring Term

Decimals

- Identify the value of each digit in numbers given to three decimal places
- Multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
- Multiply one-digit numbers with up to two decimal places by whole numbers
- Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
- Solve problems which require answers to be rounded to specified degrees of accuracy

Percentages

- Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$)
- 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
- Use written division methods in cases where the answer has up to two decimal places

Geometry

- Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- Draw 2-D shapes using given dimensions and angles
- 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
- 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.

Measurement – perimeter, area, volume

- Calculate the area of parallelograms and triangles
- Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3) and cubic metres (m^3), and extending to other units such as mm^3 and km^3 .
- Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- 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

Statistics

- Calculate and interpret the mean as an average
- Interpret and construct pie charts and line graphs and use these to solve problems

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Summer Term

Algebra

- Use simple formulae
- Express missing number problems algebraically
- Find pairs of numbers that satisfy number sentences involving two unknowns
- Enumerate all possibilities of combinations of two variables
- Generate and describe linear number sequences

Ratio

- Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
- 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