

Aims

The national curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

Year 3 Mathematics Curriculum Overview

Autumn Term

Topic	Skills
Number - Number and place value	<ul style="list-style-type: none"> • Read and write numbers to 1000 • Partition three-digit numbers into hundreds, tens, ones • Explain how the digits change when counting in tens or hundreds • Order a set of numbers to 1000 • Solve number problems and reason mathematically
Number - Addition and subtraction	<ul style="list-style-type: none"> • Add and subtract a pair of two-digit numbers • Add and subtract a three-digit number and ones • Add and subtract a three-digit number and tens
Geometry - Properties of shape	<ul style="list-style-type: none"> • Recognise, name and describe prisms • Visualise the skeletal outline of a 3-D shape
Number - Multiplication and division, including Number and place value	<ul style="list-style-type: none"> • Find 10 more or less than a given number • Identify two multiplication and two division facts from a given set of three numbers • Describe the relationship between multiplication and division • Recall the multiplication and division facts for the 3 multiplication table • Solve word problems and reason mathematically
Number - Fractions	<ul style="list-style-type: none"> • Find a unitary amount of a set of objects • Recognise a unit fraction as one item in a set of objects, e.g. $1/10$ • Recognise a non-unit fraction as more than one item in a set of objects, e.g. $3/10$ • Add fractions with the same denominator that total one whole
Measurement (mass)	<ul style="list-style-type: none"> • Measure mass in kilograms and grams • Compare mass in kilograms and grams • Add and subtract mass in kilograms and grams
Number - Addition and subtraction	<ul style="list-style-type: none"> • Add a three-digit number and ones • Add a three-digit number and tens • Add a three-digit number and hundreds • Solve word problems and reason mathematically

Year 3 Mathematics Curriculum Overview

Number - Addition and subtraction	<ul style="list-style-type: none">• Subtract a three-digit number and ones• Subtract a three-digit number and tens• Subtract a three-digit number and hundreds• Solve word problems and reason mathematically
Number - Multiplication and division, including Number and place value	<ul style="list-style-type: none">• Count on and back in steps of 4• Recognise the multiples of 4• Recall the multiplication facts for the 4 multiplication table• Recall the division facts for the 4 multiplication table• Multiply a multiple of 10 by 4
Number - Multiplication and division, including Number and place value	<ul style="list-style-type: none">• Count on and back in steps of 8• Recognise the multiples of 8• Recall the multiplication facts for the 8 multiplication table• Recall the division facts for the 8 multiplication table• Multiply a multiple of 10 by 8• Solve word problems and reason mathematically
Measurement (time)	<ul style="list-style-type: none">• Tell and write the time on a 12-hour clock with hands• Tell and write the time on a 24-hour clock with hands• Use a time line and read words related to time• Estimate and measure time to the nearest minute

Spring Term

Topic	Skills
Number - Number and place value	<ul style="list-style-type: none"> • Read and write numbers to 1000 in numerals and in words • Partition three-digit numbers into hundreds, tens, ones and in other ways • Order a set of numbers to at least 1000 • Solve number problems and reason mathematically
Number - Addition and subtraction	<ul style="list-style-type: none"> • Add amounts of money • Work out change from £1 and £2 • Solve word problems involving money
Number - Multiplication and division, including Number and place value	<ul style="list-style-type: none"> • Recognise the multiples of 2, 4 and 8 • Recall all the division facts for the 4 and 8 multiplication tables • Use halving to recall the division facts for the 4 and 8 multiplication tables • Solve word problems and reason mathematically
Measurement (length)	<ul style="list-style-type: none"> • Read the scale on a ruler and draw lines to the nearest centimetre and millimetre • Use the scale on a ruler to measure a length or distance to the nearest centimetre and millimetre • Know that 1 cm is equivalent to 10 mm • Choose and use a suitable unit to estimate a length of an object and the distance between two objects • Apply knowledge of place value to add and subtract length in mixed units
Number - Fractions	<ul style="list-style-type: none"> • Compare and order unit fractions, and non-unit fractions with the same denominator • Find unit and non-unit fractions of quantities and numbers • Use the denominator to know what to divide by • Recognise and use the link between fractions and division
Geometry - Properties of shape	<ul style="list-style-type: none"> • Recognise, name and draw 2-D shapes, including: pentagon, hexagon and octagon • Make composite shapes with two or more shapes • Identify the number of right angles in a composite or irregular shape

Year 3

Mathematics Curriculum Overview

	<ul style="list-style-type: none">• Describe shapes in terms of angles, sides and vertices
Number - Addition and subtraction	<ul style="list-style-type: none">• Use the expanded written method of columnar addition• Use the formal written method of columnar addition• Add numbers mentally, including a three-digit number and ones, tens and hundreds
Number - Addition and subtraction, including Measurement (money)	<ul style="list-style-type: none">• Use the formal written method of columnar subtraction• Subtract numbers mentally, including a three-digit number and ones, tens and hundreds• Add and subtract amounts of money
Statistics	<ul style="list-style-type: none">• Use tables and tally charts to record data• Interpret the data in tables and tally charts• Show data in scaled pictograms and bar charts• Answer questions about the data in a pictogram and bar chart
Number - Multiplication and division, including Number and place value	<ul style="list-style-type: none">• Recognise the multiples of 50 and 100• Recall multiplication and division facts for the 2, 3, 4, 5, 8 and 10 multiplication tables• Use knowledge of known multiplication facts to multiply a multiple of 10 by 2, 3, 4, 5 and 8• Use knowledge of known division facts to divide a multiple of 10 by 2, 3, 4, 5 and 8• Solve word problems and reason mathematically

Summer Term

Topic	Skills
Number - Fractions	<ul style="list-style-type: none"> • Recognise equivalent fractions • Subtract fractions with the same denominator • Compare and order unit fractions and fractions with the same denominator
Measurement (perimeter)	<ul style="list-style-type: none"> • Understand and apply the term "perimeter" to the sides of a rectangle • Calculate the perimeter of rectangles in centimetres and in metres • Calculate the perimeter of a regular shape in centimetres • Apply simple scaling of the length of one side to finding the perimeter of a regular polygon
Number - Number and place value	<ul style="list-style-type: none"> • Count, read and write numbers to 1000 in numerals and in words • Partition three-digit numbers into hundreds, tens, ones and in other ways • Use a number line to compare and order numbers to at least 1000 • Answer and ask questions about properties of numbers to solve problems
Number - Addition and subtraction	<ul style="list-style-type: none"> • Use the formal written method of columnar addition • Use the formal written method of columnar subtraction • Add and subtract numbers mentally, including a three-digit number and ones, tens and hundreds • Use and apply mental and written methods to solve word problems
Geometry - Properties of shape	<ul style="list-style-type: none"> • Identify when an object or line is horizontal or vertical • Identify when an object or shape has a pair of edges or lines which are perpendicular or parallel • Describe 2-D shapes in terms of angles, sides and vertices • Identify faces and edges of 3-D shapes which are horizontal or vertical • Describe 3-D shapes in terms of faces, edges and vertices
Number - Multiplication and division	<ul style="list-style-type: none"> • Make a reasonable estimate for the answer to a calculation • Partition two-digit numbers into tens and ones • Multiply 2, 3, 4, 5 and 8 by a multiple of 10 • Use a written method to calculate multiplication of $TO \times O$ • Solve word problems and reason mathematically

Year 3 Mathematics Curriculum Overview

Number - Fractions	<ul style="list-style-type: none"> • Recognise tenths • Divide a one-digit number or quantity by 10 • Find fractions of numbers and amounts • Recognise fractions that are equivalent • Solve problems involving fractions
Measurement (volume and capacity)	<ul style="list-style-type: none"> • Know the equivalents of $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{3}{4}$ and $1\frac{1}{10}$ of 1 litre in millilitres • Read scales marked in litres and millilitres to the nearest 100 ml • Measure and compare capacities in mixed units • Add and subtract capacity in mixed units
Number - Addition and subtraction, including Measurement (money)	<ul style="list-style-type: none"> • Use the formal written method of columnar addition • Use and apply mental and written methods to add and subtract amounts of money and solve word problems
Number - Addition and subtraction	<ul style="list-style-type: none"> • Use the formal written method of columnar subtraction • Add and subtract numbers mentally, including a three-digit number and ones, tens and hundreds
Measurement (time)	<ul style="list-style-type: none"> • Tell and write the time to the nearest minute from a 12-hour analogue clock • Tell and write the time to the nearest minute from a 12-hour digital clock • Understand and use the relationships between seconds and minutes, minutes and hours • Know the number of seconds in a minute and the number of days in each month, year and leap year • Calculate durations of events or tasks
Number - Multiplication and division	<ul style="list-style-type: none"> • Make a reasonable estimate for the answer to a calculation • Partition two-digit numbers into tens and ones • Multiply 2, 3, 4, 5 and 8 by a multiple of 10 • Use a written method to calculate multiplication of $TO \times O$ • Solve word problems and reason mathematically
Number - Multiplication and division	<ul style="list-style-type: none"> • Make a reasonable estimate for the answer to a calculation • Partition two-digit numbers into tens and ones • Divide a multiple of 10 by a one-digit number

Year 3

Mathematics Curriculum Overview

	<ul style="list-style-type: none">• Use a written method to calculate division of $TO \div O$• Solve word problems and reason mathematically
Statistics	<ul style="list-style-type: none">• Show and interpret data in a pictogram where a picture represents 2, 5 or 10 units• Show and interpret data in a bar chart with intervals labelled in multiples of 2, 5 or 10• Answer questions about the information in tables and in scaled pictograms and bar chart