



Maths – Year 4

Yearly Topic Overview

Rising Stars Mathematics



PARISH
CE Primary School

These medium-term plans give a complete at-a-glance overview of the structure of Maths at Parish for Year 4 detailing the order of teaching, key concepts, questions and vocabulary and a suggestion of what could be covered each term with some flexibility. Each length of topic (in weeks) differs. Some topics may take 2 weeks to cover, others may take longer depending on the class and cohort. If teachers are confident that children have mastered a concept, then it is acceptable to move on quickly, just as it is important to allow children to spend longer on a topic if necessary to ensure they have fully mastered it before moving on. It is important to remember that the length of a half-term will vary. If the half-term is short, teachers can choose to move a unit into the next term. If a half-term is long, teachers can choose to move a unit back into the preceding term. It is best practice to avoid splitting units between two half-terms, unless the content in each concept is very distinct. Please use these topic overviews as a guide to your class' planning, teaching and learning to provide consistency across the year group.

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

| | | | |
|-----------------------|---|-----------------------|---|
| Term: Autumn 1 | Year 4 | | |
| Strand | Number and Place Value – Number Sense | | |
| Domain | 1. Number and Place Value 2. Measurement | | |
| Key Concepts | Counting Place Value | Key Vocabulary | counting, place value, multiples, factors, positive numbers, negative numbers, thousands, hundreds, tens, ones, identify, represent, estimate |
| Objectives | <ul style="list-style-type: none"> • Count in multiples of three, six and nine. • Count backwards through zero to include negative numbers. • Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens, and ones). • Identify, represent and estimate numbers using different representations. • Solve number and practical problems that involve all of the above and with increasingly large positive numbers. | | |
| Key questions | Can I count in 3s, 6s and 9s and use negative numbers? Can I represent place value in 4-digit numbers in a variety of ways. | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

| Term: Autumn 1 | Year 4 | | |
|----------------------|--|-----------------------|--|
| Strand | Addition and Subtraction – Additive Reasoning | | |
| Domain | 1. Number – addition and subtraction 2. Measurement | | |
| Key Concepts | Adding four-digit numbers Subtracting four-digit numbers | Key Vocabulary | addition, subtraction, columnar addition, columnar subtraction, estimate, inverse, commutative |
| Objectives | <ul style="list-style-type: none"> • Add numbers with up to four digits using the formal written methods of columnar addition where appropriate. • Estimate and use inverse operations to check answers to a calculation. • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. • Subtract numbers with up to four digits using the formal written methods of columnar subtraction where appropriate. • Estimate and use inverse operations to check answers to a calculation. • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. | | |
| Key questions | Can I add and subtract 4-digit numbers using mental and written methods? | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

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|-----------------------|--|-----------------------|---|
| Term: Autumn 1 | Year 4 | | |
| Strand | Factors and Calculating – Multiplicative Reasoning | | |
| Domain | <ol style="list-style-type: none"> 1. Number – place value 2. Number - multiplication and division 3. Measurement | | |
| Key Concepts | Counting Calculating mentally Calculating on paper | Key Vocabulary | counting, multiplication, division, multiples, factors, place value, factor pairs, commutativity, mental calculation, written calculation |
| Objectives | <ul style="list-style-type: none"> • Count in multiples of six and nine. • Recall multiplication and division facts for multiplication tables six, nine and twelve. • Use place value, known and derived facts to multiply and divide mentally, including multiplying together three numbers. • Recognise and using factor pairs and commutativity in mental calculations • Multiply 2-digit and 3-digit numbers by a single-digit number using formal written layout. • Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by single-digit numbers | | |
| Key questions | <p>Can I add and subtract 4-digit numbers using mental and written methods?</p> <p>Can I explore multiplication facts for 6, 9, and 12?</p> <p>Can I perform multiplication calculations mentally?</p> <p>Can I multiply 2- digit numbers by 1-digit numbers?</p> | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

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|-----------------------|--|-----------------------|---|
| Term: Autumn 2 | Year 4 | | |
| Strand | 2-D Shapes, Angles and Symmetry – Geometric Reasoning | | |
| Domain | 1. Geometry – properties of shape | | |
| Key Concepts | Three types of triangle Triangles Quadrilaterals Symmetry | Key Vocabulary | regular, irregular, triangle, quadrilateral, polygon, angles, acute, obtuse, right angles, symmetry, order, compare, classify |
| Objectives | <ul style="list-style-type: none"> • Identify acute and obtuse angles and compare and order angles up to two right angles by size. • Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. • Identify lines of symmetry in 2-D shapes presented in different orientations | | |
| Key questions | <p>Can I identify acute, obtuse and right angles?</p> <p>Can I identify types of triangles?</p> <p>Can I identify types of quadrilaterals?</p> <p>Can I explore lines of symmetry in 2-D shapes?</p> | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

| | | | |
|-----------------------|--|-----------------------|---|
| Term: Autumn 2 | Year 4 | | |
| Strand | Different Numbers – Number Sense | | |
| Domain | <ol style="list-style-type: none"> 1. Number and Place Value 2. Measurement 3. Statistics | | |
| Key Concepts | Counting Rounding, ordering and comparing Roman numerals | Key Vocabulary | counting, rounding, ordering, comparing, multiples, factors, positive numbers, negative numbers, thousands, hundreds, tens, ones, order, compare, identify, estimate, represent, Roman numerals |
| Objectives | <ul style="list-style-type: none"> • Count in multiples of seven. • Count backwards through zero to include negative numbers. • Solve number and practical problems that involve all of the above and with increasingly large positive numbers • Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens, and ones). • Order and compare numbers beyond 1000. • Identify, represent and estimate numbers using different representations. • Round any number to the nearest 10, 100 or 1000. • Solve number and practical problems that involve all of the above and with increasingly large positive numbers. • Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value. | | |
| Key questions | <p>Can I count in 7s?</p> <p>Can I round, compare and order 4-digit numbers?</p> <p>Can I read and write Roman numerals?</p> | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

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|-----------------------|--|-----------------------|---|
| Term: Spring 1 | Year 4 | | |
| Strand | Applying addition and subtraction – Additive Reasoning | | |
| Domain | <ol style="list-style-type: none"> 1. Number – addition and subtraction 2. Measurement 3. Statistics | | |
| Key Concepts | Using mental and written methods to solve problems Bar Models and Bar Charts Solving Problems | Key Vocabulary | addition, subtraction, columnar addition, columnar subtraction, estimate, inverse, check, convert, kilometres, metres, hours, minutes, seconds, years, weeks, days, months centimetres, millimetres, analogue, digital, 12 hour, 24 hour, discrete data, continuous data, bar charts, time graphs, pictograms, sum, difference, pounds, pence |
| Objectives | <ul style="list-style-type: none"> • Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate. • Estimate and use inverse operations to check answers to a calculation. • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. • Convert between different units of measure (for example, kilometre to metre; hour to minute). • Read, write and convert time between analogue and digital 12- and 24-hour clocks. • Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. • Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. • Estimate and use inverse operations to check answers to a calculation. • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. • Estimate, compare and calculate using different measures, including money, in pounds and pence. | | |
| Key questions | <p>Can I use mental and written methods to solve addition and subtraction problems?</p> <p>Can I use addition and subtraction to investigate bar models and bar charts?</p> <p>Can I solve addition and subtraction two-step problems?</p> | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

| | | | |
|-----------------------|---|-----------------------|--|
| Term: Spring 1 | Year 4 | | |
| Strand | Fractions and Decimals – Number Sense | | |
| Domain | <ol style="list-style-type: none"> 1. Number – fractions including decimals 2. Measurement | | |
| Key Concepts | Families of fractions Decimal equivalents | Key Vocabulary | fractions, parts of a whole, wholes, equivalence, decimals, tenths, hundredths, thousandths, fraction families, unit fractions, non-unit fractions, numerator, denominator, vinculum |
| Objectives | <ul style="list-style-type: none"> • Recognise and show, using diagrams, families of common equivalent fractions. • Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number. • Add and subtract fractions with the same denominator • Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by ten. • Recognise and write decimal equivalents of any number of tenths or hundredths. • Recognise and write decimal equivalents to a quarter, half and three quarters. • Find the effect of dividing a single- or 2-digit number by ten and 100, identifying the value of the digits in the answer as ones, tenths and hundredths | | |
| Key questions | <p>Can I find equivalent fractions and add and subtract fractions with the same denominator? Can I explore decimal and fraction equivalences?</p> | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

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|-----------------------|---|-----------------------|--|
| Term: Spring 2 | Year 4 | | |
| Strand | Methods for Multiplying – Multiplicative Reasoning | | |
| Domain | <ol style="list-style-type: none"> Number – multiplication and division Number – fractions including decimals and percentages | | |
| Key Concepts | Multiplication table facts Three at once Written methods Scaling | Key Vocabulary | multiplication, division, multiples, factors, commutativity, scaling, integers |
| Objectives | <ul style="list-style-type: none"> Count in multiples of 7. Recall multiplication and division facts for the 7 and 11 times tables. Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers Multiply 2-digit numbers by a single-digit number using a formal written layout. Solve problems involving multiplying and adding Solve integer scaling problems. | | |
| Key questions | Can I count in 7s and use multiplication facts for 7 and 11? Can I multiply three numbers? Can I solve multiplication problems? Can I use scaling to model multiplication problems? | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

| | | | |
|-----------------------|--|-----------------------|---|
| Term: Spring 2 | Year 4 | | |
| Strand | Polygons and Coordinates – Geometric Reasoning | | |
| Domain | Geometry - properties of shapes Geometry - position and direction | | |
| Key Concepts | Trapeziums and kites Coordinates and translations | Key Vocabulary | 2-D, polygon, regular, irregular, trapezium, kite, quadrilateral, triangle, angles, obtuse, acute, right angles, coordinate, quadrants, translation, left, right, up, down, plot, points, grids |
| Objectives | <ul style="list-style-type: none"> • Compare and classify geometric shapes, including all types of quadrilaterals and triangles, based on their properties and sizes. • Describe positions on a 2-D grid as coordinates in the first quadrant. • Describe movements between positions as translations of a given unit to the left/right and up/down. • Plot specified points and draw sides to complete a given polygon. | | |
| Key questions | <p>Can I investigate trapeziums and kites?</p> <p>Can I use coordinate grids to plot coordinates and translate shapes?</p> | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

| | | | |
|-----------------------|--|-----------------------|--|
| Term: Summer 1 | Year 4 | | |
| Strand | Number and Place Value in Real Life – Number Sense | | |
| Domain | <ol style="list-style-type: none"> 1. Number – Number and place value 2. Number – Addition and Subtraction 3. Measurement | | |
| Key Concepts | 25s and 1000s Place value and measures | Key Vocabulary | Place value, addition, subtraction, multiples, factors, more than, less than, thousands, hundreds, tens, ones, identify, represent, estimate |
| Objectives | <ul style="list-style-type: none"> • Count in multiples of 25 and 1000. • Find 1000 more or less than a given number • Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens, and ones). • Identify, represent and estimate numbers using different representations. • Solve number and practical problems that involve all of the above and with increasingly large positive numbers. | | |
| Key questions | <p>Can I count in 25s and 1000s? Can I use place value in different contexts?</p> | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

| | | | |
|-----------------------|--|-----------------------|---|
| Term: Summer 1 | Year 4 | | |
| Strand | Addition and Subtraction Problems – Additive Reasoning | | |
| Domain | 1. Solve addition and subtraction problems using written methods. | | |
| Key Concepts | Solving problems using written methods Applying methods of addition and subtraction | Key Vocabulary | addition, subtraction, columnar addition, columnar subtraction, estimate, inverse, check, fractions, numerator, denominator, vinculum, decimals, tenths, hundredths, thousandths, decimal places, pounds, pence |
| Objectives | <ul style="list-style-type: none"> • Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate. • Estimate and use inverse operations to check answers to a calculation. • Solve simple measure and money problems involving fractions and decimals to two decimal places. • Estimate, compare and calculate different measures including money, in pounds and pence. • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. | | |
| Key questions | <p>Can I solve addition and subtraction problems using written methods?</p> <p>Can I solve real-life addition and subtraction problems using written methods?</p> | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

| | | | |
|-----------------------|--|-----------------------|--|
| Term: Summer 1 | Year 4 | | |
| Strand | Decimals and Fractions in Real Life - Number Sense | | |
| Domain | <ol style="list-style-type: none"> 1. Number – addition and subtraction 2. Number - multiplication and division 3. Measurement | | |
| Key Concepts | Equivalences Comparing and rounding decimals | Key Vocabulary | Addition, subtraction, multiplication, division, fractions, parts of a whole, wholes, numerator, denominator, vinculum, decimals, tenths, quarters, halves, three quarters, hundredths, thousandths, equivalence, compare, round, decimal places |
| Objectives | <ul style="list-style-type: none"> • Recognise and write decimal equivalents of any number of tenths or hundredths. • Recognise and write decimal equivalents to quarter, half and three-quarters. • Recognise and show, using diagrams, families of common equivalent fractions. • Add and subtract fractions with the same denominator • Round decimals with one decimal place to the nearest whole number. • Compare numbers with the same number of decimal places up to two decimal places. | | |
| Key questions | <p>Can I investigate equivalent fractions and decimals?</p> <p>Can I compare decimals and round decimals to the nearest whole number?</p> | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

| | | | |
|-----------------------|---|-----------------------|--|
| Term: Summer 2 | Year 4 | | |
| Strand | Multiplication Tables - Multiplicative Reasoning | | |
| Domain | <ol style="list-style-type: none"> 1. Number - number and place value 2. Number - multiplication and division 3. Statistics 4. Measurement | | |
| Key Concepts | Multiplying and dividing mentally Multiplying on paper Scaling | Key Vocabulary | multiplication, division, commutativity, multiples, factors, factor pairs, integers, scaling |
| Objectives | <ul style="list-style-type: none"> • Count in multiples of 25 and 1000. • Recall multiplication and division facts for multiplication tables up to 12×12. • Multiply 2-digit and 3-digit numbers by a single-digit number using a formal written layout. • Solve problems involving multiplying and adding. • Solve problems involving multiplying and adding, including integer scaling problems and harder correspondence problems such as n objects are connected with m objects. | | |
| Key questions | <p>Can I count in 25 and 1000s and use multiplication facts?</p> <p>Can I use formal written methods to multiply 3- digit numbers by 1-digit numbers?</p> <p>Can I use scaling to perform multiplication calculations?</p> | | |

Maths Yearly Topic Overview – Year 4



Subject: **Maths**

| | | | |
|-----------------------|---|-----------------------|---|
| Term: Summer 2 | Year 4 | | |
| Strand | Perimeter, Area and Symmetry – Geometric Reasoning | | |
| Domain | <ol style="list-style-type: none"> Geometry – Properties of shape Measurement | | |
| Key Concepts | Perimeter and areas Perimeter and angles Area and symmetry | Key Vocabulary | 2-D, regular, irregular, perimeter, area, angles, acute, obtuse, right angles, symmetrical, rectilinear, centimetres, metres, squared, quadrilateral, polygon |
| Objectives | <ul style="list-style-type: none"> • Measure and calculate the perimeter of rectilinear figures (including squares) in centimetres and metres. • Find the area of rectilinear shapes by counting squares. • Identify acute and obtuse angles and compare and order angles up to two right angles by size. • Complete a simple symmetrical figure with respect to a specific line of symmetry. • Find the area of rectilinear shapes by counting squares. | | |
| Key questions | Can I calculate perimeter and area? Can I investigate angles in 2-D shapes? Can I count squares to find area and complete symmetrical shapes? | | |