

## Year 4 Curriculum Coverage

Below is the coverage for the Year 4 Maths curriculum. Ongoing objectives across the year are highlighted in red.

### **Number and place value**

- count in multiples of 6, 7, 9, 25 and 1,000
- find 1,000 more or less than a given number
- count backwards through 0 to include negative numbers
- recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)
- order and compare numbers beyond 1,000
- identify, represent and estimate numbers using different representations
- round any number to the nearest 10, 100 or 1,000
- 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 0 and place value

### **Number - addition and subtraction**

- add and subtract numbers with up to 4 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

### **Number - multiplication and division**

- recall multiplication and division facts for multiplication tables up to  $12 \times 12$
- use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers
- recognise and use factor pairs and commutativity in mental calculations
- multiply two-digit and three-digit numbers by a one-digit number using formal written layout
- solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects

### **Number - fractions**

- recognise and show, using diagrams, families of common equivalent fractions
- count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10
- 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
- recognise and write decimal equivalents of any number of tenths or hundredths
- recognise and write decimal equivalents to  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$
- find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
- round decimals with 1 decimal place to the nearest whole number
- compare numbers with the same number of decimal places up to 2 decimal places

- solve simple measure and money problems involving fractions and decimals to 2 decimal places

### **Measurement**

- convert between different units of measure [for example, kilometre to metre; hour to minute]
- measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- find the area of rectilinear shapes by counting squares
- estimate, compare and calculate different measures, including money in pounds and pence
- 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

### **Geometry - properties of shapes**

- compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
- identify acute and obtuse angles and compare and order angles up to 2 right angles by size
- identify lines of symmetry in 2-D shapes presented in different orientations
- complete a simple symmetric figure with respect to a specific line of symmetry

### **Geometry – position and direction**

- 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

### **Statistics**

- 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

### Year 4 Rapid Recall

Listed below are the number facts that we expect year 4 children to learn by heart. We track children's assessments in these facts on a half termly basis. This data informs our number focus for the next half term for whole class starters and afternoon intervention groups.

Number facts, number bonds	Counting	Addition and subtraction facts	Times tables and division facts	Doubles and halves
Recall number bonds to 1000 in multiples of 100	Count forwards in steps of 6 to 72	Know 1000 more and 1000 less than any 3 or 4 digit number	Know the multiplication facts for 6 times tables	Know double 600, 700, 800, 900, 1000
Recall number bonds to 1000 in multiples of 50 (350 and 650)	Count backwards in steps of 6 from 72		Know the division facts for 6 times tables	Know half of 300, 500, 700, 900
	Count forwards in steps of 7 to 84		Know the multiplication facts for 7 times tables	
	Count backwards in steps of 7 from 84		Know the division facts for 7 times tables	
	Count forwards in steps of 9 to 108		Know the multiplication facts for 9 times tables	
	Count backwards in steps of 9 from 108		Know the division facts for 9 times tables	
	Count forwards in steps of 11 to 132		Know the multiplication facts for 11 times tables	
	Count backwards in steps of 11 from 132		Know the division facts for 11 times tables	
	Count forwards in steps of 25 to 1000			
	Count backwards in steps of 25 from 1000			
	Count from 5 to -5 forwards and backwards			
	Count forwards in steps of 1000 to 10,000			
	Count backwards in steps of 1000 from 10,000			

### Teaching sequence - Starter tasks

We have carefully planned our curriculum so that some key concepts are revisited throughout the year.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
<b>Autumn 1</b>	Naming 2d and 3d shapes and properties  Perimeter of shapes	Number bonds 20 and bonds to 100 in multiples of 10 and multiples of 5	Time to the nearest 1 minute.	Interpret pictograms, tally chart, bar chart, time graphs and tables.	Doubles and halves  Ten more, ten less, one hundred more and one hundred less	Find and write fractions of a set of objects and amounts  Roman numerals to 100	Compare and order numbers up to 1000 < >  Read and write numbers to 1000 in numerals
<b>Autumn 2</b>	Number bonds 20 and bonds to 100 in multiples of 10 and multiples of 5  Bonds to 1000 in multiples of 100 and 50  Roman numerals to 100	Time to the nearest 1 minute.	Naming 2d and 3d shapes and properties  Perimeter of rectilinear shapes  Area of rectilinear shapes – count squares	Doubles and halves  Ten more, ten less, one hundred more and one hundred less, one thousand more, one thousand less	Interpret pictograms, tally chart, bar chart, time graphs and tables.	Compare and order numbers beyond 1000 < >  Round any number to the nearest 10, 100 or 1000	Time to the nearest 1 minutes. 12 and 24 hour clocks, analogue and digital
<b>Spring 1</b>	Naming 2d and 3d shapes and properties  Perimeter of rectilinear shapes  Area of rectilinear shapes – count squares  Coordinates	Number bonds 20 and bonds to 100 in multiples of 10 and multiples of 5  Bonds to 1000 in multiples of 100 and 50  Roman numerals to 100	Interpret pictograms, tally chart, bar chart, time graphs and tables.	Time to the nearest 1 minutes. 12 and 24 hour clocks, analogue and digital	Compare and order numbers beyond 1000 < >  Round any number to the nearest 10, 100 or 1000	Doubles and halves  Ten more, ten less, one hundred more and one hundred less, one thousand more, one thousand less  Roman numerals to 100	Naming 2d and 3d shapes and properties  Perimeter of rectilinear shapes  Area of rectilinear shapes – count squares  Coordinates
<b>Spring 2</b>	Time to the nearest 1 minutes. 12 and 24 hour clocks, analogue and digital	Interpret pictograms, tally chart, bar chart, time graphs and tables.	Doubles and halves  Ten more, ten less, one hundred more and one hundred less, one thousand more, one thousand less	Number bonds 20 and bonds to 100 in multiples of 10 and multiples of 5  Bonds to 1000 in multiples of 100 and 50  Roman numerals to 100	Naming 2d and 3d shapes and properties  Perimeter of rectilinear shapes  Area of rectilinear shapes – count squares  Coordinates		
<b>Summer 1</b>	Doubles and halves  Ten more, ten less, one hundred more and one hundred less, one thousand	Time to the nearest 1 minutes. 12 and 24 hour clocks, analogue and digital	Naming 2d and 3d shapes and properties  Perimeter of rectilinear shapes	Interpret pictograms, tally chart, bar chart, time graphs and tables.	Number bonds 20 and bonds to 100 in multiples of 10 and multiples of 5  Bonds to 1000 in multiples of 100 and 50	Compare and order numbers beyond 1000 < >  Round any number to the	

	more, one thousand less  Roman numerals to 100		Area of rectilinear shapes – count squares  Coordinates		Roman numerals to 100	nearest 10, 100 or 1000	
<b>Summer 2</b>	Naming 2d and 3d shapes and properties  Perimeter of rectilinear shapes  Area of rectilinear shapes – count squares  Coordinates	Number bonds 20 and bonds to 100 in multiples of 10 and multiples of 5  Bonds to 1000 in multiples of 100 and 50  Roman numerals to 100	Time to the nearest 1 minutes. 12 and 24 hour clocks, analogue and digital	Compare and order numbers beyond 1000 < >  Round any number to the nearest 10, 100 or 1000	Doubles and halves  Ten more, ten less, one hundred more and one hundred less, one thousand more, one thousand less  Roman numerals to 100	Naming 2d and 3d shapes and properties  Perimeter of rectilinear shapes  Area of rectilinear shapes – count squares  Coordinates	Interpret pictograms, tally chart, bar chart, time graphs and tables.

### Teaching sequence – Daily counting

Counting will be an essential element to each daily maths lesson.

### Teaching sequence – Main Maths Lesson Coverage

We have carefully planned our curriculum so that some key concepts are revisited throughout the year.

<b>Autumn 1</b>	Place value	Addition & subtraction	Multiplication & division	Measure	Geometry - Shapes
<b>Autumn 2</b>	Place value	Multiplication & division	Fractions	Measure	Geometry – position & direction
<b>Spring 1</b>	Place value	Addition & subtraction	Fractions	Measure	
<b>Spring 2</b>	Place value	Multiplication & division	Fractions	Statistics	
<b>Summer 1</b>	Place value	Addition & subtraction	Geometry - Shapes	Geometry – position & direction	
<b>Summer 2</b>	Place value	Multiplication & division	Fractions	Measure	Statistics

<b>Autumn 1</b>	<p><b>Place value</b></p> <ul style="list-style-type: none"> <li>find 1,000 more or less than a given number</li> <li>recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)</li> <li>order and compare numbers beyond 1,000</li> <li>identify, represent and estimate numbers using different representations</li> <li>round any number to the nearest 10, 100 or 1,000</li> <li>read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value</li> </ul> <p><b>Addition &amp; subtraction</b></p> <ul style="list-style-type: none"> <li>add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</li> <li>estimate and use inverse operations to check answers to a calculation</li> </ul>
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	<ul style="list-style-type: none"> <li>• solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</li> </ul> <p><b>multiplication and division</b></p> <ul style="list-style-type: none"> <li>• use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers</li> <li>• recognise and use factor pairs and commutativity in mental calculations</li> </ul> <p><b>Measurement</b></p> <ul style="list-style-type: none"> <li>• measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>• find the area of rectilinear shapes by counting squares</li> </ul> <p><b>Geometry - properties of shapes</b></p> <ul style="list-style-type: none"> <li>• compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>• identify acute and obtuse angles and compare and order angles up to 2 right angles by size</li> <li>• identify lines of symmetry in 2-D shapes presented in different orientations</li> <li>• complete a simple symmetric figure with respect to a specific line of symmetry</li> </ul>
<b>Autumn 2</b>	<p><b>Place value</b></p> <ul style="list-style-type: none"> <li>• count backwards through 0 to include negative numbers</li> <li>• identify, represent and estimate numbers using different representations</li> </ul> <p><b>multiplication and division</b></p> <ul style="list-style-type: none"> <li>• multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>• solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</li> </ul> <p><b>Number - fractions</b></p> <ul style="list-style-type: none"> <li>• recognise and show, using diagrams, families of common equivalent fractions</li> <li>• count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10</li> <li>• 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</li> <li>• add and subtract fractions with the same denominator</li> </ul> <p><b>Measure</b></p> <ul style="list-style-type: none"> <li>• read, write and convert time between analogue and digital 12- and 24-hour clocks</li> <li>• solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days</li> </ul> <p><b>Geometry – position and direction</b></p> <ul style="list-style-type: none"> <li>• describe positions on a 2-D grid as coordinates in the first quadrant</li> </ul>
<b>Spring 1</b>	<p><b>Place value</b></p> <ul style="list-style-type: none"> <li>• recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)</li> </ul> <p>identify, represent and estimate numbers using different representations</p> <p><b>Addition &amp; subtraction</b></p> <ul style="list-style-type: none"> <li>• add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</li> <li>• estimate and use inverse operations to check answers to a calculation</li> <li>• solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</li> </ul> <p><b>Number - fractions</b></p> <ul style="list-style-type: none"> <li>• recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>• recognise and write decimal equivalents to <math>\frac{1}{4}, \frac{1}{2}, \frac{3}{4}</math></li> <li>• find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> <li>• round decimals with 1 decimal place to the nearest whole number</li> <li>• compare numbers with the same number of decimal places up to 2 decimal places</li> <li>• solve simple measure and money problems involving fractions and decimals to 2 decimal places</li> </ul> <p><b>Measure</b></p> <ul style="list-style-type: none"> <li>• convert between different units of measure [for example, kilometre to metre; hour to minute]</li> <li>• estimate, compare and calculate different measures, including money in pounds and pence</li> </ul>

<p><b>Spring 2</b></p>	<p><b>Place value</b></p> <ul style="list-style-type: none"> <li>• find 1,000 more or less than a given number</li> <li>• round any number to the nearest 10, 100 or 1,000</li> </ul> <p><b>multiplication and division</b></p> <ul style="list-style-type: none"> <li>• multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>• solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</li> </ul> <p><b>Number - fractions</b></p> <ul style="list-style-type: none"> <li>• recognise and show, using diagrams, families of common equivalent fractions</li> <li>• count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10</li> <li>• 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</li> <li>• add and subtract fractions with the same denominator</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>• interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</li> <li>• solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</li> </ul>
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<p><b>Summer 2</b></p>	<p><b>Place value</b></p> <ul style="list-style-type: none"> <li>• order and compare numbers beyond 1,000</li> </ul> <p><b>multiplication and division</b></p> <ul style="list-style-type: none"> <li>• multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>• solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</li> </ul> <p><b>Number - fractions</b></p> <ul style="list-style-type: none"> <li>• recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>• recognise and write decimal equivalents to <math>\frac{1}{4}, \frac{1}{2}, \frac{3}{4}</math></li> <li>• find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> <li>• round decimals with 1 decimal place to the nearest whole number</li> <li>• compare numbers with the same number of decimal places up to 2 decimal places</li> <li>• solve simple measure and money problems involving fractions and decimals to 2 decimal places</li> </ul> <p><b>Measure</b></p> <ul style="list-style-type: none"> <li>• convert between different units of measure [for example, kilometre to metre; hour to minute]</li> <li>• estimate, compare and calculate different measures, including money in pounds and pence</li> </ul> <p><b>Statistics</b></p>

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