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 × 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 hundreds
- 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 Recall number bonds to 1000 in multiples of 50 (350 and 650)	Count forwards in steps of 6 to 72 Count backwards in steps of 6 from 72 Count forwards in steps of 7 to 84 Count backwards in steps of 7 from 84 Count forwards in steps of 9 to 108 Count backwards in steps of 9 from 108 Count forwards in steps of 11 to 132 Count backwards in steps of 11 from 132 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	Know 1000 more and 1000 less than any 3 or 4 digit number	Know the multiplication facts for 7 times tables Know the division facts for 7 times tables Know the multiplication facts for 9 times tables Know the division facts for 9 times tables Know the multiplication facts for 11 times tables Know the division facts for 11 times tables	Know double 600, 700, 800, 900, 1000 Know half of 300, 500, 700, 900

Teaching sequence - Starter tasks

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

	Week1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
A1	Naming 2d and 3d shapes and properties Perimeter of shapes	Number bonds 20 and bonds to100 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	Bonds to 1000 in multiples of 100 and 50
A2	Number bonds 20 and bonds to100 in multiples of 10 and multiples of 5 Roman numerals to 100	Time to the nearest 1 minute.	Naming 2d and 3d shapes and properties Perimeter of rectilinear shapes Arear 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	
Sp1	Naming 2d and 3d shapes and properties	Number bonds 20 and bonds to100 in	Interpret pictograms, tally chart, bar chart,	Time to the nearest 1 minutes. 12 and 24	Compare and order numbers beyond 1000 < >	Doubles and halves		

	Perimeter of rectilinear shapes Arear of rectilinear shapes – count squares Coordinates	multiples of 10 and multiples of 5 Bonds to 1000 in multiples of 100 and 50 Roman numerals to 100	time graphs and tables.	hour clocks, analogue and digital	Round any number to the nearest 10, 100 or 1000	Ten more, ten less, one hundred more and one hundred less, one thousand more, one thousand less Roman numerals to 100		
Sp2	Naming 2d and 3d shapes and properties Perimeter of rectilinear shapes Arear of rectilinear shapes – count squares Coordinates	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 to100 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 Arear of rectilinear shapes – count squares Coordinates	Time to the nearest 1 minutes. 12 and 24 hour clocks, analogue and digital		
Su1	Doubles and halves Ten more, ten less, one hundred more and one hundred less, one thousand more, one thousand less Roman numerals to 100	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 Arear of rectilinear shapes – count squares Coordinates	Interpret pictograms, tally chart, bar chart, time graphs and tables.	Number bonds 20 and bonds to100 in multiples of 10 and multiples of 5 Bonds to 1000 in multiples of 100 and 50 Roman numerals to 100			
Su2	Naming 2d and 3d shapes and properties Perimeter of rectilinear shapes Arear of rectilinear shapes – count squares Coordinates	Number bonds 20 and bonds to100 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 Arear of rectilinear shapes – count squares Coordinates	Interpret pictograms, tally chart, bar chart, time graphs and tables.	

<u>Teaching sequence – Daily counting</u>

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.

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

Autumn 1	**Place value** • find 1,000 more or less than a given number Y3 - find 10 more or less than a given number to 1000 Y3 - Find 100 more or less than a given number to 1000 • recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) Y3 - recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) • order and compare numbers to 10,000 using < > = and the language greater than, less than and equal to Y3 - Order and compare numbers up to 1,000 using < and > and = • identify, represent and estimate numbers using different representations to 10,000 including: part, part whole, bar model, number lines, base 10 Y3 - identify, represent and estimate numbers to 1000 using different representations including: part, part whole, bar model, number lines, base 10 • round any number up to 10,000 to the nearest 10, 100 or 1,000 • 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 Y3 – Roman numerals to 12 **Addition & subtraction** • add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction **where appropriate** **Near doubles** • Know double 600, 700, 800, 900, 1000 **Number bonds** • Recall number bonds to 1000 in multiples of 100 • Recall number bonds to 1000 in multiples of 50 (350 and 650) **Bridging** • Making the next 10, 100 or 1000 **Partition and combine** Thousands, hundreds, tens and ones • 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

	multiplication and division • use place value, known and derived facts to multiply and divide mentally (e.g. 3 x 7 = 21 so 30 x 7 = 210) (e.g – To work out 18 x 7 you can do 10 x 7 and then 8 x 7) • multiplying by 0 and 1 • dividing by 1 • multiplying together 3 numbers (using numbers 0-10) • recognise and use factor pairs up to 12 x 12 (e.g. 6 x 4 + 6 x 4 is the same as 8 x 6) • Use commutativity in mental calculations **Measurement** • measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres Y3 - measure the perimeter of simple 2-D shapes • find the area of rectilinear shapes by counting squares **Geometry - properties of shapes** • compare and classify shapes, including quadrilaterals (squares, rectangles, trapezium, parallelogram, kite, rhombus)and triangles (equilateral, scalene, isosceles, right angled) based on their properties and sizes <u>previously taught 2d shapes:</u> circles, squares, rectangles, triangles, ovals, pentagons, hexagons, octagons, semi-circle, trapezium, parallelograms, kite, rhombus, irregular triangles, pentagons, hexagons, octagons <u>previously taught 3d shapes:</u> cone, cylinder, square based pyramid, sphere, cuboid, cube, triangular prism Y2 - identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces Y2 - identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • identify acute and obtuse angles and compare and order angles up to 2 right angles by size Y3 - recognise angles as a property of shape or a description of a turn Y3 - identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle • identify lines of symmetry in 2-D shapes presented in different orientations Y2 -identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line • complete a simple symmetric figure with respect to a specific line of symmetry Y3 - draw 2-D shapes Y2 -identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line
Autumn 2	**Place value** • count backwards through 0 to include negative numbers • identify, represent and estimate numbers using different representations Y3-identify, represent and estimate numbers to 1000 using different representations including: part, part whole, bar model, number lines, base 10 Y2 - identify, represent and estimate numbers to 100 using tens frames, part-part whole, bar model, 100 square, number line **multiplication and division** • multiply two-digit and three-digit numbers by a one-digit number using formal written layout Y3-write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

	• 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 **Measure** • 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 – position and direction** • describe positions on a 2-D grid as coordinates in the first quadrant
Spring 1	**Place value** • recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) identify, represent and estimate numbers using different representations **Addition & subtraction** • add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction **where appropriate** **Near doubles** • Know double 600, 700, 800, 900, 1000 **Number bonds** • Recall number bonds to 1000 in multiples of 100 • Recall number bonds to 1000 in multiples of 50 (350 and 650) **Bridging** • Making the next 10, 100 or 1000 **Partition and combine** Thousands, hundreds, tens and ones • 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 - fractions** • recognise and write decimal equivalents of any number of tenths or hundreds • 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 **Measure** • convert between different units of measure [for example, kilometre to metre; hour to minute] • estimate, compare and calculate different measures, including money in pounds and pence
Spring 2	**Place value** • find 1,000 more or less than a given number • round any number to the nearest 10, 100 or 1,000 **multiplication and division** • 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 **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
Summer 1	**Place value** • 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) identify, represent and estimate numbers using different representations **Addition & subtraction** • add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction **where appropriate** **Near doubles** • Know double 600, 700, 800, 900, 1000 **Number bonds** • Recall number bonds to 1000 in multiples of 100 • Recall number bonds to 1000 in multiples of 50 (350 and 650) **Bridging** • Making the next 10, 100 or 1000 **Partition and combine** Thousands, hundreds, tens and ones • 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 **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 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
Summer 2	**Place value** • order and compare numbers beyond 1,000 **multiplication and division** • 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 write decimal equivalents of any number of tenths or hundreds • 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 **Measure** • convert between different units of measure [for example, kilometre to metre; hour to minute] • estimate, compare and calculate different measures, including money in pounds and pence **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