Year 3 Curriculum Coverage

Below is the coverage for the Year 3 Maths curriculum. Objectives which are facts that need to be learned frequently across the year rather than taught in lessons are highlighted in red.

Number and place value

- count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
- recognise the place value of each digit in a 3-digit number (100s, 10s, 1s)
- compare and order numbers up to 1,000
- identify, represent and estimate numbers using different representations
- read and write numbers up to 1,000 in numerals and in words
- solve number problems and practical problems involving these ideas

Number - addition and subtraction

- add and subtract numbers mentally, including:
  - a three-digit number and 1s
  - a three-digit number and 10s
  - a three-digit number and 100s
- add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction
- estimate the answer to a calculation and use inverse operations to check answers
- solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction

Number - multiplication and division

- recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
- 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, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects

Number - fractions

- count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10
- recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
- recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
- recognise and show, using diagrams, equivalent fractions with small denominators

- add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]
- compare and order unit fractions, and fractions with the same denominators
- solve problems that involve all of the above

Measurement

- measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
- measure the perimeter of simple 2-D shapes
- add and subtract amounts of money to give change, using both £ and p in practical contexts
- tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
- estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight
- know the number of seconds in a minute and the number of days in each month, year and leap year
- compare durations of events [for example, to calculate the time taken by particular events or tasks]

Geometry - properties of shapes

- draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them
- recognise angles as a property of shape or a description of a turn
- 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 horizontal and vertical lines and pairs of perpendicular and parallel lines

Statistics

- interpret data using bar charts, pictograms and tables
- present data using bar charts, pictograms and tables
- solve one-step and two-step questions [for example 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables

Year 3 Rapid Recall

Listed below are the number facts that we expect year 3 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 100 in multiples of 5	Count forwards in steps of 4 to 48 Count backwards in steps of 4 from 48 Count forwards in steps of 8 to 96 Count backwards in steps of 8 from 96 Count forwards in steps of 50 to 1000 Count backwards in steps of 50 from 1000 Count forwards in steps of 100 to 1000 Count backwards in steps of 100 from 1000	Know 10 more and 10 less than any 3 digit number Know 100 more and 100 less than any 3 digit number	Know the multiplication facts for 3 times tables Know the division facts for 3 times tables Know the multiplication facts for 4 times tables Know the division facts for 4 times tables Know the multiplication facts for 8 times tables Know the division facts for 8 times tables Know the multiplication facts for 6 times tables Know the division facts for 6 times tables	Know double 60, 70, 80, 90 and 100 Know half of 30, 50, 70, and 90 Know double 100, 200, 300, 400, 500 Know half of 1000, 800, 600, 400, 200, 100

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	Time to the nearest 5 minutes Know the number of seconds in a minute, days in a month, days in a year and days in a leap year	Compare and order numbers up to 100 < > Read and write numbers to 100 in numerals	Compositions within 20. Number bonds to 100 in multiples of 10	Doubles and halves One more, one less & ten more, ten less	Naming 2d and 3d shapes and properties Perimeter of shapes	Interpret simple pictograms, tally chart.	Ten more, ten less, one hundred more and one hundred less Number bonds to 10 and 20 and bonds to100 in multiples of 10	Roman numerals 1-12
A2	Compare and order numbers up to 1000 < > Read and write numbers to 1000 in numerals	Time to the nearest 1 minutes Know the number of seconds in a minute, days in a month, days in a year and days in a leap year	Doubles and halves Ten more, ten less, one hundred more and one hundred less	Number bonds 20 and bonds to100 in multiples of 10	Interpret simple bar chart and tables.	Find and write fractions of a set of objects and amounts	Naming 2d and 3d shapes and properties Perimeter of shapes	
Sp1	Doubles and halves Ten more, ten less, one hundred	Compare and order numbers up to 1000 < >	Number bonds 20 and bonds to100 in multiples of 10 and multiples of 5	Time to the nearest 1 minutes. 12 and 24 hour clocks	Naming 2d and 3d shapes and properties	Interpret simple pictograms, tally chart.		

	more and one hundred less	Read and write numbers to 1000 in numerals	Find and write fractions of a set of objects and amounts	Roman numerals 1-12 Know the number of seconds in a minute, days in a month, days in a year and days in a leap year	Perimeter of shapes			
Sp2	Doubles and halves Ten more, ten less, one hundred more and one hundred less	Time to the nearest 1 minutes. 12 and 24 hour clocks Roman numerals 1-12 Know the number of seconds in a minute, days in a month, days in a year and days in a leap year	Interpret simple bar chart and tables.	Naming 2d and 3d shapes and properties Perimeter of shapes	Number bonds 20 and bonds to100 in multiples of 10 and multiples of 5 Find and write fractions of a set of objects and amounts	Doubles and halves Ten more, ten less, one hundred more and one hundred less		
Su1	Compare and order numbers up to 1000 < > Number bonds 20 and bonds to100 in multiples of 10 and multiples of 5	Naming 2d and 3d shapes and properties Perimeter of shapes	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	Interpret simple pictograms, tally chart.	Time to the nearest 1 minutes. 12 and 24 hour clocks Roman numerals 1-12 Know the number of seconds in a minute, days in a month, days in a year and days in a leap year			
Su2	Compare and order numbers up to 1000 < > Read and write numbers to 1000 in numerals	Naming 2d and 3d shapes and properties Perimeter of shapes	Interpret simple bar chart and tables.	Time to the nearest 1 minutes. 12 and 24 hour clocks Roman numerals 1-12 Know the number of seconds in a minute, days in a month, days in a year and days in a leap year	Doubles and halves Ten more, ten less, one hundred more and one hundred less	Number bonds 20 and bonds to100 in multiples of 10 and multiples of 5	Find and write fractions of a set of objects and amounts	

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.

Autumn 1	Place value	Measure	Addition and subtraction	Shape
Autumn 2	Place value	Addition and subtraction	Multiplication and division	Fractions
Spring 1	Place value	Addition and subtraction	Statistics	Shape
Spring 2	Addition and subtraction	Fractions	Measure	
Summer 1	Place value	Statistics	Multiplication and division	Fractions
Summer 2	Addition and subtraction	Measure	Multiplication and division	Shape

Autumn 1	**Place value** • recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) Y2 - recognise the place value of each digit in a two-digit number (10s, 1s) • count from 0 in multiples of 50 and 100 to 1000 Y2 - count in steps of 2, 3, and 5 from 0, and in 10s from any number • find 10 more or less than a given number to 1000 Y2 - Know 10 more and 10 less than any number within 100 • Find 100 more or less than a given number to 1000 Y2 - Know 10 more and 10 less than any number within 100 • compare numbers up to 1,000 using < and > and = Y2 - compare and order numbers from 0 up to 100; use <, > and = signs • compare numbers up to 1,000 using the language of greater than, less than and equal to Y2 - compare and order numbers from 0 up to 100; use <, > and = signs • order numbers up to 1,000. Y2 - compare and order numbers from 0 up to 100; use <, > and = signs • 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 • read and write numbers up to 1,000 in numerals and in words Y2 - read and write numbers to at least 100 in numerals and in words **Measure** • estimate and read time with increasing accuracy to the nearest minute Y2 - tell and write the time to five minutes, including quarter past/to the hour. O'clock and half past and draw the hands on a clock face to show these times **Addition and subtraction** • Recap of Y2 addition and subtraction with 1 and 2 digit numbers • add and subtract numbers mentally, including:

	a three-digit number and 1s using the following mental strategies: Y2 - a two-digit number and 1s within 100 **Number bonds** • number bonds to 100 in multiples of 5 **Bridging** • Making the next 10 or 100 **Partition and combine** • Hundreds, tens and ones **Compensating** • Adding 8 **Properties of shape** • draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them previously taught 2d shapes: circles, squares, rectangles, triangles, ovals, pentagons, hexagons, octagons, semi-circle, trapezium, parallelograms, kite, rhombus, irregular triangles, pentagons, hexagons, octagons previously taught 3d shapes: cone, cylinder, square based pyramid, sphere, cuboid, cube, triangular prism Y2 -identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line 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]
Autumn 2	**Place value** • count from 0 in multiples of 4 and 8; Y2 - count in steps of 2s from any number • find 100 more or less than a given number Autumn 1 Y3 • compare and order numbers up to 1,000 Autumn 1 Y3 **Addition** • add numbers with up to 3 digits- practical and pictorial • Y2- column addition and subtraction with 2 digits • estimate the answer to a calculation and use inverse operations to check answers Y2- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems • add amounts of money to give change, using both £ and p in practical contexts Y2-recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value find different combinations of coins that equal the same amounts of money solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change • add lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) Y2- compare and order lengths, mass, volume/capacity and record the results using >, < and =] choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels **Multiplication and division** • 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, practical and pictorial strategies and grid method Y2-recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs

	show that multiplication of 2 numbers can be done in any order (commutative) and division of 1 number by another cannot solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts **Subtraction** • Subtract numbers with up to 3 digits- practical and pictorial • Y2- column addition and subtraction with 2 digits • estimate the answer to a calculation and use inverse operations to check answers Y2- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems • subtract amounts of money to give change, using both £ and p in practical contexts Y2-recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value find different combinations of coins that equal the same amounts of money solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change • subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) Y2- compare and order lengths, mass, volume/capacity and record the results using >, < and =] choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels **Fractions** • count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 • recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators Y2-recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity write simple fractions, for example $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$
Spring 1	**Place value** • recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) • identify, represent and estimate numbers using different representations • find 10 and 100 more or less than a given number • compare and order numbers up to 1,000 • Compare: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • Compare values of money in both £ and p **Addition** • Add numbers with up to 3 digits, if children are ready use formal written methods of columnar addition after a recap of practical and pictorial • estimate the answer to a calculation and use inverse operations to check answers • add amounts of money to give change, using both £ and p in practical contexts • add : lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) **Statistics** • present data using bar charts, pictograms and tables • solve one-step and two-step questions [for example 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables **Multiplication and division** • write and calculate mathematical statements for multiplication and division using the multiplication tables that they know- recap of related facts – I know 8x8=64 so 80x8=640 etc. • including for two-digit numbers times one-digit numbers, using mental, practical and pictorial strategies and grid method **Properties of shape** • recognise angles as a property of shape or a description of a turn • 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 horizontal and vertical lines and pairs of perpendicular and parallel lines

	Subtraction • Subtract numbers with up to 3 digits, if children are ready use formal written methods of columnar subtraction after a recap of practical and pictorial • estimate the answer to a calculation and use inverse operations to check answers • subtract amounts of money to give change, using both £ and p in practical contexts • subtract : lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
Spring 2	**Addition and subtraction-** bring both together if children are ready and secure • add and subtract numbers mentally, including: o a three-digit number and 10s o a three-digit number and 100s **Near doubles** • using double 100, 200, 300, 400, 500 • using double 60, 70, 80, 90 and 100 **Number bonds** • number bonds to 100 in multiples of 5 **Bridging** • Making the next 10 or 100 **Partition and combine** • Hundreds, tens and ones **Place value knowledge** 120 + 60 using 12 + 6 • add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction • estimate the answer to a calculation and use inverse operations to check answers • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction **Fractions** • recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recognise and show, using diagrams, equivalent fractions with small denominators • add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$] • compare and order unit fractions, and fractions with the same denominators **Measure** • estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight • tell and write the time from an analogue clock and 12-hour and 24-hour clocks
Summer 1	**Place value** • find 10 and 100 more or less than a given number • compare and order numbers up to 1,000 • Compare: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • Compare values of money in both £ and p **Statistics** • present data using bar charts, pictograms and tables • solve one-step and two-step questions [for example 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables **Multiplication and division** • 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, recap grid method and move to short division when ready • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects **Fractions** • recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recognise and show, using diagrams, equivalent fractions with small denominators • add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$] • compare and order unit fractions, and fractions with the same denominators
Summer 2	**Addition and subtraction** • add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction • estimate the answer to a calculation and use inverse operations to check answers • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction • add and subtract amounts of money to give change, using both £ and p in practical contexts • add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) **Measure**

	• estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight • tell and write the time from an analogue clock and 12-hour and 24-hour clocks **Multiplication and division** • 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 (short division) • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects **Properties of shape** • recognise angles as a property of shape or a description of a turn • 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 horizontal and vertical lines and pairs of perpendicular and parallel lines • draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them