

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

### 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>	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, bar chart and tables.	Ten more, ten less, one hundred more and one hundred less  Number bonds to 10 and 20 and bonds to 100 in multiples of 10
<b>Autumn 2</b>	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  Roman numerals 1-12	Doubles and halves  Ten more, ten less, one hundred more and one hundred less	Number bonds 20 and bonds to 100 in multiples of 10	Interpret simple pictograms, tally chart, 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
<b>Spring 1</b>	Doubles and halves  Ten more, ten less, one hundred more and one hundred less	Compare and order numbers up to 1000 < >  Read and write numbers to 1000 in numerals	Number bonds 20 and bonds to 100 in multiples of 10 and multiples of 5  Find and write fractions of a set of objects and amounts	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	Naming 2d and 3d shapes and properties  Perimeter of shapes	Interpret simple pictograms, tally chart, bar chart and tables.	Find and write fractions of a set of objects and amounts
<b>Spring 2</b>	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 pictograms, tally chart, bar chart and tables.	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  Find and write fractions of a set of objects and amounts		

<b>Summer 1</b>	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	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	Number bonds 20 and bonds to 100 in multiples of 10 and multiples of 5  Find and write fractions of a set of objects and amounts	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 pictograms, tally chart, bar chart and tables.	
<b>Summer 2</b>	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 pictograms, tally chart, 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 to 100 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.

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

<b>Autumn 1</b>	<p><b>Place value</b></p> <ul style="list-style-type: none"> <li>recognise the place value of each digit in a 3-digit number (100s, 10s, 1s)</li> <li>count from 0 in multiples of 50 and 100;</li> <li>find 10 more or less than a given number</li> <li>compare and order numbers up to 1,000</li> <li>identify, represent and estimate numbers using different representations</li> <li>read and write numbers up to 1,000 in numerals and in words</li> </ul> <p><b>Measure</b></p> <ul style="list-style-type: none"> <li>estimate and read time with increasing accuracy to the nearest minute</li> </ul>
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	<p><b><u>Addition and subtraction</u></b></p> <ul style="list-style-type: none"> <li>• add and subtract numbers mentally, including:</li> <li>• a three-digit number and 1s</li> <li>• a three-digit number and 10s</li> <li>• a three-digit number and 100s</li> </ul> <p><b><u>Properties of shape</u></b></p> <ul style="list-style-type: none"> <li>• draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</li> </ul>
<b>Autumn 2</b>	<p><b><u>Place value</u></b></p> <ul style="list-style-type: none"> <li>• count from 0 in multiples of 4 and 8;</li> <li>• find 100 more or less than a given number</li> <li>• compare and order numbers up to 1,000</li> </ul> <p><b><u>Addition and subtraction</u></b></p> <ul style="list-style-type: none"> <li>• add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction</li> <li>• estimate the answer to a calculation and use inverse operations to check answers</li> <li>• add and subtract amounts of money to give change, using both £ and p in practical contexts</li> <li>• add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> </ul> <p><b><u>Multiplication and division</u></b></p> <ul style="list-style-type: none"> <li>• 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</li> </ul> <p><b><u>Fractions</u></b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> <li>• recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</li> </ul>
<b>Spring 1</b>	<p><b><u>Place value</u></b></p> <ul style="list-style-type: none"> <li>• recognise the place value of each digit in a 3-digit number (100s, 10s, 1s)</li> <li>• identify, represent and estimate numbers using different representations</li> <li>• find 10 and 100 more or less than a given number</li> <li>• compare and order numbers up to 1,000</li> <li>• Compare: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> <li>• Compare values of money in both £ and p</li> </ul> <p><b><u>Addition and subtraction</u></b></p> <ul style="list-style-type: none"> <li>• add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction</li> <li>• estimate the answer to a calculation and use inverse operations to check answers</li> <li>• add and subtract amounts of money to give change, using both £ and p in practical contexts</li> <li>• add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> </ul> <p><b><u>Statistics</u></b></p> <ul style="list-style-type: none"> <li>• present data using bar charts, pictograms and tables</li> <li>• 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</li> </ul> <p><b><u>Properties of shape</u></b></p> <ul style="list-style-type: none"> <li>• recognise angles as a property of shape or a description of a turn</li> <li>• 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</li> <li>• identify horizontal and vertical lines and pairs of perpendicular and parallel lines</li> </ul>
<b>Spring 2</b>	<p><b><u>Addition and subtraction</u></b></p> <ul style="list-style-type: none"> <li>• add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction</li> <li>• estimate the answer to a calculation and use inverse operations to check answers</li> <li>• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</li> <li>• add and subtract amounts of money to give change, using both £ and p in practical contexts</li> <li>• add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> </ul> <p><b><u>Fractions</u></b></p> <ul style="list-style-type: none"> <li>• recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> <li>• recognise and show, using diagrams, equivalent fractions with small denominators</li> <li>• add and subtract fractions with the same denominator within one whole [for example, <math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math>]</li> <li>• compare and order unit fractions, and fractions with the same denominators</li> </ul>

	<p><b>Measure</b></p> <ul style="list-style-type: none"> <li>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</li> <li>tell and write the time from an analogue clock and 12-hour and 24-hour clocks</li> </ul>
<p><b>Summer 1</b></p>	<p><b>Place value</b></p> <ul style="list-style-type: none"> <li>find 10 and 100 more or less than a given number</li> <li>compare and order numbers up to 1,000</li> <li>Compare: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> <li>Compare values of money in both £ and p</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>present data using bar charts, pictograms and tables</li> <li>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</li> </ul> <p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>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</li> <li>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</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> <li>recognise and show, using diagrams, equivalent fractions with small denominators</li> <li>add and subtract fractions with the same denominator within one whole [for example, <math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math>]</li> <li>compare and order unit fractions, and fractions with the same denominators</li> </ul>
<p><b>Summer 2</b></p>	<p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction</li> <li>estimate the answer to a calculation and use inverse operations to check answers</li> <li>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</li> <li>add and subtract amounts of money to give change, using both £ and p in practical contexts</li> <li>add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> </ul> <p><b>Measure</b></p> <ul style="list-style-type: none"> <li>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</li> <li>tell and write the time from an analogue clock and 12-hour and 24-hour clocks</li> </ul> <p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>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</li> <li>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</li> </ul> <p><b>Properties of shape</b></p> <ul style="list-style-type: none"> <li>recognise angles as a property of shape or a description of a turn</li> <li>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</li> <li>identify horizontal and vertical lines and pairs of perpendicular and parallel lines</li> <li>draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</li> </ul>