

## MATHEMATICS Year 3

All children will access age related curriculum objectives	All children will:	Children who grasp concepts rapidly may:
Number Place Value		
Count from 0 in multiples of 4, 8, 50 and 100..	<i>I can count from 0 in steps of 4, 8, 50 and 100.</i>	<i>I can count confidently from 0 in steps of 4, 8, 50 and 100.</i>
Find 10 or 100 more or less than a given number.	<i>I can find 10 or 100 more or less than a given number.</i>	<i>I can find 10 or 100 more or less than a given number when working with money or measures.</i>
Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).	<i>I know what each digit means in three-digit numbers such as 204.</i>	<i>I know what each digit means in three-digit numbers such as 204 and I can use this to solve mental calculations.</i>
Compare and order numbers up to 1000.	<i>I can compare and order numbers up to 1000.</i>	<i>I can compare and order numbers up to 1000 and apply this to real-life situations.</i>
Identify, represent and estimate numbers using different representations.	<i>I can identify and estimate numbers in different units such as length (mm and m) and weight (g and kg).</i>	<i>I can identify, estimate and calculate numbers in different units such as length (mm and m) and weight (g and kg).</i>
Read and write numbers up to 1000 in numerals and in words.	<i>I read and write numbers up to 1000 in numerals and in words.</i>	<i>I read and write numbers up to 1000, including decimal values, in numerals and in words.</i>
Solve number problems and practical problems involving working with and estimating numbers up to 1000 in a variety of units.	<i>I can solve number problems, working with numbers up to 1000 and in different units of measurement.</i>	<i>I can solve more complex number problems, working with numbers up to 1000 and in different units of measurement.</i>
Addition Subtraction		
Add and subtract numbers mentally, including three-digit number and ones.	<i>I can add and subtract numbers in my head, including questions such as <math>432 - 7</math>.</i>	<i>I can rapidly add and subtract numbers in my head, including questions such as <math>762 - 7</math>.</i>
[Add and subtract numbers mentally, including three-digit number and tens.	<i>I can add and subtract numbers in my head, including questions such as <math>432 - 70</math>.</i>	<i>I can add and subtract numbers in my head, including questions such as <math>402 - 70</math> rapidly.</i>
Add and subtract numbers mentally, including three-digit number and hundreds.	<i>I can add and subtract numbers in my head, including questions such as <math>432 - 300</math>.</i>	<i>I can add and subtract numbers in my head, including questions such as <math>732 - 300</math> in different contexts.</i>
Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.	<i>I can use written methods to add or subtract two three-digit numbers.</i>	<i>I can use written methods to add or subtract two three-digit numbers independently.</i>
Estimate the answer to a calculation and use inverse operations to check answers.	<i>I can estimate the answer to a question before I work it out and then use inverse operations to check the answer when I have finished.</i>	<i>I can accurately estimate the answer to a question before I work it out and then use inverse operations to check the answer when I have finished.</i>

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Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	<i>I solve problems such as missing numbers (for example, <math>452 - ? = 122</math>) using my knowledge of number facts and methods of addition and subtraction.</i>	<i>I solve harder problems such as missing numbers using my knowledge of number facts and methods of addition and subtraction.</i>
<b>Multiplication Division</b>		
Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.	<i>I know my 3, 4 and 8 times tables.</i>	<i>I can use my 3, 4 and 8 times tables quickly to solve problems.</i>
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.	<i>I can answer multiplication and division questions such as <math>16 \times 5</math> or 45 divided by 9.</i>	<i>I can answer a range of problems involving multiplication and division.</i>
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.	<i>I can solve more complex problems and missing number questions involving multiplication and division.</i>	<i>I can solve more complex problems and missing number questions involving multiplication and division and begin to identify rules and patterns.</i>
<b>Fractions</b>		
Count up and down in tenths.	<i>I can count up and down in tenths.</i>	<i>I can quickly count up and down in tenths in different contexts.</i>
Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.	<i>I know that tenths can be found by dividing an object or shape into ten equal parts or by dividing numbers by 10.</i>	<i>I can calculate and solve problems involving tenths.</i>
Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.	<i>I can find a fraction (such as <math>2/5</math> or <math>3/4</math>) of a set of objects.</i>	<i>I can find a fraction (such as <math>2/7</math> or <math>3/8</math>) of amounts and use this in other subjects.</i>
Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.	<i>I know how to find fractions of a number or shape - such as <math>3/5</math>, <math>1/4</math> or <math>4/6</math>.</i>	<i>I know how to find fractions of a number or shape - such as <math>3/8</math>, <math>1/7</math> or <math>4/12</math> and use this to solve problems.</i>
Recognise and show, using diagrams, equivalent fractions with small denominators.	<i>I can show that some fractions have the same value - such as <math>1/2</math>, <math>3/6</math> and <math>5/10</math> or <math>1/3</math> and <math>3/9</math>.</i>	<i>I can show and compare many different fractions that mean the same.</i>
Add and subtract fractions with the same denominator within one whole [for example, $5/7 + 1/7 = 6/7$ ].	<i>I can add and subtract fractions with the same denominator [for example, <math>5/7 + 1/7 = 6/7</math>].</i>	<i>I can add and subtract fractions with the same denominator [for example, <math>5/12 + 1/12 = 6/12</math>] and use this in practically in other subjects.</i>
Compare and order unit fractions, and fractions with the same	<i>I can compare and order unit fractions, and fractions</i>	<i>I can compare and order unit fractions, and fractions with the same</i>

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denominators.	<i>with the same denominators.</i>	<i>denominators saying which is largest or smallest.</i>
Solve problems that involve my understanding of fractions.	<i>I solve problems that involve finding, ordering or comparing fractions.</i>	<i>I solve more difficult problems that involve finding, ordering or comparing fractions.</i>
<b>Measurement</b>		
Measure, compare, add and subtract: lengths (m,cm,mm); mass (kg,g); volume, capacity (l,ml).	<i>I can measure and compare in these units: lengths (m,cm,mm), weight (kg,g) and capacity (l,ml).</i>	<i>I can measure and compare in these units: lengths (m,cm,mm); weight (kg,g) and capacity (l,ml) and use this to solve practical problems.</i>
Measure the perimeter of simple 2-D shapes.	<i>I can measure the perimeter of a 2-D shape such as a square or triangle.</i>	<i>I can measure the perimeter of larger scale 2-D shapes using the correct units of measurements.</i>
Add and subtract amounts of money to give change, using both £ and p in practical contexts.	<i>I can work on money problems, adding and subtracting amounts of money and working out how much change is left. I use both £ and p in my problems.</i>	<i>I can work on more difficult money problems, adding and subtracting amounts of money and working out how much change is left. I use both £ and p in my problems.</i>
Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.	<i>I can tell and write the time from a clock with numbers or Roman numerals or using 12 and 24 hour clocks.</i>	<i>I can tell and write the time from a clock with numbers or Roman numerals or using 12 and 24 hour clocks and use this to solve problems.</i>
Estimate and read time with increasing accuracy to the nearest minute.	<i>I can tell the time accurately to the nearest minute.</i>	<i>I can tell the time accurately without help to the nearest minute and use this to measure real-life events.</i>
Record and compare time in terms of seconds, minutes and hours.	<i>I can measure and record time passing in seconds, minutes and hours.</i>	<i>I can record, compare and order time passing in seconds, minutes and hours.</i>
Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.	<i>I know and use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight in my maths work.</i>	<i>I know and use vocabulary such as o'clock, a.m., p.m., morning, afternoon, noon and midnight in different subjects.</i>
Know the number of seconds in a minute and the number of days in each month, year and leap year.	<i>I know the number of seconds in a minute and the number of days in each month, year and leap year.</i>	<i>I know the number of seconds in a minute and the number of days in each month, year and leap year and can calculate how many days or how many minutes it is until an event</i>
Compare durations of events [for example to calculate the time taken by particular events or tasks].	<i>I can calculate how long an event or task took to complete.</i>	<i>I can calculate how long real-life events lasted [for example in science] or task took to complete.</i>
<b>Shape</b>		
Draw 2-D shapes and make 3-D shapes using modelling materials.	<i>I draw 2-D shapes and make 3-D shapes using modelling materials.</i>	<i>I draw 2-D shapes and make 3-D shapes using modelling materials by identifying the 2-D shapes needed.</i>
Recognise 3-D shapes in different orientations and describe them.	<i>I recognise and can describe 3-D shapes even when</i>	<i>I recognise 3-D shapes that make up larger objects when they have been</i>

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	<i>they have been turned about in different ways.</i>	<i>turned around and describe them using mathematical language.</i>
Recognise angles as a property of shape or a description of a turn.	<i>I know an angle is used to measure how far something turns. An angle is also the point in a 2-D shape.</i>	<i>I know an angle is used to measure how far something turns and say whether it is more or less than a quarter or half turn. An angle is also the point in a 2-D shape.</i>
Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn.	<i>I know what a right angle is and I know that two right angles make a half-turn, three make three quarters of a turn and four right angles make a complete turn.</i>	<i>I know what a right angle is and I know that two right angles make a half-turn, three make three quarters of a turn and four right angles make a complete turn and can use this to solve problems</i>
Identify whether angles are greater than or less than a right angle.	<i>I can tell whether an angle is greater than or less than a right angle.</i>	<i>I can tell whether an angle is greater than or less than a right angle, and can order them from smallest to largest.</i>
Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	<i>I know when a line is horizontal or vertical or when two lines are perpendicular or parallel.</i>	<i>I can find all of the horizontal or vertical and parallel lines in a 2-D regular shape or a complex pattern.</i>
<b>Statistics</b>		
Interpret and present data using bar charts, pictograms and tables.	<i>I can answer questions about bar charts, pictograms and tables and make my own bar charts, pictograms and tables.</i>	<i>I can answer questions about bar charts, pictograms and tables and make my own bar charts, pictograms and tables in different subject areas.</i>
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.	<i>I can answer maths problems such as 'How many more?' and 'How many fewer?' by finding the information in bar charts, pictograms and tables.</i>	<i>I can answer more complex two-step problems from reading information in bar charts, pictograms and tables.</i>