



# YEAR 3 MATHS PROGRESSION IN SKILLS (N.C. COVERAGE) AND KNOWLEDGE STATUTORY REQUIREMENTS



AUTUMN	SPRING	SUMMER
<p><b>AUTUMN 1:</b></p> <p><b>NUMBER – NUMBER AND PLACE VALUE</b></p> <ul style="list-style-type: none"> <li>➤ Recognise the place value of each digit in a two-digit number (tens, ones) (Year 2)</li> <li>➤ Compare and order numbers up to 1,000</li> <li>➤ Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</li> <li>➤ Identify, represent and estimate numbers using different representations</li> <li>➤ Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> </ul> <p><b>NUMBER – ADDITION AND SUBTRACTION</b></p> <ul style="list-style-type: none"> <li>➤ Recognise the place value of each digit in a two-digit number (10s, 1s) (Year 2)</li> <li>➤ Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds</li> <li>➤ Add and subtract numbers with up to three 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> </ul> <p><b>NUMBER – 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</li> </ul>	<p><b>SPRING TERM:</b></p> <p><b>NUMBER – 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>MEASURE – LENGTH AND PERIMETER</b></p> <ul style="list-style-type: none"> <li>➤ Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> <li>➤ Measure the perimeter of simple 2D shapes</li> </ul> <p><b>NUMBER - FRACTIONS</b></p> <ul style="list-style-type: none"> <li>➤ Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</li> </ul> <p><b>MEASURE - MASS</b></p> <ul style="list-style-type: none"> <li>➤ Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> </ul> <p><b>MEASURE - CAPACITY</b></p> <ul style="list-style-type: none"> <li>➤ Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> </ul> <p><b>NUMBER - FRACTIONS</b></p> <ul style="list-style-type: none"> <li>➤ Add and subtract fractions with the same denominator within one whole [for example, <math>5/7 + 1/7 = 6/7</math>]</li> <li>➤ Solve problems that involve the above</li> </ul>	<p><b>SUMMER TERM:</b></p> <p><b>MEASURE - TIME</b></p> <ul style="list-style-type: none"> <li>➤ Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</li> <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>➤ Know the number of seconds in a minute and the number of days in each month, year and leap year</li> <li>➤ Compare durations of events (for example to calculate the time taken by particular events or tasks)</li> </ul> <p><b>GEOMETRY – 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 two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle</li> <li>➤ Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them</li> </ul> <p><b>STATISTICS</b></p> <ul style="list-style-type: none"> <li>➤ Interpret and present data using bar charts, pictograms and tables</li> </ul>



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<p>mental and progressing to formal written methods</p> <ul style="list-style-type: none"><li>➤ Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</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>	<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>➤ Solve problems that involve the above</li></ul> <p><b>MEASURE - MONEY</b></p> <ul style="list-style-type: none"><li>➤ Add and subtract amounts of money to give change, using both £ and p in practical contexts</li></ul>	
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### Year 3 Maths Skills

Addition and Subtraction	Number and Place Value	Fractions	Algebra	Measurement	Geometry: Properties of shapes	Statistics
<b>MENTAL CALCULATION</b> -add and subtract numbers mentally, including: * a three-digit number and ones * a three-digit number and tens * a three-digit number and hundreds <b>WRITTEN METHODS</b> -add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction <b>INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS</b> -estimate the answer to a calculation and use inverse operations to check answers <b>PROBLEM SOLVING</b>	<b>COUNTING</b> - count from 0 in multiples of 4, 8, 50 and 100  -find 10 or 100 more or less than a given number <b>COMPARING NUMBERS</b> -compare and order numbers up to 1 000 <b>IDENTIFYING, REPRESENTING AND ESTIMATING NUMBERS</b> - identify, represent and estimate numbers using different representations <b>READING AND WRITING NUMBERS</b> -read and write numbers up to 1 000 in numerals and in words -tell and write the time from an analogue clock, including using	<b>COUNTING IN FRACTIONAL STEPS</b> -count up and down in tenths <b>RECOGNISING FRACTIONS</b> -recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators - recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10. - recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators <b>COMPARING FRACTIONS</b>	<b>EQUATIONS</b> - solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. <i>(copied from Addition and Subtraction)</i> - solve problems, including missing number problems, involving multiplication and division, including integer scaling <i>(copied from Multiplication and Division)</i>	<b>COMPARING AND ESTIMATING</b> - compare durations of events, for example to calculate the time taken by particular events or tasks - estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight <i>(appears also in Telling the Time)</i> <b>MEASURING and CALCULATING</b> - measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g);	<b>DRAWING AND CONSTRUCTING</b> - draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them <b>ANGLES</b> - recognise angles as a property of shape or a description of a turn - identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle - identify horizontal and vertical lines and pairs of	<b>INTERPRETING, CONSTRUCTING AND PRESENTING DATA</b> -interpret and present data using bar charts, pictograms and tables <b>SOLVING PROBLEMS</b> -solve one-step and two-step questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.



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-solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	<p>Roman numerals from I to XII, and 12-hour and 24-hour clocks <i>(copied from Measurement)</i></p> <p><b>UNDERSTANDING PLACE VALUE</b> - recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</p> <p><b>PROBLEM SOLVING</b> -solve number problems and practical problems involving these ideas.</p>	<p>-compare and order unit fractions, and fractions with the same denominators</p> <p><b>EQUIVALENCE</b> -recognise and show, using diagrams, equivalent fractions with small denominators</p> <p><b>ADDITION AND SUBTRACTION OF FRACTIONS</b> add and subtract fractions with the same denominator within one whole (e.g. <math>5/7 + 1/7 = 6/7</math>)</p> <p><b>PROBLEM SOLVING</b> - solve problems that involve all of the above</p>		<p>volume/capacity (l/ml)</p> <p>- measure the <u>perimeter</u> of simple 2-D shapes</p> <p>- add and subtract amounts of money to give change, using both £ and p in practical contexts</p> <p><b>TELLING THE TIME</b> -tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</p> <p>- estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight <i>(appears also in Comparing and Estimating)</i></p>	<p>perpendicular and parallel lines</p>	
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### YEAR 3 MATHS PROGRESSION IN SKILLS (N.C. COVERAGE) AND KNOWLEDGE STATUTORY REQUIREMENTS

				<b>CONVERTING</b> - know the number of seconds in a minute and the number of days in each month, year and leap year.		
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