

Mathematics Teaching sequence – Year 3

Year 3 Autumn Term (7 weeks + 7 weeks = 14 weeks)	Small steps	Key vocab for topic
<p><b>Number and Place value (3 weeks)</b></p> <p><b>3N1</b> Count from 0 in multiples of 4, 8, 50 and 100</p> <p><b>3N2a</b> Compare and order numbers up to 1000</p> <p><b>3N2b</b> Find 10 or 100 more or less than a given number</p> <p><b>3N2c</b> Read and write numbers to 1000 in numerals and words</p> <p><b>3N3</b> Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</p> <p><b>3N4</b> Identify, represent and estimate numbers using different representations</p> <p><b>3N6</b> Solve number problems and practical problems involving above (3N1 - 3N5)</p> <p><b>Addition and subtraction (5 weeks)</b></p> <p><b>3C1</b> Add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> <li>- a three digit number and ones</li> <li>- a three digit number and tens</li> <li>- a three digit number and hundreds</li> </ul> <p><b>3C2</b> Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction.</p> <p><b>3C3</b> Estimate the answer to a calculation and use inverse operations to check answers</p> <p><b>3C4</b> Solve problems. including missing number problems, using number facts, place value and more complex addition and subtraction</p> <p><b>Multiplication and Division (3 weeks) (Dependent upon your journey, NTS assessment week might fall in the middle of this block just FYI)</b></p> <p><b>3C6</b> Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</p> <p><b>NTS assessment week</b></p> <p><b>Geometry – shape (2 weeks)</b></p> <p><b>3G2</b> Identify horizontal, vertical lines and pairs of perpendicular and parallel lines</p>	<p>Represent numbers to 100 Partition numbers to 100 Numberline to 100 Hundreds Represent numbers to 1,000 Partition numbers to 1,000 Flexible partitioning of numbers to 1,000 Hundreds, tens and ones Find 1,10 or 100 more or less Number line to 1,000 Estimate on a number line to 1,000 Compare numbers to 1,000 Order numbers to 1,000 Count in 50s</p> <p>Apply number bonds within 10 Add and subtract 1s Add and subtract 10s Add and subtract 100s Spot the pattern Add 1s across a 10 Add 10s across a 100 Subtract 1s across a 10 Subtract 10s across a 100 Make connections Add two numbers (no exchange) Subtract two numbers (no exchange) Add two number (across a 10) Add two numbers (across a 100) Subtract two numbers (across a 10) Subtract two numbers (across a 100) Add 2-digit and 3-digit numbers Subtract a 2-digit number from a 3-digit number Complements to 100 Estimate answers Inverse operations Make decisions</p> <p>Multiplication - equal groups Use arrays Multiples of 2 Multiples of 5 and 10 Sharing and grouping Multiply by 3 Divide by 3 The 3 times-table Multiply by 4 Divide by 4 The 4 times-table Multiply by 8 Divide by 8 The 8 times-table The 2, 4 and 8 times-tables</p> <p>Turns and angles Right angles Compare angles</p>	<p>hundreds tens ones place value more less greater than less than compare equal to order estimate exchange partition multiples digits</p> <p>more than less than digits addition/add subtraction/subtract/take away combine total mental mentally column exchange place value hundreds tens ones smallest altogether sum calculation find the difference Inverse Commutative</p> <p>multiplication/ times/ lots of/ groups of/product/repeated addition</p> <p>division/share equal/repeated subtraction</p> <p>divisor share equally array commutative inverse estimate remainder</p> <p>turn/angle right angle horizontal/ vertical perpendicular/ parallel</p>

<p><b>3G3a</b> Draw 2-D shapes</p> <p><b>3G3b</b> Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</p> <p><b>3G4a</b> Recognise that angles are a property of shape or a description of a turn</p> <p><b>3G4b</b> 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</p>	<p>Measure and draw accurately Horizontal and vertical Parallel and perpendicular Recognise and describe 2-D shapes Draw polygons Recognise and describe 3-D shapes Make 3-D shapes</p>	<p>degrees greater than/less than 2d shape/polygon -regular, irregular, sides, angles 3d shapes – faces, edges, vertex (one), vertices (more than one)</p>
<p><b>Spring Term – (6 weeks + 7 weeks = 13 weeks)</b></p>	<p><b>Small steps</b></p>	<p><b>Key vocab</b></p>
<p><b>Multiplication and division (3 weeks)</b></p> <p><b>3C7</b> Write and calculate mathematical statements for multiplication using the multiplication tables that children know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</p> <p><b>3C7b</b> Write and calculate mathematical statements for division using the multiplication tables that children know, including for two-digit numbers divided by one-digit numbers, using mental and progressing to formal written methods</p> <p><b>3C8</b> Solve problems, including missing number problems, involving X and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects</p> <p><b>Measurement - Length and perimeter (3 weeks)</b></p> <p><b>3M1a</b> Compare lengths (m/cm/mm)</p> <p><b>3M2a</b> Measure lengths (m/cm/mm)</p> <p><b>3M9b</b> Add and subtract lengths (m/cm/mm)</p> <p><b>3M7</b> Measure the perimeter of simple 2-D shapes</p> <p><b>Number - Fractions (3 weeks)</b></p> <p><b>3F1b</b> Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</p> <p><b>3F1c</b> Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</p> <p><b>3F2</b> Recognise and show, using diagrams, equivalent fractions with small denominators</p> <p><b>3F3</b> Compare and order unit fractions and fractions with the same denominators</p>	<p>Multiples of 10 (WhiteRose) Related calculations (WR) Reasoning about multiplication (WR)</p> <p><b>See separate document for the following steps:</b> <a href="#">Year 3 teaching of Multiplication and Division methods.docx</a></p> <p>Multiply a 2-digit number by a 1-digit number - no exchange</p> <p>Multiply a 2-digit number by a 1-digit number - with exchange</p> <p>Divide a 2-digit number by a 1-digit number - no exchange</p> <p>Divide a 2-digit number by a 1-digit number - with remainders</p> <p>Scaling (WR) How many ways? (WR)</p> <p>Measure in m and cm Measure in mm Measure in cm and mm Metres, cm and mm Equivalent lengths (m and cm) Equivalent lengths (cm and mm) Compare lengths Add lengths Subtract lengths What is perimeter? Measure perimeter Calculate perimeter</p> <p>Understand the denominators of unit fractions Compare and order unit fractions Order fractions Understand the numerators of non-unit fractions Understand the whole Compare and order non-unit fractions Fractions and scales Fractions on a number line Count in fractions on a number line Equivalent fractions as bar models</p>	<p>multiplication/ times/ lots of/ groups of/product/repeated addition/array/commutative</p> <p>division/share equal/repeated subtraction/divisor/share equally/remainder</p> <p>cm, mm, m convert equal equivalent equal to compare order greater than distance</p> <p>equal parts, denominator, numerator, unit fraction, non-unit fraction, equal, equivalent, equal to</p>

<p><b>NTS assessment week</b></p> <p><b>Measurement - Mass and capacity (2 weeks)</b></p> <p><b>3M1b</b> Compare mass (kg/g)</p> <p><b>3M1c</b> Compare volume / capacity (l/ml)</p> <p><b>3M2b</b> Measure mass (kg/g)</p> <p><b>3M2c</b> Measure volume / capacity (l/ml)</p> <p><b>3M9c</b> Add and subtract mass (kg/g)</p> <p><b>3M9d</b> Add and subtract volume / capacity (l/ml)</p>	<p>Use scales</p> <p>Measure mass in grams</p> <p>Measure mass in kilograms and grams</p> <p>Equivalent masses</p> <p>Compare mass</p> <p>Add and subtract mass</p> <p>Measure capacity and volume in ml</p> <p>Measure capacity and volume in litres and ml</p> <p>Equivalent capacities and volumes</p> <p>Compare capacity and volume</p> <p>Add and subtract capacity and volume</p>	<p>kg/g</p> <p>mass</p> <p>scales</p> <p>compare</p> <p>smaller</p> <p>larger</p> <p>millilitres and litres</p> <p>capacity</p>
<p><b>Summer Term – (4 weeks + 7 weeks = 11 weeks)</b></p>	<p><b>Small steps</b></p>	<p><b>Key vocab</b></p>
<p><b>Fractions (2 weeks)</b></p> <p><b>3F4</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>3F1b</b> Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</p> <p><b>3F1a</b> 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</p> <p><b>Money (2 weeks)</b></p> <p><b>3M9a</b> Add and subtract amounts of money to give change, using both £ and p in practical contexts</p> <p><b>Time (3 weeks)</b></p> <p><b>3M4a</b> Tell and write the time from an analogue clock; 12-hour clocks</p> <p><b>3M4b</b> Tell and write the time from an analogue clock; 24-hour clocks</p> <p><b>3M4c</b> Tell and write the time from an analogue clock, including using Roman numerals from I to XII</p> <p><b>3M4d</b> 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/a.m./p.m., morning, afternoon, noon and midnight</p> <p><b>3M4e</b> Know the number of seconds in a minute and the number of days in each month, year and leap year</p> <p><b>3M4f</b> Compare durations of events, [eg: to calculate the time taken by particular events or tasks]</p>	<p>Add fractions</p> <p>Subtract fractions</p> <p>Partition the whole</p> <p>Unit fractions of a set of objects</p> <p>Non-unit fractions of a set of objects</p> <p>Tenths</p> <p>Count in tenths</p> <p>Write tenths as decimals</p> <p>Pounds and pence</p> <p>Convert pounds and pence</p> <p>Add money</p> <p>Subtract money</p> <p>Find change</p> <p>Roman Numerals to 12</p> <p>Telling the time to 5 minutes</p> <p>Telling the time to the minute</p> <p>To read the time on a digital clock</p> <p>Use a.m and p.m</p> <p>Years, months, days</p> <p>Days and hours</p> <p>Hours and minutes – start and end times</p> <p>Hours and minutes – durations</p> <p>Minutes and seconds</p> <p>Units of time</p> <p>Solve problems with time</p>	<p>equal parts, denominator, numerator, unit fraction, non-unit fraction, equal, equivalent, equal to</p> <p>Pounds</p> <p>Pence</p> <p>Convert</p> <p>Order</p> <p>Add</p> <p>Subtract</p> <p>Change</p> <p>Round</p> <p>Estimate</p> <p>Cost</p> <p>Decimal point</p> <p>Calculate</p> <p>Seconds</p> <p>Minutes</p> <p>Hours</p> <p>24 hour/12 hour clock</p> <p>Hands</p> <p>Analogue</p> <p>Am/pm</p> <p>To/past</p> <p>Half past</p> <p>Quarter to/from</p> <p>O'clock</p> <p>Morning, noon, afternoon and midnight</p> <p>Digital</p>

<p><b>NTS assessment week</b></p> <p><b>Statistics (2 weeks)</b></p> <p><b>3S1</b> Interpret and present data using bar charts, pictograms and tables</p> <p><b>3S2</b> Solve one-step and two- step questions [eg: 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts, pictograms and tables</p>	<p>Interpret pictograms  Draw pictograms  Interpret bar charts  Draw bar charts  Collect and represent data  Two-way tables</p>	<p>Table  Tally  Interpret  Pictogram  Data  Represent  Most common  Least common  Scale  Bar chart  Interpret  Present  Table  Tally  Compare  X-axis  Y-axis  Frequency</p>
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