

# Wheelwright Lane Primary School Whole School Maths Long Term Plan

Y	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
R	<p><b>Cardinality and Counting</b> Recite numbers past 5. Estimate and count fixed and moveable objects. Say one number for each item in order: 1,2,3,4,5. Knows cardinal principle. Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. Then to 10 Begin to describe a sequence of events, real or fictional, using words such as ‘first’, ‘then...’</p> <p><b>Subitising</b> Perceptual subitising to 3 recognisable pattern e.g. dice .</p> <p><b>comparing number</b> Compare quantities using language: ‘more than’, ‘fewer than’.</p> <p><b>Adding / Subtracting</b> Solve real world mathematical problems with numbers up to 5. Counts groups together.</p> <p><b>Composition</b> Experiment with symbols /marks/ numerals.</p> <p><b>Multiplying / Dividing</b> Can share between 2 but not necessary recognise equal quantities are produced.</p> <p><b>Fractions</b> Can equipartition a whole shape</p> <p><b>Patterning</b> Talk about and identifies the patterns around them. Shadow / copy ABAB patterns.</p> <p><b>Measurements</b> Make comparisons between objects relating to size and length</p> <p><b>Shape</b> Talk about and explore 2D using informal and mathematical language. Select shapes a for pictures Combine shapes to make new ones.</p> <p><b>Space</b> Understand position through words alone. Discuss routes and locations, - ‘in front of’ and ‘behind’.</p>	<p><b>Cardinality and Counting</b> Recite numbers past 10 Recognise and order numbers to 10 and beyond. Counts an irregular arrangement of up to 10 objects Recite beyond ten. Count objects, actions and sounds to 10 Link the number symbol (numeral) with its cardinal number value.</p> <p><b>Subitising</b> Perceptual subitise to 5 recognisable e.g. dice</p> <p><b>Comparing number</b> Compare numbers. Understand the ‘one more than/one less than’ relationship between consecutive numbers to 10</p> <p><b>Adding / Subtracting</b> Counting groups of objects together Subtract by taking away Begins to use part part whole to solve problems</p> <p><b>Composition</b> Explore the composition of numbers to 5.</p> <p>Automatically recall number bonds for numbers 0–3.</p> <p><b>Multiplying / Dividing</b> Can share equally between 2 or more people.</p> <p><b>Fractions</b> Recognises halves</p> <p><b>Patterning</b> Continue ABAB repeating patterns</p> <p><b>Measurements</b> Develop language of comparison 3 objects</p> <p><b>Shape</b> Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.</p> <p><b>Space</b> Slides, flips, turns objects 45, 90 180 to fit objects</p>	<p><b>Cardinality and Counting</b> Recite numbers past 15 Count beyond ten. Count objects, actions and sounds over 10 Link the numeral with its cardinal number value over 10</p> <p><b>Subitising</b> Conceptual subitise to 5</p> <p><b>Comparing number</b> Compare numbers over 10. Understand the ‘one more than/one less than’ relationship between consecutive numbers to 10/20</p> <p><b>Adding / Subtracting</b> Starts to count on when adding and count back when subtracting to 5 Begins to use part part whole to solve problems</p> <p><b>Composition</b> Explore the composition of numbers to 7. Automatically recall number bonds for numbers 0–5.</p> <p><b>Multiplying / Dividing</b> Can share equally between 2 or more people.</p> <p><b>Fractions</b> Recognises the need for half when sharing an odd amount</p> <p><b>Patterning</b> Continue repeating patterns</p> <p><b>Measurements</b> Compare weight Develop language of comparison</p> <p><b>Shape</b> Select, rotate and manipulate shapes in order to develop spatial reasoning skills.</p> <p><b>Space</b> Develop positional language</p>	<p><b>Cardinality and Counting</b> Recite numbers past 20 Count accurately beyond ten. Count objects, actions and sounds to 20. Link the numeral with its cardinal number value to 20</p> <p><b>Subitising</b> Conceptual subitise to 5</p> <p><b>Comparing number</b> Compare numbers over 10. Understand the ‘one more than/one less than’ relationship between consecutive numbers to 15</p> <p><b>Adding / Subtracting</b> Starts to count on when adding and count back when subtracting to 10 Finds simple missing number problems Begins to use part part whole to solve problems</p> <p><b>Composition</b> Explore the composition of numbers to 10. Automatically recall number bonds for numbers 0–7.</p> <p><b>Multiplying / Dividing</b> Solve multiplying problems by making groups of objects.</p> <p><b>Fractions</b> Recognises the need for half when sharing an odd amount</p> <p><b>Patterning</b> Continue more complex repeating patterns</p> <p><b>Measurements</b> Develop language of comparison</p> <p><b>Shape</b> Select, rotate and manipulate shapes in order to develop spatial reasoning skills.- 3D shapes Compose and decompose shapes so that children recognise a shape can have other shapes within it – 3D shapes</p>	<p><b>Cardinality and Counting</b> Recite numbers past 20 Count beyond ten. Count objects, actions and sounds beyond 20 Link numeral with its cardinal number value to 20</p> <p><b>Subitising</b> Conceptual subitise to 7</p> <p><b>Comparing number</b> Compare numbers to 20. Understand the ‘one more than/one less than’ relationship between consecutive numbers to 20</p> <p><b>Adding / Subtracting</b> Starts to count on when adding and count back when subtracting to 20 Finds simple missing number problems Begins to use part part whole to solve problems</p> <p><b>Composition</b> Explore the composition of numbers to 10. Automatically recall number bonds for numbers 0–10.</p> <p><b>Multiplying / Dividing</b> Can share equally between 2 or more people. Solve multiplying problems by making groups of objects 2, 5, 10 knows odds and evens</p> <p><b>Fractions</b> Recognises halves Recognises the need for half when sharing an odd amount</p> <p><b>Patterning</b> Continue more complex repeating patterns – round corners, staircase, hopscotch etc.</p> <p><b>Measurements</b> nonstandard length, weight and capacity Develop language of comparison</p> <p><b>Shape</b> Select, rotate and manipulate shapes in order to develop spatial reasoning skills.</p>	<p><b>Cardinality and Counting</b> Recite numbers past 20 Count beyond ten. Count objects, actions and sounds beyond 20 Link numeral with its cardinal number value beyond 20</p> <p><b>Subitising</b> Conceptual subitise to 10</p> <p><b>Comparing number</b> Compare numbers beyond 20. Understand the ‘one more than/one less than’ relationship between consecutive numbers above 20</p> <p><b>Adding / Subtracting</b> Starts to count on when adding and count back when subtracting to 20 Finds simple missing number problems Begins to use part part whole to solve problems</p> <p><b>Composition</b> Explore the composition of numbers to 10. Automatically recall number bonds for numbers 0–10.</p> <p><b>Multiplying / Dividing</b> Can share equally between 2 or more people. Solve multiplying problems by making groups of objects 2, 5, 10 Knows odds and evens</p> <p><b>Fractions</b> Recognises halves Recognises the need for half when sharing an odd amount</p> <p><b>Patterning</b> Continue more complex repeating patterns – round corners, staircase, hopscotch etc.</p> <p><b>Measurements</b> Compare capacity Develop language of comparison</p> <p><b>Space</b> Use coordinate labels in simple games Locate objects on a map using 2 co-ordinates</p>
1	<b>Number</b>	<b>Number</b>	<b>Number</b>	<b>Number</b> Identify and represent numbers by partitioning 2 and 3 digit numbers.	<b>Number</b>	<b>Number</b>

<p>Identify and represent numbers using objects and pictorial representations. Use the language of: equal to, more than, less than (fewer), most, least. Count to and across 100, compare and order numbers, count, read and write numbers to 100 in numerals. <b>NCETM Unit 1</b> <b>Addition</b> Part whole model, number bonds to and within 10. <b>NCETM Unit 2</b> <b>Measurement</b> Sequence events in chronological order using language such as: before and after, next, first, today,. <b>Geometry</b> Describe position, direction and movement. <b>NCETM Unit 10</b></p>	<p>Count to and across 100, compare and order numbers, count, read and write numbers to 100 in numerals. <b>Addition and Subtraction</b> Part whole model, number bonds to and within 10, fact families add and subtract numbers to 10, including zero counting and adding across tens numbers. <b>NCETM Unit 2 and unit 5</b> <b>Geometry</b> Recognise &amp; name 2D and 3D Shapes. <b>NCETM Unit 4</b> <b>Measurement</b> Recognise and use language relating to dates, including days of the week, weeks, months and years. Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Solve problems involving time. <b>NCETM Unit 11</b></p>	<p>Count to and across 100, compare and order numbers, count, read and write numbers to 100 in numerals. Count in multiples of two, five and ten. Recognise number patterns, e.g. odd and even numbers. Given a number identify 1 more/1 less, 10 more/10 less. Tens and Ones. To recognise and know the value of different denominations of coins. <b>NCETM Unit 9</b> <b>Addition and Subtraction</b> Solve one-step problems that involve addition and subtraction (context of money). <b>NCETM Unit 6</b> Adding and subtracting multiples of ten. <b>Fractions</b> Recognise, find and name a half as one of two equal parts of an object/shape.</p>	<p>Read and write numbers from 1 to 20 in numerals and words. <b>NCETM Unit 8</b> <b>Addition and Subtraction</b> Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=). <b>NCETM Unit 7</b> <b>Measurement</b> Compare, describe and solve practical problems for length (non-standard &amp; m &amp; cm). Compare, describe and solve practical problems for weight (non-standard &amp; kg &amp; g). Recognise and use language relating to dates, including days of the week, weeks, months and years. <b>NCETM Unit 11</b></p>	<p>Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens. <b>Addition and Subtraction</b> Solve one-step problems and missing number problems. <b>Multiplication and Division</b> Use knowledge of multiples of 2, 5 and 10 to solve problems and carry out investigations. Solve one-step problems involving multiplication and division, by calculating the answer using pictorial representations and arrays with teacher support. <b>Fractions</b> Recognise, find and name a half and a quarter as one of four equal parts of an amount, an object and a shape.</p>	<p>Count to and across 100, compare and order numbers, count, read and write numbers to 100 in numerals. Introducing the 100 square. <b>Addition and Subtraction</b> Add and subtract one-digit and two-digit numbers to 20, including zero. <b>NCETM Unit 8</b> <b>Measurement</b> Recognise and use language relating to dates, including days of the week, weeks, months and years. Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Solve problems involving time. <b>NCETM Unit 11</b> <b>Geometry</b> Describe position, directions and movements, including half, quarter and three-quarter turns. <b>NCETM Unit 10</b></p>
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2	<p><b>Number</b> Place Value, tens and ones. Count, represent multiples of ten, estimate position on a number line 0-100. Addition and Subtraction with multiples of ten, Explore counting sequences between 0-100. Counting groups objects using tens and ones and combining. Compare two-digit numbers using tens and ones and exploring non-standard partitioning. <b>NCETM Unit 1 &amp; 2</b> <b>Measurement</b> Counting in 10s and estimate measures using number lines and rulers Measures using coins of 10p and 1p as a form of tens and ones.</p>	<p><b>Number</b> Place value of hundreds, tens and ones, compare numbers using more/less greater/fewer &lt; &gt; =. <b>NCETM Unit 1</b> <b>Addition and Subtraction</b> Number Facts and subitising, explore addends, using 3 in any order, add and subtract two numbers that bridge tens. Add two 2 digit numbers using column addition method. Find different between two consecutive numbers by counting on, calculate using pictograms and bar charts - (linked to science). <b>NCETM Unit 3 &amp; 4</b> <b>Multiplication and Division</b> Explore equal groups as repeated addition, pupils explain each part of the multiplication equation. <b>NCETM Unit 5</b></p>	<p><b>Number</b> Number facts and subitising, rounding numbers to nearest 10. Use place value and number facts to solve problems. <b>Multiplication and division</b> Explore equal groups and arrays, divide by 2 by sharing, explain relationship between 2,5,10. <b>NCETM Unit 6</b> <b>Addition and subtraction</b> Add and subtract one from any two digit number, add and subtract 10 from any two digit number using knowledge of tens and ones. Add 2 digit numbers crossing the ten, use number bonds to subtract from 2 digit number. Introduction to expanded method. <b>NCETM Unit 8</b> <b>Measurement</b> Revise coins, find totals and give change from 20, 50p and £1, Make the same total in different ways. <b>NCETM Unit 9</b> <b>Fractions</b> Explore equal parts and identify <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{3}</math>, <math>\frac{3}{4}</math>, <math>\frac{2}{4}</math> of shape and apply this to number. <b>NCETM Unit 10</b></p>	<p><b>Number</b> Place value including hundreds, Number facts and subitising. Begin to solve two step problems with number. <b>Multiplication and division</b> Explore equal groups by sharing and grouping, use knowledge of 2,5,10 timetables to solve problems. Divide by 2, 5, 10 through sharing and grouping. <b>NCETM Unit 6 &amp; 13</b> <b>Geometry</b> 2D and 3D shape. Explore properties through vertices, sides, faces. <b>NCETM Unit 7</b> <b>Measurement</b> Know equivalent measures using ml, L, g, Kg, cm, M. <b>NCETM Unit 14</b> <b>Addition and subtraction</b> 2 digit numbers, Add and Subtract using the expanded method. <b>NCETM Unit 8</b></p>	<p><b>Number</b> Number facts and subitising, Solve two step problems, choosing the correct operation. <b>Addition and Subtraction</b> Including column subtraction. <b>Measurement</b> Find totals and give change from 20p, 50p and £1. Solve problems involving money. <b>NCETM Unit 9</b> <b>Fractions</b> Write simple fractions of amounts. Explore equal parts and identify equivalent fractions of <math>\frac{1}{2}</math>. <b>NCETM Unit 10</b> <b>Measurement</b> Tell time to hour, half past and 5 minutes. Solve problems involving time. <b>NCETM Unit 11</b> <b>Geometry</b> Explore turns, clockwise and anti clockwise, right angle turns. <b>NCETM Unit 12</b></p>	<p><b>Number</b> Place value inc <b>negative numbers.</b> Number facts and subitising. <b>Multiplication and division</b> Explain how halving and doubling are related. Explain, quotative and partitive division. <b>NCETM Unit 13</b> <b>Statistics</b> Tally charts, pictograms and interpreting information. <b>Measurement</b> Capacity, volume, mass - read scales of cm, M, kg, g, ml and L in 10s 100s. Read a thermometer to the nearest 10. Solve problems related to measure. <b>NCETM Unit 14</b> <b>Geometry</b> Investigate shape problems, explore what is the same/different. Explore right angles in shapes and find angles that are greater than/less than a right angle. <b>NCETM Unit 7</b></p>
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3	<p><b>Number</b> Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) Read, write and compare numbers up to 1000 and represent in different ways. Solve problems involving partitioning numbers. Find 10, 100 more and less than a given number. Round any number to the nearest 10 and 100.</p> <p><b>NCETM Unit 2</b> <b>Addition and subtraction</b> Add and subtract numbers mentally. Add and subtract numbers with up to three digits, using formal written methods. Solve problems. <b>NCETM Unit 1, 4 and 5</b></p>	<p><b>Addition and Subtraction</b> Add and subtract numbers mentally, Add and subtract numbers with up to three digits, using formal written methods. Solve problems. <b>NCETM Unit 1, 4 and 5</b> <b>Multiplication and division</b> Recall and use multiplication and division facts for the; 3 x table, 4x table. Write and calculate mathematical statements for multiplication and division progressing to written methods. Solve problems. <b>NCETM Unit 6</b> <b>Fractions</b> Recognise and use fractions as numbers: unit fractions. To add and subtract fractions with the same denominator. <b>NCETM Unit 8</b> <b>Measurement (covered in DT)</b> Measure, compare, add and subtract: mass (kg/g).</p>	<p><b>Number</b> Identify, represent and estimate numbers using different representations. Solve number problems and practical problems involving these ideas. <b>NCETM unit 2</b> <b>Measurement</b> An analogue clock and 12-hour digital clock. Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight. Know basic time conversions. <b>NCETM Unit 11</b> <b>Geometry</b> Draw 2-D shapes and make 3-D shapes, recognise 3-D shapes in different orientations. <b>NCETM unit 3.</b> <b>Statistics- (science)</b> Interpret and present data using bar charts, pictograms and tables. Solve one-step and two-step questions.</p>	<p><b>Addition and Subtraction</b> Add and subtract numbers with up to three digits, using formal written methods. Solve problems. <b>NCETM units 5 and 7</b> <b>Multiplication and division</b> Write and calculate mathematical statements for multiplication and division. Solve problems. <b>NCETM unit 6</b> <b>Fractions</b> 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. Compare and order fraction. <b>NCETM Unit 8 and 9</b></p>	<p><b>Measurement</b> Tell time on analogue clock and 12-hour and 24-hour clocks; an analogue and digital clock. Compare durations of events. <b>NCETM Unit 11</b> <b>Geometry</b> Identify right angles, identify whether angles are greater than or less than a right angle. <b>NCETM unit 3.</b> Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. <b>NCETM unit 10.</b> <b>Fractions</b> Recognise tenths from dividing by 10. <b>Measurement</b> Measure the perimeter of simple 2-D shapes. Measure and compare units of measurement.</p>	<p><b>Addition and Subtraction</b> Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. <b>Measurement</b> Add and subtract amounts of money to give change. <b>Multiplication and division</b> Write and calculate mathematical statements for multiplication and division using written methods. <b>Fractions</b> Recognise and show, using diagrams, equivalent fractions with small denominators. Compare and order fraction. <b>NCETM Unit 8 and 9</b> <b>Measurement</b> Measure, compare, add and subtract different units of measurement.</p>
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4	<p><b>Number</b> Find 1,000 more or less than a given number. Count backwards through 0 to include negative numbers. Recognise PV of each digit in a four-digit number. Order and compare numbers beyond 1,000. Identify, represent and estimate numbers using different representations. Round any number to the nearest 10, 100 or 1,000. Solve number and practical problems involving PV. <b>NCETM unit 2</b></p> <p><b>Fractions</b> Find the effect of dividing a one- or two-digit number by 10 and 100. Count up and down in 100ths; recognise that 100ths arise when dividing an object by 100 and dividing tenths by 10. Compare numbers with up to 2 decimal places. Round decimals to the nearest whole number. <b>NCETM unit 9</b></p>	<p><b>Addition and subtraction</b> Add and subtract using column methods. Estimate and check calculations. Use column addition and subtraction to solve 2 step problems. <b>NCETM unit 1</b></p> <p><b>Measurement</b> Measure and calculate the perimeter of a rectilinear shapes. <b>NCETM unit 3</b></p> <p><b>Multiplication and division</b> Multiply and divide by 3,6 and 9. <b>NCETM unit 4</b></p> <p>Multiply and divide by 10 and 100. Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10. <b>Measurement</b> Conversions between different units.</p>	<p><b>Multiplication and division</b> Multiply and divide by 3,6 and 9. <b>NCETM unit 4</b></p> <p>Recognise and use factor pairs. Multiply two-digit and three-digit numbers by a one-digit number using grid method. Divide up to three-digit numbers by a one-digit number using the chunking method. Solve problems involving multiplying and adding. <b>NCETM unit 6 and 12</b></p> <p><b>Measurement</b> Find the area of rectilinear shapes by counting squares. <b>Fractions</b> Recognise and show, using diagrams, families of common equivalent fractions. Solve problems involving fractions of quantities, both unit and non-unit fractions. Add and subtract fractions. <b>NCETM unit 8 and 9</b></p>	<p><b>Multiplication and division</b> Multiply and divide facts up to 12 x 12. <b>NCETM unit 4 and 5</b></p> <p><b>Fractions</b> Recognise and write decimal equivalents of any number of tenths or hundreds. Recognise and write decimal equivalents to <math>\frac{1}{4}</math> <math>\frac{1}{2}</math> <math>\frac{3}{4}</math>. Solve simple measure and money problems involving fractions and decimals to 2 decimal places. <b>NCETM unit 8 and 9</b></p> <p><b>Measurement</b> Estimate, compare &amp; calculate measure involving money. <b>Geometry</b> Compare and classify polygons. Identify and compare acute and obtuse angles. Identify lines of symmetry in 2-D shapes presented in different orientations. Complete a simple symmetric figure. <b>NCETM unit 10</b></p>	<p><b>Multiplication and division</b> Multiply and divide facts up to 12 x 12. <b>NCETM unit 4 and 5</b></p> <p><b>Measurement</b> Read, write and convert time between analogue and digital 12- and 24-hour clocks. Solve problems involving converting times. <b>NCETM unit 11</b></p> <p><b>Geometry</b> Describe positions on a 2-D grid as coordinates in the first quadrant. Describe movements between positions as translations. Plot specified points and draw sides to complete a given polygon. <b>NCETM unit 7</b></p> <p><b>Statistics</b> Interpret and present discrete and continuous data. Solve comparison, sum and difference problems using different representations.</p>	<p><b>Multiplication and division</b> Multiply and divide facts up to 12 x 12. <b>NCETM unit 4 and 5</b></p> <p><b>Multiplication and division</b> Divide up to three-digit by on-digit numbers when there is a remainder. <b>NCETM unit 12</b></p> <p><b>Fractions</b> - Recognise and write decimal equivalents of any number of tenths or hundreds. Recognise and write decimal equivalents to <math>\frac{1}{4}</math> <math>\frac{1}{2}</math> <math>\frac{3}{4}</math>. Solve simple measure and money problems involving fractions and decimals to 2 decimal places. <b>NCETM unit 8 and 9</b></p>
5	<p><b>Number</b> To know the value of each digit up to 1,000,000. Using standard and non-standard partitioning. To order and compare numbers. To round to the nearest 10, 100, 1000, etc... To multiply and divide numbers to different powers of 10. <b>NCETM Unit 9</b></p> <p><b>Fractions</b> To recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. <b>NCETM Unit 1</b> Interpret negative numbers, including 0. <b>NCETM – Unit 3</b> Coordinates - negative scales. Data handling.</p>	<p><b>Addition and Subtraction</b> Add and subtract whole numbers and decimals using formal method. Use rounding to check accuracy. <b>Multiplication &amp; division</b> Identify factors and multiples and recall prime numbers. <b>NCETM Unit 7</b></p> <p>Multiply &amp; divide numbers up to 4-digits by one-digit (Grid and chunking) <b>Fractions</b> Name &amp; write equivalent fractions. Adding and subtracting and ordering fractions. <b>NCETM Unit 8</b> Fractions of amounts. <b>Measurement</b> Perimeter and area of rectilinear shapes. <b>NCETM Unit 5</b></p>	<p><b>Fractions</b> Read and write decimal numbers as fractions and vice versa. <b>NCETM Unit 6</b></p> <p>Rounding decimals to 1dp. <b>Measurement</b> Unit conversion. <b>NCETM Unit 9</b></p> <p>Common imperial to metric conversion – using line graphs. <b>Multiplication &amp; division</b> Multiplying and dividing using long multiplication and short division. <b>NCETM Unit 4</b></p>	<p><b>Multiplication &amp; division</b> Recognise square and cube numbers. <b>Measurement</b> Estimate volume. <b>Geometry</b> Identify 3D shapes from 2D representations. Draw, measure and work out angles using knowledge of polygons. <b>NCETM Unit 10</b></p>	<p><b>Multiplication &amp; division</b> Multiplying and dividing using long multiplication and short division. <b>NCETM Unit 4</b></p> <p><b>Fractions</b> To know the percentage equivalence for fractions and decimals. <b>NCETM Unit 8</b></p> <p><b>Measurement</b> Solving problems involving units of time.</p>	<p><b>Multiplication &amp; division</b> Multiplying and dividing using long multiplication and short division – focussing on division. <b>NCETM Unit 4</b></p> <p>Problem solving using all four operations and scaling using simple fractions. <b>Geometry</b> Identify 3D shapes from 2D representations. Draw, measure and work out angles using knowledge of polygons. <b>NCETM Unit 10</b></p> <p><b>Measurement</b> Perimeter and area of rectilinear shapes. <b>NCETM Unit 5</b></p>
6	<p><b>Addition, subtraction, multiplication and division</b> Multiply using the formal written method of long multiplication. Divide numbers using the formal written method of long division, interpret remainders as whole number remainders, fractions, or by rounding.</p>	<p><b>Geometry</b> Describe positions on the full coordinate grid (all 4 quadrants). Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. <b>NCETM unit 6</b></p> <p><b>Fractions</b></p>	<p><b>Ratio and proportion</b> Solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts.</p>	<p><b>Measurement</b> Use, read, write and convert between standard units, converting measurements. Convert between miles and kilometres.</p>	<p><b>Geometry</b> Draw 2-D shapes using given dimensions and angles. Recognise, describe and build simple 3-D shapes. Compare and classify geometric shapes based on their properties</p>	<p><b>Statistics</b> Interpret and construct pie charts and line graphs and use these to solve problems. Calculate and interpret the mean as an average. <b>NCETM unit 8</b></p>

<p>Divide numbers up to 4 digits by a two-digit number using the formal written method.</p> <p><b>NCETM unit 5</b></p> <p>Perform mental calculations.</p> <p>Identify common factors, common multiples and prime numbers.</p> <p>Use their knowledge of the order of operations to carry out calculations involving the 4 operations.</p> <p><b>NCETM unit 12</b></p> <p>Solve addition and subtraction multi-step problems in contexts.</p> <p><b>NCETM unit 1</b></p> <p>Solve problems involving addition, subtraction, multiplication and division.</p> <p>Use estimation to check answers to calculations and determine an appropriate degree of accuracy.</p>	<p>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</p> <p>Compare and order fractions, including fractions <math>&gt;1</math>.</p> <p>Add and subtract fractions with different denominators and mixed numbers.</p> <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form.</p> <p>Divide proper fractions by whole numbers.</p> <p>Associate a fraction with division and calculate decimal fraction equivalents.</p> <p>Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places.</p> <p>Multiply one-digit numbers with up to 2 decimal places by whole numbers.</p> <p>Use written division methods in cases where the answer has up to 2 decimal places.</p> <p>Solve problems which require answers to be rounded to specified degrees of accuracy.</p> <p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p> <p><b>NCETM unit 7</b></p>	<p>Solve problems involving the calculation of percentages and the use of percentages for comparison.</p> <p>Solve problems involving similar shapes where the scale factor is known or can be found.</p> <p>Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</p> <p><b>NCETM unit 9</b></p> <p><b>Algebra</b></p> <p>Use simple formulae.</p> <p>Generate and describe linear number sequences.</p> <p>Express missing number problems algebraically.</p> <p>Find pairs of numbers that satisfy an equation with 2 unknowns.</p> <p>Enumerate possibilities of combinations of 2 variables.</p> <p><b>NCETM unit 11</b></p> <p><b>Measurement</b></p> <p>Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate.</p>	<p>Recognise that shapes with the same areas can have different perimeters and vice versa.</p> <p>Recognise when it is possible to use formulae for area and volume of shapes.</p> <p>Calculate the area of parallelograms and triangles.</p> <p><b>NCETM unit 6</b></p> <p>Calculate, estimate and compare volume of cubes and cuboids using standard units.</p>	<p>and sizes and find unknown angles in polygons.</p> <p>Illustrate and name parts of circles.</p> <p>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</p> <p><b>NCETM unit 4</b></p>	
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