



Gladstone Road Primary School Mathematics (STEM TEAM)

Curriculum design & LTP Progression 2020/2021

Year 3 LTP Overview 2020/2021						
Autumn Term 14 Weeks	Place Value 3 Weeks	Addition and Subtraction 4 Weeks	Multiplication and Division 2 Weeks	Picture Graphs and Bar Graphs 1 Week	Time 2 Weeks	Length 2 Weeks
Spring Term 11 Weeks	Addition and Subtraction 2 Weeks	Multiplication and Division 3 Weeks	Fractions 3 Weeks	Money 2 Weeks	Angles 1 Week	
Summer Term 14 Weeks	Fractions 4 Weeks	Length and Perimeter 3 Weeks	Time 2 Weeks	Mass 2 Weeks	Volume 2 Weeks	



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KS2 Y3 Units	Autumn Term (14 weeks)	Spring Term (11 weeks)	Summer Term (14 weeks)
	<p>Place Value (numbers to 1000) – 3 weeks MNP Lessons Chapter 1 – 2 to 8</p> <p>Progression of skills</p> <p>count from 0 in multiples of 4, 8, 50 and 100; To be able to count from 0 in multiples of 50. L5 To be able to count in fours and eights. L8</p> <p>find 10 or 100 more or less than a given number To be able to find 10 more or less than a given number using number patterns. L6 To be able to find 100 more or less than a given number using number patterns. L7</p> <p>compare and order numbers up to 1000 To be able to compare and order numbers up to 1000. L4</p> <p>identify, represent and estimate numbers using different representations</p> <p>read and write numbers up to 1000 in numerals and in words</p>	<p>Addition and subtraction – 2 weeks MNP Lessons Chapter 2 – 16-22 Subtraction</p> <p>Progression of skills</p> <p>add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> * a three-digit number and ones <p>To be able to subtract from a 3-digit number with the regrouping of 1 ten into 10 ones. L16</p> <ul style="list-style-type: none"> * a three-digit number and tens <p>To be able to subtract two 3-digit numbers with the regrouping of 1 hundred into 10 tens. L17</p> <ul style="list-style-type: none"> * a three-digit number and hundreds <p>To be able to subtract two 3-digit numbers with renaming. L18</p> <p>To be able to subtract from a multiple of 100 with renaming. L19</p> <p>add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</p> <p>estimate the answer to a calculation and use inverse operations to check answers</p>	<p>Fractions – 4 weeks MNP Lessons Chapter 11 – 15- 28 not 26</p> <p>Progression of skills</p> <p>count up and down in tenths</p> <p>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators To be able to recognise, find and write fractions of a discrete set of objects. L21, L22, L23</p> <p>recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10 To be able to relate fractions to division. L24, L25, L27</p> <p>recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators To be able to relate fractions to division. L24, L25, L27</p>



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	<p>recognise the place value of each digit in a three-digit number (hundreds, tens, ones) <i>To be able to count in hundreds, tens and ones. L2</i> <i>To be able to recognise the place value of each digit in a 3-digit number (hundreds, tens, ones). L3</i> solve number problems and practical problems involving these ideas.</p>	<p>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction <i>To be able to solve word problems using addition and subtraction. L20, L21, L22</i></p>	<p>compare and order unit fractions, and fractions with the same denominators <i>To be able to compare unit fractions. L15</i> <i>To be able to compare fractions with the same denominator. L16, L17</i> <i>recognise and show, using diagrams, equivalent fractions with small denominators</i> add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$) <i>To be able to add fractions with the same denominator within 1 whole. L18</i> <i>To be able to subtract fractions with the same denominators within 1 whole. L19</i> <i>To be able to subtract a fraction from 1 whole. L20</i> solve problems that involve all of the above <i>To be able to solve word problems involving addition and subtraction of fractions with the same denominator. L28</i></p>
	<p>Addition and Subtraction – 4 weeks MNP Lessons Chapter 2 – 1-10 addition/11-15 subtraction <u>Progression of skills</u> add and subtract numbers mentally, including: * a three-digit number and ones <i>To be able to add a 3-digit number to ones without renaming. L2</i> <i>To be able to add a 3-digit number to ones with renaming. L6</i> <i>To be able to subtract ones from a 2-digit number without renaming. L11</i></p>	<p>Multiplication and division – 3 weeks MNP Lessons Chapter 4 – 1-10 <u>Progression of skills</u> <i>count from 0 in multiples of 4, 8, 50 and 100</i> <i>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</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</p>	<p>Lines and Shapes – 3 weeks MNP Lessons Chapter 13 – 1-8 and Chapter 14 – 1-5 and 7-10 <u>Progression of skills</u> measure the perimeter of simple 2-D shapes <i>To be able to measure the perimeter of 2-D shapes. L1-L7</i> <i>To be able to solve problems on perimeter. L8-L10</i> draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</p>



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<p>To be able to subtract ones from a 3-digit number without renaming. L12</p> <ul style="list-style-type: none"> * a three-digit number and tens <p>To be able to add a 3-digit number to multiples of 10 without renaming. L3</p> <p>To be able to add a 3-digit number to multiples of 10 with renaming. L7</p> <p>To be able to subtract multiples of 10 from a 3-digit number without renaming. L13</p> <ul style="list-style-type: none"> * a three-digit number and hundreds <p>To be able to add a 3-digit number to multiples of 100 without renaming. L4</p> <p>To be able to add two 3-digit numbers with renaming the ones. L8</p> <p>To be able to add two 3-digit numbers with renaming the tens. L9</p> <p>To be able to add two 3-digit numbers with renaming the ones and tens. L10</p> <p>To be able to subtract multiples of 100 from a 3-digit number without renaming. L14</p> <p>To be able to subtract two 3-digit numbers without renaming. L15</p> <p>add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</p> <p>To be able to add two 3-digit numbers without regrouping, using the column method of addition. L5</p> <p>estimate the answer to a calculation and use inverse operations to check answers</p> <p>To be able to understand the commutative law of addition and form a family of addition and subtraction facts. L1</p>	<p>To be able to multiply multiples of 10 by a 1-digit number. L1</p> <p>To be able to multiply a 2-digit number by a 1-digit number without regrouping. L2</p> <p>To be able to multiply a 2-digit number by a 1-digit number without regrouping, using the standard algorithm. L3</p> <p>To be able to multiply a 2-digit number by a 1-digit number with regrouping, using the standard algorithm. L4, L5</p> <p>To be able to divide a 2-digit number by a 1-digit number without regrouping. L6</p> <p>To be able to divide a 2-digit number by a 1-digit number with regrouping. L7, L8</p> <p><i>estimate the answer to a calculation and use inverse operations to check answers</i></p> <p>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</p> <p>To be able to solve word problems involving multiplication. L9</p> <p>To be able to solve word problems involving division. L10</p>	<p>To be able to describe a 2-D shape using angle and side properties. L4</p> <p>To be able to draw 2-D shapes. L5</p> <p>To be able to make 3-D shapes. L6, L7</p> <p>To be able to describe 3-D shapes. L8</p> <p>identify horizontal and vertical lines and pairs of perpendicular and parallel lines</p> <p>To be able to identify perpendicular lines. L1</p> <p>To be able to identify parallel lines. L2</p> <p>To be able to identify horizontal and vertical lines. L3</p>
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	<p>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</p>		
	<p>Multiplication and Division – 2 weeks MNP Lessons Chapter 3 – 1-11 <u>Progression of skills</u> <i>count from 0 in multiples of 4, 8, 50 and 100</i></p> <p>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables To be able to understand and learn the 3 times table. L1, L2 To be able to understand and learn the 4 times table. L3, L4 To be able to recognise the pattern in the 4 and 8 times tables. L5 To be able to recall and use the 8 times table. L6, L7 To be able to use the 3 times table for division. L8 To be able to use the 4 times table for division. L9 To be able to understand the relationship between multiplication and division. L10 To be able to divide by 4 and 8. L11</p> <p>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</p> <p><i>estimate the answer to a calculation and use inverse operations to check answers</i></p>	<p>Fractions – 3 weeks MNP Lessons Chapter 11 – 1-9 not 8, 10-14 <u>Progression of skills</u> count up and down in tenths To be able to count in tenths. L1</p> <p>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</p> <p>recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10</p> <p>recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators To be able to find the simplest form of a fraction. L12, L13 To be able to find equivalent fractions using multiplication or division. L14</p> <p>compare and order unit fractions, and fractions with the same denominators</p> <p>recognise and show, using diagrams, equivalent fractions with small denominators To be able to recognise and show equivalent fractions. L6, L7 To be able to find equivalent fractions. L9, L10, L11</p>	<p>Time – 2 weeks MNP Lessons Chapter 9 – 11-20 <u>Progression of skills</u> compare durations of events, for example to calculate the time taken by particular events or tasks To be able to measure time in hours. L11, L12, L13 To be able to measure time in minutes. L14, L15, L16</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</p> <p>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>know the number of seconds in a minute and the number of days in each month, year and leap year To be able to convert minutes into seconds. L17 To be able to convert seconds into minutes. L18 To be able to find the number of days in each month, year and leap year. L19 To be able to find the duration in terms of number of days. L20</p>



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	<p>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</p>	<p>add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$)</p> <p>To be able to add fractions with the same denominator within 1 whole. L2, L3, L4</p> <p>To be able to subtract fractions with the same denominator within 1 whole. L5</p> <p>solve problems that involve all of the above</p>	
	<p>Picture graphs and bar graphs – 1 weeks (half term)</p> <p>MNP Lessons Chapter 10 – 1-5 not 4</p> <p>Progression of skills</p> <p>interpret and present data using bar charts, pictograms and tables</p> <p>To be able to present data using picture graphs. L1</p> <p>To be able to interpret and present data using bar charts. L2</p> <p>To be able to interpret and present data using bar charts. L3</p> <p>To be able to interpret and present data using scaled bar charts. L5</p> <p>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.</p> <p>To be able to present data using picture graphs. L1</p> <p>To be able to interpret and present data using bar charts. L2</p> <p>To be able to interpret and present data using bar charts. L3</p> <p>To be able to interpret and present data using scaled bar charts. L5</p>	<p>Money – 2 weeks</p> <p>MNP Lessons Chapter 8 – 1-4 then 6-12</p> <p>Progression of skills</p> <p>add and subtract amounts of money to give change, using both £ and p in practical contexts</p> <p>To be able to add money by counting on. L1</p> <p>To be able to add pence to make 1 pound. L2</p> <p>To be able to add different combinations of coins to make an amount. L3</p> <p>To be able to add pounds and pence without renaming. L4</p> <p>To be able to add pounds and pence with renaming. L6, L7</p> <p>To be able to subtract pounds and pence without renaming. L8, L9</p> <p>To be able to subtract pounds and pence with renaming. L10, L11, L12</p>	<p>Mass – 2 weeks</p> <p>MNP Lessons Chapter 6 – 1-5</p> <p>Progression of skills</p> <p>measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</p> <p>To be able to read weighing scales to determine mass in grams or kilograms. L1</p> <p>To be able to read weighing scales to determine mass in grams. L2</p> <p>To be able to read weighing scales to determine mass in kilograms. L3, L4</p> <p>To be able to solve word problems involving addition and subtraction of mass. L5</p>



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<p>Time – 2 weeks MNP Lessons Chapter 9 – 1-10 <u>Progression of skills</u> compare durations of events, for example to calculate the time taken by particular events or tasks To be able to measure and compare time in seconds. L8 To be able to measure time in seconds. L9, L10 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 To be able to tell time using a.m./p.m. L1 To be able to tell time to the minute. L2 To be able to tell time using vocabulary, such as o'clock, a.m./p.m., morning, afternoon, past and half past. L3 To be able to tell time using both analogue and digital methods. L4 To be able to tell time to the minute using vocabulary, such as o'clock, a.m./p.m., morning, afternoon, noon and midnight. L5 tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks To be able to tell and write the time from 12-hour and 24-hour clocks. L6 To be able to tell the time on an analogue clock using Roman numerals. L7</p> <p>know the number of seconds in a minute and the number of days in each month, year and leap year</p>	<p>Angles – 1 weeks MNP Lessons Chapter 12 – 1-3, 5-7 <u>Progression of skills</u> recognise angles as a property of shape or a description of a turn To be able to recognise angles as a description of a turn. L1, L2 To be able to recognise angles as a property of shape. L3 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 To be able to identify an acute angle as a smaller angle than a right angle. L5 To be able to identify an obtuse angle as a greater angle than a right angle. L6 To be able to identify right angles and recognise that two right angles make a half-turn, three make three-quarters of a turn and four a complete turn. L7</p> <p>identify horizontal and vertical lines and pairs of perpendicular and parallel lines</p>	<p>Volume – 2 weeks MNP Lessons Chapter 7 – 1-8 <u>Progression of skills</u> measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) To be able to measure volume in millilitres. L1, L2 To be able to measure volume in millilitres and litres. L3, L4 To be able to add and subtract volume. L5 To be able to read and write volume in litres and millilitres. L6 To be able to solve word problems involving addition and subtraction of volume. L7, L8</p>
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	<p>Length – 2 weeks MNP Lessons Chapter 5 – 1-7</p> <p><u>Progression of skills</u></p> <p>measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</p> <p>To be able to read and write length and height in metres and centimetres. L1</p> <p>To be able to read and write length and height in centimetres. L2</p> <p>To be able to read and write length in metres. L3</p> <p>To be able to read and write length in kilometres and metres. L4</p> <p>To be able to compare lengths. L5</p> <p>To be able to solve word problems involving addition and subtraction of lengths. L6, L7</p>		
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