



Gladstone Road Primary School Mathematics (STEM TEAM)

Curriculum design & LTP Progression 2020/2021

Year 1 LTP Overview 2020/2021								
Autumn Term 14 Weeks	Place Value/numbers to 5 pre-teach		Counting to 10	Number bonds	Addition within 10	Subtraction within 10	Time	Shapes and Pattern
	2 Weeks		2 Weeks	2 Weeks	2 Weeks	2 Weeks	2 Weeks	2 Weeks
Spring Term 11 Weeks	Numbers to 20		Addition and Subtraction with 20	Numbers to 40	Position and Direction	Multiplication	Division	
	2 Weeks		2 Weeks	2 Weeks	1 Week	3 Weeks	1 Week	
Summer Term 14 Weeks	Time	Fractions	Numbers to 100	Money	Length and Height	Volume and Capacity	Mass	Space
	2 Weeks	3 Weeks	2 Weeks	1 Week	2 weeks	1 Week	1 Week	1 Week



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KS1 Y1 Units	Autumn Term (14 weeks)	Spring Term (11 weeks)	Summer Term (14 weeks)
	<p>Counting to 10 – 2 weeks MNP Chapter 1 - Lessons 1 – 8.</p> <p>Progression of skills count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number To be able to count numbers to 10 accurately – forwards and backwards. L1</p> <p>count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens To be able to count similar objects up to 10 with accuracy and fluency. L2 To be able to read and write all numbers to 10 in numerals and in words; to categorise and count only objects with the same name in a group. L3 To be able to understand what zero represents and use it when counting; to be able to represent zero in its written form. L4</p> <p>given a number, identify one more and one less To be able to compare objects using matching and counting; to use the terms 'equal to', 'as many as', 'more than', 'greater than' and 'less than' as key terms. L5 To be able to order numbers to 10 and know which number is greater or is lesser in value. L6</p>	<p>Numbers to 20 – 2 weeks Lessons needed on place value – 10s and ones. Chapter 6 – Lessons 1 – 6.</p> <p>Progression of skills add and subtract one-digit and two-digit numbers to 20, including zero To be able to count numbers up to 20 using the key strategy to begin by making 10. L1</p> <p>read and write numbers from 1 to 20 in numerals and words To be able to recognise, read and write numbers up to 20 in words and numerals. L2</p> <p>given a number, identify one more and one less To be able to use the terms 'greater than' or 'less than' to compare numbers within 20. L3 To be able to arrange numbers up to 20 in ascending and descending order. L4 To be able to look for patterns with numbers up to 20, focusing on one more and one less than a number. L5 To be able to apply knowledge of number patterns to solve problems. L6</p>	<p>Time – 2 weeks Chapter 16 Lessons 1, 2, 3, 5, 7</p> <p>Progression of skills <i>sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening</i> (copied from Measurement) To be able to sequence events in order of time and to use the terms 'next,' 'before' and 'after' to describe the order of events. L3</p> <p>compare, describe and solve practical problems for: <ul style="list-style-type: none"> time [e.g. quicker, slower, earlier, later] To be able to use the terms 'quicker', 'slower', 'earlier' and 'later' when comparing time. L5</p> <p>measure and begin to record the following: * time (hours, minutes, seconds)</p> <p>tell the time to the hour and half past the hour and draw the hands on a clock face to show these times To develop familiarity with the analogue clock, including the minute and hour hands; to be able to tell time to the hour on an analogue clock. L1 To improve familiarity with the analogue clock; to be able to tell time to the half hour using the term 'half past'. L2</p>



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<p>To be able to compare numbers using the terms '1 more than' and '1 less than'. L7</p> <p>use the language of: equal to, more than, less than (fewer), most, least</p> <p>To be able to compare objects using matching and counting; to use the terms 'equal to', 'as many as', 'more than', 'greater than' and 'less than' as key terms. L5</p> <p>To be able to order numbers to 10 and know which number is greater or is lesser in value.L6</p> <p>To be able to compare numbers using the terms '1 more than' and '1 less than'. L7</p> <p>identify and represent numbers using objects and pictorial representations including the number line</p> <p>read and write numbers from 1 to 20 in numerals and words</p> <p>To be able to apply knowledge of numbers to solve problems. L8</p>		<p>recognise and use language relating to dates, including days of the week, weeks, months and years</p> <p>To learn the days of the week and the months of the year and to be able to put them in the correct order. L6</p> <p>To be able to apply knowledge of time to solve problems. L7</p>
<p>Number bonds – 2 weeks More time needed to teach number bond diagram and fluency with number bonds to 5. Chapter 2 Lessons 1 – 3. <u>Progression of skills</u> represent and use number bonds and related subtraction facts within 20 To be able to understand that a number is made up of other numbers; to find as many ways as possible to construct a number bond. L1 To be able to tell a story based on given number bonds or draw number bonds to tell a story. L2</p> <p>add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p>	<p>Addition and subtraction within 20 - 2 weeks MNP – Chapter 7 Lesson 1 – 8 <u>Progression of skills</u> add and subtract one-digit and two-digit numbers to 20, including zero To be able to add by counting on from the largest number. L1 To be able to add two numbers by first making 10 and then adding on the remainder. L2 To be able to add the sum of the ones to the ten add by separating the ones and the ten. L3 To be able to subtract by counting back from the largest number. L4 To be able to subtract by subtracting from only the ones column. L5</p>	<p>Fractions 3 weeks Chapter 14 – Lessons 1 – 4. <u>Progression of skills</u> recognise, find and name a half as one of two equal parts of an object, shape or quantity To be able to split an object (shape) into two equal parts; to be able to identify shapes that have been split into two equal parts. L1</p> <p>recognise, find and name a quarter as one of four equal parts of an object, shape or quantity To be able to split an object (shape) into four equal parts; to be able to identify shapes that have been split into four equal parts. L2 To be able to share and group objects into halves and quarters; to be able to determine half of a number and a quarter of a number. L3</p>



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	<p>(appears also in Written Methods)</p> <p>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$</p> <p>To be able to apply knowledge of number bonds to solve problems. L3</p>	<p>To be able to subtract a certain amount of ones from 10 rather than from the ones, as there are not enough ones. L6</p> <p>read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods)</p> <p>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$</p> <p>To be able to go through number facts derived from addition and subtraction sentences. L7</p> <p>To be able to apply knowledge of addition and subtraction to solve problems. L8</p>	<p>To be able to apply knowledge of fractions to solve problems. L4</p>
	<p>Addition within 10 – 2 weeks. Chapter 3 - MNP – Lesson 1 – 6. <u>Progression of skills</u> add and subtract one-digit and two-digit numbers to 20, including zero To be able to add two different numbers within 10. L1 To be able to add by counting on. L2</p> <p>read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods) To be able to complete number sentences and gain an understanding of inverse operations. L3 To be able to make addition stories using correct vocabulary. L4</p> <p>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$</p>	<p>Numbers to 40 – 2 weeks Chapter 10 Lessons 1 – 7. <u>Progression of skills</u> count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens identify and represent numbers using objects and pictorial representations including the number line <i>count in multiples of twos, fives and tens</i> To be able to use the making 10 strategy to count numbers above 10; to be able to represent numbers on a number line. L1 To be able to use the ten-frame method of organisation and place-value cards to assist pupils in writing numbers to 40; to be able to encourage multiple ways of counting, including counting by 2, 5 and 10. L2 To be able to understand that digits represent tens and ones; to be able to represent numbers using Base 10 materials and numbers. L3 To be able to use place value to compare two or three numbers and determine which number is</p>	<p>Numbers to 100 - 2 weeks Chapter 15 Lessons 1 - 5 <u>Progression of skills</u> count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens To be able to count in sequences of 10 followed by counting ones; to be able to increase confidence with number lines and Base 10 materials in order to count numbers to 100. L1 To be able to understand the value of the tens and ones digits in a number; to be able to use multiple methods of representing and constructing a number. L2 To be able to review and extend skills and strategies related to number comparison; to be able to place numbers in order from smallest to greatest and vice versa. L3 To be able to see patterns of numbers when increasing or decreasing by 1, 2 or 5; to be able to</p>



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	<p>To be able to solve addition problems presented in pictorial form. L5 To be able to apply knowledge of number bonds to solve problems. L6</p>	<p>bigger/smaller; to be able to arrange three numbers in order of size. L4 To be able to compare numbers using number bonds, 100-squares and number lines to determine how much more/less. L5 To be able to observe and use number patterns; to be able to see number lines in conjunction with number squares in order to create visual proportionality. L6 To be able to apply knowledge of numbers to solve problems. L7</p>	<p>use a number line, a 100-chart and Base 10 materials to represent numbers. L4 To be able to apply knowledge of numbers to solve problems. L5</p>
	<p>Subtraction within 10 – 2 weeks Chapter 4 - MNP – Lesson 1 – 7. <u>Progression of skills</u> add and subtract one-digit and two-digit numbers to 20, including zero To be able to understand that subtraction can be done by crossing out or taking away. L1 To be able to subtract using number bonds. L2 To be able to solve a subtraction sentence by counting back, using a number line as support. L3 read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods) To be able to make subtraction stories and represent them in subtraction sentences. L4 To be able to solve problems in the context of addition and subtraction and to find the corresponding number families. L6, L7 solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ To be able to solve picture problems involving subtraction. L5</p>	<p>Position 1 week Chapter 5 - MNP – L1, 2 and 3 <u>Progression of skills</u> describe position, direction and movement, including half, quarter and three-quarter turns. To be able to use the appropriate positional language (ordinal numbers) for up to 10 positions. L1 To be able to name the positions in a queue with reference to a specific starting point. L2 To be able to name positions, including left and right, with respect to a reference point. L3</p>	<p>Money – 1 week Chapter 17 – Lessons 1 -3. <u>Progression of skills</u> recognise and know the value of different denominations of coins and notes To be able to recognise coins and determine their value using size, colour, markings and shape. L1 To be able to recognise notes and determine their value using colour and markings. L2 To be able to apply knowledge of money to solve problems. L3</p>



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	<p>To be able to solve problems in the context of addition and subtraction and to find the corresponding number families. L6, L7</p>		
	<p>Time – 2 weeks Progression of skills <i>sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening</i> (copied from Measurement)</p> <p>compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"> time [e.g. quicker, slower, earlier, later] <p>measure and begin to record the following:</p> <ul style="list-style-type: none"> time (hours, minutes, seconds) <p>tell the time to the hour and half past the hour and draw the hands on a clock face to show these times</p> <p><u>THIS COULD BE INCLUDED HERE</u></p> <p>Space – 1 week Chapter 20 – Lessons 1 -4. Progression of skills describe position, direction and movement, including half, quarter and three-quarter turns.</p> <p>To be able to describe the position of objects in relation to one another using varied vocabulary. L1 To be able to describe movements of objects using varied language. L2 To be able to understand how to make turns using mathematical language and connecting this knowledge to time. L3 To be able to apply knowledge of space to solve problems. L4</p>	<p>Multiplication – 3 weeks Chapter 12 Lesson 1 – 6. Need to change the content and workbook to 2s, 5s 10s. Need to have focused sessions on the meaning of groups and fluency of counting in 2s, 5s, 10s. Progression of skills <i>count in multiples of twos, fives and tens</i> (copied from Number and Place Value)</p> <p>solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher</p> <p>To be able to identify equal groupings as the first step in multiplying; to be able to reinforce the idea that the arrangement of objects does not have an impact on the number of objects. L1 To be able to understand that we can count groups of the same quantity more efficiently; to be able to find multiple ways of counting groups of the same quantity. L2 To be able to organise objects into equal rows in order to begin counting equal numbers efficiently. L3 To be able to understand that doubling is creating an identical number to the one you started with and that doubling is the same as saying two groups of the same amount. L4 To solve word problems using equal groupings as the basis for multiplication. L5 To be able to apply knowledge of multiplication to solve problems. L6</p>	<p>Length and Height – 2 weeks MNP – Chapter 9 all lessons. Progression of skills compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"> lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half] <p>To be able to compare height and length using key terminology. L1 To be able to apply knowledge of length and height to solve problems. L5 measure and begin to record the following:</p> <ul style="list-style-type: none"> lengths and heights <p>To be able to measure objects using other items as non-standard units of measure, such as pencils or paper clips. L2 To be able to measure the height and length of items using parts of the body. L3 To be able to understand the concept of using rulers for measuring height and length. L4</p>



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	<p>Shapes and patterns 2 weeks Chapter 8 - Lessons 1 - 3</p> <p>Progression of skills recognise and name common 2-D and 3-D shapes, including:</p> <ul style="list-style-type: none"> * 2-D shapes [e.g. rectangles (including squares), circles and triangles] * 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres]. <p>To be able to recognise four basic 3-D solid shapes: spheres, cubes, cuboids and pyramids. L1 To be able to recognise 2-D shapes in the everyday environment. L2 To be able to group shapes using different criteria. L3</p>	<p>Division – 1 week. Again changed for 2s, 5s and 10s. Chapter 13- Lesson 1 – 3.</p> <p>Progression of skills <i>count in multiples of twos, fives and tens</i> (copied from Number and Place Value)</p> <p>solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher</p> <p>To be able to understand how to divide even numbers into equal groups using concrete materials; to be able to determine how many groups will be created from sharing equally. L1 To be able to understand how to divide even numbers equally into groups; to be able to determine how many objects will be included in each group in order to share equally. L2 To be able to apply knowledge of division to solve problems. L3</p>	<p>Volume and capacity – 1 week Chapter 18 Lessons 1 - 4</p> <p>Progression of skills compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"> * capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter] <p>To be able to compare volume and capacity using the terms 'more than' and 'less than', 'full' and 'empty.' L1</p> <p>measure and begin to record the following:</p> <ul style="list-style-type: none"> * capacity and volume <p>To be able to find the volume and capacity of a container using non-standard units. L2 To be able to describe volume using the terms 'half' and 'quarter'. L3 To be able to apply knowledge of volume and capacity to solve problems. L4</p>
			<p>Mass – 1 week Chapter 19 – Lessons 1 -3.</p> <p>Progression of skills compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"> * mass/weight [e.g. heavy/light, heavier than, lighter than] <p>To be able to compare the mass of objects using the terms 'heavy' and 'light', 'heavier than', 'lighter than' and 'as heavy as'. L1</p> <p>measure and begin to record the following:</p> <ul style="list-style-type: none"> * mass/weight <p>To be able to find the mass of an object using non-standard units; to be able to use visualisation skills to estimate the number of units. L2 To be able to apply knowledge of mass to solve problems. L3</p>



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			<p>Space – 1 week Chapter 20 – Lessons 1 -4.</p> <p><u>Progression of skills</u> describe position, direction and movement, including half, quarter and three-quarter turns.</p> <p>To be able to describe the position of objects in relation to one another using varied vocabulary. L1 To be able to describe movements of objects using varied language. L2 To be able to understand how to make turns using mathematical language and connecting this knowledge to time. L3 To be able to apply knowledge of space to solve problems. L4</p>
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