LMPS Maths Termly Overview 2020 - 2021

YEAR 2

The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools]. At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

Autumn Term	Spring Term	Summer Term
Times table focus this term: Count in steps of 2, 5 and 10 from 0 up to 12x fluently.	**Times table focus this term:** Recall multiples of 2 up to 12x2 in any order, including missing numbers and related division facts. Recall multiples of 10 up to 12x10 fluently. Recall multiples of 5 up to 12x5 in any order, including missing numbers and related division facts.	**Times table focus this term:** Count in multiples of 3 to 12x3 in order from 0. Recall multiples of 2 up to 12x2 in any order, including missing numbers and related division facts fluently. Recall multiples of 5 up to 12x5 in any order, including missing numbers and related division facts with growing fluency.

Year 1 conceptual prerequisites (see teaching guide for strands and teaching guidance)

Children must be confident in the following:
- Know that 10 ones are equivalent to 1 ten. Know that multiples of 10 are made up from a number of tens, for example, 50 is 5 tens.
- Place the numbers 1 to 9 on a marked, but unlabelled, 0 to 10 number line. Estimate the position of the numbers 1 to 9 on an unmarked 0 to 10 number line. Count forwards and backwards to and from 100.
- Develop fluency in addition and subtraction facts within 10.
- Learn and use number bonds to 10, for example: 8 + ? = 10
- Partition numbers within 10, for example: 5 = 2 + 3
- Solve missing addend problems within 10, for example: 4 + ? = 10
- Add and subtract within 10, for example: 6 + 3 = 9; 6 − 2 =4
- Add and subtract within 10. Know that a multiple of 10 is made up from a number of tens, for example, 50 is 5 tens.
- Count in multiples of 2, 5 and 10.
- Count in multiples of 2, 5 and 10 to find how many groups of 2, 5 or 10 there are in a particular quantity, set in everyday contexts

LADY MARGARET PRIMARY SCHOOL

Meaningful **L**earning opportunities and strong **M**otivation leads to rapid **P**rogress and high levels of **S**uccess.

- Recognise common 2D and 3D shapes presented in different orientations.

Y1 Unit 9: Numbers to 50 (11 Lessons)	Y2 Unit 6. Multiplication and division (2) (9 Lessons)	Y2 Unit 11. Position and direction (4 Lessons)

Y1 Unit 9: Numbers to 50 (11 Lessons)

Prerequisite strands to focus on:

2NPV–1 Place value in two-digit numbers

2NPV–2 Two-digit numbers in the linear number system up to 50

2AS–1 Add and subtract across 10

2NF –1 Fluently add and subtract within 10

Number - number and place value

- 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
- given a number, identify one more and one less
- identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ – 9
- recognise the place value of each digit in a two-digit number (tens, ones)
- compare and order numbers from 0 up to 100; use <, > and = signs

Y2 Unit 6. Multiplication and division (2) (9 Lessons)

Prerequisite strands to focus on:

2MD–1 Multiplication as repeated addition

2MD–2 Grouping problems: missing factors and division

Number - multiplication and division

- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

Y2 Unit 7. Statistics (7 Lessons)

Statistics

- interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
- ask and answer questions about totalling and comparing categorical data

Y2 Unit 8. Length and height (5 Lessons)

Y2 Unit 11. Position and direction (4 Lessons)

Geometry - position and direction

- order and arrange combinations of mathematical objects in patterns and sequences
- use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)

Y2 Unit 12. Problem solving and efficient methods (12 Lessons)

Number - number and place value

- use place value and number facts to solve problems

Number - addition and subtraction

- solve problems with addition and subtraction:
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems

Number - multiplication and division

- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication

- *Ensure that you go through the Unit Starter – go through vocabulary, structures and representations*
- *Teach all lessons in the Unit (11 lessons)*
- *Complete the End of Unit Check*
- *Then, teach the Unit below*

Y2 Unit 1. Numbers to 100 (10 Lessons)
Prerequisite strands to focus on:
2NPV–1 Place value in two-digit numbers
2NPV–2 Reason about the location of any two digit number in the linear number system, including identifying the previous and next multiple of 10.
Number - number and place value
- count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward
- recognise the place value of each digit in a two-digit number (tens, ones)
- identify, represent and estimate numbers using different representations, including the number line
- compare and order numbers from 0 up to 100; use <, > and = signs

Y2 Unit 2. Addition and subtraction (1) (12 Lessons)
Prerequisite strands to focus on:
2AS–2 Solve comparative addition and difference problems
2AS–3 Add and subtract within 100 – part 1
Number - number and place value

Number - addition and subtraction
- solve problems with addition and subtraction:
Measurement
- choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
- compare and order lengths, mass, volume/capacity and record the results using >, < and =
Number - addition and subtraction
- using concrete objects and pictorial representations, including those involving numbers, quantities and measures

Y1 Unit 5. 2D and 3D shapes (5 Lessons)
Geometry - properties of shapes
- recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles] and 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]

- *Ensure that you go through the Unit Starter – go through vocabulary, structures and representations*
- *Teach all lessons in the Unit (5 lessons)*
- *Complete the End of Unit Check.*
- *Then, teach the Y2 Unit below*

and division facts, including problems in contexts
Number - addition and subtraction
- using concrete objects and pictorial representations, including those involving numbers, quantities and measures

Y2 Unit 13. Time (9 Lessons)
Measurement
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times
- compare and sequence intervals of time
- tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times
- know the number of minutes in an hour and the number of hours in a day

Y2 Unit 14. Weight, volume and temperature (10 Lessons)
Measurement
- choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
- compare and order lengths, mass, volume/capacity and record the results using >, < and =

- count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward **Number** - addition and subtraction - solve problems with addition and subtraction: - recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot - recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods - a two-digit number and ones - a two-digit number and tens **Y2 Unit 3. Addition and subtraction (2)** (9 Lessons) Prerequisite strands to focus on: 2AS–4 Add and subtract within 100 – part 2 **Number** - addition and subtraction - solve problems with addition and subtraction:	**Y2 Unit 9. Properties of shapes** (12 Lessons) Prerequisite strands to focus on: 2G–1 Describe and compare 2D and 3D shapes **Geometry** - properties of shapes - identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line - identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces - compare and sort common 2-D and 3-D shapes and everyday objects **Geometry** - position and direction - order and arrange combinations of mathematical objects in patterns and sequences - write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2 **Y2 Unit 10. Fractions** (14 Lessons) **Number** – fractions - recognise, find and name a half as one of two equal parts of an object, shape or quantity - recognise, find and name a quarter as one of four equal parts of an object, shape or quantity - recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity	-

- add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
- using concrete objects and pictorial representations, including those involving numbers, quantities and measures
- applying their increasing knowledge of mental and written methods
- two two-digit numbers
- adding three one-digit numbers

Y1 Unit 18: Money (9 Lessons)
Prerequisite strands to focus on:
2AS–3 Add and subtract within 100 – part 1
2AS–4 Add and subtract within 100 – part 2
Number - number and place value
- count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
Measurement
- recognise and know the value of different denominations of coins and notes

- *Ensure that you go through the Unit Starter – go through vocabulary, structures and representations*
- *Teach all lessons in the Unit (3 lessons)*
- *Complete the End of Unit Check.*
- *Then, teach the Y2 Unit below*

Y2 Unit 4. Money (9 Lessons)
Prerequisite strands to focus on:
2AS–3 Add and subtract within 100 – part 1

2AS–4 Add and subtract within 100 – part 2
Measurement
- recognise and know the value of different denominations of coins and notes
- recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
- find different combinations of coins that equal the same amounts of money
- solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change

Y2 Unit 5. Multiplication and division (1) (9 Lessons)
Prerequisite strands to focus on:
2MD–1 Multiplication as repeated addition
2MD–2 Grouping problems: missing factors and division
Number - multiplication and division
- 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
- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs

- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts		