Mawsley CP School Mathematics Long Term Plan

Year group	Autumn Term	Spring Term	Summer Term
1	**Number- number and place value** • Numbers to 10-count forwards and backwards, one more, one less. Comparing and ordering. • Part whole to 10 • Counting and writing numbers to 20 **Number- addition and subtraction within 10** • Represent and use number bonds and related subtraction facts • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems • Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs **Geometry- properties of shape** • Recognise and name 2D shapes- squares, circles, triangles • Recognise and name 3D shapes- cuboids, spheres, pyramids	**Number- number and place value** • Count and represent numbers to 50 • Order and compare numbers to 50 • Count in 2's and 5's **Number- addition and subtraction within 20** • Add by counting on and making 10. • Number bonds to 20. • Subtraction crossing 10 • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems **Measurement** • Length (non- standard and using a ruler), height, weight, volume (measure, record, compare) • Solve word problems	**Number- number and place value** • Numbers to 100 • Counting in 2's, 5's and 10's **Number- fractions** • Halves and quarters **Number- multiplication and division** • Making and adding equal groups • Making simple arrays • Making doubles • Sharing equally • Solving word problems **Geometry- position and direction** • Describe position, direction and movement, including whole, half, quarter and three-quarter turns **Measurement** • Time- use a calendar and before and after. Tell and write the time to the hour and half hour. • Money – recognise cons and notes. Count with coins.
2	**Number and place value- numbers to 100**	**Number- multiplication and division** • Dividing by 2,5 and 10	**Geometry- position and direction** • Describe movement and turns

	• Compare and order numbers from 0 up to 100; use <, > and = signs • Count in 2's,5's and 10's **Number- addition and subtraction** • Use related facts • 10 more and less • Add and subtract 1 and 2 digit numbers • Solve word problems **Measurement** • Money –count and compare coins and notes. Find a total. 2 step word problems. **Number- multiplication and division** • Adding equal groups • Multiplication word sentences • Arrays • Problem solving • 2,5,10 times table.	• Odd and even numbers • Sharing and grouping **Statistics** • Tally charts • Pictograms • Block diagrams **Measurement** • Length and height (measure in m and cm) compare and order. **Geometry-properties of shape** • Identify, make patterns and describe 2D and 3D shapes • Number of sides, faces, vertices, edges and symmetry **Number- fractions** • Recognise part and whole • Recognise and name simple unit fractions • Recognise equivalence of ½ and 2/4 • Count in halves and quarters	• Make patterns **Number- addition and subtraction** • Use place value to solve problems • Use a 100 square **Measurement** • Time- tell the time to a quarter hour and 5 minutes. Find durations of time. • Weight, volume, temperature- Choose and use appropriate standard units to estimate and measure
3	**Number and place value** ● Place value within 1000 ● Count in 1000's, 50's ● 100,10,1 more and less ● Comparing and ordering numbers to 1000 **Number- addition and subtraction** ● Add and subtract digit numbers and 1's, 10's and 100's mentally	**Number- multiplication and division** ● Related multiplication and division statements ● Multiplying and dividing a 2 digit by a 1 digit number ● Correspondence problems ● Mixed problem solving problems **Measurement- money and length** ● Converting pounds and pence	**Number- fractions** ● Equivalent fractions ● Add and subtract fractions with the same denominator within 1 **Measurement** ● Months, years, days, minutes, seconds ● Tell the time to the minute

	- Add and subtract 3 and 2 digit numbers with formal columnar method - Add and subtract 3 digit with 3 digit numbers with formal columnar method - Estimating, checking and problem solving with addition and subtraction **Number- multiplication and division** - Equal grouping - Multiplying, dividing and times tables of 3, 4 and 8. - Understanding divisibility - Using Related facts	- Adding and subtracting money using pounds and pence - Measure, compare, add and subtract: lengths (m/ cm/mm); mass (kg/g); volume/capacity (l/ml) - Equivalent lengths mm and cm - Measure perimeter of simple 2D shapes **Statistics (interpret and present data)** - Pictograms - Bar charts - tables **Number –fractions** - Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators - Count in tenths - Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	- Find and compare durations of time - Measure mass and capacity **Geometry –properties of shape** - Right angles - Identify horizontal and vertical lines and pairs of perpendicular and parallel lines - Draw 2D and 3D shapes
4	**Number- number and place value** - Place value in 4 digit numbers - Round to nearest 10, 100 and 1000 - Compare and order numbers to 10,000 - Roman numerals to 100	**Number- multiplication and division** - Multiply two-digit and three-digit numbers by a one-digit number using formal written layout - Multiply more than 2 numbers - Correspondence problems	**Number- fractions (including decimals)** - Write, compare, order and round decimals - Recognise and write decimal equivalents to 1/4, 1/2, 3/4 **Measurement**

	• 1000 more or less • Count in multiples of 6, 7, 9, 25 and 1,000 • Count backwards through 0 to include negative numbers **Number- addition and subtraction** • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction • Use equivalent difference **Number- multiplication and division** • Multiply and divide by 1 and 0 • Multiply and divide and times table of 6,9,7,11 and 12 **Measurement** • Convert between different units of measure • Perimeter of rectilinear shapes	• Division with remainders • Dividing a 3-digit number • by a 1-digit number • mixed problems **Number- fractions (including decimals)** • count in tenths and hundredths • add and subtract fractions with the same denominator • fractions greater than 1 • fractions of a quantity • Recognise and write decimal equivalents of any number of tenths or hundredths • Divide by 10 and 100 **Measurement** • Find the area of rectilinear shapes by counting squares	• Write, order, compare amounts of money • Convert between units of measure **Statistics** • Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs **Geometry- properties of shape** • Identify and compare acute and obtuse angles • Compare and classify shapes based on their properties • Classify quadrilaterals and triangles • Identify lines of symmetry and complete a symmetric shape **Geometry- position and direction** • Co-ordinates first quadrant • Translation- up/down/left/right
5	**Number- number and place value** • Read, write, order and compare numbers to 1,000,000 • Rounding numbers within 1,000,000 • Roman numerals to 10,000 • Negative numbers	**Number- multiplication and division** • Multiply a 4 digit with a 2 digit number using a formal written method • Divide a 4 digit by 1 digit number using short division • Division with remainders	**Number- fractions (including decimals and percentages)** • Add and subtract decimals up to 3dp • Read, write, order and compare numbers with up to three decimal places

- Counting in 10s, 100s, 1,000s, 10,000s

Number- addition and subtraction
- Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
- Use rounding to estimate and check answers
- Mentally add and subtract large numbers
- Use inverse operations

Number- multiplication and division
- Prime numbers, factors, multiples, squares and cubes
- Multiply and divide by 1000 and 10,000

Measurement
- Measure, calculate, order and compare perimeter and area of rectilinear shapes

Statistics
- 2 way tables
- Interpreting and draw line graphs

Number- fractions (including decimal and percentages)
- Identify, write and name equivalent fractions
- Convert mixed and improper fractions
- Compare and order fractions whose denominators are all multiples of the same number
- Add and subtract fractions with the same denominator and denominators that are multiples of the same number
- Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- Use fractions as operators
- Read and write decimal numbers as fractions
- Order, compare and round decimals
- Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal

- Multiply and divide decimals by 10,100 and 1000

Geometry- properties of shape
- Measure angles in degrees with a protractor
- Draw lines and angles accurately
- Calculate lengths and angles in a shape
- Recognise and draw parallel and perpendicular lines
- Identify 3D shapes from 2D representations
- Recognise regular and irregular polygon

Geometry- position and direction
- Identify, describe and represent the position of a shape following a reflection or translation
- Translate and reflect describing with co-ordinates

Measurement
- Convert between different metric units Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
- Solve problems involving units of time and timetables
- Estimate and compare volume and capacity

6	**Number- number and place value**	**Number- fractions (including decimals and percentages)**	**Geometry- properties of shape**

Number- number and place value
- Numbers to 10,000,000
- Rounding numbers
- Use negative numbers in context, and calculate intervals across zero

Number- addition, subtraction, multiplication and division
- Multiply and divide 4 digits by 2 digits using formal long division and multiplication
- Identify common factors and multiples
- Use their knowledge of the order of operations to carry out calculations involving the four operations
- Square and cubed numbers
- Perform mental calculations, including with mixed operations and large numbers

Number- fractions
- Use common factors to simplify fractions
- Compare and order fractions, including fractions > 1
- Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- Multiply and divide a fraction by a whole number
- Calculate fractions of amounts

Number- fractions (including decimals and percentages)
- Multiply and divide by multiples of 10,100,1000
- Calculate fraction and decimal equivalents
- Multiply numbers up to 2dp by 1 digit numbers
- Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
- Compare and order fractions, including fractions > 1

Algebra
- Generate and describe linear number sequences
- Use simple formulae
- Express missing number problems algebraically
- Find pairs of numbers that satisfy an equation with two unknowns

Measurement
- Use, read, write and convert between standard metric units up to 3dp
- Convert between miles and kilometres
- Recognise that shapes with the same areas can have different perimeters and vice versa

Geometry- properties of shape
- Draw 2-D shapes using given dimensions and angles
- Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
- Recognise, describe and build simple 3-D shapes, including making nets

Problem solving involving:
- Solve problems involving addition, subtraction, multiplication and division
- Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
- Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
- Use, read, write and convert between standard units, converting measurements of length, mass, volume and time
- Describe positions on the full coordinate grid (all four quadrants)

Geometry- position and direction • Describe positions on the full coordinate grid (all four quadrants) • Draw and translate simple shapes on the coordinate plane, and reflect them in the axes	• Calculate the area of parallelograms and triangles • Calculate, estimate and compare volume of cubes and cuboids using standard units **Ratio and proportion** • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples • Solve problems involving similar shapes where the scale factor is known or can be found	• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles **Statistics** • Calculate and interpret the mean as an average • Interpret and construct pie charts and line graphs and use these to solve problems