Maths Long Term Plan

EYFS	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Number **Patterns** **Measures** **Shape and Space**		**Number** **Patterns** **Shape and Space** **Measures**		**Number** **Measures** **Shape and Space** **Patterns**	
	Number Subitising Counting to 5 Composition of numbers 1, 2 and 3 Ordering groups of objects Compare to sets of objects **Pattern** AB patterns ABB patterns Errors in AB patterns Spatial Vocabulary - Position and Direction	**Number** More than and fewer than Parts and wholes Composition of numbers 3, 4 and 5 Counting to 10 Numerals to 5 **Measures** Comparing amounts (Height and weight) Time durations **Shape and Space** Properties of shape - triangles, squares, rectangles Relationships between shapes	**Number** Composition of 6 and 7 as 5 and a bit. Finding equal quantities Number bonds to 5 Numerals to 10 **Pattern** ABC patterns ABBC patterns Repeating structures Patterns around a circle **Shape and Space** Properties of shape - pentagon and hexagon Relationships between shapes	**Number** Ordering numbers to 10 Count beyond 20 Doubles Odds and Evens Missing parts **Measures** Relationship between size and number of objects Units to compare things (Height, weight and capacity) **Shape and Space** Properties of shape - pentagon and heptagon	**Number** Count beyond 20 (-teen/-ty numbers) Subitising using doubles composition of numbers 6-10 1 more and 1 less as a linear sequence **Shape and Space** Properties of shape - Shapes with different numbers of sides. Relationship of shape - 2D and 3D shapes Relationship of shape - 2D shapes in pictures Relationship of shape - 3D shapes in models.	**Number** Number bonds to ten (Double facts) Partitioning numbers in more than two ways. Inverse operations **Measures** Relationship between size and number of objects Units to compare things (Height, weight and capacity) **Pattern** ABC patterns ABBC patterns Repeating structures Patterns around a circle

Year 1	**Number and Place Value** **Measurement**	**Number and Place Value** **Geometry - Properties of Shape**	**Number and Place Value** **Addition and Subtraction**	**Addition and Subtraction** **Geometry - Position and Direction**	**Number and Place Value** **Multiplication and Division** **Measurement**	**Multiplication and Division** **Measurement** **Fractions**
	Numbers 0-5 Ordinal Numbers Partition of Numbers 0-5 One more and One less **Part-Whole Relationships** Wholes and Parts Part-whole models More than two parts. **Comparison of Quantities** Length and Height Weight and Mass Volume and Capacity	**Numbers 6-10** Ordinal Numbers Odds and Evens Missing parts One more and One less **2D and 3D Shapes** Repeating and radiating patterns Identify 2D shapes within 3D shapes. Explore and discuss 3D shapes.	**Additive Structures** Commutative Law Equals symbol Addition and subtraction stories. Missing addends Inverse operation	**Additive Structures** Missing parts Inverse operations **Addition and Subtraction within 10** Number bonds to 10 Consecutive numbers Adding zero Doubling Halving Near doubles/Near halves **Position and Direction** Whole, half, quarter and three-quarter turns Language of position and directions (left and right, between, near and far)	**Numbers 0-20** Number lines Parts and wholes Odd and Even numbers Addition and subtraction within 20. Measure length in cm **Unitising/Coin Recognition** Count in groups of 2 Count in groups of 10 Count in groups of 5 Recognise and explain the value of 2p, 5p and 10p coins. Count groups of 2p, 5p and 10p coins.	**Unitising/Coin Recognition** Calculate the total value of coins in a set of 2p, 5p and 10p coins. Solve problems with coins. **Time** Sequence events in chronological order Dates Days of the Week Months of the Year Tell the time to the hour Tell the time to half past the hour **Fractions** ½ of objects, shapes and quantities. ¼ of objects, shapes and quantities.

Year 2	Number & Place Value Addition & Subtraction Statistics	Addition & Subtraction Multiplication and Division Geometry - Properties of Shape	Multiplication & Division	Multiplication & Division Multiplication	Addition & Subtraction Fractions Geometry - Position & direction	Multiplication & Division Measurement
	Numbers 10-100 Represent multiple of 10 using numerals and names. Number lines Add and subtract multiples of 10. Represent numbers 20-99 Compare 2 digit numbers Partition 2 digit numbers. **Calculations within 20** Three Addends Bridging through 10 Calculate the difference Pictograms Bar Charts	**Addition and Subtraction - 2 digit numbers** Add and subtract one to any two-digit number. Use number bonds to ten to add and subtract single digit numbers to two digit numbers. Ten more or ten less Partitioning 2 digit numbers (2 and 3 ways) **Introduction to multiplication** Grouping Repeated addition 2 times table Factor pairs 10 times table **Shape** Describe polygons Compare the properties of 2D shapes. Describe and compare 3D shapes.	**Introduction to multiplication** 5 times table Problem solving with groups of 2, 5 and 10 Double 2 digit numbers	**Introduction to division** Halving 2 digit numbers Division stories Skip counting Sharing and grouping **Money** Recognise and use symbols for pound and pence. Combine coins to make different amounts. Find different combinations of coins for the same amount.	**Addition and Subtraction - 2 digit numbers** Add a two-digit number using a formal written method. Subtract a two-digit number using a formal written method. **Fractions** Equal parts Identify and recognise one-half, one-quarter and one-third. Find half of a number. Find one-quarter of a number. **Position and Direction** Patterns and sequences Rotation Right Angles for quarter, half and three-quarter turns.	**Multiplication and Division** Patterns and Relationships Solve problems Dividend of zero Equal divisor and dividend Divisor of one **Measure** Measure length/height (m/cm) Measure temperature Measure capacity (l/ml) Compare and order lengths, mass, volume **Time** Compare and sequence intervals of time. Tell the time to five minutes. Minutes in an hour Hours in a day

Year 3	Number & Place Value Measures	Addition & Subtraction Geometry - Properties of Shape	Multiplication & Division Measurement	Multiplication & Division	Fractions	Fractions Geometry - Properties of Shape
	Numbers to 1000 Composition of 100 (50s 25s and 20s) Complements to 100 Bridging 100 with multiples of 10. Count across 100. Partitioning of three-digit numbers ten more or ten less Measure length and height from zero Convert m to cm Measure length from zero using mm Convert cm to mm Partition three-digit numbers to 1000. Count in hundreds Number lines Compare and order three-digit numbers Add and subtract multiples of 100. Weigh objects using scales. Measure in kg and grams. Measure volume up to 1 litre.	**Column Addition** Column addition with regrouping. Use column addition to solve problems. **Column Subtraction** Column subtraction with exchanging. Use column subtraction to solve problems **Right Angles** Identify angles Draw triangles and quadrilaterals	**Multiplication 2, 4 and 8** Relationship between multiples of 2 and 4 Use knowledge of the 4 times table to solve problems. Relationship between multiple of 4 and 8. Use knowledge of the 8 times table to solve problems. Divisibility rules for 2 and 4. Divisibility rules for divisors of 8. Scale known multiplication facts by 10. **Time** Tell the time from analogue clocks using Roman numerals Tell the time to the nearest minute. Number of seconds in a minute. Compare duration of events.	**Multiplication 3, 6 and 9** Relationship between adjacent multiples of 3. Use knowledge of the 3 times table to solve problems. Relationship between the 3 and 6 times tables. Use knowledge of the 6 times tables to solve problems. Relationship between adjacent multiples of 9. Use knowledge of the 9 times tables to solve problems. Divisibility rules for divisors of 3, 6 and 9. **Mental Calculations** Add and subtract pairs of 2 and 3 digit numbers using partitioning. Identify what is unknown. **Money** Recognise coins/notes Add and subtract quantities.	**Unit Fractions** Parts and wholes Equal and unequal parts. Use fraction notation to describe equal parts. Compare and order unit fractions. Calculate the value of a part using division facts. Find the fraction of a quantity.	**Non-Unit Fractions** Identify non-unit fractions Finding one whole. Compare non-unit fractions. Add and subtract fractions **Parallel and perpendicular sides in polygons** draw compound shapes. identify parallel and perpendicular lines in shapes. draw triangles. draw quadrilaterals.

Year 4	Number & Place Value Geometry - Properties of Shape	Multiplication & Division	Multiplication & Division Measurement	Multiplication & Division Geometry - Position & direction. Roman Numerals	Fractions	Fractions Geometry - Properties of Shape
	Numbers to 10,000 Composition of 1000 Conversion of measures using 1000 (m/km g/kg) Add multiples of 100 Compare and order four-digit numbers. Round a four-digit number to the nearest 10, 100 and 1000. 1000 in relation to 500/250/200. Add and subtract four digit numbers using a formal method. **Perimeter** Properties of regular polygons Calculate perimeter of polygons using addition or multiplication. Calculate unknown side lengths.	**Multiplication - 7 times tables** Relationship between adjacent multiples of 7 Use knowledge of the 7 times tables to solve problems. Represent a square number. Use divisibility rules to solve problems. **Multiplicative relationships** factors and multiples Impact of zero in multiplication and division facts. Partitioning factors in a multiplication problem.	**Multiplication - 11 and 12 times tables** Distributive law Using divisibility to solve problems. **Division with Remainders** Interpret division stories with remainders. Identify when there will be a remainder in a story. Use knowledge of division equations and remainders to solve problems. **Time** Read, write and convert time between analogue and digital 12 and 24 hour clocks. Solve problems involving converting from hours to minutes etc.	**Multiplicative relationships** Multiplying by 10 and 100 Dividing by 10 and 100 Short multiplication, 2 and 3 digit by a single digit. **Coordinates** Translate shapes on a grid Describe translations on a grid Mark the position of points on a grid Draw polygons specified by coordinates in the first quadrant. **Roman Numerals** Roman Numerals to 100.	**Fractions greater than one** composition of whole numbers and fractional parts. label number lines with missing parts compare and order mixed number fractions Convert improper fractions to mixed numbers Convert mixed numbers to improper fractions Add mixed number fractions Subtract a proper fraction from a mixed number Subtract a mixed number from a mixed number	**Decimal Fractions** Represent tenths and hundredths as a decimal fraction. Compare and order decimal numbers with tenths and hundredths. Compose and decompose decimals additively and multiplicatively. Calculate with decimal numbers using column addition and subtraction. Round decimal numbers to the nearest whole number. **Symmetry in 2D shapes** Symmetrical patterns Find lines of symmetry in 2D shapes Reflect polygons in a line of symmetry

Year 5	Place Value Addition & Subtraction	Multiplication & Division Measurement Geometry - Properties of Shape	Measurement Place Value	Multiplication & Division Place Value Measurement	Fractions	Geometry - Properties of Shape
	Multiples of 1000 Compose and decompose numbers to ten thousand. Read and write numbers to one million. Place value of six-digit numbers. Identify numbers on a number line. Count forwards and backwards in powers of 10. **Negative Numbers** Read and write negative numbers Identify negative numbers on a number line. Calculate intervals Interpret positive and negative numbers in a range of contexts. Explain how negative numbers are used on a coordinate grid.	**Money** Explain whole pounds and pence in the context of money. Compare amounts of money. Add and subtract within the context of money. Find the change when purchasing items. **Area and Scaling** Measure area using square centimetres and using multiplication. Identify different shapes with the same area. Compare the area of different shapes. Calculate the area of rectilinear shapes. compare and describe lengths using knowledge of division. Describe changes in measurement using knowledge of multiplication and division.	**Calculating with Decimal Fractions** Multiply and divide decimal number by 10, 100 and 1000 Convert units of measure using multiplying and dividing by 10, 100 and 1000. Understand the relationship between multiplying by 0.1 and dividing by 10.	**Factors, Primes and Multiples** Calculate the volume of a cuboid. Explain what a cube number is. Calculate the volume of compound shapes. change two factor multiplications to three factor multiplications. Explain when a number is a square number. Identify prime numbers or a composite number. Identify common multiples. **Converting Units** Convert between units of measure (Revised) Convert fraction and decimal equivalents. Solve measure problems involving different units. understand equivalences between metric and imperial units. Convert miles and kms.	**Fractions** Multiply unit and non-unit fractions. Multiply a proper fraction by a whole number. Multiply an improper fraction by a whole number. Multiply mixed number fractions by whole numbers. Find the fraction of a quantity. Find the whole when a unit fraction/non-unit fraction is known. Describe and compare two fractions. Find equivalent fractions. Divide a whole into equal parts.	**Angles** Understand acute, obtuse and reflex angles. Estimate and measure the size of angles.

Year 6	Addition & Subtraction Multiplication and Division Place Value	Multiplication & Division Geometry - Properties of Shape	Fractions	Ratio & Proportion Geometry - Properties of Shape	Geometry - Position & Direction Statistics	Algebra
	Multiples of 1000 Compose and decompose numbers to ten thousand. Read and write numbers to one million. Place value of six-digit numbers. Identify numbers on a number line. Count forwards and backwards in powers of 10. **Numbers up to 10,000,000** Determine the value of digits in numbers up to tens of millions. Compare/order numbers up to ten million. Identify numbers on marked number lines. Round numbers to the nearest hundred thousand, thousand, hundred, ten and one. Add and subtract numbers using column addition and subtraction in a variety of contexts.	**Draw, compose and decompose shapes** draw and identify shapes based on their given properties. 2D and 3D shapes and their properties. Parallelograms Identify angles Missing angles **Multiplication and Division** Multiply a three-digit number by a two digit number using a formal written method. Accurately use methods of short division. Divide three-digit and four-digit numbers by a two-digit number using a formal written method of long division. Use a formal written method of division when the answer has a remainder (express this as a decimal). Calculate scale factors using multiplication.	**Fractions and percentages.** Simplify fractions to their simplest form. Addition and subtraction of fractions (including mixed number fractions). Compare and order fractions. Multiply fractions by fractions Multiply fractions by a whole number Divide fractions by a whole number. Explain what percentage means Represent percentages in different ways. Convert percentages into fractions Convert percentages into decimals Calculate the percentage of a quantity. Calculate a percentage increase or decrease.	**Ratio and Proportion** Describe the relationship between two factors. Use multiplication and division to calculate unknown values. Understand scaling and scale factors. **Area and Perimeter** Calculate the area of a triangle Calculate the area of a parallelogram Explain why shapes can have the same areas, but different perimeters.	**Position and Direction** Describe positions on a coordinate grid (all four quadrants) Draw and translate shapes on a coordinate plane. Reflect shapes in the axes. **Mean Average** Calculate the mean from a set of data. Calculate the mean when one of the values is missing. Explain how to use the mean to make comparisons between data.	**Solving problems with two unknowns.** Represent problems with unknowns using a bar model. Explain why there are multiple solutions to some problems. Explain how to represent an equation with a bar model. Balance equation