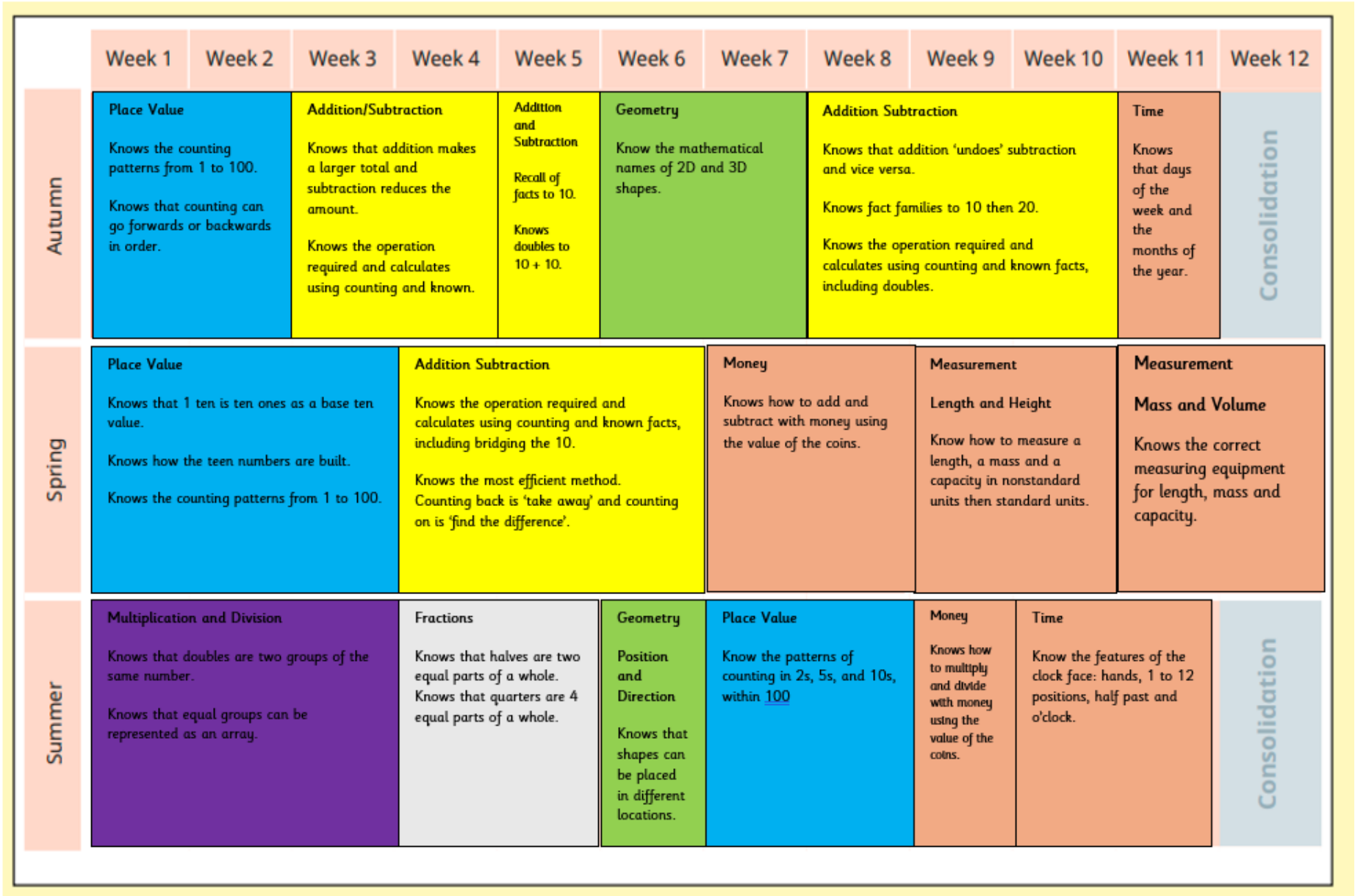
Maths Medium Term Plan - Spiral Curriculum

Year 1


Week 1
Week 2
Week 3
Week 4
Week 5
Week 6
Week 7
Week 8
Week 9
Week 10
Week 11
Week 12
Autumn
Place Value
Knows the counting patterns from 1 to 100.
Knows that counting can go forwards or backwards in order.
Addition/Subtraction
Knows that addition makes a larger total and subtraction reduces the amount.
Knows the operation required and calculates using counting and known.
Addition and Subtraction
Recall of facts to 10.
Knows doubles to 10 + 10.
Geometry
Know the mathematical names of 2D and 3D shapes.
Addition Subtraction
Knows that addition 'undoes' subtraction and vice versa.
Knows fact families to 10 then 20.
Knows the operation required and calculates using counting and known facts, including doubles.
Time
Knows that days of the week and the months of the year.
Consolidation
Spring
Place Value
Knows that 1 ten is ten ones as a base ten value.
Knows how the teen numbers are built.
Knows the counting patterns from 1 to 100.
Addition Subtraction
Knows the operation required and calculates using counting and known facts, including bridging the 10.
Knows the most efficient method. Counting back is 'take away' and counting on is 'find the difference'.
Money
Knows how to add and subtract with money using the value of the coins.
Measurement
Length and Height
Know how to measure a length, a mass and a capacity in nonstandard units then standard units.
Measurement
Mass and Volume
Knows the correct measuring equipment for length, mass and capacity.
Summer
Multiplication and Division
Knows that doubles are two groups of the same number.
Knows that equal groups can be represented as an array.
Fractions
Knows that halves are two equal parts of a whole.
Knows that quarters are 4 equal parts of a whole.
Geometry
Position and Direction
Knows that shapes can be placed in different locations.
Place Value
Know the patterns of counting in 2s, 5s, and 10s, within 100
Money
Knows how to multiply and divide with money using the value of the coins.
Time
Know the features of the clock face: hands, 1 to 12 positions, half past and o'clock.
Consolidation

Maths Medium Term Plan - Spiral Curriculum

Year 2

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	**Place Value** Knows the properties of two-digit numbers. Knows that counting can be done in varying step sizes.			**Addition/Subtraction** Knows number bonds to 20. Knows strategies for adding and subtracting for up to two 2-digit numbers Knows that addition is commutative			**Multiplication Division** Knows the operations of multiplication (repeated addition) and division (equal groups of). Knows that multiplication is commutative.		**Geometry** Know the mathematical names and properties of 2d and 3d shapes.		**Time & Money** Knows how to read the time to the nearest 15 minutes and 5 minutes. Knows how to find totals and equivalent amounts in money using notes and coins.	
Spring	**Fractions** Knows that fractions are relative to the whole. Knows that fractions are equal parts to the whole. Knows simple equivalence in halves and quarters. Knows thirds are three equal parts of a whole.			**Multiplication Division** Knows the 2s, 5s and 10s times tables and can find related facts. Knows that multiplication is inverse to division. Knows the odds and evens in the times tables for 2,5 and 10.			**Addition/Subtraction** Knows number bonds to and within 20 and bonds to 100. Knows efficient strategies for adding and subtracting for up to two 2-digit numbers. Knows that addition is inverse to subtraction.		**Measurement** Knows the relationships between units of measure for length, mass and capacity. Knows how temperature is measured.		
Summer	**Fractions** Knows that fractions of amounts can be calculated using multiplication and division facts			**Time and Money** Knows the number of minutes in an hour and hours in a day. Knows how to find change in the context of money.			**Statistics** Knows how data is represented and read. Knows how to interpret data.		**Geometry** Knows how to describe position and movement using clockwise, anti-clockwise, left and right.		**Consolidation**	

Maths Medium Term Plan - Spiral Curriculum

Year 3

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	**Place Value** Knows the properties of three-digit numbers. Knows how to count in step sizes and estimate numbers up to 1000.		**Addition/Subtraction** Knows bonds to 20 and 100 Knows how to add/subtract multiples of 10, 100 and from three-digit numbers Knows efficient mental strategies including partitioning and adjusting for addition and subtraction.			**Multiplication/Division** Knows the 2, 4 and 8-times tables and the doubling patterns Knows how to partition numbers when multiplying Knows how to rearrange dividends into multiples of the divisor			**Fractions** Knows that fractions are relative to the whole and can be represented in different ways.		**Time** Knows how to read the time to the nearest minute. Knows that the 12-hour clock can represent am or pm. Knows the passing of time can be calculated as time durations.	
Spring	**Multiplication/Division** Knows the 2,3,4 and 8 times tables and the doubling patterns, odds and evens. Knows how to multiply using partitioning. Knows how to find corresponding division facts.		**Place Value** Knows the relative position of numbers. Knows zero as a place holder in three-digit numbers. Knows the rules of rounding.	**Addition Subtraction** Knows how to calculate with columnar methods regrouping the tens and exchanging in subtraction.		**Measurement** Knows how to add and subtract in the context of measures. Know how to measure perimeter of 2D shapes.		**Geometry** Know and recognise right angles in 2d shapes. Knows acute and obtuse in relation to right angles. Knows how to describe lines using mathematical terms.		**Measurement – Mass and Capacity** Knows how to measure accurately reading the marked divisions in the appropriate units.	
Summer	**Fractions** Knows how to connect tenths to place value, decimal measures and to division by 10. Knows unit and non-unit fractions as numbers on the number line and how to represent equivalence.		**Addition/Subtraction** Knows the compact algorithms for addition and subtraction including regrouping and exchanging. Know how to add and subtract in the context of money.		**Time** Knows the time in 12-hour and 24-hour representations. Knows the number of seconds in a minute and the number of days in each month, year and leap year.		**Geometry** Knows how to describe and classify shapes using mathematical properties.	**Multiplication/Division** Knows how to multiply/divide two-digit numbers using expanded or formal written methods of short multiplication and division		**Statistics** Knows how to present data in many contexts.	**Consolidation**

Maths Medium Term Plan - Spiral Curriculum

Year 4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Place Value Knows the properties of place value for four-digit numbers. Knows the rules of rounding.		Addition Subtraction Knows efficient methods for addition and subtraction up to and including four-digit numbers. Knows how to check the accuracy of addition and subtraction calculations.			Multiplication/Division Knows and applies table facts for recall of multiplication and division facts for multiplication tables up to 12 x 12.		Measurement Area Know how to find the area of rectilinear shapes by counting squares	Geometry Knows how to identify acute and obtuse angles. Knows that two right angles form a straight line. Knows and is familiar with different orientations of lines of symmetry		Money Knows how to add and subtract using standard written algorithms including in the context of money.	Consolidation
Spring	Multiplication/Division Knows how to multiply/divide two digit and three-digit numbers by one-digit numbers using expanded or formal written methods of short multiplication and division		Place Value Knows the role of zero in the concepts of place value.	Measurement – Length and Perimeter Knows perimeter can be expressed algebraically as 2(a + b) where a and b are the dimensions in the same unit.		Fractions Knows how to add and subtract fractions with the same denominator. Knows how to write decimal equivalents of any number of tenths or hundredths.				Decimals Knows that decimals and fractions are different ways of expressing numbers and proportions. Knows decimal notation and the language associated with it, including in the context of measurements.		
Summer	Fractions Knows how to make connections between fractions of a length, of a shape and as a representation of one whole or set of quantities. Knows how to use factors and multiples to recognise equivalent fractions and simplify where appropriate.		Time Knows how to read, write, and convert time between analogue and digital 12- and 24-hour clocks.		Multiplication Division Knows how to solve integer scaling problems and harder correspondence problems. Knows how to multiply and divide using the context of money.	Consolidation		Geometry Knows the properties of regular and irregular polygons.		Statistics Knows how to use a greater range of scales in their representations. Knows the graphical representation of data to record change over time		Geometry Knows how to describe positions as translations using the correct terms.

Maths Medium Term Plan - Spiral Curriculum

Year 5

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Place Value Knows how to read and write numbers with up to 7 digits using the comma separator.		Addition Subtraction Knows efficient mental methods for addition and subtraction.		Multiplication Division Knows how to find factor pairs. Knows the definition of prime numbers and composite numbers. Knows efficient mental methods for multiplication and division.			Fractions Knows that when the numerator is larger than the denominator, it is an improper fraction. Knows that an improper fraction is converted to mixed number and vice versa.		Place Value Knows decimal notation and the language associated with it for up to three decimal places.	Geometry Knows the conventional markings for parallel lines and right angles. Knows how to use angle sum facts and other properties to make deductions about missing angles and lengths.	
Spring	Multiplication Division Knows compact notation for long multiplication. Knows the compact algorithm for short division including remainders.			Fractions Knows how to convert fractions to a common denominator for addition and subtraction.		Place Value Knows how to read and interpret negative numbers and find differences between negative and positive numbers.	Fractions Knows that percentages, decimals, and fractions are different ways of expressing proportions.	**Measurement** Knows how to solve missing measures questions such as these can be expressed algebraically. Knows how to calculate the area from scale drawings using given measurements.		Geometry Knows how to describe a translation or reflection of a shape, including reference to the axes in the first quadrant.	Statistics Knows which representations of data are most appropriate and why using a line graph.	
Summer	Addition Subtraction Knows efficient methods for adding and subtracting.	Multiplication Division Knows efficient methods for multiplication and division.	Measurement Knows how to use all four operations in problems involving time and money, including conversions.		Geometry Knows the term diagonal and can make conjectures about the angles formed between sides, and between diagonals and parallel sides, and other properties of quadrilaterals.		Fractions and Decimals Knows how to calculate with fractions. Knows how to find LCM and HCF for simplifying. Knows how to find 10% and 1% of an amount using division by 10 and 100.	Multiplication Division Knows the terms factor, multiple and prime, square and cube numbers.		Measurement Knows the three dimensions for finding the volume.	Statistics Knows how to read a timetable and complete missing information.	

Maths Medium Term Plan - Spiral Curriculum

Year 6

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Place Value Knows how to read and write numbers with up to 8 digits using the comma separator.		Calculation Knows efficient mental methods applying knowledge of properties of number. Knows the efficient written algorithms for long/short multiplication and long/short division.				Fractions and Decimals Knows how to add and subtract fractions with different denominators by identifying equivalent fractions with the same denominator. Knows how to convert improper fractions and mixed numbers. Knows how to round decimals and use the correct notation for recurring decimal.			Measurement Knows how to recognise that shapes with the same area can have different perimeters and vice versa. Knows the formula for volume *l x b x h*		Geometry Knows the conventional markings for parallel lines, sides of equal length, angles and right angles. Knows how to visualise 3D shapes from nets.
Spring	Place Value Knows how to calculate with negative and positive numbers.	Calculation Knows the rules of BIDMAS.	Algebra Knows how to use the arithmetic relationships to find unknowns or variables. Knows how to find the common difference for the nth term.		Fractions, Decimals and Percentages Knows that proportions relate to fraction, decimals and %. Knows how to calculate with FDP with accuracy.		Ratio and Proportion Knows ratios compares quantities. Knows the notation *a:b* to record a ratio. Knows how to use multiplication/division to find a scale factor.		Measurement Knows the approximate conversions for imperial/metric.	Geometry Knows how to draw and label a pair of axes in all four quadrants with equal scaling, including the use of negative numbers.		Statistics Knows which representations of data are most appropriate and why. Knows the arithmetic for finding the mean average.
Summer	Place Value Knows how to use the whole number system, including saying, reading, and writing numbers accurately.	Calculation Knows how to use mental and written calculations with increasingly large numbers and more complex calculations.	Geometry Knows how to describe the properties of shapes including circles and explain how unknown angles and lengths can be derived from known measurements.		Statistics & Cross Curricular Knows how to connect conversion to a graphical representation as preparation for understanding linear/proportional graphs. Knows approximate conversions of imperial/metric units. Knows how to use a number line to add and subtract positive and negative integers for measures such as temperature.		Statistics & Cross Curricular Knows how to use formulae in mathematics and science Knows how to interpret and draw graphs relating two variables, arising from their own enquiry and in other subjects.					