MPPS Mathematics Curriculum Whole School Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
YN	Baseline **Number** – recite number names **Measures** – big and small **Geometry** – recognise shapes	**Number** – recite number names in order, more, a lot **Measures** – size, time-based events **Geometry** – size, arrangements, similarities	**Number** – recognise numerals, compare 2 groups **Measures** – length, weight, sequence time-based events	**Number** – recite to 7, **Measures –** sequence time-based events **Geometry** – round, tall, simple patterns, positional language	**Number** - recite in order to 10, recognise numerals within 5, count back from 3, subitise 1/2, count 1:1 to 5, composition of numbers to 5, link numerals and amounts	**Number** – recite to 10, recognise numerals within 5, counts back from 5, subitises to 3, **Geometry** – name 2D shapes **Measures** – language for time
YR	Baseline **Number** – explore numbers to 5 **Measures** – order through time of day **Geometry** – 2D shapes	**Number** secure numbers to 5, explore numbers to 10 **Geometry** – 2D shapes, repeating patterns	**Number** – one more, one less, total, composition of numbers to 10 **Addition / subtraction** – begin to use the vocabulary involved in adding and subtracting **Measures** – compare using height, weight, capacity	**Number** – compare numbers within 10 **Geometry** – compose and decompose shapes, continue, copy and create repeating patterns	**Number** – count beyond 20, 1 more or less, subitise to 5, count in 2s, odd and even numbers **Measures** – compare and order by length, weight and capacity	**Number** – doubling compare quantities to 10, greater than, less than, equal to, halving, sharing, number bonds, subitise within 10
Y1	**Number** - Place value (up to 10), forwards, backwards, 1 more, 1 less **Addition** (10), part-whole model, number bonds, objects, pictorial and missing number **Geometry** – recognize, name and sort 2D and 3D shapes	**Number** - Place value (up to 20), forwards, backwards, tens and ones, 1 more, 1 less **Subtraction** (10), how many left, fact families, counting back, one step problems, missing number problems **Measures** -Compare length, measure length, compare height **Time** – before, after, times in the day	**Number** - Place value (20), compare groups and objects, order groups and numbers, use a number line **Addition and subtraction** (20) **Measures** – measure and compare weight and mass, money – recognise and count coins	**Number** - Place value (50), tens and ones, 1 more, 1 less, count in 2s, 5s **Addition** (20) – by counting on, number bonds and **subtraction** – not crossing and crossing 20, related facts, comparing number sentences **Measures** – measure and compare capacity, **Time** – hour, half hour,	**Number** - Place value (100), forwards and backwards, ordering, partitioning, 1 more, 1 less **Multiplication and division** – 2s,5s,10s, make arrays, make doubles, equal groups, halving **Fractions** – halves and quarters of shapes **Geometry** – whole, half, ¾ turns	**Number** - Place value (100), forwards and backwards, ordering, partitioning, 1 more, 1 less **Multiplication and division** – problems using concrete and pictorial **Measures** - **Money** – recognise and count in £5, £10, £20 Length/Height/ Weight, and Volume Standard measures Recap **Time**

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				comparing and writing time		**Fractions** – recognise, find and name half and ¼
Y2	**Number and place value** (50), forwards and backwards in 2s and 5s, compare and order, read and write **Addition and Subtraction** – facts to 20, numbers to 50, commutative law **Multiplication and division** – make equal groups, make arrays, divide by 2,5,10, odd and even numbers **Measures** – Recognise and count coins and notes, compare money, find totals, differences, and change	**Number and place value** – forwards and backwards in 2s, 5s, 10s, read and write numbers to 100, place value **Addition and subtraction** – number bonds, add and subtract up to 2-digit by 2-digit **Multiplication and division** - multiples of 2, link multiplication and division, use arrays, multiply numbers to 10 x 10 **Geometry** – recognise 2D and 3D shapes, count faces and vertices, make patterns **Fractions** – recognise and find ½, ¼, 1/3, count in fractions **Statistics**- construct tally charts, interpret and construct pictograms	**Number and place value** – compare and order numbers to 50, read and write numbers to 100, recognise place value **Addition and subtraction** – add and subtract numbers to 100, doubles and halves, column addition and subtraction, check with inverse, add 3 1-digit numbers **Multiplication and division** – multiples of 2,5,10, inverse, multiply numbers to 10 x 10 **Geometry** – compare and sort 2D and 3D, describe position, direction and movement **Fractions** – recognise and find ½, ¼, 1/3, count in fractions **Statistics** - construct and interpret tally charts and pictograms	**Number and place value** – compare and order numbers to 100, read and write numbers to 100, use place value and numbers facts to solve problems **Addition and subtraction** – add and subtract numbers to 100, add 9 and 11, add and subtract in columns, demonstrate commutative law, find missing numbers, solve multi-step problems **Multiplication and division** – calculate mathematical statements for 2-, 5- and 10-times tables, use the inverse **Measures** – compare, order and measure length, height, mass and capacity	**Number and place value** – forwards and backwards in 2s, 3s, 5s and 10s, compare and order numbers to 100, use place value and number facts to solve problems **Addition and subtraction** – select strategies to add and subtract numbers, solve problems **Multiplication and division** – multiply numbers to 20 by 10, solve problems in contexts **Geometry** – identify and describe properties of 2D and 3D shapes **Fractions** – find fractions of amounts, recognise equivalences, write fractions with numbers up to 100 **Statistics** – interpret tally charts and pictograms to find differences	**Number and place value** - forwards and backwards in 2s, 3s, 5s and 10s, compare and order numbers to 100 **Addition and subtraction** – solve problems using appropriate strategies **Multiplication and division** - solve problems in contexts **Geometry** - identify 2D and 3D shapes using mathematical language, draw lines and shapes using a ruler **Measures** – solve problems involving time, money - give change **Measures** - compare, order and measure length, height, mass capacity and temperature
Y3	**Number**- Place Value up to 1000, find 1,10,100 more or less, compare objects and numbers,	**Addition and Subtraction** – add and subtract numbers up to 3-digit by 3-digit, spot patterns,	**Multiplication and Division** – comparing statements, related calculations, multiply 2-	**Multiplication and Division** – divide 2-digit by 1-digit moving to exchanging and remainders, scaling	**Addition, Subtraction Multiplication and Division** – solve problems **Measures – statistics** – reading tables	**Fractions** – reasoning and problem solving for equivalent fractions, add and subtract fractions

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	order numbers, count in 50s **Addition and Subtraction** – add and subtract up to 3-digit and 2-digit numbers, crossing the 10 boundary **Statistics** – Interpret pictograms and bar charts **Measures** – money – convert pounds and pence, add and subtract money, give change	estimate answers, check calculations **Multiplication and Division** – multiply and divide by 3, 4, 8 **Geometry** – properties of shape – turns and angles, right angles in shapes, compare angles, draw accurately **Fractions** – unit and non-unit fractions, count in tenths, tenths as decimals, fractions on a number line	digit by 1-digit with exchange **Measures – length and perimeter** – measure, compare, add and subtract lengths, measure and calculate perimeter **Measures** – **mass**- measure and compare mass reading scales in kg or g then mixed, add and subtract mass Fractions – fractions of a set of objects, dividing into groups, using numerator and denominator **Measures** - solve problems involving different measures	**Geometry** – properties of shape – horizontal and vertical, parallel and perpendicular, recognise and describe 2D and 3D shapes Fractions – equivalent fractions in pairs, using number lines, missing numerators and denominators, compare and order **Measures** – **time** – months and years, hours in a day, telling the time to 5 minutes and 1 minute	**Fractions** – add and subtract fractions **Measures – time** – use am, pm, 24-hour clock, find and compare durations, start and end times, measure time in seconds **Measures – capacity** – measure and compare capacity in ml, l and mixed, add and subtract capacity	**Geometry** – properties of shape – recognise and describe 3D shapes, make 3D shapes, reasoning and problem solving for properties of shape **Measures** – mass and capacity – reasoning and problem solving **Statistics** – reasoning and problem solving
Y4	**Number** - Round to the nearest 10, 100, count in 1000s,100s, 10s, 1s, partitioning, number line to 10,000 **Addition and Subtraction** - Add and subtract 1s, 10s, 100s, 1000s, add and subtract 2 4-digit numbers including exchange **Multiplication and Division** - Multiply and divide by 10 and 100, multiply by 1 and 0,	**Number** - Roman numerals to 100, 1000 more or less, compare and order numbers, round to nearest 1000, count in 25s, negative numbers **Addition and Subtraction** - efficient subtraction, estimate answers, checking strategy **Multiplication and Division** - multiply and divide by 7 and 9-, 7- and	**Multiplication and Division** - 11 and 12 times-table, multiply 3 numbers, factor pairs, written methods, multiply 2-digits by 1-digit, divide 2-digit by 1-digit without and with remainders **Fractions** - equivalent fractions through diagrams and proportional reasoning, fractions greater than 1, count in fractions	**Multiplication and Division** - multiply and divide 3-digits by 1-digit, correspondence problems **Fractions** - add and subtract 2 or more fractions, subtract from whole amounts, calculate fractions of a quantity, problem solving – calculate quantities **Money** - pounds and pence, ordering money, recognise tenths and	**Decimals**- make a whole, write, compare, order, and round decimals, halves, and quarters **Geometry**- properties of shape - lines of symmetry, complete a symmetric figure, triangles, quadrilaterals **Statistics** - interpret charts, comparison, sum, and difference, introducing line graphs **Money** - estimating money, four operations	**Geometry**- position and direction - describe position, draw on a grid, move and describe a movement on a grid **Money** - revision and application through reasoning and problem solving **Measures** – length, perimeter, area Revision and application through reasoning and problem solving **Measures** – conversions

	divide by 1 and itself, multiply and divide by 6, 6 times table and division facts **Measures** – length and perimeter - kilometres, perimeter on a grid, perimeter of a rectangle, perimeter of rectilinear shapes	9-times table and division facts **Measures** - area What is area? Counting squares, making shapes, comparing area **Geometry** - properties of shapes, identify, compare, and order angles **Time** – time - hours, minutes, seconds, years, months, weeks, and days	**Decimals** - tenths on a place value grid and number line, divide 1- or 2-digits by 10 hundredths, hundredths as decimals, hundredths on a place value grid, divide 1 or 2-digits by 100	hundredths, tenths as decimals **Time** - analogue to digital 12- and 24-hour, conversion between units of time	**Measures** - money - estimating money, four operations	Revision and application through reasoning and problem-solving **Geometry** – properties of shape - revision and application through reasoning and problem solving **Decimals and fractions** - revision and application through reasoning and problem solving
Y5	**Number**- Roman numerals to 1,000, Numbers to 10,000, Numbers to 100,000, Powers of 10, Compare and order numbers to 100,000, Round to the nearest 10, 100 or 1,000, Round within 100,000 **Four Operations -** Mental strategies, add whole numbers with more than four digits, subtract whole numbers with more than four digits, round to check answers, inverse operations (addition and subtraction), multi-step addition and subtraction problems, multiples, common multiples, factors, common factors,	**Fractions, Decimals & Percentages**- find fractions equivalent to a unit and non-unit fraction, recognise equivalent fractions, convert improper fractions to mixed numbers, convert mixed numbers to improper fractions, compare and order fractions less than and greater than 1, add and subtract fractions with the same denominator, within 1 and greater than 1, to one or two mixed numbers **Geometry -**understand and use degrees, classify angles, estimate angles, measure angles up to	**Number** - numbers to 1,000,000, read and write numbers to 1,000,000, 0/100/1,000/10,000/100,000 more or less, partition numbers to 1,000,000, number line to 1,000,000, compare and order numbers to 1,000,000, round within 1,000,000 **Four Operations** - compare calculations, find missing numbers, understand negative numbers, count through zero in 1s, count through zero in multiples, compare and order negative numbers, find the difference, multiply up to 4-digit number by a 2-digit number, efficient	**Fractions, Decimals & Percentages** - multiply a unit fraction by an integer, multiply a non-unit fraction by an integer, multiply a mixed number by an integer, calculate a fraction of a quantity, fraction of an amount, find the whole, use fractions as operators, thousandths as fractions, decimals and on a place value chart, order and compare decimals with up to 3 decimal places, understand percentages as fractions and decimals, equivalent fractions, decimals and percentages **Measures** - kilograms and kilometres,	**Fractions, Decimals & Percentages** - • Use known facts to add and subtract decimals within 1, complements to 1, add and subtract decimals across 1, with the same number of decimal places, subtract decimals with the same number of decimal places, add and subtract decimals with different numbers of decimal places, efficient strategies for adding and subtracting decimals, decimal sequences, multiply and divide by 10, 100 and 1,000, multiply and divide decimals - missing values **Geometry** - read and plot coordinates,	Consolidation and revision.

	prime numbers, square numbers, cube numbers, multiply by 10, 100 and 1,000, divide by 10, 100 and 1,000, multiples of 10, 100 and 1,000, multiply up to a 4-digit number by a 1-digit number, short division, divide a 4-digit number by a 1-digit number, divide with remainders **Measures** - Perimeter of rectangles, perimeter of rectilinear shapes, perimeter of polygons, area of rectangles, area of compound shapes, estimate area	180, draw lines and angles accurately, calculate angles around a point, calculate angles on a straight line, lengths and angles in shapes **Statistics** - draw line graphs, read and interpret line graphs, read and interpret tables, two-way tables, read and interpret timetables	division, solve problems with multiplication and division **Geometry** - regular and irregular polygons, 3-D shapes	millimetres and millilitres, convert units of length, convert between metric and imperial units, convert units of time, calculate with timetables	problem solving with coordinates, translation, translation with coordinates, lines of symmetry, reflection in horizontal and vertical lines **Measures -** cubic centimetres, compare volume, estimate volume, estimate capacity	
Y6	**Number** – compare and order any number to 10 million, round any number, negative numbers **Four operations** - Order of operations, multiply by 10, 100, 1000, add and subtract integers, multiply up to 4-digit number by 2-digit number, short division, division using factors, long division up to 4-digit by 2-digit including with remainders and rounding, common factors and	**Algebra**- find a rule – one and two steps, forming expressions, substitution, formulae, forming equations, find enumerate possibilities **Fractions** - multiply fractions by integers and fractions, divide fractions by integers, four rules with fractions, fraction of an amount– find the whole **Ratio** - using ratio language, ratio and fractions, introducing the	**Number** – Solving problems using rounding, comparing, negative numbers **Four operations**- Solve multistep problems **Fractions, decimals, percentages** -develop and practise Autumn's concepts **Algebra** - Solve simple one-step and two-step equations, find pairs of values, enumerate possibilities **Ratio** - Using scale factors, calculating scale	**FDP**- Solve problems involving fractions, decimals and percentages **Geometry -** Draw shapes accurately, draw nets of 3-D shapes **Statistics -**Solve problems involving mean, pie charts and line graphs	Revision, application and problem solving SATS Practise	Mathematical Investigations

	multiples, primes to 100, squares and cubes, order of operations, mental calculations and estimations, reason from known facts **Fractions** -Simplify fractions, fractions on a number line, compare and order with denominator and numerator, add and subtract fractions with denominators that are and are not the same multiple, add and subtract mixed numbers **Decimals & Percentages** - Three decimal places, multiply and divide by 10, 100 and 1,000, multiply and divide decimals by integers, division to solve problems, decimals as fractions, fractions to decimals, fractions to percentages, equivalent FDP, order FDP, percentage of an amount, percentages – missing values	ratio symbol, calculating ratio **Measures – converting units -** Metric measures Convert metric measures Calculate with metric measures Miles and kilometers Imperial measures Geometry – position and direction - the first quadrant, four quadrants, translations, reflections **Geometry – Properties of shape** Measure with a protractor, introduce angles, calculate angles, vertically opposite angles, angles in a triangle – special cases and missing angles, angles in special quadrilaterals, angles in regular polygons, measure- protractor, shapes - same area and perimeter, area of triangles and parallelograms, volume - counting cubes, volume of cuboid, circles **Statistics** - Read and interpret line graphs and dual bar charts, draw line graphs, use line graphs to solve problems, circles,	factors, ratio and proportion problems **Measures** - Shapes – same area, area and perimeter, area of a triangles, area of parallelogram, volume – counting cubes, volume of a cuboid			

		read and interpret pie charts, pie charts with percentages, draw pie charts, mean				