Maths Overview

	Autumn Term	Spring Term	Summer Term
Year R	Pupils will build on previous experiences of number from their home and nursery environments, and further develop their subitising and counting skills. They will explore the composition of numbers within 5. They will begin to compare sets of objects and use the language of comparison. -Identify when a set can be subitised and when counting is needed -Subitise different arrangements, both unstructured and structured, including using the Hungarian number frame -Make different arrangements of numbers within 5 and talk about what they can see, to develop their conceptual subitising skills -Spot smaller numbers 'hiding' inside larger numbers -Connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers -Hear and join in with the counting sequence, and connect this to the 'staircase' pattern of the counting numbers, seeing that each number is made of one more than the previous number -Develop counting skills and knowledge, including: that the last number in the count tells us 'how many' (cardinality); to be accurate in counting, each thing must be counted once and once only and in any order; the need for 1:1 correspondence; understanding that anything can be counted, including actions and sounds -Compare sets of objects by matching -Begin to develop the language of 'whole' when talking about objects which have parts	Pupils will continue to develop their subitising and counting skills and explore the composition of numbers within and beyond 5. They will begin to identify when two sets are equal or unequal and connect two equal groups to doubles. They will begin to connect quantities to numerals. -Continue to develop their subitising skills for numbers within and beyond 5, and increasingly connect quantities to numerals -Begin to identify missing parts for numbers within 5 -Explore the structure of the numbers 6 and 7 as '5 and a bit' and connect this to finger patterns and the Hungarian number frame -Focus on equal and unequal groups when comparing numbers -Understand that two equal groups can be called a 'double' and connect this to finger patterns -Sort odd and even numbers according to their 'shape' Continue to develop their understanding of the counting sequence and link cardinality and ordinality through the 'staircase' pattern -Order numbers and play track games -Join in with verbal counts beyond 20, hearing the repeated pattern within the counting numbers	Pupils will consolidate their counting skills, counting to larger numbers and developing a wider range of counting strategies. They will secure knowledge of number facts through varied practice. -Continue to develop their counting skills, counting larger sets as well as counting actions and sounds -Explore a range of representations of numbers, including the 10-frame, and see how doubles can be arranged in a 10-frame -Compare quantities and numbers, including sets of objects which have different attributes -Continue to develop a sense of magnitude, e.g. knowing that 8 is quite a lot more than 2, but 4 is only a little bit more than 2 -Begin to generalise about 'one more than' and 'one less than' numbers within 10 -Continue to identify when sets can be subitised and when counting is necessary -Develop conceptual subitising skills including when using a rekenrek

Year 1

	Autumn Term			Spring Term					Summer Term			
Year 1	**Place Value (within 10)** -Count and represent objects -Recognise numbers from words -Count on from any number -I more, 1 less -Compare numbers	**Addition and Subtraction** -Part-whole model -Writing number sentences -Number bonds to 10 -Subtraction by crossing out and a number line	**Shape** -Recognise, name and sort 3-d shapes -Recognise, name and sort 2-d shapes Patterns with 2-d and 3-d shapes	**Place Value (within 20)** -Understand numbers 10 to 20 -1 more 1 less -Number line to 20 -Comparing and ordering numbers to 20	**Addition and Subtraction** -Number bonds to 20 -Doubles -Subtracting one using number bonds Subtraction by counting back and finding the difference	**Place Value (within 50)** -Count from 20 to 50 -Counting in groups of 10 -Partition into tens and ones -Use a number line to 50 -1 more 1 less	**Length and Height** -Compare lengths and heights -Measure length using objects -Measure length in centimetres	**Mass and Volume** -Measure and compare mass -Full and empty -Measure and compare capacity	**Multiplication and Division** -Count in 10s -Make and add equal groups -Make arrays -Make doubles Make equal groups through grouping and sharing	**Fractions** -Find a half -Find a half of a quantity -Finding a quarter	**Position and Direction** -Describe turns and positions	**Place Value (Within 100)** -Counting to 100 -Partitioning numbers -Comparing and ordering numbers

Year 2

	Autumn Term			Spring Term					Summer Term			
Year 2	**Place Value** -Numbers to 20 -Count objects, partition, write and partition numbers to 100 -10s and 1s on the number line to 100 -Compare objects and numbers -Count in 2s, 3s, 5s and 10s	**Addition and subtractions** -Bonds to 10 and 100 -Add and subtract 1s -Add 3 1-digit numbers --Add and subtract across 10 -Subtract a 1-digit number from a 2-digit number -10 more, 10 less Add 2 2-digt numbers	**Shape** -Recognise and sort 2-d and 3-d shapes -Count sides, vertices and draw 2-d shapes Lines of symmetry on shapes -Count faces, edges and vertices of 3-d shapes	**Money** -Count money in pence and pounds -Make the same amount -Choose notes and coins -Make a pound -Find change	**Multiplication and Division** -Recognise, make and add equal groups -Multiplication sentences -make equal groups – grouping and sharing -Divide by 2, 5 and 10 -Doubling and halving -Odd and even numbers	**Length and height** -Measure in centimetres and metres -Compare and order lengths and heights -Four operations with lengths and height	**Mass, capacity and temperature** -Measure in grams, kilograms, millilitres and litres, -Compare volume and capacity -Introduce temperature readings		**Fractions** -Make equal parts -Recognise and fide a half, quarter and third -Unit and non-unit fractions Equivalence of a half and 2 quarters -Count in fractions	**Time** -O'clock and half past -Quarter past and quarter to -Hours and days -Find and compare durations of time	**Statistics** -Make tally charts -Draw and interpret pictograms -Block diagrams	**Position and Direction** -Describe position, movement and turns -Make patterns with shapes

Year														
Year 3	**Place Value** -Represent and partition numbers within 1000 -Find 1, 10, 100 more or less -Compare and order numbers to 1000 -Count in 50s	**Addition and Subtraction** -Add and subtract 1s, 10s, 100s, -Add and subtract 1s across 10 and 10s across 100 -Add and subtract 2 numbers across 100 and 100 -Add and subtract 2-digit numbers by a 3-digit number -Use inverse operations	**Multiplication and Division** Use arrays to make equal groups -Multiples of 2, 5 and 10 - Multiply and divide by 3, 4 and 8		**Multiplication and Division** -Multiples of 10 -Multiply a 2-digit number by a 1-digit number – including exchanging -Divide a 2-digit number by a 1-digit number – including remainders	**Length and perimeter** -Measure in metres, centimetres, millimetres - Convert and compare equivalent lengths -Add and subtract lengths -Measure and calculate perimeter	**Fractions** -Compare and order unit and non-unit fractions -Fractions and scales -Fractions on a number line -Equivalent fractions as bar models	**Mass and Capacity** -Measure mass in kilograms and grams -Compare equivalent masses -Add and subtract mass -Measure capacity and volume in litres and millilitres -Add and subtract capacity and volume		**Fractions** -Count in tenths and tenths as decimals -Fractions as a set of objects -Equivalent fractions -Compare and order fractions -Add and subtraction with the same denominators	**Money & Time** -Pounds and pence -Convert pounds and pence -Add and subtract money -give change -Months and years -Hours in a day -Tell the time to 5 and 10 minutes -Use am/pm -Finding and comparing durations	**Shape** -Turns and angles -Right angles in shapes -Compare and accurately draw angles -Recognise and describe 2-d and 3-d shapes -Make 3-d shapes	**Statistics** -Interpreting pictograms, bar charts and tables -Draw bar charts	
Year 4	**Place Value** -Represent and partition numbers to 10,000 -Find 1, 10, 100, 1000 more or less. -Compare and order numbers to 10,000 -Round to the nearest 10, 100, 1000 -Roman numerals to 100	**Addition & Subtraction** -Add and subtract 1s, 10s, 100s, 1000s -Add and subtract numbers up to 4-digits – including with and without exchange -Use estimating and checking strategies	**Measurement & Area** -What is area? -Make shapes -Compare area	**Multiplication & Division** -Multiples of 3 -Multiply and divide by 3,6,7,9,11,12 times table -Multiply by 1 and 0 -Divide a number by 1 and itself -Multiply by 3 numbers	**Multiplication & Division** -Know and use factor pairs -Multiply by 10 & 100 -Multiply 2-digit & 3-digit number by a 1-digit number -Divide 2 & 3-digit numbers by 1	**Length and Perimeter** -Measure in kilometres and metres -Perimeter of a grid, rectangle and polygons - Find missing lengths in rectilinear shapes	**Fractions** -Partition, compare and order mixed numbers -Understand and convert between improper fractions and mixed fractions -Equivalent fraction families -Add fractions with mixed numbers -Subtract 2 fractions, subtract from whole amounts and mixed numbers.	**Decimals** -Tenths and hundredths as fractions, decimals -Divide 1 digit and 2 digit numbers by 10. -Divide a 1- or 2-digit number by 100		**Decimals** -Write, compare and order decimals -Rounding decimals -Halves and quarters	**Money & Time** -Pounds and pence -Ordering and estimating money -Work with money within the 4 operations -Hours, minutes, seconds -Years, months, weeks, days -Analogue to digital – 12 & 24 hour	**Statistics** -Interpret charts -Comparison, sum and difference -Introducing and using line graphs	**Shape, position and direction** -Identify, compare and order angles -Types of triangles and quadrilaterals -Lines of symmetry – including symmetric figures -describe position and movement on a grid -Draw and move on a grid
Year 5	**Place Value** -Read, write, partition, compare Numbers to 1 million -Using powers of 10, know more/less up to 100,000 - Rounding within 1 million	**Addition & Subtraction** -Add and subtract whole numbers with more than 4-digits. Apply this in inverse operations and word problems. -Compare calculations and understand	**Multiplication & Division** -Multiples, factors, prime, square and cube numbers -Multiply and divide by 10, 100, 1000 -Multiples of 10, 100, 1000	**Fractions** -Find equivalents to unit and non-unit fractions -Convert between mixed and improper fractions -Compare and order fractions less/greater than 1	**Multiplication & Division** -Multiply numbers up to and within 4-digits. -Divide 4-digit numbers by a 1-digit number, including working with remainders -Solve problems	**Fractions** -Multiply a unit, non-unit fraction and mixed fraction by an integer -Calculate a fraction of a quantity and an amount. -Find the whole	**Decimals and Percentages** -Equivalents between fractions and decimals – tenths and hundredths -Ordering and comparing decimal numbers – 3 decimal places	**Perimeter and Area** -Calculate perimeter of rectangles, rectilinear shapes and polygons -Calculate area of rectangles and compound shapes -Estimate the area	**Statistics** -Draw, read and interpret line graphs -Read and interpret tables –including 2-way tables -Read and interpret timetables	**Shape** -Identify, compare, order and measure angles – using degrees -Calculate angles on a straight line and around a point -Name triangles, quadrilaterals and	**Position and Direction** -Position in the first quadrant -Translation with coordinates -Line of symmetry -Reflection – with coordinates	**Decimal** -Adding and subtracting decimals within and across 1 -Adding and subtracting decimals with the same, and different, decimal places -Ordering and sequencing	**Measurement** -Understand kilometres, kilograms, millimetres and millilitres -Metric and imperial units of measure -Compare and estimate volume -Converting units of time

	-Roman numerals up to 1000	word problems for the above.		-Add and subtract fraction within and greater than 1, including mixed fractions	involving above.		-Equivalent fractions as percentages			regular/irregular polygons		decimal numbers -Multiplying and dividing decimals by 10, 100 & 1000	
Year 6	**Place Value** -Read and write numbers to 10,000,000 -Compare, order and round integer -Negative numbers	**Addition, subtraction, multiplication and division** -Add and subtract integers -Prime numbers and common factors/multiples -Square and cube numbers -Multiply a 4-digit number by a 2-digit number -Introduction to long division – including remainders -Order of operations	**Fractions** -Equivalent and simplifying fractions -Compare and order fractions – varied numerators and denominators -Add and subtract any 2 fractions -Multiply fractions by a fraction or integer -Divide any fraction by an integer -Fractions of an amount	**Measurement** -Convert and calculate metric measures -Miles and kilometres -Imperial measures	**Ratio** -Introduce ratio symbol -Scale drawing -Use scale factors -Ration problems	**Algebra** -1 and 2- step function machines -Form expressions -Substitution -Formulae -Find pairs of value -Solve problems with 2 unknowns	**Fractions, decimals and percentages** -Decimal, fraction, percentages equivalents -Order fractions, decimals and percentages -Percentages of amount -Percentages – missing values	**Area and Perimeter** -Shapes with same area -Calculating the area of triangles -Calculating the area of a parallelogram -Volume of cuboids	**Statistics** -Read and interpret line graphs, dual bar charts and pie charts -Draw pie charts -Calculate the mean avergae	**Shape** -Measure angles with a protractor -Calculate angles in triangles, quadrilaterals and regular polygons -Draw shapes accurately -Draw nets of 3-d shapes	**Position and Direction** -First quadrant -Work across four quadrants -Translations and reflections		