Garvestone Primary School

Maths curriculum

Maths Curriculum

Term

R	**Autumn**
	Numbers 1 to 5. Counting, writing and reading numbers to 5. **Addition and subtraction - sorting.** Sorting objects into groups of 5 or less. **Comparing groups.** Using the language of more, fewer, equal to compare groups of identical and non-identical objects. **Addition and subtraction - within 5.** Finding one more and one less than a number to 5. **Measurement - Time.** Using the language of first, next, last to order key events during the day.
R	**Spring**
	Addition and subtraction - within 5. Introducing zero as a number. Number bonds to 5. **Numbers 6-10.** Counting, reading and writing numbers 6 to 10. Comparing groups of objects to 10. **Addition and subtraction - within 10.** Combining two groups to find the whole. Introducing and using a ten frame and part - whole model to recognise

	number bonds to 10. Geometry - Space and shape. Positional language, 2D and 3D shapes.
R	Summer
	Geometry - Patterns Making and recognising patterns both simple and complex. Addition and subtraction - Count on and back. Adding by counting on. Taking away by counting back. Numbers 11-20. Counting, reading and writing numbers 11 to 20. Multiplication and division. Doubling, halving, sharing to 20., Odd and even numbers. Measurement - Measure Length, height, distance, weight and capacity.
1	Autumn
	Place value (within 10) *Sort, count and represent objects. Count, read and write forwards and backwards numbers 0 to 10. Count one more and one less, one to one correspondence, compare groups, introduce and use the inequality symbols, compare numbers, order objects and numbers, ordinal numbers, using a number line.* Addition and subtraction (within 10) *Part-whole model, addition symbol, fact families, number bonds within and to 10, compare number bonds, adding together, adding more, finding a part, subtraction and the subtraction symbol, fact families (8 facts), subtraction (counting back), find the difference, compare addition and subtraction statements.* Shape *Recognise and name 3D shapes, sort 3D shapes, recognise and name 2D shapes, sort 2D shapes, patterns with 2D and 3D shapes.*

	Place value (Within 20) *Count forwards and backwards numbers to 20, write numbers to 20, numbers from 11 to 20, tens and ones, count one more and one less, compare groups of objects, compare numbers, order groups of objects, order numbers.*
1	**Spring**
	Addition and subtraction (within 20) *Add by counting on, find and make number bonds, add by making 10, subtraction (crossing and not crossing 10), related facts, compare number sentences.* Place value (Within 50) *Numbers to 50, tens and ones, represent numbers to 50, one more and one less, compare objects within 50, compare numbers within 50, order numbers within 50, count in 2s and 5s.* Measurement (Length and height) *Compare lengths and heights, measure using standard and no-standard units.* Measurement (Weight and volume) *Introduce weight and mass, measure and compare mass, introduce capacity and volume, measure capacity, compare capacity.*
1	**Summer**
	Multiplication and division. *Count in 10s, make equal groups, add equal groups, make arrays, make doubles, make equal groups (sharing and grouping).* Fractions. *Find a half of shapes and numbers, find a quarter of shapes and numbers.* Position and direction. *Describe turns, describe position.* Place value (Within 100) *Counting to 100, partitioning numbers, comparing numbers, ordering numbers, one more, one less.*

	Money *Recognise coins, recognise notes, counting in coins.* Time *Before and after, dates, time to the hour, time to the half hour, writing time, comparing time.*
2	**Autumn**
	Place value *Count, read and write numbers to 100, represent numbers to 100, tens and ones with a part-whole model, tens and ones using addition, use a place value chart, compare objects, compare numbers, order objects and numbers, count in 2s, 5s, 10s and 3s.* Addition and subtraction. *Fact families number bonds to 20, check calculations, compare number sentences, related facts, number bonds to 100, add and subtract 1s, 10 more and 10 less, add and subtract 10s, add a 2digit and 1 digit number (crossing 10), subtract a 1 digit number from a 2 digit number (crossing 10), add two 2 digit numbers (crossing and not crossing 10), subtract a two digit number from a two digit number (crossing and not crossing 10), add three 1 digit numbers.* Money *Count pence and pounds, select money, make the same amount, compare money, find the total, find the difference, find change, two step problems.* Multiplication and division. *Recognise, make and add equal groups, multiplication sentences using X symbol, multiplication sentences from pictures, use arrays, 2 times table, 5 times table, 10 times table.*
2	**Spring**
	Multiplication and division. *Make equal groups (sharing), make equal groups (grouping), divide by 2, odd and even numbers, divide by 5, divide by 10.*

	Statistics. *Make tally charts, draw and interpret pictograms, block diagrams.* Properties of shape. *Recognise 2D and 3D shapes, count sides on 2D shapes, count vertices on 3D shapes, Draw 2D shapes, lines of symmetry, sort 2D shapes, make patterns with 2D shapes, count faces and edges on 3D shapes, sort 3D shapes, make patterns with 3D shapes.* Fractions. *Make equal parts, recognise and find a half, recognise and find a quarter, recognise and find a third, unit fractions, non-unit fractions, equivalence of $\frac{1}{2}$ and 2/4, find three quarters, count in fractions.*
2	Summer
	Length and height. *Measure length (M and CM), compare lengths, order lengths, four operations with length.* Position and direction. *Describing movement, describing turns, describing movement and turns, making patterns with shape.* Time *O'clock and half past, quarter past and quarter to, telling time to 5 minutes, hours and days, find durations of time, compare durations of time.* Mass, capacity and temperature. *Compare mass, measure mass in grams and kilograms, compare volume millilitres, litres, temperature.,* Investigations and problem solving.
3	Autumn
	Place value *Hundreds, represent numbers to 1000, 100s, 10s and 1s, number line to 1000, find 1, 10 or 100 more or less than a given number, compare objects*

	and numbers to 1000, order numbers, count in 50s. Addition and subtraction. *Add and subtract multiples of 100, add and subtract 3 digit and 1 digit numbers (not crossing 10), add 3 digit and 1 digit numbers (crossing 10), subtract a 1 digit number from a 3 digit number (crossing 10), add 3 digit and 2 digit numbers (not crossing 100), add 3 digit and 2 digit numbers (crossing 100), add and subtract 100s, spot the pattern, add two 3 digit numbers (not crossing 10 or 100), add two 3 digit numbers (crossing 10 or 100), subtract a 3 digit number from a 3 digit number (exchange), estimate answers to calculations, check answers.* Multiplication and division. *Equal groups, multiply by 3, divide by 3, 3 times table, multiply and divide by 4, 4 times table, multiply and divide by 8, 8 times table.*
3	Spring
	Multiplication and division. *Comparing statements, related calculations, multiply 2 digits by 1 digit, divide 2 digits by 1 digit, scaling, how many ways?* Money *Pounds and pence, convert pounds and pence, add money, subtract money, give change.* Statistics *Pictograms, bar charts, tables.* Length and perimeter. *Measure length, equivalent lengths (m and cm), equivalent lengths (mm and cm), compare lengths, add lengths, subtract lengths, measure perimeter, calculate perimeter.* Fractions. *Unit and non-unit fractions, making the whole, count in tenths, tenths as decimals, fractions on a number line, fractions of a set of objects.*
3	Summer

	Fractions. *Equivalent fractions, compare fractions, order fractions, add fractions, subtract fractions.* Time *Months and years, hours in a day, telling the time to 5 minutes, telling the time to the minute, using am and pm, 24 hour clock, finding the duration, comparing durations, start and end times, measuring time in seconds.* Properties of shape. *Turns and angles, right angles in shapes, compare angles, draw accurately, horizontal and vertical, parallel and perpendicular, recognise and describe 2D and 3D shapes, make 3D shapes.* Mass and capacity. *Measure mass, compare mass, add and subtract mass, measure capacity, compare capacity, add and subtract capacity.*
4	**Autumn**
	Place value *Roman numerals to 100, round to the nearest 10 and 100, count in 1000s, 1000s, 100s, 10s and 1s, partitioning, number line to 10,000, 1000 more or less, compare numbers, order numbers, round to the nearest 1000, count in 25s, negative numbers.* Addition and subtraction *Add and subtract 1s, 10s, 100s, and 1000s, add two 4 digit numbers (with no exchange, one exchange and more than one exchange), subtract two 4 digit numbers (with no exchange, one exchange and more than one exchange), efficient subtraction, estimate answers, checking strategies.* Length and perimeter *Kilometres, perimeter on a grid, perimeter of a rectangle, perimeter of rectilinear shapes.* Multiplication and division. *Multiply and divide by 10, multiply and divide by 100, multiply by 1 and 0, divide by 1 and itself, multiply an divide by 6, 6 times table and division*

	facts, multiply and divide by 9, 9 times table and division facts, multiply and divide by 7, 7 times table and division facts.
4	**Spring**
	Multiplication and division. *11 and 12 times table, multiply 3 numbers, factor pairs, efficient multiplication, written methods, multiply 2 digits by 1 digit, multiply 3 digits by 1 digit, divide 2 digits by 1 digit, divide 3 digits by 1 digit, correspondence problems.* Area *What is area? Counting squares, making shapes, comparing area.* Fractions. *What is a fraction?, equivalent fractions, fractions greater than 1, count in fractions, add two or more fractions, subtract 2 fractions, subtract from whole amounts, calculate fractions from whole amounts, calculate fractions from a quantity, problem solving.* Decimals. *Recognise tenths and hundredths, tenths as decimals, tenths on a place value grid, tenths on a number line, divide 1 digit by 10, divide 2 digit by 10, hundredths, hundredths as decimals, hundredths on a place value grid, divide 1 or 2 digits by 100.*
4	**Summer**
	Decimals *Make a whole, write decimals, compare decimals, order decimals, round decimals, halves and quarters.* Money *Pounds and pence, ordering money, estimating money, four operations.* Time *Hours, minutes and seconds. Years, months, weeks and days. Analogue to*

	digital (12 hour and 24 hour). Statistics *Interpret charts, comparison, sum and difference, introducing line graphs, line graphs.* Properties of shape *Identify angles, compare and order angles, triangles, quadrilaterals, lines of symmetry, complete a symmetrical figure.* Position and direction. *Describe position, draw on a grid, move on a grid, describe a movement on a grid.*
5	Autumn
	Place value *Numbers to 10,000, roman numerals to 1000, round to the nearest 10, 100 and 1000, numbers to 100,000, compare, order and round numbers to 100,000, numbers to a million, counting in 10s, 100s, 1000s, 10,000s and 100,000s, compare and order numbers to one million, round numbers to one million, negative numbers.* Addition and subtraction *Add and subtract whole numbers with more than 4 digits (column method), round to estimate and approximate, inverse operations, multi-step problems.* Statistics *Read and interpret line graphs, draw line graphs, use line graphs to solve problems, read and interpret tables, two way tables, timetables.* Multiplication and division. *Multiples, factors, common factors, prime numbers, square numbers, cube numbers, multiply and divide by 10, 100 and 1000, multiples of 10, 100 and 1000.* Perimeter and area. *Measure and calculate perimeter, areas of rectangles, area of compound*

	shapes, area of irregular shapes.
5	**Spring**
	Multiplication and division *Multiply 4 digits by 1 digit, multiply 2 digits (area model), multiply 2 digits by 2 digits, multiply 3 digits by 2 digits, multiply 4 digits by 2 digits, divide 4 digits by 1 digit, divide with remainders.* Fractions *Equivalent fractions, improper fractions to mixed numbers, mixed numbers to improper fractions, number sequences, compare and order fractions less than 1, compare and order fractions greater than 1, add and subtract fractions, add fractions within 1, add 3 or more fractions, add fractions, add mixed numbers, subtract fractions, subtract mixed numbers, subtract (breaking the whole), subtract 2 mixed numbers, multiply unit fractions by an integer, multiply non-unit fractions by an integer, multiply mixed numbers by integers, fraction of an amount, using fractions as operators.* Decimals and percentages. *Decimals up to 2DP, decimals as fractions, understand thousandths, thousandths as decimals, rounding decimals, order and compare decimals, understand percentages, percentages as fractions and decimals, equivalent FDP.*
5	**Summer**
	Decimals *Adding and subtracting decimals within 1, complements to 1, adding decimals (crossing the whole), adding and subtracting decimals with the same number of decimal places, adding and subtracting decimals with a different number of decimal places, adding and subtracting wholes and decimals, decimal sequences, multiply and divide decimals by 10, 100 and 1000.* Properties of shape.

	Measuring angles in degrees, measuring with a protractor, drawing lines and angles accurately, calculating angles on a straight line, calculating angles around a point, calculating lengths and angles in shapes, regular and irregular polygons, reasoning about 3D shapes. Position and direction. *Position in the first quadrant, reflection, reflection with coordinates, translation, translation with coordinates.* Converting units. *Kilograms and kilometres, milligrams and millilitres, metric units, imperial units, converting units of time, timetables.* Volume. *What is volume?, Compare and estimate volume, estimate capacity.*
6	Autumn
	Place value *Read, write and represent numbers to ten million. Compare and order any number up to ten million. Round any number. Negative numbers.* Addition, subtraction, multiplication and division. *Add and subtract intergers. Multiply up to a 4 digit number by a 2 digit number. Short division. Division using factors. Long division. Common factors. Common multiples. Primes to 100. Squares and cubes. Order of operations. Mental calculations and estimation. Reason from known facts.* Fractions *Simplify fractions, fractions on a number line, compare and order (Denominators and Numerators.), add and subtract fractions, mixed addition and subtraction, multiply fractions by integers, multiply fractions by fractions, divide fractions by integers, four rules with fractions, fraction of an amount, fraction of an amount – find the whole.* Position and direction

	The first quadrant, four quadrants, translations, reflections.
6	**Spring**
	Decimals *Three decimal places, multiply an divide by 10, 100 and 1000, multiply and divide decimals by integers, division to solve problems, decimals as fractions, fractions to decimals.* Percentages *Fractions to percentages, equivalent FDP, ordering FDP, finding the percentage of an amount, missing values.* Algebra *Find a rule – one step and two steps, forming expressions, substitution, formulae, forming questions, solve simple one step equations, solve two step equations, find pairs of values, enumerate possibilities.* Converting units *Metric measures, convert and calculate metric measures, miles and kilometres, imperial measures.* Perimeter, area and volume. Shapes with the same area, area and perimeter, area of a triangle, area of a parallelogram, volume – counting cubes, volume of a cuboid. Ratio *Using ratio language, ratio and fractions, introducing the ratio symbol, calculating ratio, using and calculating scale factors, ratio and proportion problems.* Statistics. *Read and interpret line graphs, draw line graphs, use line graphs to solve problems, circles, read and interpret pie charts, pie charts with percentages, draw pie charts, the mean.*
6	**Summer**

	Properties of shape. *Measure with a protractor, introduce and calculate angles, vertically opposite angles, angles in a triangle, angles in special quadrilaterals, angles in regular polygons, drawing shapes accurately, draw nets of 3D shapes.* Consolidation of SATs preparation. Investigations and problem solving.