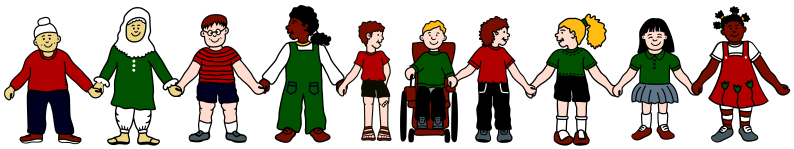

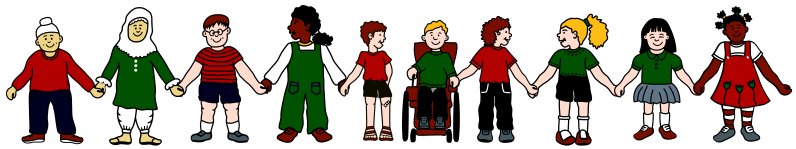

THE GILES NURSERY

AND INFANTS' SCHOOL

Curriculum Journey

Mathematics

2023-2024

Curriculum Knowledge and Skills: Mathematics

Nursery

Subject: Mathematics

Autumn Term

Topic: Nursery rhymes and celebrations

Key Vocabulary: Circle, square, triangle, rectangle, star, oval

Experiment with their own symbols and marks as well as
Numerals.
Solve real world mathematical problems with numbers up to 5
Compare quantities using language 'more than' 'fewer than'
Talk about and explore 2D and 3D shapes circles, rectangles, triangles, and cuboids using informal and mathematical language: 'sides' 'corners' 'straight' 'flat' and round
Understand position through words alone
Make comparisons between objects relating to size, length, weight and capacity.
Select shapes appropriately
Combine shapes to make new ones
Talk about and identify patterns
Extend and create ABAB patterns
Notice and correct an error in a repeating pattern
Begin to describe a sequence of events
Count out objects and sounds

Child initiated learning (indoor & outdoor free-flow - all areas of EYFS curriculum covered)
Daily routines and activities (Autumn main focus C & L and PSED but all areas of EYFS curriculum covered)
Morning greeting & getting ready for class
Stop, look & listen
Singing x 3
Story & rhyme time x 2
Handwashing and toilet time
Snack time
Counting activities, shape songs and activities
Adult led activity/Circle Time
Group discussion and sharing news

Curriculum Knowledge and Skills: Mathematics

Preparing for home time

Activity	Skills	Knowledge
To count the children in their group	To count the numbers in order	To use some number names spontaneously. Recite numbers in order to 10.
To count ladybirds.	To recites some number names in sequence.	Uses some number names spontaneously. Recite numbers in order to 10.
To look at 2D shapes of the groups in the nursery	To use mathematical language sides, corners, flat and round	To identify 2D shapes
To create clapping and tapping patterns with their hands with beaters on a drum.	To follow some music patterns	To be able to follow tapping pattern
To use a variety of different media to create a 2d shape picture	To use shapes and discuss the properties	To recognise 2D shapes
To play a turn taking game	Able to use first then before and after	Knowing some vocabulary ‘first’ ‘then’ ‘before’ ‘after’
To order bears by size	To use the language of size.	To make comparisons of size using mathematical vocabulary
To listen and move like a rocket	To count actions and one number name to each action	To use some number names accurately in play.
To count out stars	To count objects and match one number name to each item	To use some number names accurately in play.
To count model spiders and the numbers of legs on a spider	To count objects and match one number name to each item	To use some number names accurately in play.

Nursery

Curriculum Knowledge and Skills: Mathematics

Subject: Mathematics **Spring Term** **Topic: Jungle animals and growing**
Key Vocabulary: Circle, square, triangle, rectangle, star, oval, numbers 1-5 more than, fewer than, 'sides' 'corners' 'straight' 'flat'
Experiment with their own symbols and marks as well as numerals. **Solve real world mathematical problems with numbers up to 5** **Compare quantities using language 'more than' 'fewer than'** **Talk about and explore 2D and 3D shapes circles, rectangles, triangles, and cuboids using informal and mathematical language: 'sides' 'corners' 'straight' 'flat' and round** **Understand position through words alone** **Make comparisons between objects relating to size, length, weight and capacity.** **Select shapes appropriately** **Combine shapes to make new ones** **Talk about and identify patterns** **Extend and create ABAB patterns** **Notice and correct an error in a repeating pattern** **Begin to describe a sequence of events** **Count out objects and sounds**
Daily routines and activities & Child Initiated Learning (indoor & outdoor free-flow - all areas of EYFS curriculum covered) Morning greeting & getting ready for class Stop, look & listen Singing x 3 Story & rhyme time x 2 Handwashing and toilet time Snack time Counting activities, shape songs and activities Adult led activity/Circle Time Group discussion and sharing news Preparing for home time

Activity	Skills	Knowledge

Curriculum Knowledge and Skills: Mathematics

How many tigers in the group? Which has more or fewer than	To compare quantities 'more than' 'fewer than'	Knowing more and less
To look at Chinese numbers and create their own number line	To experiment with their own symbols and marks representing ideas of number.	To represent numbers using fingers, marks on paper or pictures.
5 Little woolly lambs – counting – one more/less	To count actions and match one number name to each item	To use some number names accurately in play.
Animals and their young – size ordering.**:**	To order model animals according to properties such as shape or size.	To make comparisons between objects relating to their size
Sorting jungle animals.	To order model animals according to properties such as shape or size.	To make comparisons between objects relating to their size
To create repeating patterns on spiral snakes.	To create ABAB patterns	To identify patterns around them and notice and continue a pattern
Compare the weights of different zoo animals.	To sort animals by weight and use mathematical vocabulary	Knowing different items have different weights
Order gifts by size	To sort by size	Knowing that the items are different sizes and compare large and small
Order flowers by length	To sort by length	Knowing the items are different and compare by length
Days of the week.	To describe a sequence of events	To use vocabulary to describe a sequence of events real or fictional
To create a 3D caterpillar repeating pattern	To create ABAB patterns	To identify patterns around them and notice and continue a pattern
Butterfly symmetry.	To create ABAB patterns	To identify patterns around them and notice and continue a pattern

Curriculum Knowledge and Skills: Mathematics

Nursery

Subject: Mathematics

Summer Term

Topic: Sand and water

Key vocabulary: Circle, square, triangle, rectangle, star, oval, numbers 1-5 more than, fewer than, 'sides' 'corners' 'straight' 'flat'
Big, small, heavy, full, empty.

Experiment with their own symbols and marks as well as numerals.
Solve real world mathematical problems with numbers up to 5
Compare quantities using language 'more than' 'fewer than'
Talk about and explore 2D and 3D shapes circles, rectangles, triangles, and cuboids using informal and mathematical language: 'sides' 'corners' 'straight' 'flat' and round
Understand position through words alone
Make comparisons between objects relating to size, length, weight, and capacity.
Select shapes appropriately
Combine shapes to make new ones
Talk about and identify patterns
Extend and create ABAB patterns
Notice and correct an error in a repeating pattern
Begin to describe a sequence of events
Count out objects and sounds

Daily routines and activities & Child Initiated Learning (indoor & outdoor free-flow - all areas of EYFS curriculum covered)
Morning greeting & getting ready for class
Stop, look & listen
Singing x 3
Story & rhyme time x 2
Handwashing and toilet time
Snack time
Counting activities, shape songs and activities

Curriculum Knowledge and Skills: Mathematics

Adult led activity/Circle Time Group discussion and sharing news Preparing for home time		
Activity	**Skills**	**Knowledge**
To jump on numbered tiles for hopping like frogs.	To jump on each individual number tile	To count numbers in order
Fishing for numbers	To recognise some numbers	To count numbers in order
To count gold coins	To count with one to one correspondence	To count numbers in order
Counting eight tentacles on octopus.	To count with one to one correspondence	To count numbers in order
To create a ABAB pattern using shells.	To create ABAB patterns	To notice and correct an error in a repeating pattern
To find the buried treasure using positional language	To discuss position in real contexts	Uses positional language through words alone
Weighing seaside objects.	To compare quantities using mathematical language	To use mathematical language
How many frogs – one more one less.	Recites some number names in sequence.	Uses some number names and number language spontaneously. Uses some number names accurately in play. Recites numbers in order to 10.
Counting the children in their group	Recites some number names in sequence.	Uses some number names and number language spontaneously. Uses some number names accurately in play. Recites numbers in order to 10.
Repeating patterns	To create ABAB patterns	To notice and correct an error in a repeating pattern

Curriculum Knowledge and Skills: Mathematics

Order shells and measure with cubes.	Beginning to categorise objects according to properties such as shape or size.	To use mathematical vocabulary quantities 'more than' 'fewer than'
Days of the week.	To describe a sequence of events	To use vocabulary to describe a sequence of events real or fictional
Group shape names.	To use mathematical language sides, corners, flat and round	To identify 2D shapes
Clapping/tapping patterns.	To follow some number patterns	To be able to follow tapping pattern
To play a turn taking game	Able to use first then before and after	Knowing some vocabulary 'first' 'then' 'before' 'after'

Subject: Mathematics
Year: Reception

Curriculum Knowledge and Skills: Mathematics

Autumn Term

Topic: Autumn 1 – Imaginative story telling linked to the Three Little Pigs

Autumn 2 – Wolves and environments

Activity	Skills	Knowledge
Recognising numbers 1-10 (up to 20).	To be able to recognise numbers 1-10 or 1-20.	To recognise numbers 1-10 or 1-20.
Ordering numbers 1-10 (up to 1-20).	To be able to put numbers 1-10 (1-20) correctly in order.	To recognise numbers 1-10 (1-20). To know the order of numbers 1-10 (1-20).
Counting out objects using 1:1 correspondence.	Counting a number of objects accurately.	Knowing how to count accurately. Knowing how to rote count accurately.
Investigating 2D and 3D shapes and describing their properties.	Being able to place shapes within an enclosed space. Describing the properties of shapes.	Knowing the shapes. Using the mathematical vocabulary to describe the properties of the shapes.
Explain levels of capacity through ordering.	Demonstrating through explanation their understanding of the level of capacity.	Knowing the different levels of capacity. Knowing the vocabulary linked to capacity.
Working out one more than using a numberline.	To be able to use a numberline accurately. To be able to recognise a numeral. To be able to count accurately.	To recognising a numeral. To understand the concept of one more.
Composition of 3 (ways to make 3)	Separating a group of objects into a whole-part-part format.	Knowing that the total remains the same each time.
Working out one less than using a numberline.	To be able to use a numberline accurately. To be able to recognise a numeral. To be able to count accurately.	To recognising a numeral. To understand the concept of one less.
Counting out and matching an amount to a numeral.	To be able to count out an amount. To recognise a numeral. To be able to count accurately.	To recognise a numeral. To be able to count in the numbers in the correct order.

Curriculum Knowledge and Skills: Mathematics

		To be able to count accurately.
Making a 2D shape wolf.	To be able to use the shapes to create a picture. To be able to use mathematical language to name and describe the properties of 2D shapes.	Beginning to use mathematical names to describe 2d shapes. Using the language of shape through describing their properties.
More or fewer wolves on grassland.	To be able to place the objects in two groups. To be able to say which group of objects has more or fewer.	Being able to identify which group has more and which has fewer. Using the mathematical language of more and fewer to describe two sets of objects.
Naming 2D shapes and describing their properties.	Being able to place shapes within an enclosed space. Describing the properties of shapes.	Knowing the shapes. Using the mathematical vocabulary to describe the properties of the shapes.
To continue, copy and create a repeating pattern.	Application of knowledge of pattern. Creating their own patterns.	Knowing what pattern means. Understanding how to create a pattern.

Subject: Mathematics
Year: Reception
Spring Term
Topic: Spring 1 – Food technology and science investigations linked to The Gingerbread Man
Spring 2 – Safe Journeys

Activity	**Skills**	**Knowledge**
Ordering numbers 1-20.	To be able to put the numbers in the correct order. Applying their knowledge of number.	To be able to recognise numbers 1-20. To know the order of numbers.

Curriculum Knowledge and Skills: Mathematics

Completing an ordering, matching or counting game based around the Gingerbread Man using the iPads and IWB.	Application of knowledge of number. Using counting skills up to 10. Application of knowledge of how to the use the programme.	Knowledge of numbers. Knowledge of order of numbers Counting skills 1:1 correspondence Knowledge to how to use an iPad.
Finding one less from a group of up to 5 objects, then 10 objects.	Counting backwards Number knowledge Place value	Knowledge of number Knowledge of order of numbers Understanding of what less means.
Estimating how many objects they can see and checking by counting them.	Application of knowledge of estimating. Application of number Application of counting skills. Using subitising skills.	Knowledge of estimating. Knowledge of number. Knowledge of counting. Understanding what estimating means.
Finding different ways to make 4 using buttons on a Gingerbread Man.	Application of number knowledge. Using counting skills. Application of knowledge of number sentences. Number recognition Writing out a number sentence using the correct numerical symbols.	Knowledge of number. Knowledge of counting. Knowing what 'making 4' means. Knowledge of how to structure a number sentence. Knowledge of numerical symbols.
Subitizing	To be able to recognise an amount without counting.	Knowledge of number. Knowledge of counting.
Measuring the length of a Gingerbread Man on a tray.	Being able to order three Gingerbread Men by length. Application of knowledge of number. Application of knowledge of measuring – being able to measure the Gingerbread Men.	Knowledge of length. Understanding what length means Understanding of what measure means. Understanding how to measure something by length. Knowledge of where a starting point is.
Halving a Gingerbread Man.	Application of knowledge of half. Halving a gingerbread man.	Knowledge of what half means. Knowing how to physically halve a gingerbread man.

Curriculum Knowledge and Skills: Mathematics

	Quartering the halves of a gingerbread man. (For children that are ready). Using tools to manipulate change.	
Create a pattern using characters from a traditional tale.	Application of knowledge of pattern. Creating their own patterns.	Knowing what pattern means. Understanding how to create a pattern.
Sharing into groups of 2s, 5s and 10s.	Being able to physically share an amount accurately.	Knowledge of value of number. Knowledge of what sharing means. Knowledge of early multiplication.

Subject: Mathematics
Year: Reception
Summer Term
Topic: Summer 1 – Life cycles linked to The Little Red Hen
Summer 2 – Growing

Activity	Skills	Knowledge
Halving a number of eggs into 2 baskets	Application of knowledge of halving. Halving the amount of eggs into 2 baskets.	Knowledge of what half/halving means. Knowing how to physically halve an amount.
Finding different ways of making 5.	Application of number knowledge. Using counting skills. Application of knowledge of number sentences. Number recognition. Writing out a number sentence using the correct numerical symbols.	Knowledge of number. Knowledge of counting. Knowing what 'making 6' means. Knowledge of how to structure a number sentence. Knowledge of numerical symbols.

Curriculum Knowledge and Skills: Mathematics

Explain levels of capacity through ordering. (To fill a pot with soil to plant a runner bean seed)	Demonstrating through explanation their understanding of the level of capacity.	Knowing the different levels of capacity. Knowing the vocabulary linked to capacity.
Investigate shapes within shapes (2D shapes in 2D shapes, 2D shapes on 3D shapes)	Naming and describing properties of 2D and 3D shapes.	Knowledge of 2D and 3D shapes
Creating 2D artwork in the style of an artist (Paul Klee)	Application of art skills. Naming and describing properties of 2D shapes. Recalling facts about the artist.	Knowledge of 2D shapes Knowledge of art skills.
Doubling with eggs.	Application of knowledge of doubling. Doubling eggs in a basket.	Knowledge of what doubling means. Knowing how to physically double an amount.
Making a 2D and 3D shaped windmill.	To be able to use the shapes to create a picture. To be able to use mathematical language to name and describe the properties of 2D and 3D shapes.	Beginning to use mathematical names to describe 3D shapes. Using the language of shape through describing their properties.
Making sandwiches and a graph of the fillings.	Choosing the filling. Spreading the butter and the filling. Putting the sandwich together. Cutting the sandwich in half. Being able to place their vote on the graph correctly.	Knowledge of how to make a healthy sandwich. Knowing what graphs are. Knowing how to create a graph.
Money Week – managing money.	Managing money in games and role-play. Recognising the coins. Balancing coins Using crayons to coin rub. Manipulating materials to make coins.	Knowing the different coins. Knowing the value of coins. Knowing what money is used for. Knowing where to keep money safe. Knowing how to be responsible with money.

Curriculum Knowledge and Skills: Mathematics

Key mathematical vocabulary for Reception	
All vocabulary taught in Nursery should be re-visited and practised in Reception. Children should then learn the following vocabulary.	
Number	**Numerical Patterns**
Estimate, guess, more, less, fewer, and, plus, take away, equals, numbers 0 to 20, altogether, half, whole, share, one more, one less, most, count on in multiples of 2s, 5s, 10s	**Shapes: 2D shape names including hexagon, octagon and pentagon, 3D shapes names, cube, cuboid, sphere, cylinder, cone, pyramid, sides, corners, edge, face** **Weight, length and capacity: heavy, heavier, heaviest, light, lighter, lightest, balance, full, empty, half empty, half full, nearly full and nearly empty.** **Time: the season's names.** **Money: coin, money, pound, pence, amount, total.**

All key vocabulary used in the EYFS needs to be re-visited and practised in Years 1 and 2. Then the key vocabulary for each unit and year groups must be learnt.

Curriculum Knowledge and Skills: Mathematics

Year 1 - Geometry	Year 2 - Geometry
Key vocabulary - Cube, cuboid, pyramid, sphere, cylinder, circle, triangle, square, shape, flat, curved, straight, round, corner (point, pointed) face, side, edge, vertex and vertices.	**Key vocabulary – Size, bigger, larger, smaller, symmetrical, line of symmetry, , pattern, repeating pattern, angles, vertices, cone, pentagon, hexagon.** **Two dimensional and three dimensional.**
National Curriculum Objectives – To recognise and name 2D and 3D shapes.	**National Curriculum Objectives** – To identify 2D shapes on the surface of 3D shapes. To name and identify properties of shapes. To compare and sort shapes. To identify lines of symmetry and fractions of shapes. To identify patterns. To understand angels and rotation of shapes.
Skills Knowing shape names when in different rotations. Identifying curves, points, edges, sides, vertices, Practical exploration of shapes to build knowledge and understanding and vocabulary.	Skills Use Year 1 skills to: Name 2D and 3D shapes, extend vocabulary by adding language of properties. Use language of properties to sort shapes using classification techniques such as a Venn or Carrol diagram. Explore using mirrors line to find symmetry of shapes. Use EYFS knowledge of linear patterns to create repeating patterns, pattern block that are continued. Use language of fractions to identify half, quarter of shapes. Build on year 1 rotation by using language of direction to turn shapes and identify compass points and give directions. Use angles in shape skills to find angles on maps.

Curriculum Knowledge and Skills: Mathematics

Year 1 – Numbers to 10 (Fluency) Place Value	Year 2 – Place Value
Key vocabulary – Number, zero, one, two, three to twenty, none, count, more, less, many, few, fewer, least, fewest, smallest, greater, lesser, equal to, the same as, odd, even ,pair, ones, tens, digit, numeral, compare, (In) order/a different order, size, value, Part part whole, cherry model.	**Key vocabulary - Numbers to one hundred, hundred, hundreds, partition.**
National Curriculum Objectives Count to and across 100 forwards and backwards. Count, read and write to 100 and 2x, 5x and 10x. Read and write numerals as words 1 – 20. Identify and represent numbers. Solve 1 step problems. Identify number bonds, addition and subtraction facts. Read mathematical statements. Solve 1 step problems with missing numbers.	**National Curriculum Objectives** Recognise the place value of each digit in a two-digit number (tens, ones) **National Curriculum Links** (covered within place value) identify, represent and estimate numbers using different representations, including the number line read and write numbers to at least 100 in numerals and in words partition numbers in different ways (for example, 23 = 20 + 3 and 23 = 10 + 13) NC Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones - a two-digit number and tens - two, two-digit numbers Read and write numbers to at least 100 in numerals and in words Related NC NC Links (covered within place value) solve problems with addition and subtraction: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods ▯ recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 ▯ count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward ▯ recognise the place value of each digit in a two-digit number (tens, ones)

Curriculum Knowledge and Skills: Mathematics

	using materials and a range of representations, pupils practise counting, reading, writing and comparing numbers to at least 100 and solving a variety of related problems to develop fluency. as they become more confident with numbers up to 100, pupils are introduced to larger numbers to develop further their recognition of patterns within the number system and represent them in different ways.
Consolidate 1:1 correspondence. Count numbers as a group by subitising and using tens frames. Make groups to represent objects and record as images. Learn and practise vocabulary such as equal, more, less, fewer and comparison. Children learn how to use manipulatives such as bead strings, tens frames, bar diagrams, part part wholes and speaking frames so that the skills to use these can be applied to multiple calculations and learning tasks. Using these skills children order numbers consecutively, regroup, compare, calculate difference, read mathematical statements and solve problems, change the orientation of calculations, learn the commutative rule and create number bond patterns. Making 20	Developing a deep understanding of tens and ones Children build on understanding of place value by using manipulatives and images to regroup ten ones for one ten, regroup ten pennies for ten pence, regroup one ten for ten ones and grouping ten pence for ten pennies. Move on to identifying the place value in 2-digit numbers using place value cards and base-10. Identifying the place value in 2-digit numbers using a proportional (base-10) and non-proportional (money) model, Comparing representations of 2-digit numbers, making regroupings of the same number in different ways and identifying missing parts of a regrouped number in a variety of models Children link place vale to problem solving with addition, they consolidate editing skills by checking for mistakes in written addition and subtraction, this moves on to counting in tens and hundreds to 1000, 'Hundreds and some more', end of year 2 place value work working with 3-digit numbers – part whole
Same objective for making 10	
Using all the skills and manipulatives and images from making 10. Consolidate above skills and number understanding. Write words from numbers using pattern in teens. Write, make draw skill introduced. Place value – tens and ones, CPA	

Curriculum Knowledge and Skills: Mathematics

Introduce doubling and halving using part part whole and arrays. Look at number lines and consolidate understanding of number placement,	
Year 1 - Multiplication and Division	**Year 2 - Multiplication and Division**
Key vocabulary - Odd, even, count in twos, fives, count in tens, times, lots of, groups, times, multiply, multiply by, repeated addition, array, double, halve, share, share equally.	**Key vocabulary – divide, equal, equal to, remainder, inverse.**
Doubling and Halving – multiplication and division – these skills lead to fractions (next section)	Doubling and halving – multiplication and division – building on previous fractions work (see next section)
NC Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher NC links through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens read and write numbers from 1 to 20 in numerals and word through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities	NC Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts NC Links solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs

Curriculum Knowledge and Skills: Mathematics

they make connections between arrays, number patterns, and counting in twos, fives and tens	recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value pupils use a variety of language to describe multiplication and division count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward pupils are introduced to the multiplication tables. They practise to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face. They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations. recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts pupils use a variety of language to describe multiplication and division find different combinations of coins that equal the same amount of money recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value pupils are introduced to the multiplication tables. They practise to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face. pupils work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. They begin to relate these to fractions and measures (for example, 40 ÷ 2 = 20, 20 is a half of 40). They use commutativity and inverse relations to develop multiplicative reasoning (for example, 4 × 5 = 20 and 20 ÷ 5 = 4).
Building on part whole understanding where the parts are equal. Replace colours with numbers and quantities to explore equal parts of the whole further then making doubles and finding halves using tens frames. Lots of skills crossing over from place value work.	Recall and consolidate doubling two-digit numbers and halving multiples of ten. Move on to halving two-digit numbers. Context given doubling and halving in the context of money.

Curriculum Knowledge and Skills: Mathematics

Sharing into equal groups and sharing into unequal groups. Comparing equal or unequal groups? Making sure children have a secure understanding of what equal and unequal means so that they can progress. Sharing into equal groups consolidation leading to solving sharing problems Division by grouping leading to solving grouping problems Specific and explicit work linking multiplication and division	Patterns and strategies for the 2 times table, linked to patterns and strategies for the 5 and 10 times tables Moving on to counting in 3s. Linking repeated addition and multiples leading to multiples and multiplication and building on Year 1 skills by exploring arrays. Consolidating and expanding on the language of multiplication. The commutativity of multiplication leading to strategies to calculate multiplication facts – regrouping to multiply. Bar modelling for multiplication problems used to support multiplication of measures. Leading to context multiplication and money (£ and p) Problem solving with mixed worded problems Recall and consolidation of division by sharing leading to division by grouping. Use familiar strategy to complete division by grouping using arrays. Linking division and multiplication leading to using multiplication facts to divide Patterns and rules of divisibility followed by division with remainders – sharing. Familiar knowledge and skills to complete division with remainders – grouping Leading to solving problems using division in context Equality in multiplication linking to number bond work and pace value by keeping the balance Comparing calculations and using division to identify equality in multiplication
Year 1 - Fractions	**Year 2 - Fractions**
Key vocabulary – whole, equal, half, quarter.	**Key vocabulary - three quarters, third.**
National Curriculum Objectives	**National Curriculum Objectives**

Curriculum Knowledge and Skills: Mathematics

Recognise, find and name a half as one of two equal parts of an object, shape or quantity Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity **National Curriculum Links** solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher recognise and name common 2-D and 3-D shapes, including: - 2-D shapes [for example, rectangles (including squares), circles and triangles] compare, describe and solve practical problems for: - lengths and heights (for example, long/short, longer/shorter, tall/short, double/half) - capacity and volume (full/empty, more than, less than, half, half full, quarter) tell the time to the hour and half past the hour and draw the hands on a clock face to show these times describe position, direction and movement, including whole, half, quarter and three-quarter turns	Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity Write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2 **National Curriculum Links** write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2 solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2 solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts identify 2-D shapes on the surface of 3-D shapes [for example a circle on a cylinder and a triangle on a pyramid] interpret and construct simple pictograms, tally charts, block diagrams and simple tables write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and ½ Pupils should count in fractions up to 10, starting from any number and using the 1/2 and 2/4 equivalence on the number line (for example, 11/4, 12/4 or 11/2, 13/4, 2). know the number of minutes in an hour and the number of hours in a day choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
Skills/knowledge and understanding Consolidating understanding of what equal means. Finding equal parts of a whole (halves) and finding equal parts of a whole (quarters) Finding half of an amount and finding a quarter of an amount	Skills/knowledge and understanding Splitting a whole into equal groups (halves, thirds and quarters) with Cuisenaire rods – recall and consolidation of what equal, half, third and quarters are. Finding half of an amount linked to division and sharing a whole into two equal groups. Finding 13 and 14 of amounts linked to sharing

Curriculum Knowledge and Skills: Mathematics

Finding halves and quarters of amounts in context Identifying whether a shapes has been halved or not and identifying whether a shape has been quartered or not Identifying and finding halves of an amount in the context of shapes and identifying and finding quarters of an amount in the context of shapes Fractions in the context of capacity and measuring capacity Fractions in the context of length Fraction of a turn using the context of a clock face	Recognising shapes split equally into halves, quarters and thirds, recall and consolidation of shape names and properties. Finding 12, 14 and 13 of 2-D shapes Finding fractions of amounts within the context of shape Finding what fraction of a shape is given Above learning then applied to Finding 3/4 of a shape, finding 3/4 of an amount and finding 3/4 in the context of finding amounts within shapes Exploring 12 , 24 equivalence in shapes leading to exploring 12 , 24 equivalence using Cuisenaire rods Then comparing 12 , 24 equivalence on a number line Followed by equivalence: 12 , 24 of amounts within shapes and equivalence: 12 , 24 of amounts Pupils start counting fractions in context and counting in fractions using a number line The then look at real world concepts and find fractions of length, fractions of capacity and fractions of time
Year 1 – Statistics	**Year 2 - Statistics**
	Key vocabulary - Tally, graph, pictogram, chart, Venn diagram, Carrol diagram.
Children compare and classify in the EYFS and do not formally start statistics until year 2.	**National Curriculum Objective** Interpret and construct simple pictograms, tally charts, block diagrams and simple tables **National Curriculum Links** ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity ask and answer questions about totalling and comparing categorical data

Curriculum Knowledge and Skills: Mathematics

	compare and sort common 2-D and 3-D shapes and everyday objects count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward read and write numbers to at least 100 in numerals and in words solve problems with addition and subtraction: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods
	Skills and Knowledge To sort using tables, recall and securing from year 1. Looking at information tables. Gathering data and using tally charts, leading to representing data in block graphs And pictograms

Year 1 Measurement	**Year 2 Measurement**
Key vocabulary - Full, half full, empty, mass, weigh, balances, heavy, heavier, light, lighter, time, days of the week, day, week, month, year, weekend, morning, afternoon, evening, Bedtime, dinnertime, playtime, today, yesterday, tomorrow, before, after, next, last, now, soon, early, late, quick, quicker,, quickly , fast, faster, slow, slower, slowly, old, older, new, newer, hour, o'clock, half past, clock, watch, hands, always, never, often, sometimes, usually, once, twice, first, second, third, etc. estimate, close to same as, just over, just under, too many, too few, not enough, enough, length, width,	**Key vocabulary - Quarter past/to, cm,m, g/kg, ml/l, temperature (degrees) Coins and note names, penny, two pence etc. Consolidation and application of EYFS and Year 1 vocabulary.**

Curriculum Knowledge and Skills: Mathematics

height, depth, long, longer,, short, shorter, tall, taller, high, higher, low, wide, far, near, close, metre, ruler, metre stick, money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear(er), costs more, costs less, cheaper, costs the same as, how much?, how many? total	
National Curriculum: -compare, describe and solve practical problems for: i. lengths and heights [for example, long/short, longer/shorter, tall/short, double/hal] ii. mass / weight iii. capacity and volume iv. time -measure and begin to record the following: i. lengths and heights ii. mass/weight iii. capacity and volume iv. time (hours, minutes, seconds) -recognise and know the value of different denominations of coins and notes -sequence events in chronological order using language -recognise and use language relating to dates, including days of the week, weeks, months and years -tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	**National Curriculum:** -choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels - compare and order lengths, mass, volume/capacity and record the results using >, < and = -recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value -find different combinations of coins that equal the same amounts of money -solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change -compare and sequence intervals of time -tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. -know the number of minutes in an hour and the number of hours in a day

Curriculum Knowledge and Skills: Mathematics

Time: Telling the time (o'clock and half past) • Understand and physically use **turns** (quarter, half turn, three- quarter turn and full turn) and **direction** (left/right) • Understand and use the terms 'clockwise' and 'anti-clockwise' when completing turns. • Link these turns to a clock face- recognise that a clock is a circle and if you split **it into quarters from the 'o-clock', you can find the quarter, half, three-quarter and full turns.** • Use spinners to carry out turns and describe them e.g I started on the 12. I made a half turn clockwise. I am now on the 6. • Identify the minute, hour and second hands. • Complete turns on a clock face clockwise • Identify what happens to the minute hand when the second hand has completed a full clockwise turn around the clock. • Explore how the minute hand moves around the clock to identify the number of minutes in 1 hour	**Time: Telling the time (o'clock, half past, quarter past and quarter to)** • Complete Physical turns: a quarter turn, half turn, three-quarter turn and full turn in a clockwise/anti clockwise direction. Link these to the hands on a clock face. • Recognise and recap on the terms 'o'clock' and 'half past'. • Identify and use the terms 'quarter past' and 'quarter to' • Understand that a quarter is '15' on a clock face. • Read and make times – 'o'clock, quarter past, half past, quarter to' • Tell the time to 5 minute intervals • Mark 5 minute intervals on a linear scale 0-60 and compare this to the scale around clock face. • Use the language of 'minutes past' the hour and 'minutes to' the hour. **Estimating, ordering and comparing time** • Estimate intervals of time • Order intervals of time • Represent a day on a number line • Order events in a day

Curriculum Knowledge and Skills: Mathematics

- Count in multiples of 5 around the clock pointing at each number in turn until a full turn is complete

- Identify how many hours it takes for the hour hand to make a full turn around the clock and link this to hours in a day.

- Identify the term 'o'clock' and read, make and draw o'clock times.

- Identify the term 'half past' and read, make and draw times onto a clock face. Relate to a 'half turn' in a 'clockwise' direction.

- Identify intervals of time: half and whole turns on the clock face clockwise (half an hour and hour intervals)
- Link the 'earlier' times to the hands going backwards around the clock to go back in time – anti-clockwise.

Measures: Sequencing Events- days of the week and months of the year

- Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening)

- Order the days of the week and months of the year

- Identify the 4 seasons and which months are in each season

- Understand one full turn around the clock face is 12 hours

- Identify that there are 24 hours in a day which is 2 full turns around the clock face.

- Compare intervals of time

Telling the Time to the Nearest 5 Minutes

- Practise telling the time – o'clock and half past times.
  - Link the position of the minute hand to fractions by showing half of a circle and half/whole turns.

- Make quarter past and quarter to times.
- Link this to fractions of a circle and quarter/three quarter turns.

- Tell the time to the nearest 5 minutes
- Calculate intervals of time
- Relate 'minutes later' to a clockwise movement and 'minutes earlier' to an anti-clockwise movement.

Curriculum Knowledge and Skills: Mathematics

Measures: The language of comparing length, height, mass and speed

- Measure and compare the lengths heights of objects. Use the comparative language terms 'longer, shorter, taller, and equal'.
- Compare the mass of items using pan balances. Use the comparative language terms heavier, lighter, heaviest, lightest' to record.
- Order items from lightest to heaviest.
- Predict, measure and record speed on a blank number line. Use the comparative language terms 'fastest, quickest, faster, slowest and slower'
- Use ordinal numbers to sequence timed events.

Measures: Non-standard and simple standard measures

- Compare volumes in containers of the same size.
- Compare, estimate and measure volumes in containers of varying shapes and sizes.
- Use capacity and volume vocabulary (full/empty, more than, less than, half, half full, quarter)

Measures: Compare and order values

- Compare values in the context of measuring mass (g, kg) and use the language of comparison
- Use pan balances and the weights '50g, 100g, 200g, 500g and 1kg' to compare the mass of objects to each other and to different masses.
- Rehearse the language of comparing masses and use the <, > and = symbols to record comparisons.
- Use scales to measure amounts to the nearest kilogram.
- Compare values in the context of measuring heights, lengths and widths, using the language of comparison
- Use ruler, metre sticks, measuring tape and trundle wheels,
- Record comparisons using <, > and =, comparing to lengths such as 1m, 30cm and to objects.
- Compare values using <, > and = in a variety of contexts such as temperature and speed.

Estimate and measure using different scales

Curriculum Knowledge and Skills: Mathematics

• Measure length using Cuisenaire rods as non-standard units of measure. • Measure lengths using centimetres • Weigh mass with non-standard units • Weigh using pan balance scales and weights of 1g, 2g, 5g and 10g. •	• Estimate and place masses on a number line using benchmarks • Estimate and place lengths on a number line marked 0m-40m with bench marks • Estimate and compare capacities using non-standard measures • Identify the terms 'millilitres' and 'litres' • Read capacities on different scales • Estimate and calculate capacities using varying intervals on scales (2s, 5s and 10s) • Read the scales a range of measuring equipment including kitchen scales, measuring jugs, rulers, thermometers. Compare the different scales and identify how they are organised. • Read scales on circular dials • Solve problems reading scales (kitchen scales, measuring jugs, rulers, thermometers.)
<u>Money: Coins and combinations to 20p- ordering and comparing</u> • Recognise the value of coins using proportional representations (Cuisenaire rods). • Compare the value of coins using proportional representations.	**<u>Money- Making combinations and finding change</u>** • Practise coin recognition

Curriculum Knowledge and Skills: Mathematics

• Calculate coin combinations for values that do not have a designated coin below 10p. • Calculate coin combinations for values that do not have a designated coin between 11p and 20p. • Compare and order different combinations of coins.	• Find different combinations of coins that equal the same amounts of money (use cherry and bar models) Up to £2 • Solve calculations involving subtraction of money of the same unit (pounds or pence) Use counting methods and bead strings. • Solve simple problems in a practical context involving addition and subtraction of money of the same unit. Use mental maths skills. • Find discounts • Continue to solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. Use part, whole models.

Curriculum Knowledge and Skills: Mathematics

Year 1: Position and Direction	Year 2: Position and Direction
Key vocabulary – Position, over, under, underneath, above, below, top, bottom, side, on, in, outside, inside, in front, behind, front, back, before, after, beside, next to, opposite, apart, between, middle	**Key vocabulary - Position and direction: Rotation, clockwise, anticlockwise, turn, right angle, left, right.**
National Curriculum: Describe position, directions and movements, including whole, half, quarter and three-quarter turns.	**National Curriculum:** -order and arrange combinations of mathematical objects in patterns and sequences -use mathematical vocabulary to describe position, direction and movement including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).
Position and Direction: • Describe the position of objects using vocabulary: top, above, underneath, below, behind, in front, to the side, to the right, to the left, next to. • Discuss and use the terms 'left' and 'right' when describing position and turns. • Complete physical turns and describe them using the vocabulary: quarter, half, three quarter, left, right. • Use arrows to complete turns and describe where objects are e.g. I turned three quarters to the left and landed on the dinosaur. • Describe and label the position of people and objects using ordinal numbers (numerals and words) • Understand that ordinal numbers can read from left to right, right to left, top to bottom or bottom to top.	**Sequencing patterns:** • Complete linear patterns using a range of shapes. • Describe the sequence and position of the shapes in the patterns. • Make intersecting patterns. • Look at pattern blocks and identify which parts of the pattern have been repeated. • Look at a range of geometric patterns in art, such as Islamic patterns or patterns on tiles/ wallpaper/ fabric. Explain how they are constructed – shapes overlapping one another. • Create own repeating patterns using a range of media. **Rotation and right angles** • Identify and complete ¼, ½ and ¾ turns clockwise and anti-clockwise

Curriculum Knowledge and Skills: Mathematics

• Identify the position of objects from the left and the right e.g. The turtle is fourth (4th) from the left and sixth (6th) from the right. • Discuss and use ordinal numbers within buildings. • Describe position within a grid. **Link to Time:** • Understand and physically use **turns** (quarter, half turn, three- quarter turn and full turn) and **direction** (left/right) • Understand and use the terms 'clockwise' and 'anti-clockwise' when completing turns. • Link these turns to a clock face- recognise that a clock is a circle and if you split **it into quarters from the 'o-clock', you can find the quarter, half, three-quarter and full turns.** • Use spinners to carry out turns and describe them e.g I started on the 12. I made a half turn clockwise. I am now on the 6.	• Label a compass • Complete a turn when given a direction • Identify what an 'angle' is. • Understand that when the lines that meet at a point are a quarter turn, it is called a right angle. Link this to a compass • ¼ turn = a right angle • Identify right angles using a range of resources e.g. journey on a map, shapes • Provide and follow directions on a grid to reach a destination or find an object. **Link to Time:** • Complete Physical turns: a quarter turn, half turn, three-quarter turn and full turn in a clockwise/anti clockwise direction. Link these to the hands on a clock face.

Curriculum Knowledge and Skills: Mathematics

Year 1: Addition and Subtraction	Year 2: Addition and Subtraction
Key vocabulary – Number line, add, more, plus, make, sum, total, altogether, double, half, halve, equals, is the same as (including equals sign) difference, between.	**Key vocabulary – inverse.**
National Curriculum: • read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including 0 • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? - 9.	**National Curriculum:** • solve problems with addition and subtraction: i. using concrete objects and pictorial representations, including those involving numbers, quantities and measures ii. applying their increasing knowledge of mental and written methods • recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: i. a two-digit number and 1s ii. a two-digit number and 10s iii. 2 two-digit numbers iv. adding 3 one-digit numbers • show that addition of 2 numbers can be done in any order (commutative) and subtraction of one number from another cannot

Curriculum Knowledge and Skills: Mathematics

	• recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
Numbers to Ten – Part Whole Addition and Subtraction • Use part whole representations to regroup numbers within 10. • Write number sentences to accompany the part whole models. • Explore the language of addition using vocabulary such as 'total, altogether, sum, whole, split, combine, regroup' • Use tens frames to combine two totals. • Describe the number sentences using 'more than'. • Exploring commutativity: Look at the different ways to make the total and record as number sentences. • Exploring counting on using beadstrings and number lines. Discuss starting with the bigger number. • Explore ways to make 5 using pentonimoes. Record the number sentences and look for patterns. • Use regrouping to make 5 and some more (think 5) Use 5 as a benchmark. • Understand subtraction by taking away. Use objects and the part whole model. • Write number sentences to accompany the part whole models.	**Numbers to twenty- Mental addition and subtraction** • Add more than two single digit numbers using reordering. Use Cuisenaire rods and part whole models to represent addition. • Rebalance when adding 9 or 11 using bench marks on a beadstring. • Rebalance when subtracting using 10. • Use 'think addition' for subtraction. Count on using beadstrings. • Use the term 'difference' **Add and subtract numbers mentally using 1 and 2 digit numbers** • Use doubles to work out near doubles. • Use base 10 equipment to find larger doubles e.g. double 4 is 8, double 40 is 80. • Find the nearest multiple of ten by counting on/back • Rebalance for equal sum • Use rebalancing in context • Identify the difference between numbers by subitising, counting on or taking away the smaller amount from the larger number. • Rebalance to find the equal difference • Add a 1-digit number to a 2-digit number using 'think 10' • Add a 2-digit number to a 2-digit number using 'think 10' • Subtract a 1-digit number from a 2-digit number using think 10 • Choosing a strategy when solving an addition sum- near double, regroup, rebalance or base 10

Curriculum Knowledge and Skills: Mathematics

- Use tens frames and beadstrings to take away.
- Explore the language of subtraction: less, minus, take away, subtract.
- Understand that subtraction is not commutative. Use a part whole model and number sentences to explain how it is not commutative.

Numbers to Twenty – Making 10 and Some More

- Make teen numbers on a tens frame and beadstring and describe the number as '10 and __ more'.
- Represent the teen numbers using the part whole model showing 10 and the one-digit number.
- Write the number sentence 10+_=
- Use Cuisenaire rods to represent teens numbers using 10 as a benchmark e.g. 13 is 3 more than 10.
- Use base 10 and place value charts to split and regroup numbers and write the addition sum.
- Use the language '1 ten and __ ones'.

Numbers to Twenty- Doubling and Halving

- Use Cuisenaire rods to show how doubling is adding two equal parts. It is repeated addition.
- Write the number sentence.
- Use vocabulary 'altogether, equal, sum, whole, value.'
- Use a tens frame to double numbers to 10 and write the number sentence.
- Use part whole representations.

Number to Twenty - Adding using 'Think 10'

Money- Making combinations and finding change

- Find different combinations of coins that equal the same amounts of money (use cherry and bar models) Up to £2
- Solve calculations involving subtraction of money of the same unit (pounds or pence) Use counting methods and bead strings.
- Use 'think addition for subtraction' and count on using benchmarks.
- Solve simple problems in a practical context involving addition and subtraction of money of the same unit. Use mental maths skills.
- Find discounts
- Continue to solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. Use part, whole models.

Written addition

- Choose the appropriate mental strategy when adding a two-digit number and ones- 'think 20', rebalancing or base 10 equipment. Use bead strings and part whole models.
- Add two-digit numbers and tens using concrete resources and pictorial representations.
- Revise regrouping using base 10
- Use an expanded calculation with columns
- Add two 2-digit numbers using a written method with no regrouping.
- Draw and write the expanded column method.
- Add two 2-digit numbers using a written method with regrouping of ones

Commutativity in addition but not subtraction

- Review the parts and the whole using Cuisenaire rods in a bar model

Curriculum Knowledge and Skills: Mathematics

- Use tens frames to identify how to make 10 using single digit numbers. Use 5 as benchmark e.g 7 is 2 more than 5. Both the top row and bottom row contain 5.
- Write the addition sums to 10.
- Use a part whole model to represent regrouping.
- Use 'Think 10' to regroup. Represent calculation using a tens frame and part whole model.
- Use 'Think 10' when regrouping a two-digit number to aid addition- use base 10, beadstrings, tens frames and Cuisenaire rods.
- Use 'think 15' as a bench mark.

Number to Twenty - Subtraction using 'Think 10'

- Count back from 20 and use a range of vocabulary linked to subtraction: fewer, less, minus, take away.
- Subtracting 1-digit numbers from 2-digit numbers, below twenty, without crossing 10
- Subtract 1-digit numbers from numbers between 10 - 20 crossing the benchmark 10- use beadstrings and part whole models.
- Introduce 'difference between' and count on, countback and compare.
- Subtracting 1-digit numbers from numbers between 10 - 20 by regrouping and taking from the 10

Money- Coins and combinations to 20p

- Prove that addition is commutative using Cuisenaire rods and part whole models. Write down all the number sentence combinations (addition with 3 numbers)
- Prove that commutativity is not possible when subtracting using manipulatives and part whole models.
- Understand that numbers can be reordered within a subtraction number sentence (e.g. 15 - 7 = 8, 15 - 8 = 7) but that the whole always has a part taken away from it

Written subtraction

- Subtract a 1-digit number from a 2-digit number – counting back using think 10 and regrouping
- Subtract tens from a 2-digit number. Count back in 10s
- Subtract a 2-digit number from a 2-digit number with no regrouping
- Use an expanded written method with columns and base 10.
- Subtract a 2-digit number from a 2-digit number with regrouping
- Draw and write the expanded column method.

Problem solving with addition and subtraction

- Interpret the language and represent problems pictorially in familiar part whole models.
- Find the unknown in a worded problem.
- Practise using part whole models to represent word problems pictorially and as written calculations,
- Choosing a strategy- regrouping, rebalancing, think 10, part whole model, written method.
- Solve missing number calculations using part whole models and pictorial representations.
- Complete problem solving within statistics

Curriculum Knowledge and Skills: Mathematics

• Calculate coin combinations for values that do not have a designated coin below 10p using Cuisenaire rods. • Calculate coin combinations for values that do not have a designated coin between 11p and 20p	**<u>Problem solving for all operations</u>** • Choose an efficient strategy – addition and subtraction by recapping on all previous strategies. Near doubles, regrouping rebalancing, think 10, written method, base 10. • Check answers using a different method.