Maths Yearly Overview EYFS and KS1

Intent

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. Pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

In order to achieve this at Bramley C of E (VA) Infant and Nursery we intend to:

Develop a strong understanding of number including the composition of each number.
To count confidently, understanding the relationships between numbers and the associated patterns.
Provide frequent and varied opportunities to build and apply this learning
Explore the concepts of shape, space and measure and reason about these using appropriate vocabulary.
Encourage positive attitude towards maths, and help children to recognise that making mistakes are part of the learning process
Support children to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
Solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.
Make meaningful links between their maths knowledge to support their understanding in other subjects e.g. science
Use enhanced continuous provision opportunities to develop young children's learning and provide a numeral rich environment
Provide problem-solving opportunities indoors and outdoors and provide space for children to record their ideas and solutions for these.

Implementation

Staff subject knowledge allows the intentions of our mathematics curriculum to be delivered successfully. We continually strive to build upon the excellent understanding of the expectations of the curriculum that our staff have. We achieve this through regular quality CPD which is provided through the subject leader, external courses, collaborative lesson study and an annual support package from a teaching and learning consultant for mathematics. All staff are encouraged to raise questions, seek support and request further training if needed in order to ensure everyone is confident in what they teach. Good practice is always shared between staff and all CPD is used to inform teaching and learning across school. Resources and equipment are audited regularly so that children have materials of high quality and accuracy to support their learning. Our resources allow us to better use models and images to support learning in each area and enable the progression from concrete to pictorial to abstract. Children are familiar with these resources and can access them independently where needed. Curriculum maps for Key stage 1 are based on the White Rose yearly overviews which set the curriculum out in blocks enabling children to get to grips with different areas of maths through extended periods of time. Reception curriculum is structured around the NCTEM mastering number program, but is enhanced by the White Rose materials. Alongside the White Rose materials, we use many other resources to ensure that our offer is rich and varied. These include NCETM mastering number, Birth to 5 matters and NRich,– these are used across EYFS and KS1 allowing children to be exposed to a variety of different types of learning and to ensure coverage of fluency, problem solving and reasoning in different formats. Pre and post unit assessments are used where appropriate along with termly assessments which help teachers to gather an understanding of their pupil's existing and developing knowledge and skills.
Correct mathematical vocabulary is used by all teachers and this is discussed with and explained to children who are then encouraged to use it independently when talking about maths. Vocabulary is taught directly and is referred to in every lesson. Interventions for maths are in place for children with SEND; all other children receive regular group support as part of their maths lessons with further support for individuals or small groups where a need is identified. Fluency is developed through repeating, reinforcing and revising key skills; daily arithmetic takes place in all classes. Children are given time to practice and perfect their calculation strategies including giving pupils the opportunity to make appropriate decisions when estimating, calculating and evaluating the effectiveness of their chosen methods. Feedback is given in a variety of ways to ensure pupils are well informed and making visible progress. Discussion is essential to learning and children are encouraged to discuss their thoughts, ideas and methods with a partner, group or the teacher. Task types are varied to suit different pupils and their learning preferences; developing reasoning remains one of our key focuses. Investigative tasks are designed to allow pupils to follow lines of enquiry and develop their own ideas, justifying and proving their answers. Children work both collaboratively and independently when solving problems which require them to persevere and develop resilience.

Impact

As a result of our teaching at Bramley Infant and Nursery school you will see:

Children who can count confidently and make reason about the associated patterns
Children who are able to 'have a go' and apply their learning in different contexts
Children who are curious and able to explore pattern in both number and shape in their environment
Children who have able to use fluency in number facts to explore new and challenging problems
Children who can reason about their understanding making links to prior knowledge
Children who can represent problems orally, pictorially and using abstract representation e.g. Numbers

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	**Topic: Autumn**	**Topic: Light and Dark**	**Topic: Nursery rhymes**	**Topic: New life and Easter**	**Topic: Friends and family**	**Topic: Courage**
	Comparison					
	Responds to words like *lots* or *more* (R3)	Responds to words like *lots* or *more* (R3)	Beginning to compare and recognise changes in number of things, using words like *more, lots* or *same* (R4)	Beginning to compare and recognise changes in number of things, using words like *more, lots* or *same* (R4)		Beginning to compare and recognise changes in number of things, using words like *more, lots* or *same* (R4)
	Counting					
	Begin to say numbers, some of which are in the right order (ordinality) (R4)		Begin to say numbers, some of which are in the right order (ordinality) (R4)			Beginning to say numbers in order, some of which is in the right order (ordinality) (R4)
	Cardinality					

	Use number words like one or two and sometimes responds accurately when asked to give one or two things (R3)	In everyday situations takes or gives two or three objects from a group (R4)	In everyday situations takes or gives two or three objects from a group (R4)	Begin to notice numerals (R4) Beginning to count on their fingers (R4)	Begin to notice numerals (R4) Beginning to count on their fingers (R4)	Begin to notice numerals (R4) Beginning to count on their fingers (R4)
	Spatial awareness					
	Begins to remember their way around familiar environment (R4)	Moves their bodies and toys around objects and explores fitting into spaces (R4)	Responds to some spatial and positional language (R4)	Moves their bodies and toys around objects and explores fitting into spaces (R4)	Responds to some spatial and positional language (R4)	Explores how things look from different viewpoints including things that are near or far. (R4)
	Shape					
	Choose puzzle pieces and tries to fit them in (R4)	Recognises that two objects have the same shape (R4)	Makes simple constructions (R4)	Recognises that two objects have the same shape (R4)		Makes simple constructions (R4)
	Pattern					
	Joins in and anticipates repeated sounds and actions (R4)		Is interested in what happens next using the pattern of everyday routines (R4)	Explores differences in size, length, weight and capacity (R4)		
	Measures					
	Beginning to understand some talk about immediate past and future (R4)	Beginning to understand that things may happen now or at another time, in routines (R4)		Beginning to anticipate times of the day such as mealtimes or home time (R4)	Beginning to understand some talk about immediate past and future (R4)	Explores differences in size, length, weight and capacity (R4)
Pre-School	**Topic: All about me**	**Topic: Autumn and celebrations**	**Topic: Traditional tales**	**Topic: Under the sea**	**Topic: Farms and farm animals**	**Topic:minibeast**
	Comparison					
		.		Compares two small groups of objects, saying when they are the same. (R5)	Compares two small groups of objects, saying when they are the same. (R5)	To compare two groups of objects, saying when they have the same number or when one group has more or less than the other. (R5)
	Counting					
	Enjoying counting out loud as far as they can go (R5) Beginning to recognise numerals to 10. (R5)	Enjoying counting out loud as far as they can go. (R5) Recognising numerals to 10. (R5)	Enjoying counting out loud as far as they can go. (R5) Recognising numerals to 10. (R5) PS1 - Engaging and joining in with number rhymes, stories and songs. PS2 – Points or touches each item, saying one number for each item. (R5)	PS1 - Engaging and joining in with number rhymes, stories and songs. PS2 – Points or touches each item, saying one number for each item. Recognising numerals to 10. (R5) Links numerals with amounts up to 5. (R5)	Recognising numerals to 10. Uses number names and language in play. (R5) *PS2 – Points or touches each item, saying one number for each item. (R5)	Counts an irregular arrangement of up to 10 objects, using strategies such as lining the objects up and touching each object as they count. (R5)
	Cardinality					
			Counts up to 5 items, recognising the last number represents the total counted. (R5)	Counts up to 5 items, recognising the last number represents the total counted. (R5)	Counts up to 5 items, recognising the last number represents the total counted (R5) Links numerals with amounts up to 5 (and beyond for *PS2). (R5) Explores using a range of their own marks and signs to which they ascribe mathematical meanings (R5)	Matches numeral and quantity correctly, with support if needed. Links numerals with amounts up to 5 (and beyond for *PS2). (R5) Knows that numbers identify how many objects are in a set. (R5) Explores using a range of their own marks and signs to which they ascribe mathematical meanings (R5)
	Composition					
	Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers (R5)		Beginning to use understanding of number to solve practical problems in meaningful activities.(R5)	Beginning to learn that numbers are made up of smaller numbers. (R5) Beginning to use understanding of number to solve practical problems in meaningful activities.(R5)	Beginning to learn that numbers are made up of smaller numbers. (R5) Recognising that each number is one more than the one before. (R5)	PS2 Separates a group of 3 or 4 objects in different ways, beginning to recognise that the total is still the same (R5)
	Spatial awareness					
	Creating their own spatial patterns. Responding to the language of position and direction. (R5)	Creating their own spatial patterns (R5) Choosing items appropriately based on their shape during construction activities. (R5)	Subitises one, two and three objects without counting. Predicts, moves and rotates objects to fit the space or create the shape they would like (R5)	Subitises one, two and three objects without counting.	Predicts, moves and rotates objects to fit the space or create the shape they would like (R5)	Subitises one, two and three objects without counting
	Shape					

	Showing awareness of shape similarities and differences between objects. Choosing items appropriately based on their shape during construction activities.	Showing awareness of shape similarities and differences between objects.	Responds to both informal language and common shape names.	Responds to both informal language and common shape names.	Responds to both informal language and common shape names.	Use familiar objects to create, and recreate, patterns and models. To talk about the shapes of everyday objects.
	Pattern					
	Engaging and joining in with sounds, number rhymes, stories and songs.(R5)	Engaging and joining in with sounds, number rhymes, stories and songs.(R5)	Creates their own spatial patters showing some organisation or regularity (R5)	Explore and adds to simple linear patterns of two or three repeating items (R5)	Creates their own spatial patters showing some organisation or regularity (R5)	Explore and adds to simple linear patterns of two or three repeating items (R5)
	Measures					
	Recalls a sequence of events in everyday life and stories (R5)	Finding the longer/shorter, heavier/lighter and more/less full of two items.	Finding the longer/shorter, heavier/lighter and more/less full of two items.		PS1 Recalls a sequence of events in everyday life and stories (R5)	PS1 Recalls a sequence of events in everyday life and stories (R5)
Reception **Mastering number** **White Rose**	**Topic: All about me**	**Topic: Light and dark**	**Topic: Storytelling**	**Topic: Storytelling**	**Topic: Not a box**	**Topic: Pirates**
	Comparison					
	Understand that sets can be compared according to a range of attributes, use the language of comparison, including 'more than' and 'fewer than'. Compares two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two, I've got two. Same! (R5) Uses number names and symbols when comparing numbers, showing interest in large numbers (R6)	Compare sets using a variety of strategies, including 'just by looking', by subitising and by matching Compares two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two, I've got two. Same! (R5) Uses number names and symbols when comparing numbers, showing interest in large numbers (R6) Estimates of numbers of things, showing understanding of relative size (R6)	Compare sets using the language of comparison, and compare sets by matching, identifying when sets are equal Compares two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two, I've got two. Same! (R5) Estimates of numbers of things, showing understanding of relative size (R6)	Begin to link even numbers to doubles Compare numbers, reasoning about which is more, using both an understanding of the 'howmanyness' of a number, and its position in the number system.	Order sets of objects, linking this to their understanding of the ordinal number system. Uses number names and symbols when comparing numbers, showing interest in large numbers (R6)	In this half-term, the children will consolidate their understanding of concepts previously taught through working in a variety of contexts and with different numbers.
	Counting					
	Explore a range of strategies which support accurate counting. Have opportunities to develop an understanding that anything can be counted Have a wide range of opportunities to develop 1:1 correspondence	Develop their counting skills Begin to count beyond 5 Begin to recognise numerals	Develop verbal counting to 20 and beyond Develop object counting skills Link counting to cardinality and ordinal representations Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0 (R6)	Become more familiar with the counting pattern beyond 20. Increasingly confident at putting numerals in order 0 to 10 (ordinality) (R6)	Continue to develop verbal and object counting to 20 and beyond, Identify when it is appropriate to count and when groups can be subitised. Increasingly confident at putting numerals in order 0 to 10 (ordinality) (R6)	
	Cardinality					
	Relate the counting sequence to cardinality. See that all numbers can be made of 1s Links numerals with amounts up to 5 and maybe beyond (R5) Matches the numeral with a group of items to show how many there are (up to 10) (R6)	Explore the cardinality of 5, linking this to dice patterns and 5 fingers	Counts out up to 10 objects from a larger group (R6) Matches the numeral with a group of items to show how many there are (up to 10) (R6)	Consolidate their understanding of cardinality, working with larger numbers within 10 Counts out up to 10 objects from a larger group (R6) Matches the numeral with a group of items to show how many there are (up to 10) (R6)	Matches the numeral with a group of items to show how many there are (up to 10) (R6)	
	Composition					
	Compose their own collections within 4.	Explore the concept of 'wholes' and 'parts'	Explore the composition of 5 and 6 and recall 'missing' or 'hidden' parts for 5	Explore the composition of odd and even numbers,	Explore the composition of 10.	Have a deep understanding of number to 10, including the composition of each number; (ELG)

		Explore the composition of numbers within 5. Beginning to recognise that each counting number is one more than the one before (R5) Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers (R5) Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same (R5) In practical activities, adds one and subtracts one with numbers to 10 (R6) Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects (R6)	Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects (R6)	Begin to explore the composition of numbers within 10. Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects (R6)	Begins to conceptually subitise larger numbers by subitising smaller groups within the number (R6) In practical activities, adds one and subtracts one with numbers to 10 (R6)	Subitise (recognise quantities without counting) up to 5; (ELG) Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. (ELG)
	Spatial awareness					
	Perceptually subitise within 3 Identify sub-groups in larger arrangements Responds to and uses language of position and direction (R5)	Continue subitise within 5, perceptually and conceptually,	Subitising patterns within 5 as well as some greater than 5.	To be able to follow and give directions.	Practise familiar subitising Subitise structured and unstructured patterns Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints (R6) Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning) (R6)	Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning) (R6) May enjoy making simple maps of familiar and imaginative environments, with landmarks (R6)
	Shape					
		Responds to both informal language and common shape names (R5) Chooses items based on their shape which are appropriate for the child's purpose (R5) Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes (R6)		Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build (R6) Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes (R6)		
	Pattern					
	Create their own patterns for numbers within 4 Experience subitising in a range of contexts Joins in with simple patterns in sounds, objects, games and stories dance and movement, predicting what comes next (R5)	, creating arrangements and repeating patterns.	Explore a range of patterns made by some numbers greater than 5, Experience patterns which show a small group and '1 more' Explore ways of making unequal sets equal. Creates their own spatial patterns showing some organisation or regularity (R5)	Explore symmetrical patterns, linking this to 'doubles'. Spots patterns in the environment, beginning to identify the pattern "rule" (R6) Chooses familiar objects to create and recreate repeating patterns beyond AB patterns and begins to identify the unit of repeat (R6)	Use subitising skills to identify when patterns show the same number	Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally (ELG)

	Spots patterns in the environment, beginning to identify the pattern "rule" (R6)					
	Measures					
		Recalls a sequence of events in everyday life and stories (R5) Beginning to experience measuring time with timers and calendars (R6)	Becomes familiar with measuring tools in everyday experiences and play (R6) Enjoys tackling problems involving prediction and discussion of comparisons of, weight or capacity, paying attention to fairness and accuracy (R6)	Beginning to experience measuring time with timers and calendars (R6) Enjoys tackling problems involving prediction and discussion of comparisons of, length, paying attention to fairness and accuracy (R6)		
Year One **Mastering number** **White Rose**	**White Rose topic:** **Place Value (within 10)**	**White Rose topic:** **Addition and subtraction (within 10)** **Shape**	**White Rose topic:** **Place Value (within 20)** **Addition and subtraction (within 20)**	**White Rose topic:** **Place Value (within 50)** **Length and height** **Mass and volume**	**White Rose topic:** **Multiplication and division** **Fractions** **Money**	**White Rose topic:** **Place Value (within 100)** **Time** **Position and direction**
	Number and place value					
	Subitising within 5 using perceptual subitising Conceptual subitising of numbers larger than 5 Linear number system within 10, looking at a range of ordinal representations Composition of odd and even numbers Count to and across 10, forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers up to 10 in numerals. Given a number, identify one more or one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. Read and write numbers to 10 in numerals and words		Conceptual subitising of numbers larger than 5 Compare numbers within 10 Count to and across 20, forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers up to 20 in numerals. Given a number, identify one more or one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. Read and write numbers to 20 in numerals and words	Conceptual subitising of numbers larger than 5 Linear number system within 10, looking at a range of representations Composition of odd and even numbers linked to doubles and near doubles Count to and across 50, forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers up to 50 in numerals. Given a number, identify one more or one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. Read and write numbers to 50 in numerals and words	Conceptual subitising of numbers larger than 5 Linear number system to 20, looking at a range of representations Compare numbers within 20, including questions which use the symbols +, <, >, or =, such as: True or false? 10 + 4 < 14 10 + 4 = 14 10 4 > 14	Conceptual subitising of numbers larger than 5 Composition of numbers, to calculations within 10 and 20. Answer questions using the inequality symbol. Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers up to 100 in numerals. Given a number, identify one more or one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. Read and write numbers to 100 in numerals and words
	Addition and subtraction					
	Composition of numbers within 10, with a particular emphasis on the composition of numbers 6, 7, 8 and 9 as '5 and a bit', Read, write and interpret mathematical statements involving addition (+), and equals (=) signs. Represent and use number bonds and related subtraction facts within 10 Add and subtract one digit numbers to 20, including zero.	Explore the composition of 10, developing a systematic approach to finding pairs that sum to 10. Read, write and interpret mathematical statements involving addition (+), and equals (=) signs. Represent and use number bonds and related subtraction facts within 10 Subtract one digit numbers to 10, including zero.	Review the composition of numbers within 10 Use the inequality symbol to create expressions, e.g. 7 > 2, and use the language of 'greater than' and 'less than' Reason about inequalities, Develop their recall of number bonds within 10 Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs	Explore the composition of the numbers 11–20 Continue to develop their recall of bonds within 10	Explore representations of composition of numbers within 20. Develop their fluency in additive relationships within 10, using a range of activities and games Use knowledge of the composition of numbers to complete written equations Revisit strategies for addition and subtraction within 10 and apply these to a range of questions, including written equations.	Additive facts within 20, applying knowledge of the composition of numbers within 20 and strategies within 10.

			Represent and use number bonds and related subtraction facts within 20 Add and subtract one-digit and two-digit numbers to 20, including zero Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = x – 9.			
	Multiplication and division					
					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.	
	Fractions					
					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	
	Measurement					
				Compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] Measure and begin to record the following: lengths and heights mass/weight capacity and volume	Recognise and know the value of different denominations of coins and notes	Compare, describe and solve practical problems for: time [for example, quicker, slower, earlier, later] Measure and begin to record the following: time (hours, minutes, seconds) Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] 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.
	Geometry-properties of shapes					
		Recognise and name common 2-D shapes, including: (for example, rectangles (including squares), circles and triangles) Recognise and name common 3-D shapes, including: (for example, cuboids (including cubes), pyramids and spheres.)				
	Geometry-position and direction					
						Describe position, direction and movement, including whole, half, quarter and three-quarter turns.
Year Two **Mastering number** **White Rose**	**White Rose topic:** **Place Value** **Addition and Subtraction**	**White Rose topic:** **Addition and Subtraction** **Shape** **Money**	**White Rose topic:** **Money** **Multiplication and division** **Fractions**	**White Rose topic:** **Multiplication and division** **Length and height** **Mass capacity and temperature** **Time**	**White Rose topic:** **Time** **Statistics** **Fractions**	**White Rose topic:** **Positions and direction** **Time**

				Multiplication and division		
Number and place value						
Develop conceptual subitising skills within 10 and understand their composition Explore the linear number system within 10, looking at a range of representations Composition of odd and even numbers count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward recognise the place value of each digit in a two-digit number (tens, ones) identify, represent and estimate numbers using different representations, including the number line compare and order numbers from 0 up to 100; use and = signs read and write numbers to at least 100 in numerals and in words use place value and number facts to solve problems.	Develop conceptual subitising skills within 10 and understand their composition Explore the linear number system within 10, looking at a range of representations Explore the composition of the numbers 7–9 in-depth, link this to understanding of odd and even numbers Compare numbers within 10, link this to their understanding of the linear number system	Develop conceptual subitising skills within 10 and the composition of 'teen' numbers.	Develop conceptual subitising skills within 10 and the composition of 'teen' numbers. Explore the linear number system within 20 Composition of odd and even numbers including double and near double	Explore the linear number system within 100 Develop understanding of the composition of numbers within 10 and 20. Reason about equalities and inequalities using equations and answering questions, such as: True or false? 5 + 3 = 6 + 2 9 + 4 > 9 + 5 9 + 6 < 10 + 5	
Addition and subtraction						
Composition of numbers within 10, with a particular emphasis on the composition of numbers 6, 7, 8 and 9 as '5 and a bit', Link understanding of the composition of numbers within 10 to the related additive facts, including adding 2 to an odd or even number Practise recalling facts in a variety of ways, including through solving simple picture problems and completing equations with a missing sum or addend 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 Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones - a two-digit number and tens	Use knowledge of number bonds to answer questions in the form: True or false? 5 + 3 > 7 Recall additive facts for numbers within 10, using a range of equations, and picture problems. 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 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 - adding three one-digit numbers Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot	Review the composition of 11 to 19 as 'ten and a bit' and represent this. Number bonds within 10 presented in the part-part-whole structure, including identifying a missing 'part' and relating this to subtraction equations Review strategies for adding 1 and 2 to odd and even numbers to subtraction facts			

	- two two-digit numbers - adding three one-digit numbers Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.				
	Multiplication and division					
			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 Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	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 Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.		
	Fractions					
			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 .	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, 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 .	
	Measurement					
		Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value	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	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
	Geometry-properties of shapes					
		Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line				

		Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] Compare and sort common 2-D and 3-D shapes and everyday objects				
	Geometry-position and direction					
						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 anticlockwise).
	Statistics					
					Interpret and construct simple pictograms, tally charts, block diagrams and simple tables 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	