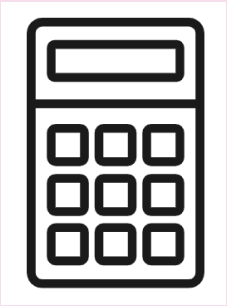
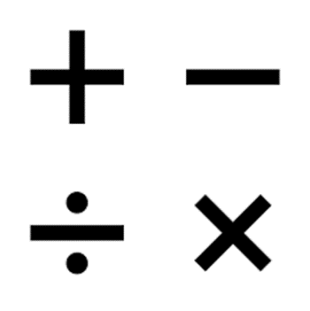
Meole Brace
C of E Primary School and Nursery

Mathematics Handbook





Our vision and rationale for Mathematics

Meole Brace mathematics vision statement

Meole Brace Primary School is developing an approach to mathematics which assumes everyone can learn and enjoy mathematics and involves all children developing a deep, connected understanding of mathematical concepts and procedures, using a mastery approach. We aspire to offer the best opportunity for all pupils to persevere to achieve the aims of the National Curriculum in Mathematics - to be fluent in the fundamentals of mathematics, to reason mathematical and to solve problems. As stated in the National Curriculum, the majority of pupils will be working broadly at the same pace; teachers plan for sufficient whole class teaching time to explore a concept or procedure deeply, and in different ways (using variation) through small sequential steps. Mathematical learning behaviours are developed such that pupils focus and engage fully as learners who reason and seek to make connections. Curriculum design ensures a coherent and detailed sequence of essential content responding appropriately to the needs of the children to support sustained progression over time. To achieve this, our curriculum offer ensures pupils develop their declarative, procedural, and conditional knowledge. We develop declarative knowledge by teaching the mathematical facts, concepts and rules, the procedural knowledge by ensuring pupils know how to perform the steps in a process and the conditional knowledge by providing children with the ability to know when to use a procedure, skill, or strategy.

In line with our school value of community, we encourage pupils to support each other in their learning. Discussion and questioning between teachers and pupils, and pupils and pupils, encourages all children to develop a greater depth of understanding through challenging each other's ideas, reasoning, and justifying, using learned mathematical vocabulary. Children are encouraged and supported to explain their thinking to their peers; this promotes a sense of community and encourages respect whilst continuing to develop their own understanding. Teacher questioning during these times also ensures that pupils are being sufficiently challenged, consolidating ideas, making connections across the subject and deepening understanding.

Through a rich and interconnected curriculum, every child is encouraged to persevere to progress in their learning, thinking creatively and flexibly to solve problems. Mathematical concepts are re-visited with the whole class throughout the year to embed knowledge in pupils' memories and develop fluency. As pupils grasp the concepts and procedures being studied, they are given further challenge through extra reasoning tasks and being asked to justify their answer through explanation and models of proof, rather than being accelerated into new content. Teaching provides scaffolding to all children using appropriate representations, consistency in vocabulary and making connections with prior learning. Teachers continually develop their specialist knowledge for teaching mathematics, working collaboratively to refine and improve their teaching to ensure pupils receive high-quality, well-informed teaching.

For children with SEND, we provide an inclusive curriculum which entitles all children to the same experiences. Teachers plan and adapt appropriate tasks to support and develop 'next steps' in learning. To ensure that all children feel part of the class community, children engage in all aspects of the mathematics offered to the rest of the class, so that they are supported to develop understanding of new concepts appropriate to their year group and progress within these throughout the year. At Meole Brace C of E Primary School and Nursery we believe that Mathematics is an essential life skill and is used in every-day life to cook, measure, build, shop and solve problems. We value the problem-solving nature of the subject and develop perseverance through investigation and discussion. Striving to develop a lifelong love of learning, we encourage questioning, and reasoning alongside explanation, to engage the children in the subject and acquire a depth of understanding.

Curriculum Subject Leaders

Mrs Karen Cooke

Miss Louise Morris

National Curriculum Progression for Mathematics

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number and place Value						
Counting						
Count objects and understand that counting helps me find the number in a set. Count forwards and backwards to and from 20	count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number			count backwards through zero to include negative numbers	interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	use negative numbers in context, and calculate intervals across zero
	count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward	count from 0 in multiples of 4, 8, 50 and 100;	count in multiples of 6, 7, 9, 25 and 1000	count forwards or backwards in steps of powers of 10 for any given number up to 1000 000	
Compare objects and quantities and talk about them using the words: bigger/ smaller, heavier/ lighter, longer/ taller/shorter. Compare sets of objects and numbers and use the language of more than/ fewer	given a number, identify one more and one less		find 10 or 100 more or less than a given number	find 1000 more or less than a given number		

than, less and the same.						
Comparing numbers						
	use the language of: equal to, more than, less than (fewer), most, least	compare and order numbers from 0 up to 100; use <, > and = signs	compare and order numbers up to 1000	order and compare numbers beyond 1 000	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)
				compare numbers with the same number of decimal places up to two decimal places (copied from Fractions)		
IDENTIFYING, REPRESENTING AND ESTIMATING NUMBERS						
I can subitise (see and say) arrangements of up to five and start to subitise beyond five.	identify and represent numbers using objects and pictorial representations including the number line	identify, represent and estimate numbers using different representations, including the number line	identify, represent and estimate numbers using different representations	identify, represent and estimate numbers using different representations		
READING AND WRITING NUMBERS (including Roman Numerals)						

	read and write numbers from 1 to 20 in numerals and words.	read and write numbers to at least 100 in numerals and in words	read and write numbers up to 1000 in numerals and in words		read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Comparing Numbers)	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Understanding Place Value)
			tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks (copied from Measurement)	read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.	read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	
UNDERSTANDING PLACE VALUE						
		recognise the place value of each digit in a two-digit number (tens, ones)	recognise the place value of each digit in a three-digit number (hundreds, tens, ones)	recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers) *recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents* (copied from Fractions)	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)

				find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths (copied from Fractions)		*identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places* (copied from Fractions)
ROUNDING						
				round any number to the nearest 10, 100 or 1 000	round any number up to 1 000 000 to the nearest 10, 100, 1 000, 10 000 and 100 000	round any whole number to a required degree of accuracy
				round decimals with one decimal place to the nearest whole number (copied from Fractions)	*round decimals with two decimal places to the nearest whole number and to one decimal place* (copied from Fractions)	*solve problems which require answers to be rounded to specified degrees of accuracy* (copied from Fractions)
PROBLEM SOLVING						
		use place value and number facts to solve problems	solve number problems and practical problems involving these ideas.	solve number and practical problems that involve all of the above and with increasingly large positive numbers	solve number problems and practical problems that involve all of the above	solve number and practical problems that involve all of the above
Number- Addition and Subtraction						
NUMBER BONDS						

talk about 'parts' and 'wholes' when exploring objects (e.g. cake) and sets of objects, and know that the parts of a number can help me remember number facts.	represent and use number bonds and related subtraction facts within 20	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100				
MENTAL CALCULATION						
Solve practical problems including numbers of objects changing, e.g. children coming and going from the painting table,	add and subtract one-digit and two-digit numbers to 20, including zero	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	add and subtract numbers mentally, including: * a three-digit number and ones * a three-digit number and tens * a three-digit number and hundreds		add and subtract numbers mentally with increasingly large numbers	perform mental calculations, including with mixed operations and large numbers
	read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs	show that addition of two numbers can be done in any order (commutative)				use their knowledge of the order of operations to carry out calculations

	(appears also in Written Methods)	and subtraction of one number from another cannot				involving the four operations
WRITTEN METHODS						
	read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Mental Calculation)		add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	
INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS						
		recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	estimate the answer to a calculation and use inverse operations to check answers	estimate and use inverse operations to check answers to a calculation	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.
PROBLEM SOLVING						
solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems	solve problems with addition and subtraction: * using concrete objects and pictorial representations, including those involving numbers, quantities and measures	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	

	applying their increasing knowledge of mental and written methods					
	solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change (copied from Measurement)				Solve problems involving addition, subtraction, multiplication and division	
MULTIPLICATION & DIVISION FACTS						
	count in multiples of twos, fives and tens (copied from Number and Place Value)	*count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward* (copied from Number and Place Value)	*count from 0 in multiples of 4, 8, 50 and 100* (copied from Number and Place Value)	*count in multiples of 6, 7, 9, 25 and 1 000* (copied from Number and Place Value)	*count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000* (copied from Number and Place Value)	
Solve practical problems including numbers of objects changing, e.g. doubling, halving and sharing.		recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers	recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	recall multiplication and division facts for multiplication tables up to 12 × 12		
MENTAL CALCULATION						
			write and calculate mathematical statements for multiplication and division using the	use place value, known and derived facts to multiply and divide mentally,	multiply and divide numbers mentally drawing upon known facts	perform mental calculations, including with mixed operations and large numbers

			multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods (appears also in Written Methods)	including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers		
		show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot		recognise and use factor pairs and commutativity in mental calculations (appears also in Properties of Numbers)	multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	*associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $^3/_8$)* (copied from Fractions)
WRITTEN CALCULATION						
		calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods (appears also in Mental Methods)	multiply two-digit and three-digit numbers by a one-digit number using formal written layout	multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers	multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
					divide numbers up to 4 digits by a one-digit number using	divide numbers up to 4-digits by a two-digit whole number using

					the formal written method of short division and interpret remainders appropriately for the context	the formal written method of short division where appropriate for the context divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
						use written division methods in cases where the answer has up to two decimal places (copied from Fractions (including decimals))
PROPERTIES OF NUMBERS: MULTIPLES, FACTORS, PRIMES, SQUARE AND CUBE NUMBERS						
				recognise and use factor pairs and commutativity in mental calculations (repeated)	identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	identify common factors, common multiples and prime numbers *use common factors to simplify fractions; use common multiples to express fractions in*

						the same denomination (copied from Fractions)
					know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	
					establish whether a number up to 100 is prime and recall prime numbers up to 19	
					recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	*calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3) and cubic metres (m^3), and extending to other units such as mm^3 and km^3* (copied from Measures)
ORDER OF OPERATIONS						
						use their knowledge of the order of operations to carry out calculations involving the four operations

INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS						
			estimate the answer to a calculation and use inverse operations to check answers (copied from Addition and Subtraction)	*estimate and use inverse operations to check answers to a calculation* (copied from Addition and Subtraction)		use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy
PROBLEM SOLVING						
	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	solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	solve problems involving addition, subtraction, multiplication and division
					solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	
					solve problems involving multiplication and	*solve problems involving similar shapes where the*

					division, including scaling by simple fractions and problems involving simple rates	*scale factor is known or can be found* (copied from Ratio and Proportion)
Number: FRACTIONS (including decimals and percentages)						
COUNTING IN FRACTIONAL STEPS						
		Pupils should count in fractions up to 10, starting from any number and using the1/2 and 2/4 equivalence on the number line (Non Statutory Guidance)	count up and down in tenths	count up and down in hundredths		
RECOGNISING FRACTIONS						
Fold shapes and find half. Use the language of half. Know that halves are equal parts.	recognise, find and name a half as one of two equal parts of an object, shape or quantity	recognise, find, name and write fractions $^{1}/_{3}$, $^{1}/_{4}$, $^{2}/_{4}$ and $^{3}/_{4}$ of a length, shape, set of objects or quantity	recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten	recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence)	
			recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10.			

	recognise, find and name a quarter as one of four equal parts of an object, shape or quantity		recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators			
COMPARING FRACTIONS						
			compare and order unit fractions, and fractions with the same denominators		compare and order fractions whose denominators are all multiples of the same number	compare and order fractions, including fractions >1
COMPARING DECIMALS						
				compare numbers with the same number of decimal places up to two decimal places	read, write, order and compare numbers with up to three decimal places	identify the value of each digit in numbers given to three decimal places
ROUNDING INCLUDING DECIMALS						
				round decimals with one decimal place to the nearest whole number	round decimals with two decimal places to the nearest whole number and to one decimal place	solve problems which require answers to be rounded to specified degrees of accuracy
EQUIVALENCE (INCLUDING FRACTIONS, DECIMALS AND PERCENTAGES)						
		write simple fractions e.g. $^1/_2$ of 6 = 3 and recognise the equivalence of $^2/_4$ and $^1/_2$.	recognise and show, using diagrams, equivalent fractions with small denominators	recognise and show, using diagrams, families of common equivalent fractions	identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	use common factors to simplify fractions; use common multiples to express fractions in the same denomination
				recognise and write decimal equivalents	read and write decimal numbers as	associate a fraction with division and calculate decimal

				of any number of tenths or hundredths	fractions (e.g. 0.71 = $^{71}/_{100}$)	fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $^{3}/_{8}$)
					recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	
				recognise and write decimal equivalents to $^{1}/_{4}$; $^{1}/_{2}$; $^{3}/_{4}$	recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator 100 as a decimal fraction	recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
ADDITION AND SUBTRACTION OF FRACTIONS						
			add and subtract fractions with the same denominator within one whole (e.g. $^{5}/_{7}$ + $^{1}/_{7}$ = $^{6}/_{7}$)	add and subtract fractions with the same denominator	add and subtract fractions with the same denominator and multiples of the same number	add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
					recognise mixed numbers and improper fractions and convert from one form to the other and write	

					mathematical statements > 1 as a mixed number (e.g. $^{2}/_{5} + {}^{4}/_{5} = {}^{6}/_{5} = 1\,{}^{1}/_{5}$)	
MULTIPLICATION AND DIVISION OF FRACTIONS						
					multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $^{1}/_{4} \times {}^{1}/_{2} = {}^{1}/_{8}$)
						multiply one-digit numbers with up to two decimal places by whole numbers
						divide proper fractions by whole numbers (e.g. $^{1}/_{3} \div 2 = {}^{1}/_{6}$)
MULTIPLICATION AND DIVISION OF DECIMALS						
						multiply one-digit numbers with up to two decimal places by whole numbers
				find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones,		multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places

				tenths and hundredths		
						identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
						associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $^{3}/_{8}$)
						use written division methods in cases where the answer has up to two decimal places
PROBLEM SOLVING						
			solve problems that involve all of the above	solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the	solve problems involving numbers up to three decimal places	

				answer is a whole number		
				solve simple measure and money problems involving fractions and decimals to two decimal places.	solve problems which require knowing percentage and decimal equivalents of $^{1}/_{2}$, $^{1}/_{4}$, $^{1}/_{5}$, $^{2}/_{5}$, $^{4}/_{5}$ and those with a denominator of a multiple of 10 or 25.	
RATIO AND PROPORTION						
						solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
						solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
						solve problems involving similar shapes where the scale factor is known or can be found

						solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
ALGEBRA						
EQUATIONS						
Explore and notice patterns in shape and numbers.	*solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and* ***missing number problems*** *such as* *7 = □ - 9* (copied from Addition and Subtraction)	*recognise and use the inverse relationship between addition and subtraction and use this to check calculations and* ***missing number*** *problems.* (copied from Addition and Subtraction)	solve problems, *including* ***missing number*** *problems, using number facts, place value, and more complex addition and subtraction.* (copied from Addition and Subtraction)		*use the properties of rectangles to deduce related facts and find* ***missing lengths and angles*** (copied from Geometry: Properties of Shapes)	express missing number problems algebraically
			solve problems, including ***missing number*** *problems, involving multiplication and division, including integer scaling* (copied from Multiplication and Division)			
		recall and use addition and subtraction facts to 20 fluently, and derive and use				find pairs of numbers that satisfy number sentences involving two unknowns

		related facts up to 100 (copied from Addition and Subtraction)				
	represent and use number bonds and related subtraction facts within 20 (copied from Addition and Subtraction)					enumerate all possibilities of combinations of two variables
FORMULAE						
				Perimeter can be expressed algebraically as 2(a + b) where a and b are the dimensions in the same unit. *(Copied from NSG measurement)*		use simple formulae
						*recognise when it is possible to use **formulae** for area and volume of shapes* (copied from Measurement)
SEQUENCES						
	sequence events in chronological order using language such as: before and after, next, first, today, yesterday,	*compare and sequence intervals of time* (copied from Measurement)				generate and describe linear number sequences

	tomorrow, morning, afternoon and evening (copied from Measurement)					
MEASUREMENT						
COMPARING AND ESTIMATING						
Measure things in different ways using objects and equipment.	compare, describe and solve practical problems for: * lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half] * mass/weight [e.g. heavy/light, heavier than, lighter than] * capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter] time [e.g. quicker, slower, earlier, later]	compare and order lengths, mass, volume/capacity and record the results using >, < and =		estimate, compare and calculate different measures, including money in pounds and pence (also included in Measuring)	calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes (also included in measuring)	calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3) and cubic metres (m^3), and extending to other units such as mm^3 and km^3.
					estimate volume (e.g. using 1 cm^3 blocks to build cubes and cuboids) and capacity (e.g. using water)	
	sequence events in chronological order using language [e.g.	compare and sequence intervals of time	compare durations of events, for example to calculate the time taken			

	before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]		by particular events or tasks			
			estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight (appears also in Telling the Time)			
MEASURING and CALCULATING						
	measure and begin to record the following: * **lengths and heights** * **mass/weight** * **capacity and volume** * **time** (hours, minutes, seconds**)**	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	measure, compare, add and subtract: **lengths** (m/cm/mm); **mass** (kg/g); **volume/capacity** (l/ml)	estimate, compare and calculate **different measures,** including **money in pounds and pence** (appears also in Comparing)	use all four operations to solve problems involving measure (e.g. **length, mass, volume, money**) using decimal notation including scaling.	solve problems involving the calculation and conversion of **units of measure**, using decimal notation up to three decimal places where appropriate (appears also in Converting)

			measure the **perimeter** of simple 2-D shapes	measure and calculate the **perimeter** of a rectilinear figure (including squares) in centimetres and metres	measure and calculate the **perimeter** of composite rectilinear shapes in centimetres and metres	recognise that shapes with the same areas can have different **perimeters** and vice versa
	recognise and know the value of different denominations of **coins and notes**	recognise and use symbols for pounds **(£) and pence (p)**; combine amounts to make a particular value	add and subtract amounts of **money** to give change, using both £ and p in practical contexts			
		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				
				find the area of rectilinear shapes by counting squares	calculate and compare the area of squares and rectangles including	calculate the area of parallelograms and triangles

					using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes *recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})* (copied from Multiplication and Division)	
						calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [e.g. mm^3 and km^3].
						recognise when it is possible to use formulae for area and volume of shapes
TELLING THE TIME						
	tell the time to the hour and half past the hour and draw the hands on	tell and write the time to five minutes,	tell and write the time from an analogue clock, including using Roman	read, write and convert time between		

	a clock face to show these times.	including quarter past/to the hour and draw the hands on a clock face to show these times.	numerals from I to XII, and 12-hour and 24-hour clocks	analogue and digital 12 and 24-hour clocks (appears also in Converting)		
	recognise and use language relating to dates, including days of the week, weeks, months and years	know the number of minutes in an hour and the number of hours in a day. (appears also in Converting)	estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight (appears also in Comparing and Estimating)			
				solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Converting)	solve problems involving converting between units of time	
CONVERTING						
		know the number of minutes in an hour and the number of hours in a day.	know the number of seconds in a minute and the number of days in each month, year and leap year	convert between different units of measure (e.g. kilometre to metre; hour to minute)	convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre;	use, read, write and convert between standard units, converting measurements of length, mass, volume

		(appears also in Telling the Time)			centimetre and millimetre; gram and kilogram; litre and millilitre)	and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places
				read, write and convert time between analogue and digital 12 and 24-hour clocks (appears also in Converting)	solve problems involving converting between units of time	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (appears also in Measuring and Calculating)
				solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Telling the Time)	understand and use equivalences between metric units and common imperial units such as inches, pounds and pints	convert between miles and kilometres
GEOMETRY PROPERTIES OF SHAPES						
IDENTIFYING SHAPES AND THEIR PROPERTIES						
Enjoy exploring and noticing patterns in shape and numbers.	recognise and name common 2-D and 3-D shapes, including: * 2-D shapes [e.g. rectangles (including squares), circles and triangles]	identify and describe the properties of 2-D shapes, including the number of sides and line		identify lines of symmetry in 2-D shapes presented in different orientations	identify 3-D shapes, including cubes and other cuboids, from 2-D representations	recognise, describe and build simple 3-D shapes, including making nets (appears also in Drawing and Constructing)

	* 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].	symmetry in a vertical line				
Explore everyday objects and use mathematical language to describe them.		identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces				illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
		identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]				
DRAWING AND CONSTRUCTING						
			draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	complete a simple symmetric figure with respect to a specific line of symmetry	draw given angles, and measure them in degrees (^{o})	draw 2-D shapes using given dimensions and angles
						recognise, describe and build simple 3-D shapes, including making nets (appears also in Identifying Shapes and Their Properties)

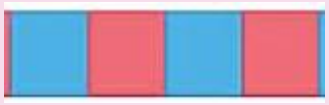
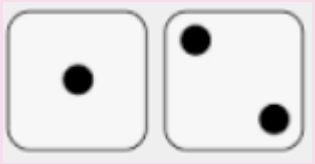
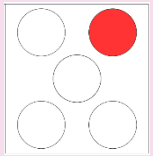
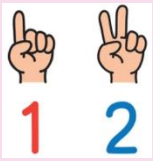
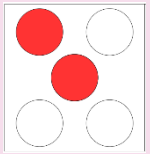
COMPARING AND CLASSIFYING						
		compare and sort common 2-D and 3-D shapes and everyday objects		compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	use the properties of rectangles to deduce related facts and find missing lengths and angles	compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
ANGLES						
			recognise angles as a property of shape or a description of a turn		know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	
			identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle	identify acute and obtuse angles and compare and order angles up to two right angles by size	identify: * angles at a point and one whole turn (total 360^{o}) * angles at a point on a straight line and ½ a turn (total 180^{o}) * other multiples of 90^{o}	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles

			identify horizontal and vertical lines and pairs of perpendicular and parallel lines			
GEOMETRY POSITION AND DIRECTION						
POSITION, DIRECTION AND MOVEMENT						
Use language to describe where something is e.g. on top, next to in front of etc.	describe position, direction and movement, including half, quarter and three-quarter turns.	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)		describe positions on a 2-D grid as coordinates in the first quadrant	identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	describe positions on the full coordinate grid (all four quadrants)
				describe movements between positions as translations of a given unit to the left/right and up/down		draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
				plot specified points and draw sides to complete a given polygon		
PATTERN						

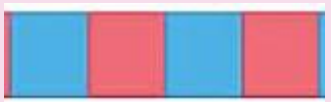
		order and arrange combinations of mathematical objects in patterns and sequences				
STATISTICS						
INTERPRETING, CONSTRUCTING AND PRESENTING DATA						
Use pictures to represent numbers to show choices as a class	Use pictures to represent numbers to show choices	interpret and construct simple pictograms, tally charts, block diagrams and simple tables	interpret and present data using bar charts, pictograms and tables	interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	complete, read and interpret information in tables, including timetables	interpret and construct pie charts and line graphs and use these to solve problems
		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				
SOLVING PROBLEMS						
			solve one-step and two-step questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar			

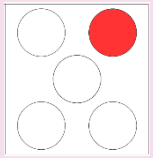
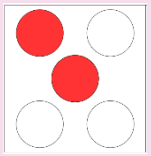
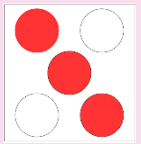
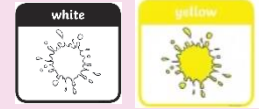
			charts and pictograms and tables. solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. solve comparison, sum and difference problems using information presented in a line graph calculate and interpret the mean as an average			

Nursery Maths Progression: Autumn Term

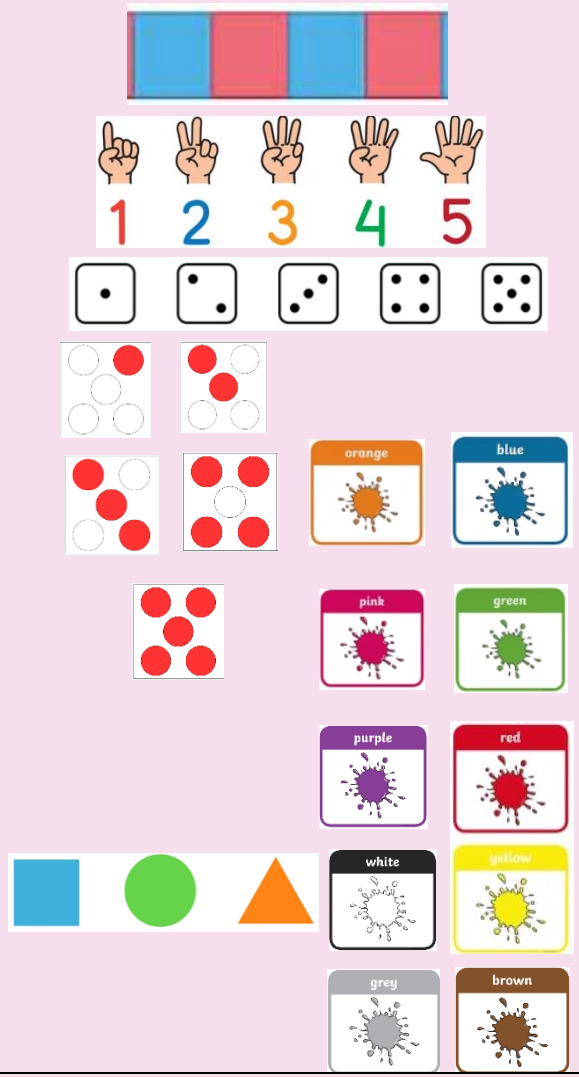
Knowledge	Language	Models and images
Know the colours red, blue, yellow, green. Sort and match objects and pictures of the colours red, blue, yellow, green. Make towers of red, blue, yellow, green. Make collections of objects and pictures of the colours red, blue, yellow, green. Know when there is 1 object and show 1 on their fingers. Count one object by touching it and saying, "1". Know the numeral 1. Know what 1 looks like on a die frame. Know what 1 looks like on a dice. Know when there is 2 objects and show 2 on their fingers. Count two objects by touching them and saying, "1, 2". Make a collection of 2. Know the numeral 2. Know what 2 looks like on a die frame. Know what 2 looks like on a dice. Recognise different arrangements of 2. Know that 1 is first on a washing line, followed by 2 next. Make an AB repeated pattern of 2 colours. Continue an AB repeated pattern of 2 colours. Know the shape 'circle'. Know circles can be different sizes. Explore circles by making things from them.	Colour Red Blue Yellow Green Black White Purple Dice One Two Three Subitise – look and say Count Touch Fingers Match Same Pattern Repeat Order First Next Circle Triangle Square	         

Sing number songs that count up.		

Nursery Maths Progression: Spring Term		
Knowledge	Language	Models and images
Know the colours red, blue, yellow, green, black, white, purple, orange, pink. Sort and match objects and pictures of the colours red, blue, yellow, green, black, white, purple, orange, pink. Make towers and peg boards with red, blue, yellow, green, black, white, purple, orange, pink. Make collections of objects and pictures of the red, blue, yellow, green, black, white, purple, orange, pink. Know when there is 1, 2 or 3 object(s) and show 1, 2, 3 on their fingers to match. Count one, two and three object(s) by touching and saying, "1, 2, 3". Know the numerals 1, 2, 3. Know what 1, 2 and 3 look like on a die frame. Know there is still 1, 2, or 3 when the arrangement changes. Know what 1, 2 and 3 look like on a dice and on dominoes. Know the order of 1, 2, 3 - that 1 is first on a washing line, followed by 2 and then 3. Make an AB repeated pattern.	Colour Red Blue Yellow Green Black White Purple yello Dice One Two Three Subitise – look and say Count Touch Fingers Match Same Pattern Repeat Order First Next	

Continue an AB repeated pattern. Notice and correct an error in an AB repeated pattern. Know the shapes 'circle', 'square', 'triangle' Know shapes can be different sizes. Explore shapes by making things from them. Sing number songs that count up and down.	Circle Triangle Square	          

Nursery Maths Progression: Summer Term

Knowledge	Language	Models and images
Know the colours red, blue, yellow, green, black, white, purple, orange, pink, grey, brown. Sort and match objects and pictures of the colours red, blue, yellow, green, black, white, purple, orange, pink, grey, brown. Make towers and peg boards with red, blue, yellow, green, black, white, purple, orange, pink, grey, brown. Make collections of objects and pictures of the colours red, blue, yellow, green, black, white, purple, orange, pink, grey, brown. Know when there is 1, 2, 3, 4 or 5 object(s) and show 1, 2, 3, 4, 5 on their fingers to match. Count one, two, three, four, five object(s) by touching and saying, "1, 2, 3, 4, 5". Know the numerals 1, 2, 3, 4, 5. Know what 1, 2, 3, 4 and 5 look like on a die frame. Know what 1, 2, 3, 4 and 5 look like on a dice and on dominoes. Know the order of 1, 2, 3, 4 and 5 - that 1 is first on a washing line, followed by 2, 3, 4, 5. Make an AB repeated pattern. Continue an AB repeated pattern. Notice and correct an error in an AB repeated pattern. Know the shapes 'circle', 'square', 'triangle' and talk about them.	Colour Red Blue Yellow Green Black White Purple Brown Pink grey Dice One Two Three Four Five Subitise – look and say Count Touch Fingers Match Same Pattern Repeat Order First Next Circle Triangle Square	

Know shapes can be different sizes. Explore shapes by making things from them. Sing number songs that count up and down.		

Mathematics Progression of Vocabulary

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Concepts and Themes								
Number and place value Vocabulary	One One more Less How many Number Count See and say First Start Next	Number None After Count Subitise Order Compare Forwards Backwards Numerals One more One less/fewer Many Equal/same as More than	Sort Represent Multiples Partitioning Recombine Ones Tens Place value Compare	Numbers to 100 Hundreds Count in steps Count in multiples Estimate	Numbers to 1000 Ascending Descending 10 or 100 more 10 or 100 less Hundreds	Negative numbers/integers Round Roman numerals 1000 more 1000 less Thousands Round	Ten thousands One hundred thousands Powers of Integer	Numbers to ten million Millions Ten millions

			Less/fewer than						
	Addition and Subtraction Vocabulary	All Altogether	Add Plus Altogether Total Take away Make Part Whole	Addition/Add More Altogether Sum Total Double/near double Half/halve Subtraction Take away Minus Difference Equals Facts Problems Missing number problems 2-digit number Inverse Number bonds	3-digit number Commutative	Column addition Column subtraction Exchange Estimate	4-digit number Methods	Efficient written method	Order of operations
	Multiplication and division Vocabulary	Share One for…one for…	Double Half Twice as many Equal Same Unequal Different Share Group Odd Even	Multiplication Division Arrays Row Column Count in… Lots of Groups of.. Times Multiple Repeated addition Share Divide	Multiplication tables Commutative	Exchange Mathematical statements Derived facts Product Multiples Factors Scale up	Factor pairs Distributive law Remainders	Prime numbers Square numbers Cube numbers Short division Dividend Divisor Quotient Operations	Long division Order of operations Common factors Common multiples

								Formal written method	
	Fractions, decimals and Percentages Vocabulary		Whole Part Half	Whole Half Quarter Equal parts	Three quarters Third Equivalent fractions Unit fractions Non unit fractions Numerator Denominator One whole	Tenths Compare and order Tenths	Decimal Equivalent Equivalence Convert Proper fractions Improper fractions Decimals point Mixed numbers	Percent % Percentage complements	Simplify Degree of accuracy
	Ratio and Proportion Vocabulary								Relative size Missing values Integer multiplication Percentages Scale factor Unequal sharing and grouping
	Algebra Vocabulary								Formulae Linear number sequences Algebraically Equation Unk nowns Combinations Variables Substitute Symbol Known variables

	Measurement Vocabulary -Length	Long Short Wide Thin	Measure Thinner Wider Compare Longer Shorter Length Long		Standard units Estimate Order Record results Centimetre cm Metre m	Millimetre mm Perimeter	Kilometre km Rectilinear shape Area Irregular shapes Convert	Decimal notation Scaling Metric units Imperial units Inches Compound shape	Conversion Miles Formulae Parallelograms Triangles Feet
	Measurement Vocabulary -Height, Weight , Temperature and Capacity	Long Short Heavy Light Tall Full Empty	Height Long Short Weight Taller Tallest Smaller Smallest Capacity Heavy/light Heavier than Lighter than Full/empty More than Less than Half/half full	Mass Volume Holds Scales Container Weigh Balances	Kilogram kg Gram g Quarter Three quarters Litres L Millimetres ml Temperature Degrees		Convert	Kilogram kg Gram g Quarter Three quarters Litres L Millimetres ml Temperature Degrees	Cubic metre Cubic millimetre Cubic kilometre Gallons Stones Ounces
	Measurement Vocabulary -Time	Time Early Late Morning Afternoon Night Tomorrow Week Before Next	Seasons Time Quicker Slower Earlier Later Before After First Next Today Yesterday Tomorrow Morning Afternoon Evening Day Week Hour Minutes	Chronological order Days of the week Months of the year Month Year O'clock Half past Second	Intervals of time Quarter past/to Duration	Analogue Roman numerals 12-hour clock 24-hour clock Am/pm Noon Midnight Leap year Digital			

	Measurement Vocabulary Money			Money Coins Notes Pounds £ Pence p	Value Change				
	Geometry Vocabulary	Shape Circle Square Triangle Side Corner	2d shapes/ flat Rectangle Square Circle Triangle Characteristics 3d shapes/ solid Cuboid Cube Cone Sphere Pyramid Curved Straight Flat	Group Sort Sides Corners Properties Pyramids Faces Pentagon Hexagon Cylinder Octagon Hollow Solid	Line of symmetry Symmetrical Mirror line Reflection Pattern Repeating pattern Properties Edges Vertices Vertex	Right angle triangle Heptagon Polygon Properties Prism Horizontal Vertical Perpendicular lines Parallel lines	Isosceles Equilateral Scalene Trapezium Rhombus Parallelogram Kite Geometric shapes Quadrilaterals Regular polygon Irregular polygon		Radius Diameter Circumference Dimensions
	Measurement Angles Vocabulary					Orientations Angles Acute Obtuse Turn Right angles Half turn Three quarters of a turn Greater than a right angle Less than a right angle Horizontal lines Vertical lines Perpendicular lines Parallel lines Reflex		Angles of a straight line Angles around a point Vertically opposite Missing angles	

						angles Degrees			
	Geometry Position and Direction Vocabulary	Over Under Between Around Through On Into Next to Behind Beneath On top of	Over Under Between Around Through On Into Next to Behind Beneath Order Repeat Patterns On top of	Position Direction Movement Whole turn Quarter turn Half turn Three-quarter turn Left Right Forwards Backwards	Clockwise/ anticlockwise Straight line Rotation Arrange Sequences Degree		Co-ordinates First quadrant Grid Translation Plot Polygon X axis /Y Axis Perimeter and area	Reflection	Four quadrants Co- ordinate plane
	Statistics Vocabulary				Pictograms Tally chart Tally Vote Represent Block diagram Category Sorting Totalling Comparing Horizontal Vertical Popular	Table Bar chart Carroll diagram Venn diagram Axis Diagram Frequency table	Time graph Discrete data Continuous data Line graph Comparison problem Calculate Interpret	Timetable Two -way tables	Pie chart Mean Construct

Mathematics Progression of Knowledge

	Autumn Term	Spring Term	Summer Term
Year R	Build on previous experiences of number from home and nursery Subitise to 3 Count with 1:1 correspondence Composition of number within 5 Compare sets – 'more' and 'fewer' Positional language Explore 2D shapes Explore, rotate and manipulate objects, exploring different perspectives and orientations Subitise to 5 – conceptual and perceptual Cardinality to 5 Count beyond 5 Link counting to cardinality Connect quantities and numbers to finger patterns Develop language of 'whole' and 'part' Compare sets and recognise same/equal Exploring patterns	Subitise within and beyond 5 Verbal counting to 20 and beyond Connect quantities to numerals Order numbers Composition of 6 and 7 as '5 and a bit' Identify missing parts for numbers to 5 Compare sets -recognise when two sets are equal or unequal Explore 3D shapes Explore doubles Cardinality to 10 Composition of odd and even numbers, linking to doubles Composition to 10 Link Cardinality and ordinality through the 'staircase' pattern Compare numbers using reasoning about position in number system. Build and construct using 2D and 3D shapes, describing and explaining choices	Explore representations of numbers Compare quantities and numbers, Develop sense of magnitude Decide on when to subitise or count Order sets of objects linking to ordinal system Describe familiar routes using positional language Explore and create own repeating patterns Consolidate counting skills, counting to larger numbers and developing a wider range of counting strategies Secure knowledge of composition to 10 and number facts through varied practice Develop conceptual subitising skills including when using a Rekenrek Explore and describe shapes within shapes

Year 1	Explore representations of numbers Compare quantities and numbers, Develop sense of magnitude Decide on when to subitise or count Order sets of objects linking to ordinal system Describe familiar routes using positional language Explore and create own repeating patterns Consolidate counting skills, counting to larger numbers and developing a wider range of counting strategies Secure knowledge of composition to 10 and number facts through varied practice Develop conceptual subitising skills including when using a Rekenrek Explore and describe shapes within shapes	Numbers 0 to 10 Recognise, compose, decompose and manipulate 2D and 3D shapes Addition and subtraction facts within 10 Additive structures	Numbers 0 to 20 Unitising and coin recognition Position and direction Time
Year 2	Numbers 10 to 100 Calculations within 20 Fluently add and subtract within 10 Addition and subtraction of two-digit numbers Introduction to multiplication	Introduction to multiplication Introduction to division structures Shape Addition and subtraction of two-digit numbers	Money Fractions Time Position and direction Multiplication and division – doubling, halving, quotative and partitive division Sense of measure – capacity, volume, mass

Year 3	Adding and subtracting across 10 (adding and bridging) Numbers to 1,000 (Ordering, counting, crossing boundaries, calculating and measures)	Right angles Manipulating the additive relationship and securing mental calculation Column addition 2, 4, 8 times tables Column subtraction	Unit fractions (Comparing, ordering and finding fractions of a whole) Non-unit fractions Parallel and perpendicular sides in polygons Time
Year 4	Review of column addition and subtraction Numbers to 10,000 Perimeter 3, 6, 9 times tables	7 times table and patterns Understanding and manipulating multiplicative relationships Understanding and manipulating multiplicative relationships Coordinates	Review of fractions Fractions greater than 1 Symmetry in 2D shapes Time Division with remainders
Year 5	Decimal fractions Money Negative numbers Short multiplication and short division	Area and scaling Calculating with decimal fractions Calculating with decimal fractions Factors, multiples and primes	Fractions Converting units Angles
Year 6	Calculating using knowledge of structures (1) Multiples of 1,000 Numbers up to 10,000,000 Draw, compose and decompose shapes	Multiplication and division Area, perimeter, position and direction Fractions and percentages	Statistics Ratio and proportion Calculating using knowledge of structures (2) Solving problems with two unknowns Order of operations Mean average

Mathematics Monitoring and Review Cycle

Autumn		Spring		Summer	
A1	**A2**	**Sp1**	**Sp2**	**S1**	**S2**
Maths book scrutiny and feedback Maths lesson observations and pupil voice Maths staff meeting – feedback	Maths staff meeting- Feedback from observations and areas for development Maths lesson observations and pupil voice	Maths book scrutiny and feedback	Maths lesson observations and pupil voice- EYFS	Maths book scrutiny and feedback	Maths lesson observations and pupil voice

Impact

	Comments/Evidence
Subject Monitoring • Key outcomes for pupils/groups • Quality of teaching • Development of key skills, knowledge and understanding	Monitoring for the Year 23/24 demonstrated clear development in the consistency of mathematics teaching, with all year groups teaching a clear, coherent sequence of lessons that progressed through the days and weeks. This showed a marked improvement after the training given in the previous academic year to address planning, coherence, and pedagogy. Throughout the school, retrieval practice has been adopted and is effectively used at different points in lessons to ensure the children's knowledge is embedded and that children can retrieve it. Models, images, and vocabulary were being used throughout, which allowed the children to make connections and links in their learning. All classes were using the medium-term plan to ensure they were teaching a coherent curriculum in small, achievable steps catering for their children's needs. Staff were consistently referring to prior knowledge (staff had been signposted to the RtP documents) to assess the children's understanding and thus using this to inform their current and future planning of mathematics. The formative and summative assessment was being used in most classes. This consisted of; good teacher questioning; discussions; effective marking (from that day's learning to inform next steps) low stake, high-achieving tests; mini assessments; plenary assessments and an end of topic assessment (remote from the learning).
Evaluation/Diagnostics • Strongest areas of provision	Whilst there were improvements in adaptations being made for SEND pupils in mathematics, there was evidence of teachers/Tas recording unnecessary marking and work in order to 'have something in the book'. Training has now been given to concentrate on the

• Areas which require improvement for greatest impact on pupil outcomes	knowledge those children are enquiring and how they will retain/practice it rather than a paper exercise, which has no impact on their learning. In order to include all children in maths, sometimes 'real inclusion' is not 'inclusion' and therefore mathematics needs to be adapted for children who are 'significantly below' the age related expectations of their peers need bespoke learning. The expectation for the bottom 20% is that they will be taught the same concept as the rest of the class but with adapted tasks and support/scaffolding to ensure their understanding and acquisition of the knowledge. Members of staff joined the school and others returned from maternity – this needed to be addressed to ensure they were up to date with NCETM and our current pedagogical approaches. Employing effective pedagogy approaches enables students to reach their full potential and provides a strong foundation for learning.
Leadership Action Taken • Action taken to improve identified weaknesses	Due to new members of staff and staff returning from maternity, there was evidence there needed to be extra support put in place and training to strengthen teacher knowledge/pedagogy. To enhance the pedagogy and subject knowledge of staff, there were opportunities to observe experienced teachers, mentor meetings and maths courses for them to attend as a 'refresher' and a 'new to NCETM' mastery practice. CPD given to all TAs about effective provision for SEND pupils and working towards children. CPD was given to deliver effective plenaries enable staff to ascertain understanding knowledge required during the lesson as well as providing extra opportunities for all children to access problem solving. Also during this meeting, training was given to staff to use stem-sentences more within the classroom to use repetition to embed strategies, knowledge and procedures.
Impact of Leadership • How did the actions impact on pupil outcomes? • Future implications/way forward	Guidance and training given during staff meetings last year enabled teachers to develop their practice and refine their mathematical teaching and learning, with a marked improvement in the quality of offer by the end of the academic year. As a result, this year's monitoring showed evidence of a clear, coherent curriculum being offered across the whole school. Children were making connections and relationships linked to everyday life through the consistent use of

	models, images, and vocabulary. Children are making connections from previous learning as well as previous lessons and can build on this to progress through the curriculum. Teachers were confident and were making adaptations to suit the children's needs and address any gaps/misconceptions to ensure they have mastered the concept before moving on. Our future targets to move forward are to engage parents in early years to embed maths in life at home as well as in school. Children who are 'significantly below' age related expectations are catered for with effective teaching e.g. precision teach/ wave 3 materials.