



MATHEMATICS Progression Map

Subject Intent

At Beverley we aim to develop all aspects of Maths, to enable functional numeracy to GCSE Mathematics. Beverley's Maths curriculum intends to create personalised learning opportunities based around individual EHCP outcomes and academic progress to successfully prepare our students for life after school. We offer a coherently planned sequence of lessons to help teachers ensure they have progressively covered the skills and concepts required in the National Curriculum. Students develop mathematical skills, knowledge and concepts appropriate to their starting point. The Mathematical Concepts are: Know and Use Numbers; Add and Subtract; Multiply and Divide; Use Fractions; Understand the Properties of Shape; Describe Position Direction and Movement; Use Measures; Use Statistics and Use Algebra. For those students above Milestone 3 they will follow the appropriate National Curriculum or accreditation routes.

Subject Implementation

At Beverley we offer appropriate learning experiences of Maths through concrete, pictorial and abstract resources at the stage that our students are at, irrespective of key stage. Through revisiting and consolidating skills, our lesson plans and resources help children build on prior knowledge alongside introducing new skills and challenge. The revision and inclusion of key mathematical vocabulary is built into each lesson to ensure that students are allowed opportunities to repeat and revise this knowledge and apply understanding.

Subject Impact

Beverley Students are happy, engaged and active enquirers in learning activities. They are developing their mathematical skills, knowledge and understanding. They are also developing independence to manage themselves (physically and emotionally) and be more able to express themselves through their preferred method of communication. Our students will achieve progress through National Curriculum objectives, Beverley Steps, Accreditation outcomes and EHCP outcomes.

Subject Progression

Level Expected at the End of EYFS

We have selected the most relevant statements from the Delivery Matters age ranges for 0 -3 and 3 – 4 years olds as well as highlighting the statements within the ELGs which feed into the programme of study for History.

Mathematics		
0 - 3	EYFS Development Matters 2020	<ul style="list-style-type: none">• I can combine objects like stacking blocks and cups• I can put objects inside others and take them out again• I can take part in finger rhymes with numbers• I can react to changes of amount in a group of up to 3 items• I can compare amounts, saying “lots”, “more” or “same”• I can develop counting like behavior• I can count in everyday context, sometimes skipping number – ‘1,2,3,5’• I can climb and squeeze myself into different types of spaces• I can build with a range of resources• I can complete inset puzzles• I can compare sizes, weights etc using gesture and language - ‘bigger/ little/ smaller’, ‘high/low’, ‘tall’, ‘heavy’• I can notice pattern• I can arrange things in patterns
3 – 4	EYFS Development Matters 2020	<ul style="list-style-type: none">• I can develop fast recognition of up to 3 objects without having to subitise

		<ul style="list-style-type: none">• I can recite numbers past 5• I can say one number for each item in order: 1, 2, 3, 4, 5• I know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principal')• I can show 'finger numbers' up to 5• I can link numerals and amounts: eg. Showing the right number of objects to match the numeral, up to 5• I can experiment with my own symbols and marks as well as numerals• I can solve real world mathematical problems with numbers up to 5• I can compare quantities using language: 'more than/ fewer than'• I can talk about and explore basic 2D and 3D shapes using informal and mathematical language: 'sides', 'corners', 'straight', 'flat' and 'round'• I can understand position through words alone, eg. 'The bag is under the table' with no pointing• I can describe a familiar route• I can discuss routes and locations, using words like 'in front of' and 'behind'• I can make comparisons between objects relating to size, length, weight and capacity
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		<ul style="list-style-type: none"> • I can select shapes, appropriately: flat surfaces for building a triangular prism for a roof, etc. • I can combine shapes to make new ones – an arch, a bigger triangle • I can talk about and identify patterns around me eg. stripes in clothing, designs o rugs and wallpaper • I can use informal language like ‘pointy’, ‘spotty’, ‘blobs’ etc. • I can extend and create ABAB patterns – stick, leaf, stick, leaf • I can notice and correct an error in a repeating pattern • I can begin to describe sequences of events, real or fictional, using words such as ‘first’, ‘then...’
Reception	EYFS Development Matters 2020	<ul style="list-style-type: none"> • I can count objects, actions and sounds • I can subitise • I can link the number symbol (numeral) with its cardinal number value • I can count beyond ten • I can compare numbers • I can understand the ‘one more than/ one less than’ relationship between consecutive numbers • I can explore the composition of numbers to 10 • I can automatically recall number bonds for numbers 0-5 and some to 10

		<ul style="list-style-type: none"> • I can select , rotate and manipulate shapes in order to develop spatial reasoning skills • I can compose and decompose shapes so that I recognize the shape can have other shapes within it, just as numbers can • I can compare length, weight and capacity. 	
ELG	ELGs Mathematics	Number	<ul style="list-style-type: none"> • I can demonstrate a deep understating of numbers to 10, including the composition of each number • I can subitise up to 5 • I can 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 doubling facts
		Numerical Patterns	<ul style="list-style-type: none"> • I can verbally count beyond 20, recognizing the pattern of the counting system • I can compare quantities up to 10 in different contexts, recognizing when one is greater than, less than or the same as the other quantity • I can explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally

The following curriculum progression map comprehensively shows the progression of mathematical skills and concepts from Pre Milestone 1 – Milestone 4. For students above Milestone 3 they will follow the appropriate National Curriculum/ Accreditation routes. Accreditation routes are in parentheses eg. (Entry Level 1 – Entry Level 2).

	Breakdown of Threshold Concept	Pre Milestone 1 Beverley Steps P4 - 5 (Working Towards Entry)	Pre Milestone 2 Beverley Steps P6 – 7 ((Working Towards Entry)	Pre Milestone 3 Beverley Steps P8-9 ((Working Towards Entry – Entry Level 1)
KNOW AND USE NUMBERS	Counting	<ul style="list-style-type: none"> I can show an awareness of number activities and counting 	<ul style="list-style-type: none"> I can count up to 10 objects 	<ul style="list-style-type: none"> I can count up to 100 in numerals I can count in steps of 2, 5 and 10 from 0
	Representing	<ul style="list-style-type: none"> I can say, sign or identify the number 1 and use finger to indicate 1 	<ul style="list-style-type: none"> I can recognise numerals 1 to 9 I can relate each numeral to the correct quantity I can understand that a numeral always represents that quantity 	<ul style="list-style-type: none"> I can read numbers from 1 to 20 in numerals and words I can write numbers from 1 to 20 in numerals and words
	Comparing	<ul style="list-style-type: none"> I can compare and order numbers from 0 up to 5 	<ul style="list-style-type: none"> I can compare and order numbers from 0 up to 10 	<ul style="list-style-type: none"> I can compare and order numbers from 0 up to 50 I can use the = sign
	Place Value	<ul style="list-style-type: none"> I can demonstrate an awareness of number in practical activities 	<ul style="list-style-type: none"> I can estimate a small number (eg. 1, 2 or 3) and check by counting I can recognise numerals 1 to 9 and relate each numeral to the correct quantity 	<ul style="list-style-type: none"> I can identify one more and one less than a two-digit number

Solving Problems	<ul style="list-style-type: none"> I can show an awareness of number in activities 	<ul style="list-style-type: none"> I can count up to ten objects & notice how 10 is written 	<ul style="list-style-type: none"> I can identify how many tens and how many units (ones) given a number less than 100, 	
Breakdown of Threshold Concept	<p>Milestone 1 Beverley Steps P10 – 11 NC Y1 – 2 (Entry Level 2 – Entry Level 3)</p>	<p>Milestone 2 Beverley Steps P12 – 13 NC Y3 – 4 (Level 1 Emerging – Level 1 Developing)</p>	<p>Milestone 3 Beverley Steps P14 -15 NC Y5 – 6 (Level 1 Secure – Level 2 Emerging)</p>	<p>Milestone 4 Beverley Steps 16+ NCY 7+ (Level 2 Developing - GCSE 4+)</p>
Counting	<ul style="list-style-type: none"> I can count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number I can count, read and write numbers to 100 in numerals given a number, I can identify one more and one less I can count in steps of 2, 3, 5 and 10 from 0 or 1 and in tens from any number, forward and backward 	<ul style="list-style-type: none"> I can count in multiples of 2 to 9, 25, 50, 100 and 1000 I can find 1000 more or less than a given number I can count backwards through zero to include negative numbers 	<ul style="list-style-type: none"> I can read numbers up to 10 000 000 I can use negative numbers in context and calculate intervals across zero 	<ul style="list-style-type: none"> I can use and understand place value for decimals, measures and integers of any size I can order positive and negative integers, decimals and fractions; use the number line as a model for ordering of the real numbers; use the symbols =, ≠, <, >, ≤, ≥ I can use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, prime

Representing	<ul style="list-style-type: none"> I can identify, represent and estimate numbers using different representations, including the number line I can read and write numbers initially from 1 to 20 and then to at least 100 in numerals and in words 	<ul style="list-style-type: none"> I can identify, represent and estimate numbers using different representations I can 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 	<ul style="list-style-type: none"> I can write numbers up to 10 000 000 I can read Roman numerals to 1000 (M) and recognise years written in Roman numerals 	<p>factorisation, including using product notation and the unique factorisation property</p> <ul style="list-style-type: none"> I can use the 4 operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative I can use conventional notation for the priority of operations, including brackets, powers, roots and reciprocals
Comparing	<ul style="list-style-type: none"> I can use the language of: equal to, more than, less than (fewer), most and least I can compare and order numbers from 0 up to 100; use <, > and = sign 	<ul style="list-style-type: none"> I can order and compare numbers beyond 1000 	<ul style="list-style-type: none"> I can order and compare numbers up to 10 000 000 	<ul style="list-style-type: none"> I can recognise and use relationships between operations including inverse operations I can use integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 and distinguish between exact representations of roots and their decimal approximations
Place Value	<ul style="list-style-type: none"> I can recognise the place value of each digit in a two-digit number (tens, ones) 	<ul style="list-style-type: none"> I can recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) 	<ul style="list-style-type: none"> I can round any whole number to a required degree of accuracy I can determine the value of each digit in any number 	<ul style="list-style-type: none"> I can interpret and compare numbers in standard form $A \times 10^n$

			<ul style="list-style-type: none"> I can round any number to the nearest 10, 100 or 1000 		<p>10^n $1 \leq A < 10$, where n is a positive or negative integer or 0</p> <ul style="list-style-type: none"> I can work interchangeably with terminating decimals and their corresponding fractions (such as 3.5, $\frac{7}{2}$ and 0.375 and $\frac{3}{8}$) I can define percentage as 'number of parts per hundred', interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express 1 quantity as a percentage of another, compare 2 quantities using percentages, and work with percentages greater than 100% I can interpret fractions and percentages as operators I can use standard units of mass, length, time, money and other measures, including with decimal quantities I can round numbers and measures to an appropriate degree of
Solving Problems	<ul style="list-style-type: none"> I can use place value and number facts to solve problems 	<ul style="list-style-type: none"> I can solve number and practical problems with increasingly large positive numbers 	<ul style="list-style-type: none"> I can solve number and practical problems 		

					<p>accuracy [for example, to a number of decimal places or significant figures]</p> <ul style="list-style-type: none">• I can use approximation through rounding to estimate answers and calculate possible resulting errors expressed using inequality notation $a < x \leq b$• I can use a calculator and other technologies to calculate results accurately and then interpret them appropriately• appreciate the infinite nature of the sets of integers, real and rational numbers
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TO ADD AND SUBTRACT	Breakdown of Threshold Concept	Pre Milestone 1 Beverley Steps P4 – 5 (Pre-Accreditation)		Pre Milestone 2 Beverley Steps P6 – 7 (Pre-Accreditation)		Pre Milestone 3 Beverley Steps P8 – 9 (Pre-Accreditation)		
	Complexity	<ul style="list-style-type: none"> I can follow the sequence of pictures or numbers as indicated by an adult during rhymes and s 		<ul style="list-style-type: none"> I can compare two given numbers of objects, understanding which is more and which is less 		<ul style="list-style-type: none"> I can read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (==) signs 		
	Methods	<ul style="list-style-type: none"> I can roll a die, look at the outcome and count out the appropriate number with sup 		<ul style="list-style-type: none"> I can add one to or take one away from a number of objects (within 10) in practical situations I can say or sign how many there are now 		<ul style="list-style-type: none"> I can add and subtract one-digit and two-digit numbers to 20, including zero 		
	Checking	<ul style="list-style-type: none"> I can join in number songs and check amount by joining in counting (eg. 'Five little speckled frogs') 		<ul style="list-style-type: none"> I can add one to or subtract one from a small number of objects then say or sign how many there are now; in practical situations, then check by counting 		<ul style="list-style-type: none"> I know and can use number bonds to 10 to solve a range of number problems 		
	Using Number Facts	<ul style="list-style-type: none"> I can develop an awareness of numbers to 		<ul style="list-style-type: none"> I can add or subtract from a small number of objects then say or sign how many there are now 		<ul style="list-style-type: none"> I can recall and use addition and subtraction facts to 20 		
	Breakdown of Threshold Concept	Milestone 1 Beverley Steps P10 – 11 NC Y1 – 2 (Entry Level 2 – Entry Level 3)		Milestone 2 Beverley Steps P12 – 13 NC Y3 – 4 (Level 1 Emerging – Level 1 Developing)		Milestone 3 Beverley Steps P14 -15 NC Y5 – 6 (Level 1 Secure – Level 2 Emerging)		Milestone 4 Beverley Steps 16+ (Level 2 Developing - GCSE 4+)

	Complexity	<ul style="list-style-type: none"> • I can solve one-step problems with addition and subtraction: • I can use concrete objects and pictorial representations including those involving numbers, quantities and measures • I can use the addition (+), subtraction (-) and equals (=) signs • I can apply increasing knowledge of mental and written methods 	<ul style="list-style-type: none"> • I can solve two-step addition and subtraction problems in contexts, deciding which operations and methods to use and why 	<ul style="list-style-type: none"> • I can solve multi-step addition and subtraction problems in contexts, deciding which operations and methods to use and why 	<ul style="list-style-type: none"> • I can simplify expressions involving sums, products and powers, including the laws of indices: $4p \times 2q + 1 - 3p + 5q$ • I can solve linear inequalities in one or two variable(s): $x + 3 > 0$ • I can use the 4 operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative
	Methods	<ul style="list-style-type: none"> • I can add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> - one-digit and two-digit numbers to 20, including zero - a two-digit number and ones - a two-digit number and tens 	<ul style="list-style-type: none"> • I can add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • I can add and subtract numbers mentally, including: <ul style="list-style-type: none"> - a three-digit number and ones 	<ul style="list-style-type: none"> • I can add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • I can add and subtract numbers mentally with increasingly large numbers 	

		<ul style="list-style-type: none"> - two two-digit numbers. - adding three one-digit numbers. • I can show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot 	<ul style="list-style-type: none"> - a three-digit number and tens - a three-digit number and hundreds 		
	Checking	<ul style="list-style-type: none"> • I can recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems 	<ul style="list-style-type: none"> • I can estimate and use inverse operations to check answers to a calculation. 	<ul style="list-style-type: none"> • I can use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy 	
	Using Number Facts	<ul style="list-style-type: none"> • I can represent and use number bonds and related subtraction facts within 20. • I can recall and use addition and subtraction facts to 20 fluently, and derive and use 	<ul style="list-style-type: none"> • I can solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction. 	<ul style="list-style-type: none"> • I can add and subtract negative integers 	

		related facts up to 100			
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	Breakdown of Threshold Concept	Pre Milestone 1 Beverley Steps P4 - 5 (Pre-Accreditation)	Pre Milestone 2 Beverley Steps P6 – 7 (Pre-Accreditation)	Pre Milestone 3 Beverley Steps P8 – 9 (Pre-Accreditation)
TO MULTIPLY AND DIVIDE	Complexity	<ul style="list-style-type: none"> I can show an awareness of difference (eg. help adult sort blue buttons and red buttons into groups) 	<ul style="list-style-type: none"> I can group objects into groups of equal size (eg. place three counters in each box) then check by counting 	<ul style="list-style-type: none"> I can use repeated addition to solve multiplication problems I can solve one-step problems involving multiplication and division by 2, 5 or 10, using concrete objects and pictorial representations
	Methods	<ul style="list-style-type: none"> I can sort objects according to one criteria (eg. colour, shape) 	<ul style="list-style-type: none"> I can group objects into groups of equal size (eg. 2 counters in each egg cup) 	<ul style="list-style-type: none"> I can solve one-step problems involving multiplication and division by 2, 5 or 10, using concrete objects or pictorial representations
	Checking	<ul style="list-style-type: none"> I can show an awareness of a difference (eg. help adult sort blue buttons and red buttons into groups) 	<ul style="list-style-type: none"> I can group objects into groups of equal size (eg. place three counters in each box) then check by counting 	<ul style="list-style-type: none"> I can use repeated addition to check accuracy of multiplication facts
	Using Multiplication and Division Facts	<ul style="list-style-type: none"> I can show an awareness of a difference (eg. help adult sort blue buttons and red buttons into groups) 	<ul style="list-style-type: none"> I can group objects into groups of equal size (eg. place three counters in each box) then check by counting 	<ul style="list-style-type: none"> I can solve one-step problems involving multiplication and division by 2, 5 or 10, using concrete objects and pictorial representations

Breakdown of Threshold Concept	Milestone 1 Beverley Steps P10 – 11 NC Y1 – 2 (Entry Level 2 – Entry Level 3)	Milestone 2 Beverley Steps P12 – 13 NC Y3 – 4 (Level 1 Emerging – Level 1 Developing)	Milestone 3 Beverley Steps P14 -15 NC Y5 – 6 (Level 1 Secure – Level 2 Emerging)	Milestone 4 Beverley Steps 16+ NC Y7+ (Level 2 Developing - GCSE 4+)
Complexity	<ul style="list-style-type: none"> I can solve one-step (two-step at greater depth) problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher 	<ul style="list-style-type: none"> I can solve problems involving multiplying and dividing, 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) 	<ul style="list-style-type: none"> I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign I can solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates I can use knowledge of the order of operations to carry out calculations involving the four operations. 	<ul style="list-style-type: none"> I can use the 4 operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative

	<p>Methods</p>	<ul style="list-style-type: none"> • I can calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs • I can show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • I can solve problems involving multiplication and division using mental methods. 	<ul style="list-style-type: none"> • I can multiply two-digit and three-digit numbers by a one-digit number using formal written layout • I can use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers • I can recognise and use factor pairs and commutativity in mental calculations 	<ul style="list-style-type: none"> • I can multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • I can 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 • I can divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. • I can perform mental calculations, including with mixed operations and large numbers 	
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	Checking	<ul style="list-style-type: none"> I can use known multiplication facts to check the accuracy of calculations 	<ul style="list-style-type: none"> I can recognise and use the inverse relationship between multiplication and division and use this to check calculations and solve missing number problems 	<ul style="list-style-type: none"> I can estimate and use inverse operations and rounding to check answers to a calculation 	
	Using Multiplication and Division Facts	<ul style="list-style-type: none"> I can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables. I can recognise odd and even numbers I can use multiplication and division facts to solve problems 	<ul style="list-style-type: none"> I can recall multiplication and division facts for multiplication tables up to 12×12 	<ul style="list-style-type: none"> I can identify common factors, common multiples and prime numbers I can establish whether a number up to 100 is prime and recall prime numbers up to 19. I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 I can recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3). I can solve problems involving multiplication and division including using knowledge of factors 	

				and multiples, squares and cubes	
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TO USE FRACTIONS	Breakdown of Threshold Concept	Pre Milestone 1 Beverley Steps P4 - 5 (Pre-accreditation)	Pre Milestone 2 Beverley Steps P6 – 7 (Pre-accreditation)	Pre Milestone 3 Beverley Steps P8-9 (Pre-accreditation)	
	Recognising Fractions	<ul style="list-style-type: none"> I can engage in play with tray puzzles and simple jigsaws 	<ul style="list-style-type: none"> I can demonstrate in practical situations a developing understanding of ‘half’ (eg. half an apple/ pizza, etc.) 	<ul style="list-style-type: none"> I can recognise, find, name and write fractions of a length, shape, set of objects or quantity (eg. $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$) 	
	Equivalence	<ul style="list-style-type: none"> I can engage in play with tray puzzles and simple jigsaws 	<ul style="list-style-type: none"> I can demonstrate in practical situations a developing understanding of ‘half’ (eg. half an apple/ pizza, etc.) 	<ul style="list-style-type: none"> I can recognise and write $\frac{1}{2}$ and $\frac{1}{4}$ of a length, shape or quantity 	
	Solving Problems	<ul style="list-style-type: none"> I can engage in play with tray puzzles and simple jigsaws 	<ul style="list-style-type: none"> I can compare two fractions of objects, understanding which is more and which is less (eg. half a cake and $\frac{1}{4}$ of an identical cake) 	<ul style="list-style-type: none"> I can recognise and name a half as one of two equal parts of an object/ shape 	
	Breakdown of Threshold Concept	Milestone 1 Beverley Steps P10 – 11 NC Y1 – 2 (Entry Level 2 – Entry Level 3)	Milestone 2 Beverley Steps P12 – 13 NC Y3 – 4 (Level 1 Emerging – Level 1 Developing)	Milestone 3 Beverley Steps P14 -15 NC Y5 – 6 (Level 1 Secure – Level 2 Emerging)	Milestone 4 Beverley Steps 16+ NC Y7+ (Level 2 Developing - GCSE 4+)
	Recognising Fractions	<ul style="list-style-type: none"> I can recognise, find and name a half as one of two equal parts of an object, shape or quantity I can recognise, find and name 	<ul style="list-style-type: none"> I can recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators 	<ul style="list-style-type: none"> I can compare and order fractions whose denominators are all multiples of the same number I can compare and order fractions, including fractions > 1. 	<ul style="list-style-type: none"> I can calculate exactly with fractions, surds and multiples of ?; simplify surd expressions involving squares and rationalise denominators: $12 = 3.4641016$

		<p>a quarter as one of four equal parts of an object, shape or quantity</p> <ul style="list-style-type: none"> I can recognise, find, name and write fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity 	<ul style="list-style-type: none"> I can recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. I can round decimals with one decimal place to the nearest whole number I can compare numbers with the same number of decimal places up to two decimal places I can count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 I can count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten 	<ul style="list-style-type: none"> I can recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number I can round decimals with two decimal places to the nearest whole number and to one decimal place I can read, write, order and compare numbers with up to three decimal places. I can identify the value of each digit in numbers given to three decimal places I can solve problems involving number up to three decimal places I can recognise the percent symbol (%) and understand that percent relates to 'number of parts per hundred', and write percentages as a fraction 	<ul style="list-style-type: none"> I can calculate with numbers in standard form $A \times 10^n$, where $1 \leq A < 10$ and n is an integer: missing formula I can change recurring decimals into their corresponding fractions and vice versa: Convert the recurring decimal 0.545454 to a fraction I can identify and work with fractions in ratio problems: sharing a quantity in a given ratio ? $8.4 \times \frac{5}{7}$
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			<ul style="list-style-type: none"> I can compare and order unit fractions and fractions with the same denominators 	with denominator 100, and as a decimal	
Equivalence	<ul style="list-style-type: none"> I can recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ 	<ul style="list-style-type: none"> I can recognise and show, using diagrams, families of common equivalent fractions I can recognise and write decimal equivalents of any number of tenths or hundredths. I can recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$. 	<ul style="list-style-type: none"> I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths I can read and write decimal numbers as fractions I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents I can use common factors to simplify fractions; use common multiples to express fractions in the same denomination I can associate a fraction with division and calculate decimal fraction equivalents I can recall and use equivalences between simple fractions, decimals 		

				and percentages, including in different contexts	
Solving Problems	<ul style="list-style-type: none"> I can write simple fractions for example, $\frac{1}{2}$ of $6 = 3$ 	<ul style="list-style-type: none"> I can add and subtract fractions with the same denominator within one whole. I can solve problems involving increasingly harder fractions I can calculate quantities and fractions to divide quantities (including non-unit fractions where the answer is a whole number) I can add and subtract fractions with the same denominator I can 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, 	<ul style="list-style-type: none"> I can add and subtract fractions with the same denominator and denominators that are multiples of the same number I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. I can multiply simple pairs of proper fractions, writing the answer in its simplest form. I can solve problems which require knowing percentage 	<ul style="list-style-type: none"> I can change freely between related standard units [for example time, length, area, volume/capacity, mass] I can use scale factors, scale diagrams and maps I can express 1 quantity as a fraction of another, where the fraction is less than 1 and greater than 1 I can use ratio notation, including reduction to simplest form I can divide a given quantity into 2 parts in a given part:part or part: whole ratio; express the division of a quantity into 2 parts as a ratio 	

			<p>tenths and hundredths</p> <ul style="list-style-type: none"> I can solve simple measure and money problems involving fractions and decimals to two decimal places 	<p>and decimal equivalents of, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.</p> <ul style="list-style-type: none"> I can divide proper fractions by whole numbers. I can multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places <p>Ratio and proportion</p> <ul style="list-style-type: none"> I can solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts I can solve problems involving the calculation of percentages and the use of percentages for comparison I can solve problems involving similar shapes where the 	<ul style="list-style-type: none"> I can state and understand that a multiplicative relationship between 2 quantities can be expressed as a ratio or a fraction I can relate the language of ratios and the associated calculations to the arithmetic of fractions and to linear functions I can solve problems involving percentage change, including: percentage increase, decrease and original value problems and simple interest in financial mathematics I can solve problems involving direct and inverse proportion, including graphical and algebraic representations I can use compound units such as speed, unit pricing and density to solve problems
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				<p>scale factor is known or can be found</p> <ul style="list-style-type: none">• I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	
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TO UNDERSTAND THE PROPERTIES OF SHAPES	Pre Milestone 1 Beverley Steps P4 - 5 (Pre-accreditation)		Pre Milestone 2 Beverley Steps P6 – 7 (Pre-accreditation)		Pre Milestone 3 Beverley Steps P8-9 (Pre-accreditation)			
	<ul style="list-style-type: none"> I can match objects 		<ul style="list-style-type: none"> I can identify specific shapes from pictures, simple models or patterns I can identify some of the shapes used within the whole (eg. circles) 		<ul style="list-style-type: none"> I can recognise and name common 2D shapes (eg. rectangles, squares, circles and triangles) I can recognise and name common 3D shapes eg. cuboids (including cubes), pyramids and spheres I can identify and describe the properties of 2D shapes, including the number of sides and line of symmetry in a vertical line I can identify and describe the properties of 3D shapes, including the number of edges, vertices and faces I can compare and sort common 2D and 3D shapes and everyday objects 			
	Milestone 1 Beverley Steps P10 – 11 NC Y1 – 2 (Entry Level 2 – Entry Level 3)		Milestone 2 Beverley Steps P12 – 13 NC Y3 – 4 (Level 1 Emerging – Level 1 Developing)		Milestone 3 Beverley Steps P14 -15 NC Y5 – 6 (Level 1 Secure – Level 2 Emerging)		Milestone 4 Beverley Steps 16+ NC Y7+ (Level 2 Developing - GCSE 4+)	
	<ul style="list-style-type: none"> I can recognise and name common 2D and 3D shapes I can identify and describe the properties of 2D shapes, including the number of sides and 		<ul style="list-style-type: none"> I can draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them 		<ul style="list-style-type: none"> I can identify 3D shapes, including cubes and other cuboids, from 2D representations I can state that angles are measured in degrees: I can estimate and compare acute, obtuse and reflex angles 		<ul style="list-style-type: none"> I can derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders) 	

	<p>line symmetry in a vertical line</p> <ul style="list-style-type: none"> • I can identify and describe the properties of 3D shapes, including the number of edges, vertices and faces • I can identify 2D shapes on the surface of 3D shapes • I can compare and sort common 2D and 3D shapes and everyday objects 	<ul style="list-style-type: none"> • I can recognise angles as a property of shape or a description of a turn • I can 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 • I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines • I can compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • I can identify acute and obtuse angles and compare and order angles up to two right angles by size 	<ul style="list-style-type: none"> • I can draw given angles, and measure them in degrees ($^{\circ}$) • I can identify: <ul style="list-style-type: none"> -angles at a point and one whole turn (total 360°) -angles at a point on a straight line and a turn (total 180°) - other multiples of 90 degrees * I can use the properties of rectangles to deduce related facts and find missing lengths and angles • I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles <ul style="list-style-type: none"> • I can draw 2D shapes using given dimensions and angles • I can recognise, describe and build simple 3D shapes, including making nets • I can compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • I can illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • I can recognise angles where they meet at a point, are on a straight line, or are vertically opposite and find missing angles 	<ul style="list-style-type: none"> • I can calculate and solve problems involving: <ul style="list-style-type: none"> perimeters of 2-D shapes (including circles), areas of circles and composite shapes • I can draw and measure line segments and angles in geometric figures, including interpreting scale drawings • I can derive and use the standard ruler and compass constructions (perpendicular bisector of a line segment, constructing a perpendicular to a given line from/at a given point, bisecting a given angle); recognise and use the perpendicular distance from a point to a line as the shortest distance to the line • I can describe, sketch and draw using conventional terms and notations: points, lines, parallel lines, perpendicular lines, right angles, regular polygons, and other polygons that are reflectively and rotationally symmetric • I can use the standard conventions for labelling
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		<ul style="list-style-type: none"> • I can identify lines of symmetry in 2D shapes presented in different orientations • I can complete a simple symmetric figure with respect to a specific line of symmetry 		<p>the sides and angles of triangle ABC, and know and use the criteria for congruence of triangles</p> <ul style="list-style-type: none"> • I can derive and illustrate properties of triangles, quadrilaterals, circles, and other plane figures [for example, equal lengths and angles] using appropriate language and technologies • I can identify properties of, and describe the results of, translations, rotations and reflections applied to given figures • I can identify and construct congruent triangles, and construct similar shapes by enlargement, with and without coordinate grids • I can apply the properties of angles at a point, angles at a point on a straight line, vertically opposite angles • I can use and understand the relationship between parallel lines and alternate and corresponding angles • I can derive and use the sum of angles in a triangle and use it to deduce the angle sum in any polygon,
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				<p>and to derive properties of regular polygons</p> <ul style="list-style-type: none">• I can apply angle facts, triangle congruence, similarity and properties of quadrilaterals to derive results about angles and sides, including Pythagoras' Theorem, and use known results to obtain simple proofs• I can use Pythagoras' Theorem and trigonometric ratios in similar triangles to solve problems involving right-angled triangles• I can use the properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres to solve problems in 3-D• I can interpret mathematical relationships both algebraically and geometrically
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TO DESCRIBE POSITION, DIRECTION & MOVEMENT	<p>Pre Milestone 1 Beverley Steps P4 - 5 (Pre-accreditation)</p>	<p>Pre Milestone 2 Beverley Steps P6 – 7 (Pre-accreditation)</p>	<p>Pre Milestone 3 Beverley Steps P8-9 (Pre-accreditation)</p>	
	<ul style="list-style-type: none"> I can indicate through sign, speech or gesture (during rhyme, songs and number games), the next action following a prompt (eg. when singing ‘5 green bottles’ indicate the next bottle to be removed) 	<ul style="list-style-type: none"> I can perform or describe position using: <ul style="list-style-type: none"> - next to - behind in front of 	<ul style="list-style-type: none"> I can use mathematical vocabulary to describe position, direction and movement, including movement in a straight line I can describe position, direction and movement, including whole, half, quarter and three quarters 	
	<p>Milestone 1 Beverley Steps P10 – 11 NC Y1 – 2 (Entry Level 2 – Entry Level 3)</p>	<p>Milestone 2 Beverley Steps P12 – 13 NC Y3 – 4 (Level 1 Emerging – Level 1 Developing)</p>	<p>Milestone 3 Beverley Steps P14 -15 NC Y5 – 6 (Level 1 Secure – Level 2 Emerging)</p>	<p>Milestone 4 Beverley Steps 16+ NC Y7+ (Level 2 Developing - GCSE 4+)</p>
	<ul style="list-style-type: none"> I can describe position, direction and movement, including whole, half, quarter and three-quarter turns I can order and arrange combinations of mathematical objects in patterns and sequences I can use mathematical vocabulary to describe position, 	<ul style="list-style-type: none"> I can recognise angles as a property of shape and as an amount of rotation I can identify right angles, recognise that 2 right angles make a half turn and 4 make a whole turn I can identify angles that are greater than a right angle. I can describe positions on a 2-D grid as 	<ul style="list-style-type: none"> I can 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 I can describe positions on the full coordinate grid. (all four quadrants) I can draw and translate simple shapes 	<ul style="list-style-type: none"> I can state that X is inversely proportional to Y is equivalent to X is proportional to 1/Y; construct and interpret equations that describe direct and inverse proportion: interpret the gradient of a straight line graph as a rate of change

	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)	coordinates in the first quadrant <ul style="list-style-type: none"> • I can describe movements between positions as translations of a given unit to the left/right and up/down • I can plot specified points and draw sides to complete a given polygon. 	on the coordinate plane, and reflect them in the axes	
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	Pre Milestone 1 Beverley Steps P4 - 5 (Pre-accreditation)	Pre Milestone 2 Beverley Steps P6 – 7 (Pre-accreditation)	Pre Milestone 3 Beverley Steps P8-9 (Pre-accreditation)
TO USE MEASURES	<ul style="list-style-type: none"> • I can stack objects • I can indicate big/ small when comparing familiar objects (eg. Big teddy/ small teddy) 	<ul style="list-style-type: none"> • I can recognize structure in the day through ordering significant events • I can understand and use in practical contexts names of the week eg. 'today', swimming on Tuesday; lie in on Sunday; football on Saturday • I can use o'clock to describe the correct time • I can demonstrate understanding of 'heavy' and 'light' when comparing two objects where there is a marked difference (eg. Comparing two boxes containing marbles or feathers) 	<ul style="list-style-type: none"> • I can tell the time using whole and half hours • I can measure using: <ul style="list-style-type: none"> -centimetres -metres -grams -litres • I can compare and describe: <ul style="list-style-type: none"> -lengths and heights (eg. long/short, longer/shorter, tall/short, double/half) -mass/weight (eg. heavy/light, heavier than/ lighter than)

		I can use ordinal numbers (1 st , 2 nd or 3 rd) when describing positions of objects, people or events	-capacity and volume (eg full/empty, more than, less than, half, half full) <ul style="list-style-type: none"> -time (eg. quicker, slower, earlier, later)
Milestone 1 Beverley Steps P10 – 11 NC Y1 – 2 (Entry Level 2 – Entry Level 3)	Milestone 2 Beverley Steps P12 – 13 NC Y3 – 4 (Level 1 Emerging – Level 1 Developing)	Milestone 3 Beverley Steps P14 -15 NC Y5 – 6 (Level 1 Secure – Level 2 Emerging)	Milestone 4 Beverley Steps 16+ NC Y7+ (Level 2 Developing - GCSE 4+)
<ul style="list-style-type: none"> I can compare, describe and solve practical problems for: <ul style="list-style-type: none"> -lengths and heights -mass/weight -capacity and volume -time. I can measure and begin to record: <ul style="list-style-type: none"> -lengths and heights -mass/weight -capacity and volume time (hours, minutes, seconds) <ul style="list-style-type: none"> I can recognise and know the value of different denominations of coins and notes I can sequence events in chronological order using language 	<ul style="list-style-type: none"> I can measure, compare, add and subtract: <ul style="list-style-type: none"> lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) I can measure the perimeter of simple 2-D shapes I can add and subtract amounts of money to give change. (£ and p) I can tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks I can estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and 	<ul style="list-style-type: none"> I can convert between different units of metric measure I can understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints I can measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres I can calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and 	<ul style="list-style-type: none"> I can calculate ratio, proportion and rates of change: compare lengths, areas and volumes using ratio notation and/or scale factors; make links to similarity (including trigonometric ratios)

	<ul style="list-style-type: none"> • I can recognise and use language relating to dates, including days of the week, weeks, months and years • I can tell the time to the hour and half past the hour and draw the hands on a clock face to show these times • I can use standard units to estimate and measure length/height (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • I can compare and order lengths, mass, volume/capacity and record the results using >, < and = • I can recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value 	<p>hours; use appropriate vocab</p> <ul style="list-style-type: none"> • I can state the number of seconds in a minute and the number of days in each month, year and leap year • I can compare durations of events • I can convert between different units of measure (for example, kilometre to metre; hour to minute) • I can measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • can find the area of rectilinear shapes by counting squares • I can estimate, compare and calculate different measures, including money in pounds and pence • I can read, write and convert time between analogue and digital 12- and 24-hour clocks • I can solve problems involving converting from hours to minutes; 	<p>estimate the area of irregular shapes</p> <ul style="list-style-type: none"> • I can estimate volume and capacity • I can solve problems involving converting between units of time • I can use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation, including scaling • I can solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • I can use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal 	
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	<ul style="list-style-type: none"> • I can find different combinations of coins that equal the same amounts of money • I can solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change • I can compare and sequence intervals of time • I can 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 • I can state the number of minutes in an hour and the number of hours in a day 	<p>minutes to seconds; years to months; weeks to days</p>	<p>notation up to three decimal places</p> <ul style="list-style-type: none"> • I can convert between miles and kilometres • I can recognise that shapes with the same areas can have different perimeters and vice versa. • I can recognise when it is possible to use formulae for area and volume of shapes • I can calculate the area of parallelograms and triangles • I can calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units 	
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TO USE STATISTICS	<p align="center">Pre Milestone 1 Beverley Steps P4 - 5 (Pre-accreditation)</p>		<p align="center">Pre Milestone 2 Beverley Steps P6 – 7 (Pre-accreditation)</p>		<p align="center">Pre Milestone 3 Beverley Steps P8-9 (Pre-accreditation)</p>			
	<p align="center">(Pre-Accreditation)</p> <ul style="list-style-type: none"> I can roll a die or pin a spinner and look at the outcome with support 		<p align="center">(Pre-Accreditation)</p> <p align="center">I can match objects to peers in practical situations (eg. milk/ juice/ water to group of peers at snack time)</p>		<p align="center">(Pre-Accreditation)</p> <ul style="list-style-type: none"> I can collect and sort data in simple ways I can organise data and make a simple table (eg. record scores on a dice) I can interpret data presented in a simple list, table, pictogram or block graph and communicate their findings to others 			
	<p align="center">Milestone 1 Beverley Steps P10 – 11 NC Y1 – 2 (Entry Level 2 – Entry Level 3)</p>		<p align="center">Milestone 2 Beverley Steps P12 – 13 NC Y3 – 4 (Level 1 Emerging – Level 1 Developing)</p>		<p align="center">Milestone 3 Beverley Steps P14 -15 NC Y5 – 6 (Level 1 Secure – Level 2 Emerging)</p>		<p align="center">Milestone 4 Beverley Steps 16+ NC Y7+ (Level 2 Developing - GCSE 4+)</p>	
	<ul style="list-style-type: none"> I can interpret and construct simple pictograms, tally charts, block diagrams and simple tables I can ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity 		<ul style="list-style-type: none"> I can interpret and present data using bar charts, pictograms and tables I can solve one-step and two-step questions (for example, ‘How many more?’ and ‘How many fewer?’) using information presente 		<ul style="list-style-type: none"> I can solve comparison, sum and difference problems using information presented in a line graph I can complete, read and interpret information in tables, including timetables 		<ul style="list-style-type: none"> I can describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, 	

	<ul style="list-style-type: none"> I can ask and answer questions about totalling and comparing categorical data 	<p>d in scaled bar charts, pictograms and tables</p> <ul style="list-style-type: none"> I can interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs I can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs 	<ul style="list-style-type: none"> I can interpret and construct pie charts and line graphs and use these to solve problems I can calculate and interpret the mean as an average 	<p>median) and spread (range, consideration of outliers)</p> <ul style="list-style-type: none"> I can construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts, pie charts, and pictograms for categorical data, and vertical line (or bar) charts for ungrouped and grouped numerical data I can describe simple mathematical relationships between 2 variables (bivariate data) in observational and experimental contexts and illustrate using scatter graphs
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TO USE ALGEBRA	Pre Milestone 1 Beverley Steps P4 - 5 (Pre-accreditation)	Pre Milestone 2 Beverley Steps P6 – 7 (Pre-accreditation)	Pre Milestone 3 Beverley Steps P8-9 (Pre-accreditation)	
	<ul style="list-style-type: none"> I can follow the sequence of pictures or numbers as indicated by an adult during rhymes and songs 	I can create simple repeating patterns	<ul style="list-style-type: none"> I can solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems (eg. $7 = ? - 9$) 	
	Milestone 1 Beverley Steps P10 – 11 NC Y1 – 2 (Entry Level 2 – Entry Level 3)	Milestone 2 Beverley Steps P12 – 13 NC Y3 – 4 (Level 1 Emerging – Level 1 Developing)	Milestone 3 Beverley Steps P14 -15 NC Y5 – 6 (Level 1 Secure – Level 2 Emerging)	Milestone 4 Beverley Steps 16+ NC Y7+ (Level 2 Developing - GCSE 4+)
	<ul style="list-style-type: none"> I can solve addition and subtraction problems involving missing numbers 	<ul style="list-style-type: none"> I can solve addition and subtraction, multiplication and division problems that involve missing numbers 	<ul style="list-style-type: none"> I can use simple formulae I can generate and describe linear number sequences I can express missing number problems algebraically I can find pairs of numbers that satisfy an equation with two unknowns 	<ul style="list-style-type: none"> I can use and interpret algebraic notation, including: <ul style="list-style-type: none"> - ab in place of $a \times b$ - $3y$ in place of $y + y + y$ and $3 \times y$ - a^2 in place of $a \times a$, a^3 in place of $a \times a \times a$; a^2b in place of $a \times a \times b$ $\frac{a}{b}$ in place of $a \div b$ <ul style="list-style-type: none"> -coefficients written as fractions rather than as decimals Brackets I can substitute numerical values into formulae and

			<ul style="list-style-type: none"> • I can numerate possibilities of combinations of two variables 	<p>expressions, including scientific formulae</p> <ul style="list-style-type: none"> • I can use and understand the concepts and vocabulary of expressions, equations, inequalities, terms and factors • I can simplify and manipulate algebraic expressions to maintain equivalence by: <ul style="list-style-type: none"> - collecting like terms - multiplying a single term over a bracket - taking out common factors - expanding products of 2 or more binomials • I can use and understand standard mathematical formulae; rearrange formulae to change the subject <ul style="list-style-type: none"> • I can model situations or procedures by translating them into algebraic expressions or formulae and by using graphs • I can use algebraic methods to solve linear equations in 1 variable (including all forms that require rearrangement) • I can work with coordinates in all 4 quadrants • I can recognise, sketch and produce graphs of linear and
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				<p>quadratic functions of 1 variable with appropriate scaling, using equations in x and y and the Cartesian plane</p> <ul style="list-style-type: none"> • I can interpret mathematical relationships both algebraically and graphically • I can reduce a given linear equation in 2 variables to the standard form $y = mx + c$; calculate and interpret gradients and intercepts of graphs of such linear equations numerically, graphically and algebraically • I can use linear and quadratic graphs to estimate values of y for given values of x and vice versa and to find approximate solutions of simultaneous linear equations • I can find approximate solutions to contextual problems from given graphs of a variety of functions, including piece-wise linear, exponential and reciprocal graphs • I can generate terms of a sequence from either a term-to-term or a position-to-term rule
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				<ul style="list-style-type: none">• I can recognise arithmetic sequences and find the nth term• I can recognise geometric sequences and appreciate other sequences that arise
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This Progression Map complements the Curriculum Map, which covers subject content over time.
These are planned in Key Stages and can be found on TEAMS.

