



# Mathematics Curriculum Plan Overview

## Year 10

<b>Entry Level Maths (EL1, EL2 &amp; EL3)</b>				
Term	Topic	Learning	How can parents' best support	Key Vocab
<b>Autumn 1</b>	<b>Basic number - four operations</b>  <b>Representing and interpreting data</b>  <b>Basic fractions</b>	<b>Basic number</b> - adding and subtracting. Multiplying and dividing.  <b>Data</b> - Drawing bar charts and line graphs. Reading graphs to pull out key information. Comparing data and checking assumptions. column A is 62 more than column B, are they right? Drawing a table and completing a frequency table.  <b>Fractions</b> - Fractions of amounts. Savings and discounts.	Practise written methods for basic arithmetic. Column addition and subtraction. Multiplication and division methods. Practice times tables.  Reading charts and graphs and giving statements. "I can see that..." There are... more than..."  Fractions of a meal, ingredients, items on offer. Calculate fractions of amounts. e.g. one half of 30, a quarter of 200ml, a fifth off £250.	Add, sum, total, calculate. subtract, takeaway, minus, difference.  Compare, read, find, interpret. Draw, plot.  Fraction, share, divide.
	<b>Assessment: <u>Entry Level Section A (non calculator)</u></b>			
<b>Autumn 2</b>	<b>Sequences</b>  <b>Rounding and estimation</b>  <b>Positional language</b>  <b>Coordinates</b>  <b>Time</b>	<b>Sequences</b> - Finding a pattern and completing a sequence. Whole numbers and decimals sequences.  <b>Rounding and estimation</b> - Rounding to the nearest ten of up to 3 digit numbers  <b>Positional language</b> - Directions (Left, right, forward, back, turn, stop)  <b>Coordinates</b> - Reading coordinates on a basic graph. Plotting basic coordinates on a graph.  <b>Time</b> - key time facts (date, seconds, minutes, hours, days, weeks in a year)	Practice continuing a pattern. 11, 22, 33, 44... 12, 24, 36... 1.25m, 1.5m, 1.75m, 2m...  Practice rounding to the nearest 10. Play rounding games online <a href="https://mathsframe.co.uk/en/resources/resource/573/Birds-v-Robots-Maths-Battle">https://mathsframe.co.uk/en/resources/resource/573/Birds-v-Robots-Maths-Battle</a>  Position language can be used when going out on every day activities.  Practice coordinates using online games <a href="https://mathsframe.co.uk/en/resources/resource/469/Coordinates-Alien-Attack">https://mathsframe.co.uk/en/resources/resource/469/Coordinates-Alien-Attack</a>  Time - reminders of time facts. There are 52 weeks in 1 year. There are 60 minutes in 1 hour. Read the time and write it in digital 12 and 24 hour.  Practice reading the time using clocks and online games <a href="https://mathsframe.co.uk/en/resources/resource/116/telling-the-time">https://mathsframe.co.uk/en/resources/resource/116/telling-the-time</a>	Pattern, increase, decrease, sequence.  Round, nearest, estimate, calculate.  Up, down, left, right, straight ahead.  Coordinates, plot, draw, x axis, y axis.  Annual, annually, yearly, monthly, daily.
<b>Assessment: <u>Entry Level assessment entry (at appropriate level Entry Level 1,2,3)</u></b>				
<b>Spring 1</b>	<b>Basic number - four operations</b>  <b>Shapes and shape properties</b>  <b>Basic decimal</b>  <b>Measures</b>	<b>Basic number</b> - adding and subtracting. Multiplying and dividing.  <b>Shapes and shape properties</b> - Common shapes, right angles, lines of symmetry.  <b>Basic decimals</b> - Adding and subtracting decimal numbers.	Practise written methods for basic arithmetic. Column addition and subtraction. Multiplication and division methods. Practice times tables.  Identifying and recognising right angles.  Adding and subtracting numbers with 1 decimal place. E.g 12.5 + 3.4  Reading measures on scales,	Multiply, calculate, workout, times.  Right angle, symmetry, symmetrical.  Decimal place, tenth.  Rounding, nearest division, interval.

		<b>Measures</b> - Reading a scale and rounding to the nearest interval e.g. cm or ml.	weighing in the kitchen. Practice rounding to the nearest interval e.g nearest 100ml 100g 1litre 1kg.	Weight, capacity, units, scale.
<b>Assessment: <u>Entry Level assessment resit attempts</u></b>				
<b>Spring 2</b>	<b>Basic number - four operations</b>  <b>Representing and interpreting data</b>  <b>Sequences</b>	<b>Basic number</b> - adding and subtracting. Multiplying and dividing.  <b>Data</b> - Revisiting drawing accurate bar charts and line graphs. Proving states about data to be true or incorrect.  <b>Sequences</b> - Worded questions involving application of understanding of sequences	Practise written methods for basic arithmetic. Column addition and subtraction. Multiplication and division methods. Practice times tables.  Read bar charts and talk about what is shown. Make comparisons. Reading line graphs and drawing conclusions.  Writing and continuing sequences. Advanced would include decimal places.	Multiply, calculate, workout, times.  Interpret, read, graph, chart, table.  Sequence, pattern, next term.
<b>Assessment: <u>Entry Level assessment resit attempts</u></b>				
<b>Summer 1</b>	<b>Functional skills - money</b>  <b>Angles</b>  <b>Basic algebra</b>	<b>Money</b> - Calculating involving money. Addition and subtraction. Finding total cost and change.  <b>Angles</b> - Basic angle rules about a point an on a straight line.  <b>Algebra</b> - Basic algebra, 1 step equations, substitution. Function machines 1 and 2 step,	Adding up totals of 2 amounts. £12.50 plus £5.49. Subtracting amounts from whole numbers and decimals amounts, e.g. £10 minus £4.59.  Reinforcing basic angle rules. Angles on a straight line add up to 180degrees, around about a point add up to 360degrees.  1 step algebra equations. $a + 3 = 5$ and $10 - c = 4$ and $7f = 35$ therefore $f = 5$  Fact families $10 + 4 = 14$ therefore $14 - 4 = 10$ and $14 - 10 = 4$	Total, sum, calculate, change, difference, total amount  Straight line, right angle, acute angle, obtuse angle, reflex angle, full turn.  Algebra, inverse operation (opposite), function,
<b>Assessment: <u>Entry Level assessment resit attempts</u></b>				
<b>Summer 2</b>	<b>Sequences - negative numbers</b>  <b>Negative numbers - four operations</b>  <b>Functional skills - time</b>  <b>Functional skills - measures</b>	<b>Sequences</b> - increasing from negative integers (numbers) into positive integers. Crossing the 0 boundary in difference multiples forwards and backwards.  <b>Negative numbers</b> addition and subtraction of up to 2 digit numbers, multiplication and division rules involving negative number rules.  <b>Measuring</b> items using a scale. Measuring accurately using a ruler and weighing using scales.	Practice continuing sequences forwards and backwards across 0  Adding and subtracting negative numbers  $2 - 3 = -1$ $-3 - 5 = -8$ $3 - -7 = 4$  Multiplying negative numbers  $-3 \times 5 = -15$ $-5 \times -5 = 25$ $8 \times -2 = -16$  Measuring items using a ruler or tape measure. Practice weighing items in the kitchen. Reading measures on common household items.	Positive, negative, integer, zero.  mm, cm, m, km ml, litre  g, kg