

Beacon Maths KS3 and KS4 Curriculum Offer Overview

During admission to the Beacon most KS3 and 4 students complete a baseline assessment (Unit 1). They will then follow a choice of units from 2-12 depending on outcomes identified by their school and/or their baseline assessment.

<p style="text-align: center;">Unit 1 Baseline</p> <p>Information collected from own/previous school about level of working within maths. Students complete the appropriate baseline assessment:</p> <ul style="list-style-type: none"> • Ward 3 Numeracy Assessment • Ward 3 Maths Assessment • Appropriate GCSE past paper 	<p style="text-align: center;">Unit 2 Work Set By Own School</p> <p>Students complete tasks set by their own school. Physical resources may be provided by their own school or tasks can be emailed to the Beacon staff. Alternatively, students can access a school VLE or intermediate online application such as 'MyMaths' through which their school can set tasks.</p>	<p style="text-align: center;">Unit 3 Numeracy skills</p> <p>Possible topics that may be covered within this unit include:</p> <ul style="list-style-type: none"> • Place value and ordering • The four arithmetic operations • Order of operations • Negative numbers • Rounding, estimation and approximation 	<p style="text-align: center;">Unit 4 Fractions, decimals, percentages, ratio & proportion</p> <p>Possible topics that may be covered within this unit include:</p> <ul style="list-style-type: none"> • Using the four operations with FDP • Converting between FDP • Solving problems involving percentages • The unitary method • Solving problems involving ratio • Representing proportional relationships using formulae 	<p style="text-align: center;">Unit 5 Properties of number</p> <p>Possible topics that may be covered within this unit include:</p> <ul style="list-style-type: none"> • Using factors and multiples • Recognising powers and roots • Using rules of indices • Working with standard index form • Manipulating surds 	<p style="text-align: center;">Unit 6 Measuring and drawing</p> <p>Possible topics that may be covered within this unit include:</p> <ul style="list-style-type: none"> • Using imperial and metric units • Using compound units • Drawing scale diagrams • Calculating bearings • 2D representations of 3D shapes • Constructions • Loci
<p style="text-align: center;">Unit 7 Algebra skills</p> <p>Possible topics that may be covered within this unit include:</p> <ul style="list-style-type: none"> • Collecting like terms • Solving equations • Using formulae • Solving inequalities • Working with sequences 	<p style="text-align: center;">Unit 8 Graphs & functions</p> <p>Possible topics that may be covered within this unit include:</p> <ul style="list-style-type: none"> • Plotting graphs • Using $y = mx + c$ • Functions • Transformation of graphs • Interpreting real life graphs 	<p style="text-align: center;">Unit 9 Shapes & angles</p> <p>Possible topics that may be covered within this unit include:</p> <ul style="list-style-type: none"> • Angles • Circle theorems • Properties of shapes • Perimeter • Area • Volume • Similarity • Congruence 	<p style="text-align: center;">Unit 10 Transformations, triangles & vectors</p> <p>Possible topics that may be covered within this unit include:</p> <ul style="list-style-type: none"> • Translation • Reflection • Rotation • Enlargement • Pythagoras' Theorem • Trigonometry 	<p style="text-align: center;">Unit 11 Data handling</p> <p>Possible topics that may be covered within this unit include:</p> <ul style="list-style-type: none"> • Calculating and interpreting summary data • Representing and interpreting data using charts and graphs • Forming and solving equations 	<p style="text-align: center;">Unit 12 Probability</p> <p>Possible topics that may be covered within this unit include:</p> <ul style="list-style-type: none"> • Understanding probability • Combinations and permutations • Using Venn diagrams • Using tree diagrams