### Curriculum Delivery

**Key Stage 3**

- **In all years**, students are given the opportunity to explore and master maths by using mini-whiteboards in lessons.

- **In year 7**, students will undergo a baseline test which is nationally benchmarked, giving us detailed feedback on the students’ strengths and areas of need. Thereafter, students will be tested at the end of every term with a synoptic paper, not just testing the most recent topics, but recalling others.

- **In all years**, students will have termly tests, as above.

- **In all years**, extended Learning is used to consolidate the learning as well as the use of recall tests, to ensure that fundamental skills are entrenched into students’ long-term memory.

### Curriculum aims

**Key Stage 3**

The aim of the KS3 curriculum is for all students to become confident with number and to apply their use of number to unfamiliar contexts, through problem-solving and reasoning. Following the maths mastery method, we strive to make all topics accessible through reasoning.

Ensuring a smooth transition from KS2, we shall address knowledge gaps and build on students’ strengths:

- The **year 7** curriculum is designed to lay the foundations and underpin the remaining years in the school and is referred back to throughout their time at the college.

- It is our belief that algebra is an abstract extension of number and used to describe number: they are not wholly separate topics.

- The curriculum in **year 8 and year 9**, seeks to consolidate, master and entrench these skills, ensuring that students can utilise maths in a problem-solving context.

- We are fundamentally aware of the need for all students to have the opportunity to be agile with number and to be able to apply their maths skills to different contexts.

### Curriculum Content

**Year 7**

- **Foundation:**
  - place value, operations, perimeter, squares & roots, area, fractions, algebra, ratio, angles.

- **Higher:**
  - place value, operations, area, division, fractions of amounts, squares, roots, SURDS, properties of shapes, fractions, algebra, equations, angles, percentages and ratio
<table>
<thead>
<tr>
<th>Curriculum Content Year 8</th>
<th>Curriculum Content Year 10</th>
<th>Curriculum Content Year 11</th>
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</thead>
<tbody>
<tr>
<td><strong>Foundation:</strong> Operations with decimals, negative numbers, powers &amp; roots, algebra, solving equations, ratio, percentages, standard form, decimals, fractions, FDP, Primes, Area, Angles, Sequences, LCM and HCF</td>
<td><strong>Foundation:</strong> Number consolidation, Algebra, Equations, Sequences, Fractions, Percentages, Angles, Data, Area, Graphs, Transformations, Ratio, Pythagoras, Trigonometry, Probability.</td>
<td><strong>Foundation:</strong> Percentages and Rates of Change, Quadratic Equations, Graphs, Constructions and Loci, Volume, Rearranging Formulae, Fractions, Reciprocals, Standard Form, Congruency, Probability, Trigonometry and then consolidation.</td>
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<tr>
<td><strong>Higher:</strong> Primes, Index Laws, SURDS, Nth Term, graphs, estimation, standard form, circles, brackets, Pythagoras, Multiplicative Reasoning, Inequalities, Volume.</td>
<td><strong>Higher:</strong> Percentages, Indices, SURDS, Quadratics, Graphs, Transformations, Trigonometry, Circle Theorems, Simultaneous Equations, Inequalities, Sequences, Proportional Reasoning, And Rearranging Formulae.</td>
<td><strong>Higher:</strong> SURDS, Functions, Quadratics, Equations of Circles, Vectors, Trigonometry Rules, Simultaneous Equations, Completing the Square, Trigonometry Graphs, probability, statistics and then consolidation.</td>
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**Students have 8 lessons a fortnight in year 8**

**Students have 7 lessons a fortnight in year 9**

**Students have 7 lessons a fortnight in year 10**

**Students have 7 lessons a fortnight in year 11**

**Students take AQA GCSE Maths (8300)**

Bottisham Village College
Achievement through Inspiring, Caring, Enriching