**Mathematics: Start of Year 11 Information**

Cambridge International Education:

* IGCSE Extended/Core Mathematics: 0580
* IGCSE Additional Mathematics: 0606

**Starting in Year 11 (or during Year 10)**

Welcome to DSCG Mathematics! We hope the information below will support you to make a smooth transition to Maths lessons here in at Dulwich College (Singapore). Before you leave your current school, it is a good idea to check with your current Mathematics teacher the topics that you have/haven’t covered so far.

**Areas covered during Year 9**

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| --- | --- | --- | --- |
| **Year** | **Michaelmas Term** | **Lent Term** | **Trinity Term** |
| **Band 1** | Pythagoras & trigonometry in right & non-right triangles in 2D & 3D  Trigonometric graphs  Bearings  Bounds  Linear & quadratic expressions & equations  Completing the square  Algebraic fractions | Shape & angle  Circle theorems  Geometric proof  Perimeter & Area  Indices and Exponential equations  Surds | Inequalities  Types of number  Standard Form  Analysing & representing univariate & bivariate data  Surface area & volume  Similarity in 3D  Transformations of shape |
| **Band 2&3** | Pythagoras & trigonometry in right-angled triangles 2D & 3D  Similarity in 2D  Number review  Approximation & bounds  Manipulating algebraic expressions  Solving equations  Rearranging formulae  Inequalities | Shape & angle  Geometric proof (for congruence & similarity)  Perimeter & Area  Types of number  Indices  Standard form  Exponential equations | Analysing & representing univariate & bivariate data  Transformations of shape |

**Areas covered during Year 10**

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| --- | --- | --- | --- |
| **Year** | **Michaelmas Term** | **Lent Term** | **Trinity Term** |
| **Band 1** | Data and Central Tendency  Transformations  Perimeter and Area  Surface area & volume  Similarity in 3D  Percentages  Ratio & proportion  Graphs | Sequences and Series  Probability  Set Theory  Perms, combs & the binomial theorem  Quadratic equations  Completing the square   |  | | --- | |  | | Algebraic fractions  Functions  Coordinate geometry  Linearisation  Graphs of Functions  Quadratic Functions  Coordinate Geometry of the Circle  Polynomials |
| **Band 2&3** | Set Theory  Probability  Ratio & proportion  Compound measures  Percentages  Sequences and Series | Real life graphs  Coordinate geometry  Surface area & volume  Similarity  Perimeter and Area | Algebraic Fractions  Quadratic equations  Data and Central Tendency  Transformations |

Please note that Band 1 follow an accelerated course following the Extended IGCSE, so that Additional Mathematics can be studied from later into Year 10 and into Year 11. It is a fast-paced course, rigorous and demanding. By the end of Year 10, Band 1 have covered 90% of the Extended content. Therefore, it will not be appropriate for many students who have not followed a very similar previous pathway to enter into Band 1. In Band 2 & 3 we also provide challenge with the Extended Curriculum and through projects, hence these bands are appropriate for most students entering mid-way through Middle Senior School.

**Work to complete before you arrive (optional)**

We would recommend you using the website <https://corbettmaths.com/contents/> to cover all the following essential topics listed in the course outline above. There are videos explaining the topics, textbook and exam style questions with worked solutions.

If there are gaps in your knowledge (or you know there is content that you have not covered), then we are happy to help and recommend that you regularly attend our IGCSE drop-in CCA if this is the case.