**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 & 3DTrigonometric graphsBearingsBoundsLinear & quadratic expressions & equationsCompleting the squareAlgebraic fractions | Shape & angleCircle theoremsGeometric proofPerimeter & AreaIndices and Exponential equationsSurds | Inequalities Types of numberStandard FormAnalysing & representing univariate & bivariate dataSurface area & volumeSimilarity in 3DTransformations of shape |
| **Band 2&3** | Pythagoras & trigonometry in right-angled triangles 2D & 3DSimilarity in 2DNumber reviewApproximation & boundsManipulating algebraic expressionsSolving equationsRearranging formulaeInequalities | Shape & angleGeometric proof (for congruence & similarity)Perimeter & AreaTypes of numberIndicesStandard formExponential equations | Analysing & representing univariate & bivariate dataTransformations of shape |

**Areas covered during Year 10**

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| **Year** | **Michaelmas Term** | **Lent Term** | **Trinity Term** |
| **Band 1** | Data and Central TendencyTransformationsPerimeter and AreaSurface area & volumeSimilarity in 3DPercentagesRatio & proportionGraphs | Sequences and SeriesProbabilitySet TheoryPerms, combs & the binomial theoremQuadratic equationsCompleting the square

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 | Algebraic fractionsFunctionsCoordinate geometryLinearisationGraphs of FunctionsQuadratic FunctionsCoordinate Geometry of the CirclePolynomials |
| **Band 2&3** | Set TheoryProbabilityRatio & proportionCompound measuresPercentages Sequences and Series | Real life graphs Coordinate geometrySurface area & volumeSimilarityPerimeter and Area | Algebraic FractionsQuadratic equationsData and Central TendencyTransformations |

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.