

We seek to use lively minds, to work hard, to develop all our talents and to grow through sharing, to be the best version of ourselves



**A LEVEL
MATHS
TRANSITION
MATERIAL**

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Refresher Course to Help with the Transition from GCSE to A-Level Mathematics

‘ Perhaps I could best describe my experience of doing mathematics in terms of entering a dark mansion. You go into the first room and it's dark, completely dark. You stumble around, bumping into the furniture. Gradually, you learn where each piece of furniture is. And finally, after six months or so, you find the light switch and turn it on. Suddenly, it's all illuminated and you can see exactly where you were. Then you enter the next dark room’ ... Sir Andrew Wiles

How to use this booklet

Thank you for choosing to study Mathematics in the sixth form at Caistor Grammar School. The Mathematics Department is committed to ensuring that you make good progress throughout your A-level course. In order that you make the best possible start to the course, we have prepared this booklet. The material in this refresher course has been designed to enable you to prepare for the demands of A-Level maths.

When your course starts in September you will find that your ability to get the most from lessons, and to understand new material, depends crucially upon both having a good facility with algebraic manipulation and undertaking plenty of independent study. We think that this is so important that we are providing you with this workbook to complete before you start the course in September. It is vitally important that you spend some time working through the questions in this booklet over the summer - you will need to have a good knowledge of these topics before you commence the course in September.

A-Level maths is a demanding course and good skills in the areas covered within this booklet will be paramount to your success. You will most-likely have met all the topics before at GCSE. You should attempt, at least, most questions in each exercise – not necessarily every question, but enough to ensure you understand the topic thoroughly. The answers are given at the back of the booklet, and you should mark your work. If you get questions wrong, you should revise the material and try again until you are getting most questions correct. You may find some questions towards the end of each section quite tricky – this is ok, but still try them! In September, you will be asked about your progress with the booklet. You will also sit a test at the start of September to check how well you understand these topics, so it is important that you have worked through the booklet before then. A mock test is provided at the back of this booklet, with answers. We hope that you will use this introduction to give you a good start to your A-Level work and that it will help you enjoy the course more.

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We would recommend Dr Frost Maths as a means of finding online notes and questions. Once you are part of the sixth form you will receive an account linked to your school email address. However, many resources can be accessed without an account.

Getting Help

You may also find the following books useful in helping you to prepare for your year 12 studies. Head Start to AS Maths Preparation for AS/A Level Mathematics Published by CGP Workbooks www.cgpbooks.co.uk

Preparation for A Level Maths Published by Alpha Workbooks www.alphaworkbooks.co.uk

The course

We will be studying the AQA A Level Mathematics course 7357. This involves 3 exams (2 hours each), taken at the end of year 13

- Paper 1: Pure
- Paper 2: Pure and Mechanics
- Paper 3: Pure and Statistics

There will be exams at the end of year 12 as well as regular topic tests, these do not count towards your final grade but will be used as a basis for UCAS predictions at the end of year 12.

Calculators

We recommend the Casio FX991CW calculator for the course – your GCSE calculator is not likely to have enough features for the A Level course, so you will need to upgrade at some point. These cost from £20-30. We hope to make these available through the school library in September. Graphics calculators are also allowed in the exams, but these are more expensive, but can prove useful, particularly for Further Mathematics.