Get off to a ‘Flying Start’ in **Maths – AS Level**

Welcome to Flying Start with Exeter College.

Below, you’ll find questions to consider, tasks to complete and some background research you might want to undertake before the start of College in September.

This is the first of two batches of Flying Start activity sheets we’ll be sending you. The second will be launched around the May half term. Please read the instructions below and have a go at the activities.

If you get stuck at any point, please see the Frequently Asked Questions (FAQs) section at the bottom.

| **To get you started…** | A level Maths is a fantastic subject which is dominated by algebra. The most important thing for you to be able to do by the time you start at College is to have a good grasp of indices and to be able to confidently solve mathematical equations.
There are plenty of excellent resources available online, but the most useful thing that you can do is actually to practise Mathematical techniques rather than looking through loads of material.

**Tasks**

Click on this link from the Centre for Innovation in Mathematics Teaching: [https://www.cimt.org.uk/projects/mepres/step-up/index.htm](https://www.cimt.org.uk/projects/mepres/step-up/index.htm)

Scroll down to the section labelled “Resources To Help You”. There are plenty of interactive resources to help if you want.

Please complete the exercises in the column labelled “Other Useful Material”. The sections labelled in **bold** are the most useful. However, even the non-bold sections are worth doing.

| 1.3 Index Notation |
| 1.6 Further Index Notation |
| 2.6 Changing the subject [you will need to scroll up from section 2.8]. |
| 2.7 Further Change of subject [you will need to scroll up from section 2.8]. |
| 2.8 Expansion of brackets |
| 2.9 Factorisation |
| 2.10 Algebraic Manipulation |
| 2.11 Algebraic Fractions |

Please make sure that you check your answers after each section.

| **For those who want a bit more…** | If you are really keen you could buy the A level Maths textbook (CGP): ISBN: 9781782947233 and start working through the chapters.
However, you may wish to wait until you’ve started at College when it would be less expensive.

You could buy a new calculator that is needed for A level: we recommend the Casio fx991EX.

| **FAQs** | **Q:** There is a lot of material here, do I have to do it all?  
**A:** Please don’t worry about doing all of the sections listed above. The sections in bold are the most important. However, in each section that you try, it is important to do all of the questions since this builds up your mathematical muscle and resilience. |
Q: Is it important to check my answers?
A: Yes. Please check your answers after each question that you attempt.

Q: I am not sure how to do the questions, what can I do?
A: Look through the worked examples and the interactive resources listed, or look in your current GCSE textbook for information. You could also search for answers on the internet: Jack Brown videos on YouTube are useful [visit the Playlist Called Teaching OCR MEI Core 1 and Core 2 Old Spec]. The website Khan Academy also has lots of useful material.