# Welcome to A Level Mathematics and Further Mathematics!

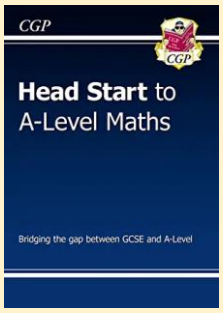
We hope you are excited to start learning Mathematics at a higher level, and we look forward to meeting you in September!

We have written this introduction in the style of an FAQ and hopefully it answers most of your questions and gives you some ideas about what you could do over the next couple of months.

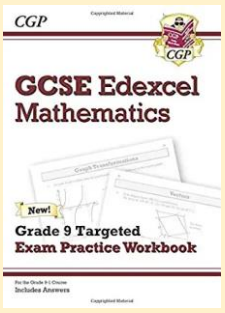
## What do we study?

A significant part of the A Level course builds on your skills in algebra: we study new functions and new techniques and we also develop your ability to solve problems.

If you want to be sure that your current skills are strong, then you might want to check out a book like one of these, for example:




*Available on Amazon*
*(and currently the Kindle version is free!)*




*Available on Amazon*

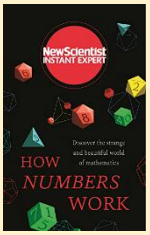
If you are taking Further Maths, then also check out the playlist of "Lockdown Math" videos on YouTube.

Another part of the A Level course looks at how Mathematics is used and applied to other subjects: we look at some topics in Statistics (which is about data and probabilities) and in Mechanics (which is about forces and how objects move).

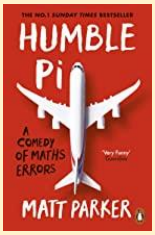
## What can I read or watch out of interest?

There are *so many* books and YouTube videos available, that it can be hard to make a shortlist. Here are just a few ideas, but it is often best to search for things that really appeal to you personally!

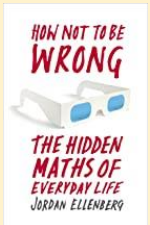

Hello World,
Hannah Fry




Now Numbers Work,
New Scientist

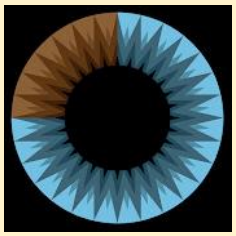


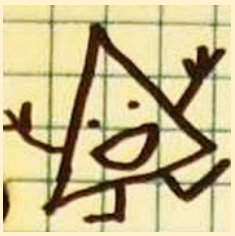

Humble Pi,
Matt Parker



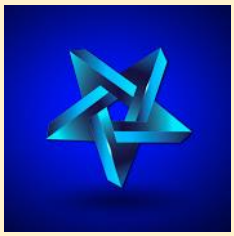

How Not To Be Wrong,
Jordan Ellenberg

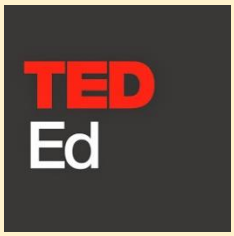
Some very popular YouTube Channels are:


3Blue1Brown


ViHart

Veritasium


Zach Star

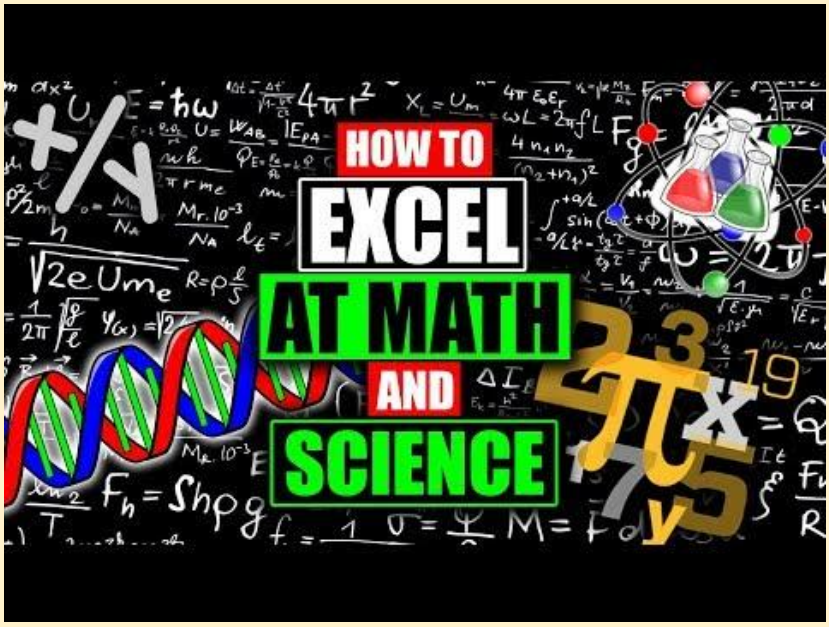


TED-Ed

## What is the best way to study?

Of course, at Hurtwood your teachers will work closely with you and help you to develop your own study skills and organisation.

We really recommend you watch this video as it talks about the most successful strategies for learning, especially in Maths and Sciences:




## Where can I find challenging problems?

Every year, we enter students for competitions such as the UK Senior Maths Challenge and also the Team Maths Challenge. You can find loads of really interesting problems on the "Art of Problem Solving" website: for example AMC8-2019 and AMC10A-2019.

## Any other questions or problems?

If you have any questions at all about work that you could be doing, or if you have specific questions about the course or areas of mathematics that interest you, then please do get in touch by email!

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