



### Specifications:

**Maths:** Pearson Edexcel Level 3 Advanced GCE in Mathematics (9MA0)

**Further Maths:** Pearson Edexcel Level 3 Advanced GCE in Further Mathematics (9FA0)

If you are thinking of studying A-Level Maths and Further Maths, you should be commended for your astute decision-making! However, A-level Maths and Further Maths have a reputation for being amongst the hardest A-Levels, so what can you do to ensure the best possible start to the course? Well, it's pretty easy really: keep on top of your GCSE Maths skills – especially the Algebra – as there is a nice overlap between Grade 7-9 Algebra and the Year 12 course.

**Compulsory** induction task (for all students wishing to study A Level Maths/Further Maths)

- Please complete the [algebra skills booklet](#) to ensure that you make the smoothest of transitions from Year 11 into Year 12.

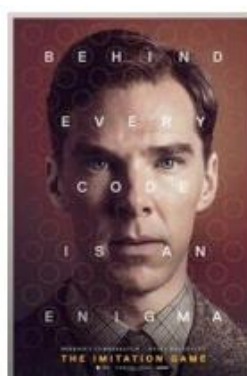
Other suggested induction tasks (please complete at least one of the following)

- Investigate YouTube!
  - Look for the [Numberphile](#) channel or videos by the '[Festival of the Spoken Nerd](#)' team. Unsurprisingly Matt Parker ([Stand Up Maths](#)) is involved in both. Good numberphile videos include [Infinity is bigger than you think](#), [17 and Sudoku Clues](#), and [Rubik Cube Combinations](#). But you should check out all the videos.

Numberphile

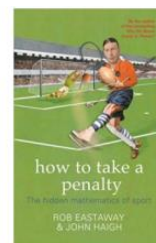
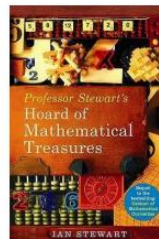
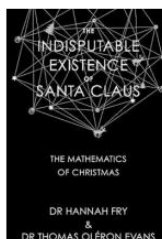
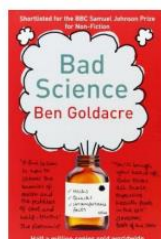
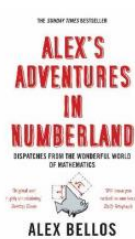
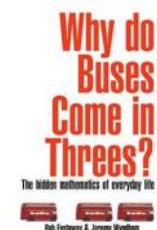


- Watch a film – you'll be surprised how many results you get if you Google 'maths films on Netflix', however they aren't all available on the UK service 😞.
  - 'Hidden Figures' PG
  - 'Moneyball' 12A
  - 'A Beautiful Mind' 12
  - 'The Imitation Game' 12

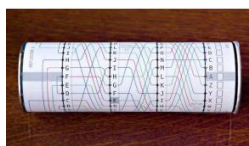




- Read a book and follow the authors on social media:
  - 'Why do Busses come in threes' or 'How many socks make a pair' both by Rob Eastaway
  - 'Alex's Adventures in Numberland'
  - 'Bad Science' by Ben Goldacre
  - 'The indisputable existence of Santa Claus: The mathematics of Christmas' by Dr Hannah Fry & Dr Thomas Oleron Evans
  - 'The Music of the Primes' by Marcus du Sautoy
  - 'The Number Devil: A Mathematical Adventure' by Hans Magnus Enzensberger



- Go to a Maths or Science event/lecture/museum:
  - If you get the opportunity to, go to a popular Maths or Science lecture - alternatively watch an online one (from the [Royal Institute](#) perhaps). Don't worry if you don't understand all of it, you won't be alone, but you'll start to see the links between different areas.
  - Perhaps visit the [Science Museum website](#) and learn about how data and statistics are used in epidemiology and the spread of disease. [The Winton Gallery](#) is the area of the museum devoted to maths, use the link to watch a short film about 10 interesting maths objects in the museum.
- Get puzzling!
  - Invest in some Maths related puzzle books: Sudoku, mathdoku, menseki meiro (books are in other languages, but you don't need the instructions, just the pictures), logic problems. Geometry snacks is another book with fun and interesting geometrical problems if you fancy something a bit different from number puzzles.
- Eat some tubes of Pringles with friends!



- Google Pringles Enigma machine and make enigma machines out of the tubes! Text each other coded messages whilst sunbathing (in the rain).

Above all have a brilliant summer and we will see you in September!