

## Mathematics Transition Work June 2020

For each subject you will receive a detailed introduction to allow full transition into the college and your new learning. Please complete the weekly tasks outlined below and attend the meet sessions with the teachers for further guidance and information. Please keep all work created in a folder to present to us in the first lesson in September.

<b>Mathematics A Level</b>	<b>Google Classroom Code:</b>	<b>Google Meet code:</b>
AQA 7356 (AS LEVEL) 7357 (A LEVEL)  EDEXCEL AAL30 (L3 ALGEBRA)	Fjqrvbk	<a href="https://meet.google.com/lookup/fuxylj55f7">https://meet.google.com/lookup/fuxylj55f7</a>
<b>Weekly Tasks</b>	<b>Topic</b>	<b>Resources</b>
W/C 1.6.20	Introduction	<ol style="list-style-type: none"> <li>1. Getting Familiar</li> <li>2. Using Graphing Software (DESMOS)</li> <li>3. Complex Numbers</li> <li>4. Wider Reading</li> <li>5. Get in Touch</li> </ol>
W/C 8.6.20	Equation of a Straight Line	<ol style="list-style-type: none"> <li>1. General equation of a line and converting between 2 formats.</li> <li>2. Equation of a line given gradient and point</li> <li>3. Equation of a line given two points</li> <li>4. Points of intersection of two lines/line and curve</li> <li>5. Properties of parallel and perpendicular lines</li> </ol>
W/C 15.6.20	Indices and surds	Rules of indices, simplifying and manipulating
W/C 22.6.20	Indices and surds	Working with surds, simplifying, rationalising and calculating.
W/C 29.6.20	Algebraic Techniques	Factorising
W/C 6.7.20	Algebraic Techniques	Completing the Square
<b>Fortnightly Meet: Date &amp; Time</b>	<b>Teacher delivering</b>	<b>Resources</b>
Tue 2nd June 2020 P4 1.30pm	Mrs Wooldridge	All resources online and via Google Classroom. Pen and paper may be useful.
Tuesday 9 <sup>th</sup> June 2020 P1 9am	Mr Harris	All resources online and via Google Classroom. Pen and paper may be useful
Monday 15 <sup>th</sup> June 2020 P3 11.30am	Mr Pate	All resources online and via Google Classroom. Pen and paper may be useful

Tuesday 30 <sup>th</sup> June 2020 P1 9am	Mrs White	All resources online and via Google Classroom. Pen and paper may be useful
---	-----------	--

General resources and suggested reading:

Specification Link:

<https://www.aqa.org.uk/subjects/mathematics/as-and-a-level/mathematics-7356>

<https://www.aqa.org.uk/subjects/mathematics/as-and-a-level/mathematics-7357>

<https://qualifications.pearson.com/en/qualifications/edexcel-awards-in-mathematics/algebra.html#%2Ftab-1>

Preferred websites:

<https://www.desmos.com/calculator>

Possible additional interest reading:

This is a very readable online mathematics magazine:

<https://plus.maths.org/content/>

TED Talks you might like:

[https://www.ted.com/playlists/251/talks\\_for\\_people\\_who\\_hated\\_mat](https://www.ted.com/playlists/251/talks_for_people_who_hated_mat)



RANDALL MUNROE

### Comics that ask "what if?"

Web cartoonist Randall Munroe answers simple what-if questions ("what if you hit a baseball moving at the speed of light?") using math, physics, logic and deadpan humor. In this charming talk, a reader's question about Google's data warehouse leads Munroe down a circuitous path to a hilariously over-detailed answer — in which, shhh, you might actually learn something.



ARTHUR BENJAMIN

### The magic of Fibonacci numbers

Math is logical, functional and just ... awesome. Mathemagician Arthur Benjamin explores hidden properties of that weird and wonderful set of numbers, the Fibonacci series. (And reminds you that mathematics can be inspiring, too!)



HANNAH FRY

### The mathematics of love

Finding the right mate is no cakewalk — but is it even mathematically likely? In a charming talk, mathematician Hannah Fry shows patterns in how we look for love, and gives her top three tips (verified by math!) for finding that special someone.



TERRY MOORE

### Why is 'x' the unknown?

Why is 'x' the symbol for an unknown? In this short and funny talk, Terry Moore gives the surprising answer.



ADAM SPENCER

### Why I fell in love with monster prime numbers

They're millions of digits long, and it takes an army of mathematicians and machines to hunt them down — what's not to love about monster primes? Adam Spencer, comedian and lifelong math geek, shares his passion for these odd numbers, and for the mysterious magic of math.



ARTHUR BENJAMIN

### A performance of "Mathemagic"

In a lively show, mathemagician Arthur Benjamin races a team of calculators to figure out 3-digit squares, solves another massive mental equation and guesses a few birthdays. How does he do it? He'll tell you.

