

# Further Mathematics And Statistics

2 GCSE's for 1 option – You Do the Maths



# Let's invest in your Mathematical Journey

## Talking to young researchers: Clement Twumasi



In this short video Clement Twumasi tells us about his work helping to understand a parasite that has been decimating fish populations around the world.

[Read more...](#)

## Talking to young researchers: Briane Paul Samson



In this short video Briane Paul Samson tells us about his work developing intelligent algorithms to help us navigate on busy roads.

[Read more...](#)

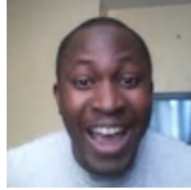
## Talking to young researchers: Yasmeen George



In this short video Yasmeen George talks to us about her work using machine learning to help diagnose disease from medical images.

[Read more...](#)

## Talking to young researchers: Tosin Babasola



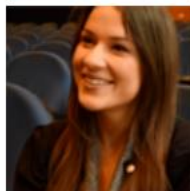
Tosin Babasola tells us about his work using maths to model the effects of climate change on cocoa production.

[Read more...](#)

# To becoming someone like this.....



## Dragana Radojicic



Dragana talks about financial maths, the nature of research, and women in maths and computer science.

[Read more...](#)

## Janelle Mason



Janelle tells us how computer algorithms can help investigate crime scenes.

[Read more...](#)

# Maths makes a difference to your future career



As well as the most obvious mathematical careers, there are many other interesting career paths that involve studying mathematics or a related subject and going on to work in a job where mathematics plays a substantial role. There are also many jobs that need a basic level of mathematical ability and confidence, and in practically every job, success and promotion come more easily to the mathematically able.

..... develop your skills the BA way, before you leave for University .....

## Maths for skills that you can use in any career

There is a big difference between the *actual* career usefulness of mathematics, and the *perceived* career usefulness of mathematics. However, according to a survey by the Engineering and Technology Board, maths and computing graduates are the most employable and the very highest earners, and mathematical skills regularly top employers' wishlists. So even if the perception is that maths is a dry, rather abstract subject, the fact is that there are working mathematicians everywhere - they just tend to be called things like "defence analyst" or "actuary".



# .. And the World of Discovery is your oyster

## Further Mathematics

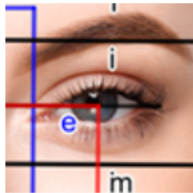
- Algebra, Algebra and more Algebra

### Maths in a minute: the Fibonacci sequence



The origin story of this famous sequences stars some cute, fluffy bunnies.  
[Read more...](#)

### Myths of maths: The golden ratio



The golden ratio has many amazing properties. But is it really a secret of nature and the epitome of beauty?  
[Read more...](#)

### Maths in a minute: Hawking radiation



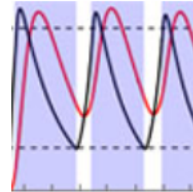
Nothing, not even light, can escape from a black hole. Or can it? Find out about one of Stephen Hawking's most radical results.  
[Read more...](#)

### How to resolve the Premier League



As football leagues around the world have been suspended due to COVID-19, how should the final rankings of teams be decided? Here is a suggestion.  
[Read more...](#)

### How can maths fight a pandemic?



How do mathematical models of COVID-19 work and should we believe them? We talk to an epidemiologist, who has been working flat out to inform the government, to find out more.

### Maths in a minute: The d'Hondt method



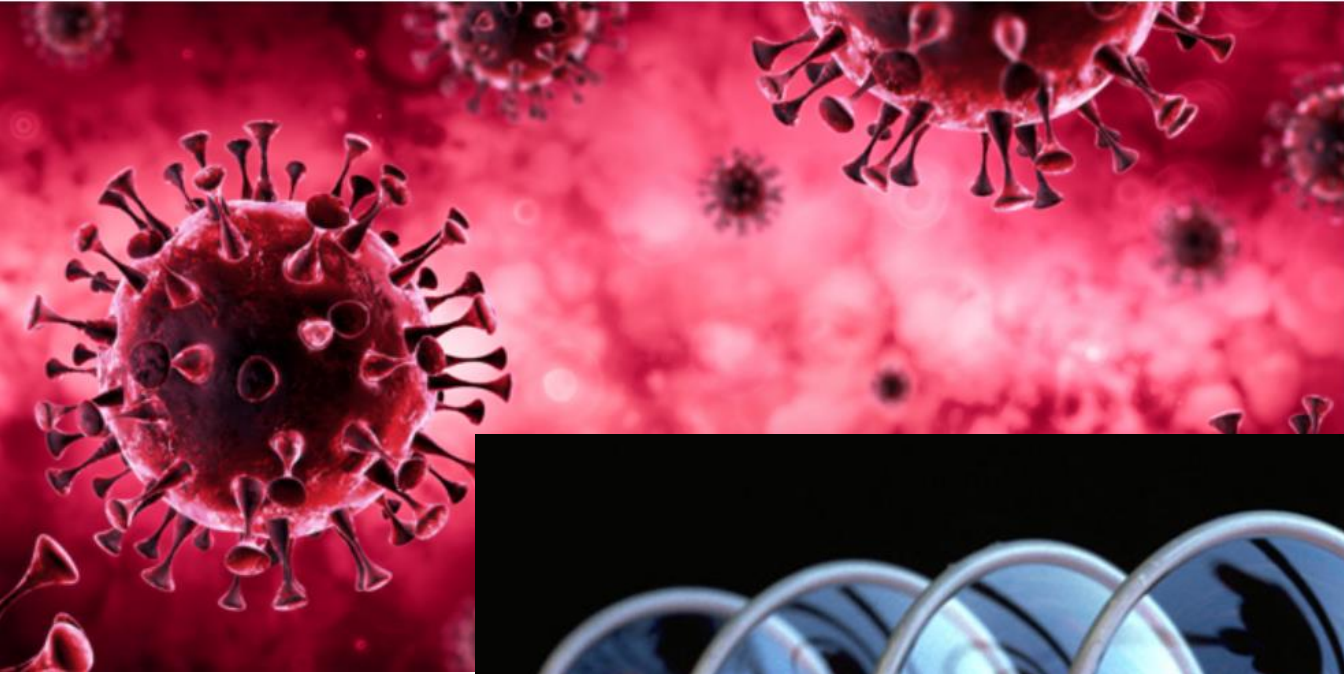
How does the voting system for the European Parliament elections work?  
[Read more...](#)

## Statistics

- Lies, Lies and Statistics – using data to prove anything!!!!







## The maths of COVID-19

Maths plays an essential role in fighting COVID-19, which is why the pandemic has featured a lot on *Plus*. Here is all our coverage at a glance.



## Less is more: The quest for minimal surfaces

For over 250 years *minimal surfaces* have been playing hide and seek with mathematicians. But what are they and why are they interesting?



## Rise of the machines?

Machine learning is the most important recent development in artificial intelligence. Find out how it works, what it can do, where it comes from and whether it's ethical with this collection of articles.



# Further Mathematics And Statistics -

## GCSE Further Mathematics

- Exam end of Year 11
- Content
  - Manipulation and Proof
  - Calculus
  - Co-ordinate Geometry
  - Sketching Functions
  - Further Surds and Index Laws
  - Matrix Manipulation
  - Factor Theorem

## GCSE Statistics

- Exam end of Year 10
- Content
  - Collection of Data
    - Sampling
    - Pearsons Capture recapture formula
  - Processing and Representing
    - Graphs and Charts
    - Population Pyramids
    - Choropleth maps
  - Analysing Data
    - Weighted and Geometric Mean
    - Standard Deviation and Skewness
    - Pearsons Product Moment Correlation Coefficient
  - Probability Distributions
    - Binomial
    - Normal



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Begin your 5 year  
Maths Success Story  
here and now

