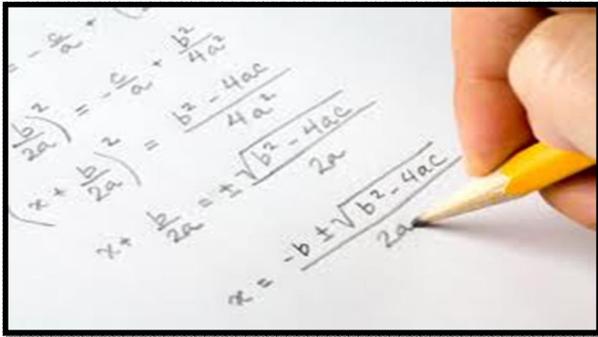




## Kingsdale Foundation School

### A Level Mathematics A Level Further Mathematics Course Information



*"Do not worry about your difficulties in Mathematics; I assure you that mine are greater"*

Albert Einstein

*"It is magic until you understand it. Then it is mathematics."*

Bharati Krsna Tirtha

## Why Maths A Level?

Maths is the language that allows us to explain how our world works. The timeless study of this subject has led to great discoveries including space travel, code breaking, MRI scanners, atomic research, computing and discovering planets. It is also how we can predict future events and make good decisions.

**The study of maths is such a universal skill that it is a highly respected and sought-after qualification.**

A mathematics qualification can be an important requirement to attend courses and vocations beyond A Levels. It is very valuable in developing the skills necessary to study many courses at university including:

mathematics	science
engineering	computing
geography	psychology
sociology	medicine
architecture	accountancy
finance	law

## Studying maths can help you earn more

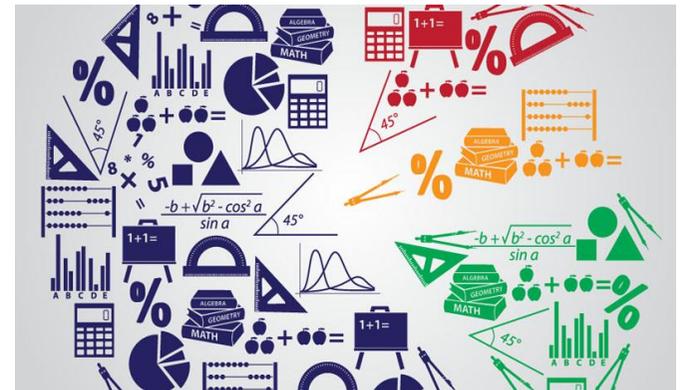
Researchers at the London School of Economics have recently found that people who have studied mathematics can expect to earn up to 11% more than their colleagues, even in the same job!

## Why study at Kingsdale?

At Kingsdale you will benefit from small class sizes, excellent teaching and outstanding support. We aim to make the transition into A Level study as smooth as possible but offer extra support for pupils who might find this challenging. There are further opportunities for gifted students to attend competitions, external seminars and workshops that will develop mathematical skills beyond the A Level requirements. They are also really interesting and great fun!

## Is this the right subject for me?

Mostly you should enjoy problem solving and also be interested in learning how phenomena such as gravity, velocity and friction affect the motion of objects. You should enjoy analysing data and finding interesting patterns that help you predict future events. Do you enjoy the feeling you get when finding that elusive 'correct' answer? If so, choose maths!



# Changes to A Level Maths teaching from September 2017

## Linear course means no modules

A Level exams will no longer be sat in Year 12. All A Level Mathematics and Further Mathematics exams will take place at the end of Year 13.

AS Mathematics is a separate course and can be taken in either year. Marks and grades from AS subjects **cannot** contribute to a full A Level.

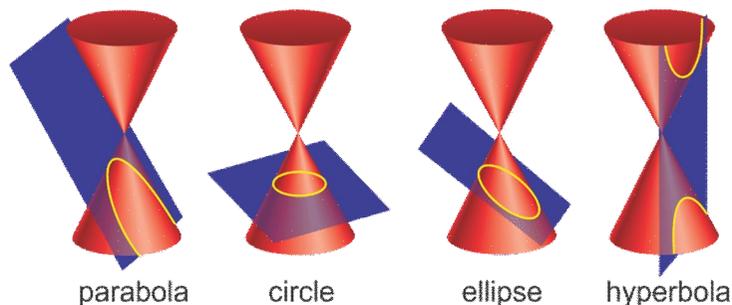
## Integrated subjects

We no longer have separate modules for statistics and mechanics. The AS and A Level courses will integrate the study of pure mathematics, statistics and mechanics.

## More problem solving—more interesting!

There is a bigger emphasis on problem solving, modelling and reasoning.

There will also be more use of technology to aid teaching and learning.



## What do I need to know before taking this course?

All applicants must be especially confident in their use of algebra. Students required a Grade A or A\* in GCSE Mathematics to get on the current A Level course. Next year students will need top grades from the new GCSE Maths.

## What will I learn?

Mathematics at AS and A Level will build on work you will have met at GCSE, but also involves new ideas produced by some of the greatest minds of the last millennium. In general terms the course includes:

- algebraic methods
- calculus
- proof and logic
- statistics
- mechanics
- decision theory (Further Maths only)

## How will I be assessed?

For A Level Maths and Further Maths you will sit three exam papers at the end of Year 13.

For AS Maths you will sit three exam papers at the end of the year.

## A Level Further Mathematics

A Level Further Mathematics is a stand-alone course offering further exploration of mathematical topics that will develop students' understanding much further than just the A Level Maths course. Students who choose Further Mathematics must already be studying Mathematics. It is an extra A Level and it is timetabled like any other course with several hours teaching and homework a week.

## Why study Further Maths?

- Fastest-growing subject studied at A Level.
- Supports the learning of the normal A Level Mathematics course
- You become better at maths. As such your appreciation and enjoyment of the subject can be enhanced.
- Students studying Further Maths perform half to one full grade better in the A Level Maths course, than students of comparable ability who don't take Further Maths.
- The decision, mechanics and statistics content supports other subjects, such as computing, physics, geography and psychology.

