

# Mathematics

## ***The Course***

Mathematics is a highly respected subject choice that can broaden your choices in life from university to apprenticeships and the world of work. Having an A level in mathematics enhances your options after sixth form and gives you a pathway into various fields. Mathematics is a very demanding subject but rewarding and satisfying at the same time, whether you chose it for enjoyment, to continue into a mathematical future or to complement your other choices.

## ***Tasks***

As a department, we have created a Team for you to access the 'Pre-Reading' materials. This is the most effective way for you to access materials, ask questions to staff directly before the start of your A-Level.

To join this Team please use the code: **88ravrv**

Within this Team you will find the algebra that you will need to complete as outlined above as well as two pure topics that we would like you to go through before the start of the course. Both topics, Binomial Expansion and Circles, use algebra that you can develop straight from GCSE. We strongly suggest that you are confident and can complete the following topics as these are the 'bread and butter' of the Pure unit.

- Expanding brackets (single and double)
- Factorising linear expressions
- Factorising quadratic expressions
- Solving linear equations
- Solving inequalities
- Solving quadratic equations by factorising and using the quadratic formula
- Using trigonometric graphs
- Using trigonometry in right-angled triangles (SOH CAH TOA)
- Using the sine and cosine rules and the area of a triangle formula
- Working with surds
- The index laws and using fractional and negative powers

## ***Pre-Course 'Reading'***

<https://reflectivemaths.wordpress.com/>

includes Podcasts, articles and real-life modelling.

<https://www.khanacademy.org/math/cc-eighth-grade-math>

includes videos, worked examples and articles.

**Why do buses come in threes?** Robert Eastaway:

### **CASIO CLASSWIZ:**

This calculator is required for the A-Level course for both Pure and Applied aspects.

