



MATHEMATICS

STAFF

Mrs Hepworth
(Subject Leader)
Mr Robinson
(2nd in Dept.)
Mrs Bassi
Mr Bensley
Mr Brooke-Mawson
Mrs Ellis
Mrs Harker
Mr Kamal
Mr Leitch
Mr Tilley

SUPPORT

Support sessions take place at various times each week within the department.

All members of the department are happy to support you at other times too – either come and ask when you need to or email.

INTRODUCTION

Welcome to **Mathematics** and **Further Mathematics**!

You will be studying the AQA syllabus. You will have 2 teachers – one for Pure Mathematics (which you see 3 times a week) and one for Applied - Mechanics and Statistics (which you see twice a week).

The first topics that we study are Algebra, Indices, Surds and Co-ordinate Geometry in the Pure and Kinematics (the mathematics of motion) in Applied. These are topics you will have come across in year 11, but here we focus on extending your understanding and on problem solving.

For those of you who have chosen Further Mathematics, you will have 9 lessons a fortnight. You will have three teachers for Further Maths. We will teach the Maths AS syllabus in the Autumn term and then we start the AS Further content in December. Everyone learns Further Pure and Mechanics at HGS and then we offer an option of Further Statistics or Further Discrete. At the end of year 12, you can decide whether you want to continue with A level Further Mathematics or drop down to single Mathematics.

WHAT TO BRING FOR YOUR FIRST LESSON

You will require a pen, pencil and ruler for the first lesson. You will need some A4 folders for organising your maths work and lots of lined paper. During the first few weeks on the course, you will need to buy a calculator, either the scientific Classwiz fx-991EX (costs around £22 from school) or a Graphical Calculator if choosing Further Mathematics (around £76 from school). Students on bursary will be loaned out one of these calculators free of charge.



The bridging material on the HGS website should take around 10 hours and will be collected in during the 3rd week at school. During the third week, there will be a test that covers work from the bridging tasks..

CLASSWORK, HOMEWORK AND INDEPENDENT STUDY

A Level Mathematics is not just about knowing the content, it is about applying this content into familiar and unfamiliar situations. Your teachers will use activities in class that will help to develop your knowledge and ability to problem solve.

You will be expected to do directed study after every lesson. This may involve consolidating work from class, teaching yourself new content, writing revision notes or answering exam questions.

RESOURCES

You will receive access to logins to various online resources which will help you in practicing your mathematics outside of lessons.

These include:

- Integral: <https://integralmaths.org/>
- Dr Frost: <https://www.dr frostmaths.com/>