

Mathematics/ Further Mathematics

EXAMINATION BOARD
AQA Mathematics

ENTRANCE REQUIREMENTS
GCSE Mathematics Grade B

THE COURSE

The aim of the course is to provide enjoyment, interest and intellectual stimulation through the learning and application of Mathematics. Students should acquire a sound base of knowledge, skills and attitudes required for further study in Mathematics, other subjects and employment. Each student is expected to have their own graphical calculator (the Casio CFX 9850 GC Plus) and a scientific calculator.

Students following the Further Mathematics course must be doing Mathematics A Level and have a grade A in their GCSE Mathematics.

The **Core units** involve the continued study of algebra, trigonometry and co-ordinate geometry. Students will meet the new areas of calculus, and numerical methods. Students following the Further Mathematics course will study matrices and complex number theories, and also Discrete Mathematics, where the emphasis is on problem sharing with networks and information and coding.

The **Applied units** illustrate the application of Mathematics to physical problems – in Mechanics the emphasis is placed on modelling a real problem mathematically and solving it; in Statistics the emphasis is also on experimentation and the analysis of real data.

DIFFERENCE BETWEEN GCSE AND A-LEVEL

The subject is studied more deeply and widely than at GCSE. Success depends upon the ability to understand concepts, solve problems and use the language and notation of the subject correctly.

ORGANISATION OF WORK

Tasks are organised on a daily basis and are designed to give practice and consolidation of work covered in lessons and also to encourage students to apply their knowledge in related, though often unfamiliar, situations. There is no coursework component to the course.

It is crucial that students keep up to date with their tasks to ensure they understand work before moving on.

ASSESSMENT

The scheme gives rise to four possible courses:

Courses	Modules Studied	Examined
Mathematics AS	Pure Core 1 (MPC1)	January
	Statistics (MS1B)	June
	Pure Core 2 (MPC2)	June

Further Mathematics AS	3 modules taken from:	
	Further Pure 1 (MFP1)	Further Pure 2 (MFPZ)
	Decision 1 (MD01)	Decision 2 (MD02)
	Statistics 2 (MS2B)	Mechanics 2 (MM2B)
	Further Pure 3 (MFP3)	Further Pure 4 (MFP3)

Mathematics A2	Pure Core 3 January	Pure Core 4 June	Mechanics June
Further Mathematics A2	3 further modules taken from the list above		

SUPPORTING SUBJECTS

The mechanics options link with Physics and Technology, whilst the statistics options link with Geography, Biology, Psychology and Business Studies.

CAREERS

Due to the many links with other subjects Mathematics forms an excellent basis for a multitude of careers, however the obvious ones are Accountancy, Statisticians, Engineering and Business.