

WHGS Sixth Form



William Hulme's Grammar School
The best in everyone™
Part of United Learning

Mathematics

Engage

Endeavour

Excel



Entry Requirements: GCSE Grade 7 or above

Pass Rate:

Maths	2020	Average (since 2013)
A*-A	68%	34%
A*-B	82%	63%
A*-C	95%	81%
A*-D	100%	94%
A*-E	100%	98%

Student Voice: "Maths and further maths were by far the most useful subjects I studied at WHGS. The support and the atmosphere here were superb."

Exam Board: Edexcel

Trips & Events:

- Modelling Days at The University of Manchester
- UKMT Maths Challenge
- UKMT Senior Team Maths Challenge
- Problem Solving Sessions at Xaverian College

Student Voice: "My maths teachers made my A-Level experience so much easier because the lessons taught me to always believe in myself and push to be the very best."



A Level Mathematics Edexcel Specification

Year 12

- In **Pure Maths** you'll consider different types of proof. You'll develop techniques for dealing with nonlinear relationships and ways to analyse and describe changing systems.
- **Mechanics** looks at forces and motion, projectiles and variable acceleration.
- **Statistics** looks at ways of describing and displaying data, how samples can inform you about populations and how to test the significance of a statistic. Key to both statistics and mechanics is the concept of mathematical modelling.



Accelerated Learning Program and Further Maths

For all students aiming for an A or A* in maths we suggest doing our in house accelerated learning program which will cover a lot of the pure content and some of the key applied topics for year 13 whilst they are in year 12. Students who have completed it would then be in a good position to do further maths if they choose.

Year 13

The topics from year 12 are extended and some new areas introduced such as: parametric equations and numerical methods in pure; the normal distribution in statistics and moments and friction in mechanics.

A-Level Assessment

Two Pure Exams and one Applied Paper at the end of Year 13.

Beyond A-Levels: Future Career Aspirations

- **Degrees where A-Level Maths is essential:** Actuarial Science, Aeronautical Engineering, Chemical Engineering, Civil Engineering, Economics, Electrical Engineering, Engineering, Mathematics, Mechanical Engineering, Physics, Statistics
- **Degrees where A-Level Maths is essential requirement of some but not all universities:** Accountancy, Chemistry, Computer Science, Management Studies.
- **Degrees where A-Level Maths is part of a short list of A-Levels that applicants must have one, two or three of:** Biochemistry, Biomedical Sciences (including Medical Science), Dentistry, Environmental Science, Geology/Earth Sciences, Material Sciences (including Biomedical Material Science) Medicine, Optometry, Pharmacy, Physiotherapy, Psychology, Sports science, Teacher training, Veterinary science.
- **Where A-Level Maths is listed as useful by most universities:** Architecture, Biochemistry, Biology, Business Studies, Dietetics, Geography, Law, Management Studies, Nursing and Midwifery, Orthoptics, Philosophy, Planning, Surveying
- **Careers:** This list is just a sample of the organisations who employ people with mathematical skills. There are many more. Accountancy, Aerospace & Defence, Automotive, Biosciences, Business support services, Chemicals, Construction, Consultancies, Education, Engineering, Environment, Exploration, Geophysics, Financial Services, Food & Drink, Government, Healthcare, Insurance, IT & Computing, Manufacturing, Media, Metals & Minerals, Operational Research, Pharmaceuticals, Recruitment, Academic Research, Science, Telecoms, Transport/Travel, Utilities.

