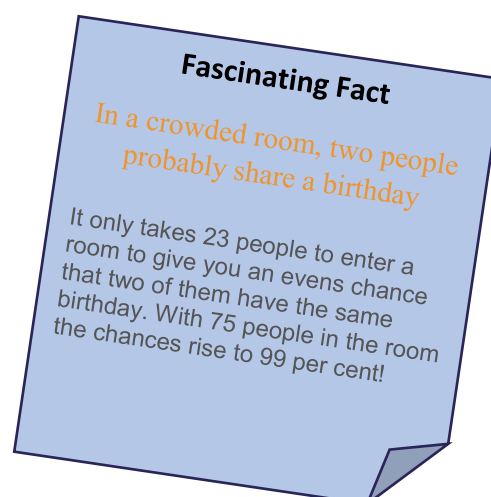


Clarendon Academy Sixth Form: Subject Essentials

Mathematics

Exam Board: Pearsons/Edexcel

Specification: Mathematics



How am I examined in this subject?

At the end of **year 13** you will sit three papers which will test the content of year 12 and 13

Paper 1 and 2 Pure Mathematics –each paper is 2 hours long and worth 33.3% of the final grade. Each paper can cover any part of the pure content in a mixture of straight forward and problem solving questions

Paper 3 Statistics and Mechanics – two sections of 1 hour each worth a total of 33.3% of the final marks

Section A- Statistics - Questions will cover statistical sampling, distributions and hypothesis testing, data presentation and interpretation and probability. You will be expected to be familiar with the information in a large data set.

Section B – Mechanics – Questions will cover quantities and units in mechanics, kinematics, forces and Newton’s laws and moments.

How are my responses assessed?

Each piece of work you do will contain questions which cover the following assessment objectives

AO1 Use and apply standard techniques. (50%) Select and correctly carry out routine procedures, Recall facts, terminology and definitions.

AO2 Reason, interpret and communicate mathematically. (25%) Construct rigorous mathematical arguments and proofs. Make deductions and inferences, assess the validity of an argument, explain your reasoning. Use mathematical notation and language correctly.

AO3 Solve problems within mathematics and in other contexts. (25% A level). Translate problems in context into mathematical processes. Interpret solutions in terms of the original problem and evaluate the accuracy and limitation. Use mathematical models, understanding their limitations and how they might be refined.

What do I have to achieve at GCSE to study this subject?

You need to achieve at least a grade 7 in GCSE Mathematics in order to study A level Mathematics.

How could this subject support my future education or career?

Mathematics can help you develop skills that can support careers in finance, computing, engineering, teaching, marketing, and a wide range of other sectors.

Some of the most important skills you will develop as a Mathematics student are developing and supporting a logical argument, understanding the limitations and being able to reflect on the success of a model and being able to problem solve. These are useful when studying most subjects at degree level.

How do we support students who are aiming for A/A* grades?

- We encourage our most able students to use on line resources to extend their problem solving skills by tackling a variety of questions.
- We organise one-to-one sessions with students who would like additional support in improving any aspect of their mathematics.
- We encourage our most able students to take part in national mathematics competitions which provide extra opportunities to think about how they can use their mathematics to solve problems

How do we support students who are finding this subject difficult?

- We organise one-to-one sessions with students who are struggling with specific topic or skills in our subject.
- We provide online access to textbooks so that students can access their textbook from anywhere with wifi access.
- We provide detailed and helpful feedback on the work that students submit and give them the opportunity to improve their work at regular opportunities.
- We direct students to a range of online resources that are designed to support them with independent study and reviewing their notes from class, such as Mymaths and Dr Frost maths.

Who can I contact if I want to find out more?

Mrs Jane Thrower (*Head of KS5 mathematics / A-Level Mathematics and Further Mathematics Teacher*): jdt@clarendonacademy.com

Ms Kelly Cripps (*Head of Mathematics / A-Level Mathematics and Further Mathematics Teacher*): krc@clarendonacademy.com

Mr Craig Turze (*Deputy Headteacher / A-Level Mathematics Teacher*): cxt@clarendonacademy.com