Core Maths

Overview:

Only 20% of students in England study Maths beyond GCSE – the lowest rate in leading developed countries in the world; in Japan, this figure is 85%. This puts young people in England at a major disadvantage in a global job market.

Many students arrive at university with unrealistic expectations of the mathematical and statistical demands of their subjects and have no idea how to use their mathematical skills when they get into the real world and move out of home. This course has been introduced to address these issues but also give the opportunity for those who do not want to commit to A-Level Maths to study maths beyond GCSE. In Core Maths we will not be studying algebra or Pythagoras, instead, the course is developed to involve real world Mathematics that we come across every day as adults. In most lessons we look at the Maths that is shown in news articles, twitter posts and on TV and see if what is said could be true.
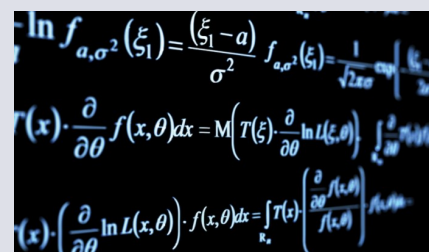
Course Progression

If you are studying Biology, Chemistry, Geography, Psychology, Business Studies, Accounting or Economics at A-Level then this course was made to help you with all of these. It covers a vast majority of the mathematical elements in all of these courses and will also help in university level study and maybe even entry into university. (Having a Maths qualification on your UCAS application looks VERY good!)

Even if you are not doing these courses Core Maths will be useful to you. We study a lot of real-life mathematical topics including budgeting, mortgages, student loans, taxes, how to read your payslip, the finances needed when running a business as well as how to analyse the false representations of graphs and mathematics given to us in the media.

What will I study?

The qualification is a one-year course done in addition to your 3 A-Levels – because of the extra commitment this course has NO independent study expectations (no homework!). There are two 1.5-hour exams at the end of the first year. The course is equivalent to an AS Level and carries the same UCAS points as these.

Course Leader
Mrs Streater
SStreater@cardinalnewmanschool.net

Exam Board

AQA
Realising potential

Entry Requirements

Entry criteria is a Grade 4 in Mathematics.

Assessment Information

Paper 1 (1 hour and 30 mins)

Analysis of data – How do companies find out information about their products? How do they go about surveying people? How would they then present this data to show others what they have found?

Maths for personal finance – Do you know how your payslip should look? How to work out how much Tax or National insurance you should pay? What about how mortgages work or how to understand your student loans?
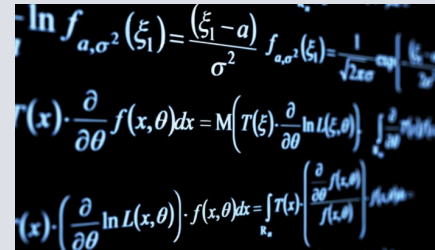
Estimation –For example, how many loaves of bread would you need to buy when catering for 100 people? How many times will someone blink in their lifetime? If someone smokes for 20 years – how much would it cost them?

Paper 2 (1 hour and 30 mins)

Critical analysis of given data and models – graphs and mathematics are used all the time within the media – we will look at how realistic this information actually is.

Project planning – using critical path analysis and Gantt charts we look at how long projects take, with a focus on business.

Probability and risk assessment – expanding on your knowledge from GCSE we move into how probability works in the real world whilst looking at risk and insurance.

Mathematics is, inherently, a sequential subject. There is a progression of material through all levels at which the subject is studied. It is assumed that students will already have confidence and competence in the content presented in standard type within the GCSE mathematics criteria. Students will make use of elements of this content when addressing problems within this specification but this is not explicitly set out in subject content. This specification aims to build on the knowledge, understanding and skills established in GCSE mathematics.