

Post-16 maths options

GCSE Mathematics
re-sit

Core
Maths

A level
Mathematics

A level Further
Mathematics

What is Core Maths?

- A course for those who want to keep up their valuable maths skills but are not planning to take AS or A level Mathematics.
- A level 3 qualification, equal in size to an AS level.
- Suitable for students with the equivalent of a GCSE Mathematics grade 4 or above.
- Focuses on using and applying maths to address authentic problems drawn from study, work and life.
- Includes new content such as statistics, financial maths and using algebra.

Why study Core Maths?

- Develops valuable real-life skills, to understand mathematical information and make better informed decisions.
- Supports other A level subjects such as geography, social sciences and business.
- Develops knowledge, confidence and understanding in maths in preparation for university study.
- Provides useful skills for employment.

Core Maths style problems

How much domestic water does the UK require every year?



A newly qualified teacher earns £23,000 per year, has no student loans, and pays 7.4% of their salary into a pension scheme. What is the teacher's net monthly salary after tax and national insurance contributions?

A genetic disease occurs in one in every 10,000 people. A test for the disease is accurate 98% of the time. If you are tested and the result is positive, what are the chances of you actually having the disease?

The speed of cars driving down a road with a speed limit of 50mph is recorded. The mean speed was 47mph and the standard deviation of the speeds was 5mph. What percentage of the cars were breaking the speed limit?

Teaching approach 2



Oh Dear!

My car has broken down and I can't pay the £100 garage bill.

What can I do?

That's it! I'll take out a payday loan at 1295% APR.

Question

You borrow £100 and can't make any repayments.

How long **do you think** it would take to be £1 million in debt?



Guilty or Not Guilty



DNA is collected from a crime scene. Due to the nature of the crime the police are certain this is the criminal's DNA. The police have no leads until the DNA is matched to someone recorded on the National DNA database. The probability a random person's DNA would match the sample is calculated to be 1 in 1,000,000.

How convinced would you be that the person is guilty ?

