

What are the options?

AS/A level
Mathematics

Extends GCSE Maths and introduces new ideas

AS/A level Further
Mathematics

An additional A level to add breadth/depth

Level 3 Core
Maths

Develops maths skills and knowledge to focus on applied problem solving

What is Core Maths?

Versatile qualification equal in size to an AS level

Supports the maths in other courses

Interesting, engaging and relevant to the world we live in



Maths of life and the workplace

Excellent preparation for university

A course that develops valuable mathematics skills

For any student with at least a GCSE Mathematics grade 4

Main Content of Core Maths

- Financial Maths
- Statistics & Probability
- Critical Analysis
- Modelling (spreadsheets)
- Estimation



What is Core Maths like?

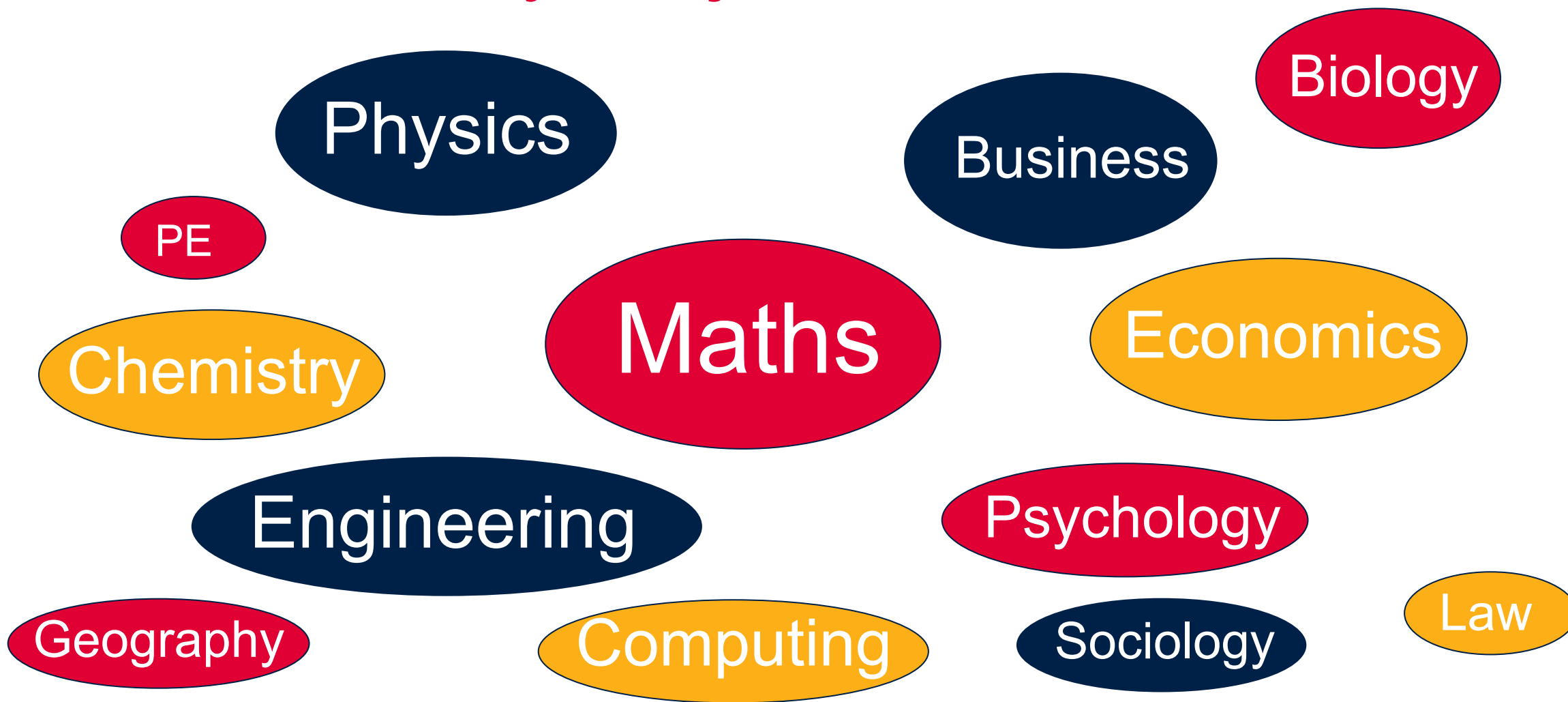
How much domestic water does the UK require every year?

A new 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 5mph. What percentage of the cars were breaking the speed limit?

Many subjects use maths



Maths content in other A levels



Geography

(no specific percentage but geographical skills include quantitative and qualitative skills equally)



Economics

(at least 20%)



Biology

(at least 10%)



Business

(at least 10%)



Psychology

(at least 10%)



PE

(at least 5%)



Sociology

(no specific percentage but you will be analysing data)

What are the career opportunities?



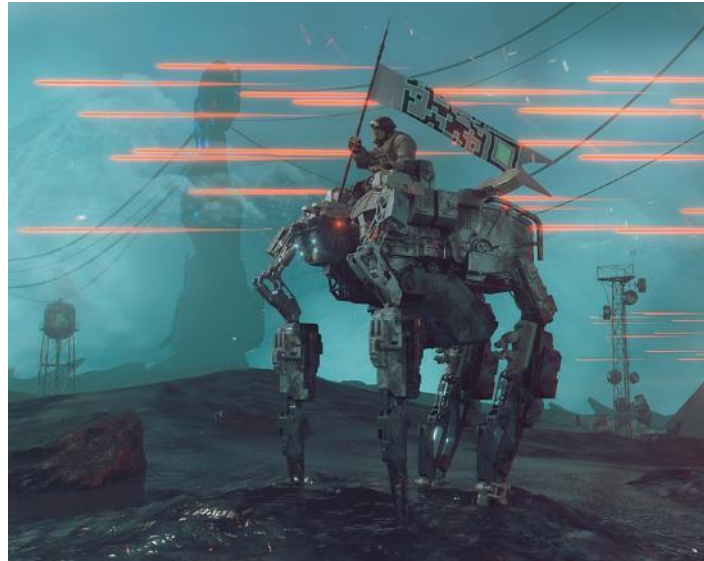
“Quantitative skills are required in a wide range of occupations and activities, embracing not only the mathematical and physical sciences but also the social sciences, the humanities and the creative arts. Mathematics is now intrinsic to some aspects of the creative arts... and learned societies argue that students across the sciences, social sciences and humanities need significant quantitative skills, and these should be a central component of their education.”

Professor Sir Adrian Smith

Careers using maths

Applications of mathematics in technology:

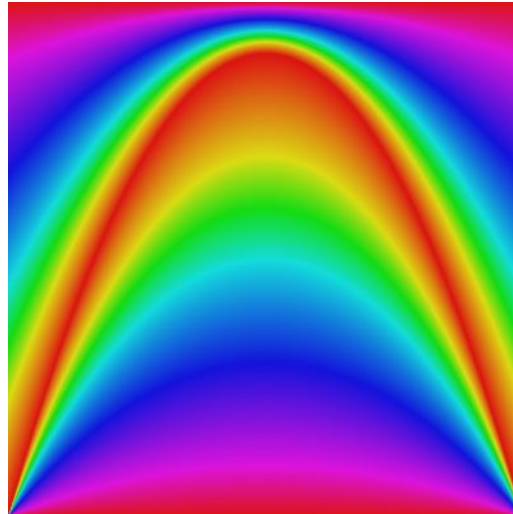
- Medical
- Games Design
- Internet Security
- Financial Cryptography
- Programming
- Communications



Careers using maths

On-going applications in engineering, such as:

- Aircraft Modelling
- Fluid Flows
- Acoustic
- Software Development
- Electronics
- Civil Engineering.



Careers using maths

New scientific processes such as:

- Modelling populations
- Modelling diseases
- Quantum Physics
- Astronomy
- Forensics
- DNA sequencing



Careers using maths

Applications relating to human behaviours and interactions:

- Data Science
- Psychology
- Law
- Economics
- Climate Change
- Environmental Modelling
- Political Science
- International Development



University entry requirements

Look at the entry requirements on an individual university's website for the degree subjects that you might be interested in



In some cases a **qualification in Core Maths or or A level Mathematics/Further Mathematics will reduce the grades required for entry to a degree course in a related subject**

Visit
www.ucas.com
for additional
information

Exemplar University Alternative Offers

Typical offer A level	Alternative offer A level
A*AA	AAA
AAA or A*AB	AAB
AAB	ABB

- Applies to all degrees that **do not require** A level Maths
- For students achieving a **grade B** in **Core Maths**
- Or grade B in AS or A level Maths or AS or A level Statistics if studied in addition to 3 subjects.

Courses: Architecture, Business Courses, Biosciences, Chemistry, Pharmacy, Education, Health and Sport degrees, Languages, Politics, Psychology, and Social Sciences

The University of Sheffield

If we offer you a place on certain courses with a GCSE Maths requirement, and you're taking a Core Maths qualifications, we'll make you an alternative offer equivalent to one A Level grade below the standard entry requirements for your course, subject to you achieving a specific grade in Core Maths.

Taken from <https://www.sheffield.ac.uk/undergraduate/apply/access#>

The University of Sheffield

BSc Psychology: AAB including 1 specified science, or ABB, including 1 specified science + A in Core Maths

BSc Quantitative Social Sciences: ABB or BBB + B in Core Maths
(Criminology, Sociology and Politics)

BA Architecture: AAA or AAB + B in Core Maths

BSc Biomedical Science: AAB, including two science subjects, or ABB, including two science subjects + B in Core Maths

The University of York

If you achieve B or higher in Core Maths, you may be eligible for an alternative offer up to one A level grade (or equivalent) below our typical offer.

This applies to a wide range of courses including Biology, Business and Management, History of Art, Midwifery Practice, Music, Philosophy, Social Work