



A question to try:

In total, UK consumers use how many miles of wrapping paper each year?

Sally Smyth  
Head of Mathematics



# Core Maths



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# Why Study Mathematics?

## Leads to versatile qualifications

well-respected by employers and higher education



## Develop key employability skills

e.g. problem-solving, communication, logical reasoning and resilience

## To support the study of other A levels

E.g. Psychology, Biology, Geography (and more)



## Excellent preparation

for a wide range of university courses

## Increase knowledge and awareness

of mathematical techniques and their applications



## Stimulating and challenging courses

evidenced positive effect on cognitive development





# Why Study Mathematics?

A global perspective





# Many A Level Subjects Use Maths



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 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**



# Main Content of Core Maths

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

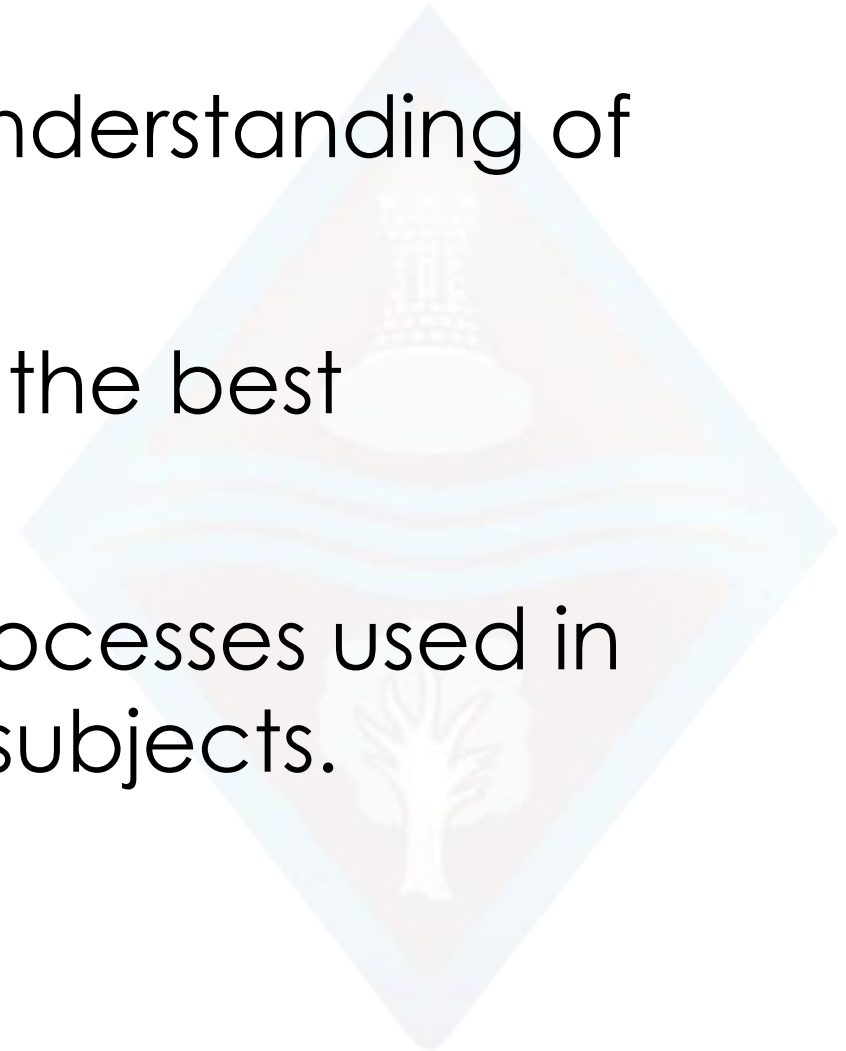






You'll learn how to:

- Use mathematics to deepen your understanding of the world around you.
- Use mathematics to help you make the best decisions.
- Perform important mathematical processes used in many other A level and vocational subjects.







How much domestic water does the UK require every year?



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?

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?

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?



# Genuine Job and University Interview Questions

- How many black cabs are there in London?
- How many M&Ms can you fit in this room?
- How many computers are there in the UK?
- How many trees are there in Canada?





# Why are these questions used in Interviews?

## Skills valued in 1985:

- Knowledge
- Following instructions
- Reliability and accuracy

## Skills valued today:

- Application
- Innovation
- Communication
- Problem solving





# Exemplar University Alternative offers: University of Bath

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





## Exemplar University Alternative offers: University of Sheffield

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

**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



If we offer you a place on certain courses with a GCSE Maths requirement, and you're taking a Core Maths qualification, 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.



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



**In total, UK consumers use how many miles of wrapping paper each year?**

**227,000**







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