

# Mathematics

## My Learning, My Future

Where can studying Mathematics take you? Highlighting the relevance of English to future careers and opportunities

# Why study Mathematics?

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Improves  
everyday  
decision-maki  
ng

Core skills

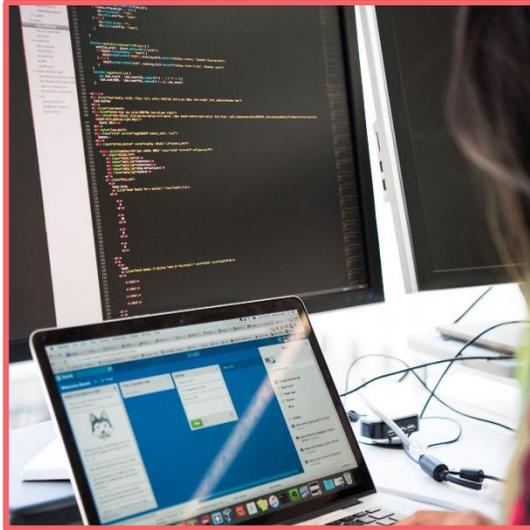
Essential for  
many careers

Universal  
language

Supports other  
subjects

# Explore a career as a...

Here are some example roles and careers linked to [BBC Bitesize: Mathematics](#)



## Senior Systems Engineer

[BBC Bitesize case study](#)



## Financial trader/ Stockbroker

[Prospect case study](#)

[icould case study](#)



## Quantity Surveyor

[BBC Bitesize case study](#)

[icould case study](#)

# Explore a career as a...

Here are some example roles and careers linked to [BBC Bitesize: Mathematics](#)



## Accounting Technician

[BBC Bitesize case study](#)



## Games Designer

[BBC Bitesize case study](#)

[BBC Bitesize case study](#)



## Sales Associate

[icould case study](#)

# Not so obvious subjects using Mathematics:

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Ever thought about..?

BBC  
Bitesize

[How to become a Catchment Officer:  
Liam's story](#)

[How to become a Corporate Social  
Responsibility coordinator: Ben's story](#)

National  
Careers  
Service™

[Private Practice Accountant |  
Explore careers | National Careers  
Service](#)

[Quantity Surveyor | Explore  
careers | National Careers Service](#)



## MYPATH Job of the week (Mathematics)

Actuary

Quantity Surveyor

Financial Advisor

# KS3 Home learning task



Where can studying Mathematics take you?

Name: \_\_\_\_\_ Tutor group: \_\_\_\_\_

Can you crack the code to reveal the four job roles linked to Maths. Use the key below:

Q1.	A.	Letter	Q2.	A.	Letter	Q3.	A.	Letter	Q4.	A.	Letter
34 + 2			39 + 3			20 - 18			100 - 99		
84 + 4			25 + 5			3 x 5			9 + 3		
5 - 4			100 - 80			100 - 85			100 + 5		
30 - 16			15 + 3			10 + 1			7 x 3		
15 + 5			150 + 10						0 + 1		
20 - 11			6 x 3			-3 + 14			180 + 10		
80 - 60			-5 + 20			50 + 10			100 + 4		
75 + 3			144 + 12			3 + 2					
			50 - 35			4 x 4					
38 + 2			14 - 7			-5 + 10					
42 + 2			81 + 9			2 x 9					
50 - 32			57 + 3								
11 x 2			10 x 2								
4 + 1											
5 <sup>2</sup>											
8 + 7											
2 x 3 <sup>2</sup>											

Key:

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
14	15	16	17	18	19	20	21	22	23	24	25	26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Use the [National Careers Service](#) website to help. You can use their 'job profiles'.

What is the role of the job revealed in question 1 and what is their average salary? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What is the role of the job revealed in question 2 and what is their average salary? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What is the role of the job revealed in question 3 and what is their average salary? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What is the role of the job revealed in question 4 and what is their average salary? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Creation of homework task accredited to Wolverley CE Secondary School, Worcestershire Careers hub.

## Explore careers

Find out what a job involves and if it's right for you.

Use the National Careers Service Explore careers tool to research for this homework

[Explore here](#)

# From passion to profession:

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## Share a role that sparks your interest

Prepare a 3 - 5 minute talk to share with a small group on any role that interests you related to Mathematics



- What is the role?
- What do you need to do to get this role?
- Where do you need to go to carry out this role?
- What might a typical day look like?
- Why are you interested in this role?

# Discover more about the role

Explore careers using [National Careers Service](#) and find out about what jobs involve and how they are right for you

## Includes:

- Average salary
- Typical hours
- Work patterns
- Pathways/How to become
- Essential Skills
- Daily tasks
- Career path and progression
- Current opportunities

## Research Ideas:

- [Senior Systems Engineer](#)
- [Stockbroker](#)
- [Quantity Surveyor](#)
- [Accounting Technician](#)
- [Games Designer](#)
- [Sales Associate](#)

## National Careers Service

We provide information, advice and guidance to help you make decisions on learning, training and work.

This service is available to people who live in England.

### Skills assessment

Learn more about your skills and match them to potential new careers.

[Assess your skills](#)

### Explore careers

Choose from over 800 career profiles to discover what each job involves.

[Search job profiles](#)

### Find a course

Look for online learning opportunities and training courses local to you.

[Look for courses](#)

### Careers advice

#### Making career choices

Whether starting your career, changing job or if you have been affected by COVID-19, understand and make the right choice for you.

#### Getting a job

Be successful in the recruitment process with tips on great CVs, interviews and graduate scheme applications.

#### Progressing your career

Move up in your career by developing new skills. Find opportunities like volunteering and online learning.

### About us

The National Careers Service can help you with your career, learning and training choices. [Find out more](#) about the different ways we can support you.

### Speak to a careers adviser

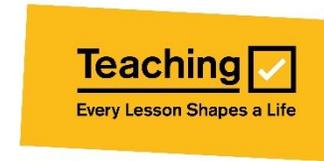
Wherever you are in your decision-making, you can call us on [0800 100 900](#) or [use webchat](#).

### Follow us

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- [Facebook](#)
- [LinkedIn](#)
- [YouTube](#)

# Why not teach Mathematics?

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- No two days are the same – and neither are the pupils
- Once qualified you can teach throughout your life
- You could teach abroad
- Progress your career into leadership and management
- Bring your outside interests into the classroom and your subject

## Explore teaching

[Daniel's Story](#)

[Jem's Story](#)

[Shaniqua's Story](#)

## The right skills to teach?

[Work well in a team?](#)

[Love to nurture imagination?](#)

[Love to keep learning?](#)



What makes a great teacher?

## GCSE

While there are different routes you can take to be a teacher there are a few essential things that you will need:

- A minimum GCSE Grade 4 or above in English and Maths (plus Science if you want to teach primary)
- A degree or equivalent qualification

### A-Level

A-Levels are 2 years of study

### Degree

**Complete a degree course**

It is possible to get QTS as part of an undergraduate degree, for example:

- Bachelor of Arts (BA) with QTS
- Bachelor of Education (BEd) with QTS
- Bachelor of Science (BSc) with QTS

### T level

T levels are nationally recognised, technical qualifications for 16–19-year-olds. Designed by leading employers, one T level is equivalent in size to 3 A-Levels

### Vocational/Technical Qualification

These include BTEC, Applied General Qualifications (AGQ) and Vocational Technical Qualifications (VTQ) – all at Level 3

### Level 4/5 qualifications

Complete a L4/5 course and top up to a degree – L4/5 includes Certificate of HE, Diploma of HE, Higher Technical Qualification (HTQ), HNC, HND and Foundation degrees

Top up to a degree (Level 6) in a year of full-time study

### Apprenticeships

Apprenticeships are jobs which combine practical work and study. Intermediate is Level 2, Advanced is Level 3

### Higher apprenticeships

Higher level apprenticeship (foundation degree / Level 5)

### Degree apprenticeships

Degree apprenticeship (Level 6-7). There is a Level 6 Teaching apprenticeship programme

**Initial Teacher Training (ITT) with qualified teacher status (QTS)**

**Teacher**

# Mathematics pathways

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Combine study  
and work



Study



Work



# Combine study and work

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## Apprenticeships

- Economist
- Aerospace Engineer
- Clinical Coder
- Accountant
- Civil Engineer
- Insurance Practitioner
- Chartered Surveyor
- Debt Adviser
- First Officer Pilot
- Senior Investment Professional
- Engineering Technician

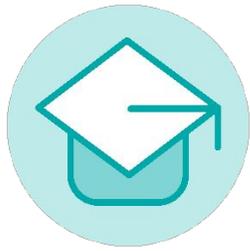
## T Levels

- Building Services Engineering for Construction
- Design, Surveying and Planning for Construction
- Accounting
- Engineering, Manufacturing, Processing and Control
- Finance

## VTQs

- Engineering Design
- Engineering Manufacture
- Engineering programmable Systems
- Enterprise and Marketing
- Business
- Core Maths





# Study pathways

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## HTQs (Higher Technical Qualifications)

### You will find occupation routes in:

- Education and Early Years
- Business and Management
- Engineering and Manufacturing
- Construction and the Built Environment
- Health and Science

## A levels

### You might find courses in:

- Mathematics
- Statistics
- Economics
- Computer Science
- Further Mathematics
- Physics
- Accounting

## Higher education

### You might find courses in:

- Actuarial Mathematics
- Accounting
- Mathematics
- Accounting and Finance
- Aeronautical Engineering
- Banking and Finance
- Finance, Investment and Risk
- Agri-Business Management
- Accounting with data Science
- Accounting with Economics
- Accounting and Law





# Work pathways

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## Supported internships with an education, health and care plan

You might read about:

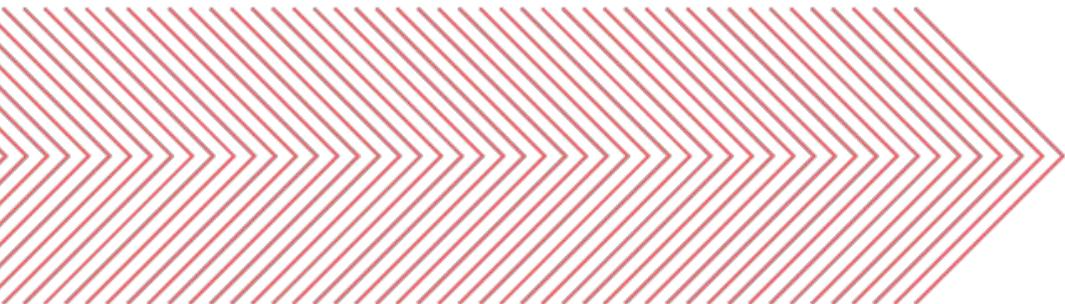
- [Access to Work Funding](#) (if you have a disability or health condition)
- [Preparing for Adulthood](#)

## School leaver programmes

[School leaver schemes](#) | [School Leavers](#)

You might read about:

- [How to fill in an application form](#)
- [How to write a CV](#)
- [Interview help](#)
- [Progressing your career](#) (Careers Advice from NCS)



# University league tables

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## See at a glance the university ranking for Mathematics

[Mathematics Rankings \(thecompleteuniversityguide.co.uk\)](https://thecompleteuniversityguide.co.uk)

### Filter by:

- Overall score
- Entry standards
- Student satisfaction
- Research quality
- Research intensity
- Graduate prospects



THE CAREERS &  
ENTERPRISE  
COMPANY