

WHAT IF SHE COULD?

A GIRL'S GUIDE TO STEM



What is STEM?

STEM = Science,
Technology,
Engineering &
Mathematics

4

exciting areas that help
us understand how the
world works and how to
make it better.

STEM shapes everything around us.

STEM isn't just about
equations or experiments;
it's about using your
imagination to invent,
discover and change the
future.



It's behind the
phones in our
pockets, the games
we play, the
transport we use,
and even the way
we protect our
planet.



The world needs people who can think
critically and come up with clever solutions to
challenges like climate change, energy use
and healthcare...

...and that could be you!



Are we missing something?

Have you ever wondered what it takes to become a scientist, engineer, or computer coder?

In the UK, women make up only about 27% of people working in STEM jobs - an all time high but there's still a big gap to close...

Right now, not enough girls are choosing to study STEM subjects.

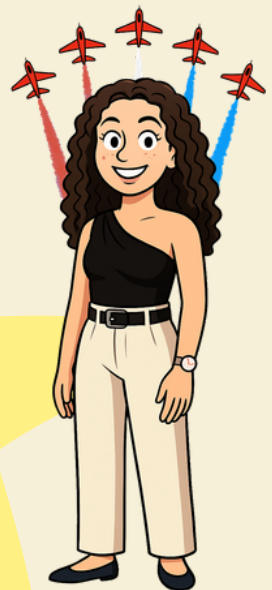
In today's increasingly technology driven world, it is more important than ever that girls and young women consider careers in STEM.

...and that's where you come in!

So why are there still so few women in STEM?

Sometimes, girls are told that STEM subjects are "too hard" or "more for boys", or they don't see many female role models in these careers. Others might feel unsure about where STEM could take them.

The truth is, girls everywhere have the talent to change the world!



What sparked our STEM?



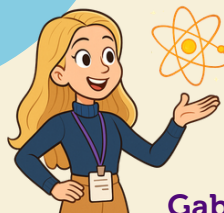
Lois

I was reading a magazine when I realised engineering isn't all cars and spanners!



Elisha

My maths teacher told me he didn't think I could do Further Maths A-level. I decided to prove him wrong.



Gabbie

I used to watch universe documentaries with my dad. That sparked my interest in space.



Kate

Jackie Bell visited my school. She was part of the BBC Astronaut program. I was inspired!



Beth

I became really interested in Formula 1, I wanted to be a mechanic changing the tyres and my interest grew from there!



What could spark your STEM?

Make a Difference

You could be contributing to cutting-edge research, creating new technologies, or solving complex problems that shape what the world looks like today and in the years to come.

Limitless Possibilities

STEM is both vast and varied! Every advance in research creates a new job to do and the variety in STEM means you can always find something that interests you.

Money



Average STEM salary is 20% higher than non-STEM.

Travel the world

Many STEM jobs allow you to travel, ranging from international corporate roles to fieldwork and shorter project-based positions.



The Joy of Creativity

STEM challenges you to solve problems creatively, finding unique solutions that may not be immediately obvious, inventing, designing and imagining ideas into reality.



Where can STEM take you?

The skills you develop at school are the first steps towards a future in STEM. Science and maths aren't just the subjects you study in school — they can lead to a huge variety of exciting and surprising STEM careers, many of which you may never have heard of. Here are some real-world examples that show how STEM is used in different jobs and industries.



Problem solving



Learning & researching something new

Working under time pressure



Creativity & thinking outside the box

Presenting big ideas



Practical & hands-on work



Report writing



Leading a team



Communication



Working with numbers



Running experiments



All engineers,
scientists &
mathematicians use
the skills above.
Individually, we all
have skills we excel in!



Lily

**Network Services
Delivery Manager**

Skills:

- Problem solving
- Leading a team
- Presenting big ideas



Beth

Senior Asset Engineer

Skills:

- Report writing
- Leading a team
- Learning something new



Gabbie

Project Manager

Skills:

- Problem solving
- Leading a team
- Communication



Nintsemon

**Senior Systems
Engineer**

Skills:

- Leading a team
- Report writing
- Problem solving



Kate

**Aerospace
Performance Engineer**

Skills:

- Creative thinking outside the box
- Working with numbers
- Learning something new



Lois

**Pharmaceutical
Process Engineer**

Skills:

- Running experiments
- Report writing
- Working under time pressure

Activity

**MY SKILLS
MY LIFE**

1

Visit:

myskillsmylife.org.uk

2

Take the My Skills My Life Quiz

3

Find a role model with the same personality traits as you

4

Write down their job title in your notes section

5

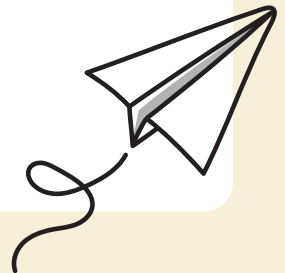
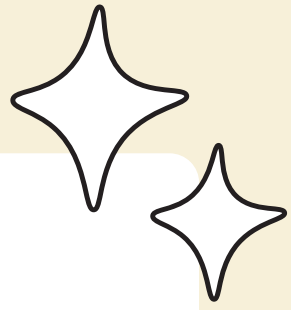
Research 3 things about the job that interest you and add to Your Notes

Extension - Find another role model with a different job but the same personality traits and repeat steps 4-5!

Extension - Talk to your parents/carers and see if they knew that job existed!



Your notes



Pathways into STEM

University

- Higher earning potential
- Increased job opportunities
- Specialised knowledge
- Increased independence
- Personal growth

Studying a STEM degree at university.

The most common pathway into uni is through A levels or BTECs after GCSEs.

Apprenticeship

- Earn while you learn
- Gain practical experience
- Recognised qualification
- Flexible learning
- Career development

Combine on-the-job training with part-time study.

Entry requirements often include qualifications (like GCSEs or A levels), some pathways require no specific grades.

Career change

Just because you start working in another industry doesn't mean you can't change. There is no 'right' time to join the STEM industry.



Visit ucas.com for more info on University & Apprenticeships





What's stopping you?



Do you know what you want to do after school?
Does it involve science or engineering?

If not... why not ???

STEM is too hard ✗

You don't have to know everything or be the best at maths to do well in STEM. What really matters is being curious, asking questions, and not giving up when things get tricky.

STEM = DOCTOR ✗

You could also be...

- Environmental scientist
 - Space scientist
 - Make-up chemist
 - Rollercoaster engineer
 - Zoologist
 - Robotics engineer
 - Video game designer...
- the list goes on!

STEM is only for boys ✗

Girls have always been amazing inventors, engineers, and scientists. From Ada Lovelace (the world's first programmer!) to Katherine Johnson, whose maths sent astronauts into space.

STEM sounds boring ✗

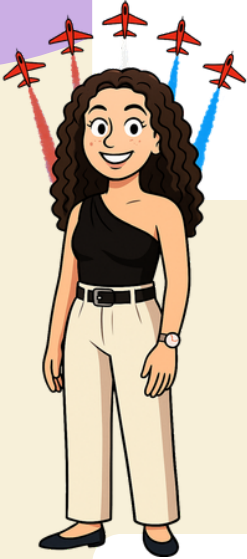
STEM isn't just about numbers and lab coats. STEM designs robots, creates apps, explores space, helps the planet, invents cool tech!

It's about using your imagination to change the world.



The future of science, technology and innovation needs your voice, your ideas and your imagination!

WHAT IF SHE COULD?



Just watch her
prove she
can!



WISE
Young
Professionals

This resource was developed by the WISE Young Professionals Committee, a voluntary group of young professionals working within the STEM industry.

Caricatures throughout the document were generated with the use of AI.