

STEM AMBASSADOR TRAINING.



Providing advice on the routes into Engineering

20th June 2023

Improving the world through engineering

HI, I'M ALEX KNIGHT FOUNDER & CEO, STEMAZING

- Chartered Mechanical Engineer.
- Fellow of IMechE.
- Over 15yrs in Industry.
- Founded STEMAZING in 2019 with a mission to ignite inspiration and amplify inclusion in STEM.
- Collaborating with IMechE to empower and support you to have a greater impact as a STEM Ambassador.
- Support from IMechE Regional Education Officers (REOs) to bring local insight and inspiration.



TRAINING PLAN.



- 28th Feb – Make 2023 Your Year of Inspiration! ONLINE 6-7pm
- 29th March – Teacher's Top Tips (Primary) ONLINE 6-7pm
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WELCOME TO OUR GUEST SPEAKERS



ALEX KEELER



ANDREW LIVESEY

ROUTES INTO ENGINEERING

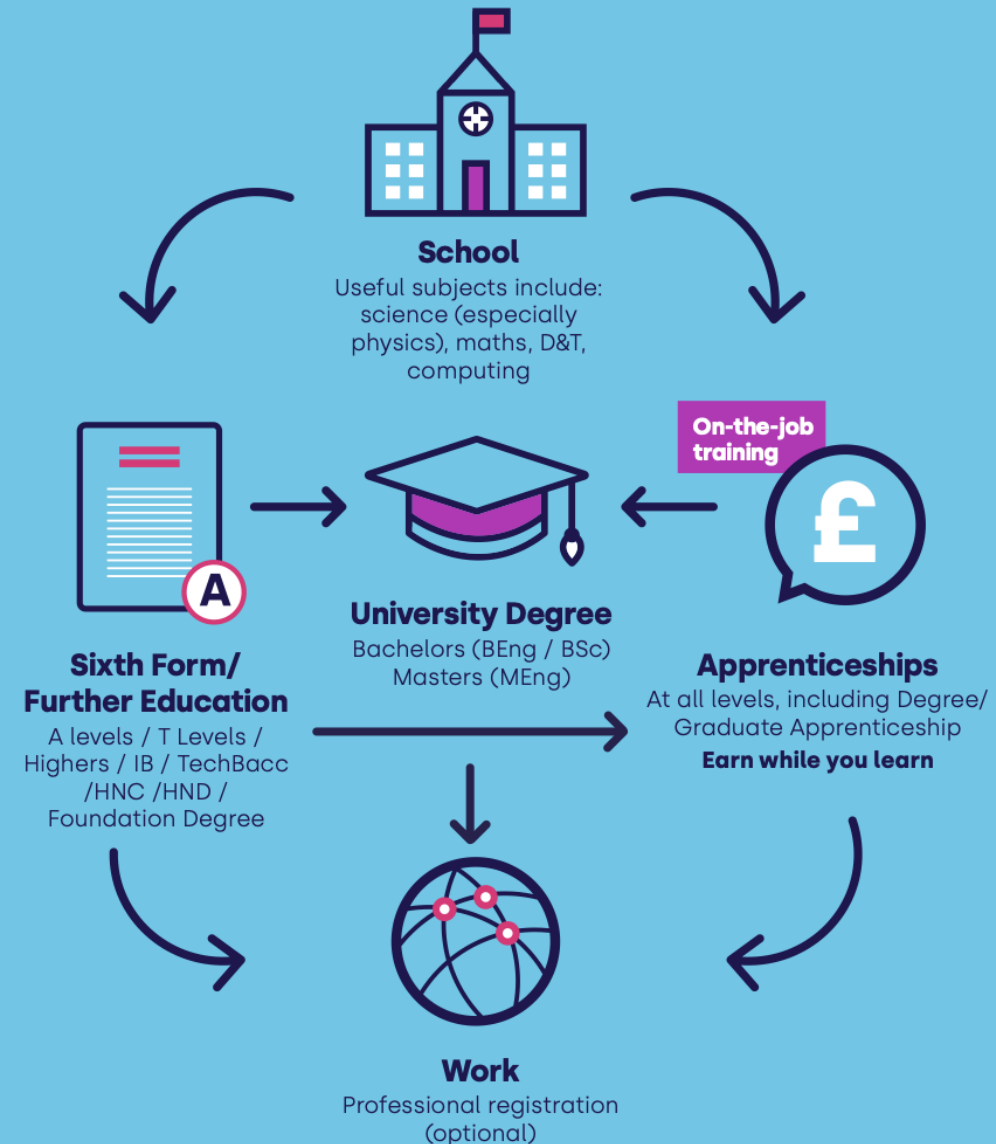
Many routes into Engineering and many options within Engineering education!

How do we advise and provide options that could appeal to different people without creating confusion?

What route did you take?

Source: Tomorrows Engineers – Neon
All Routes into Engineering – A Guide for Students choosing their next step

Different ways to become an engineer

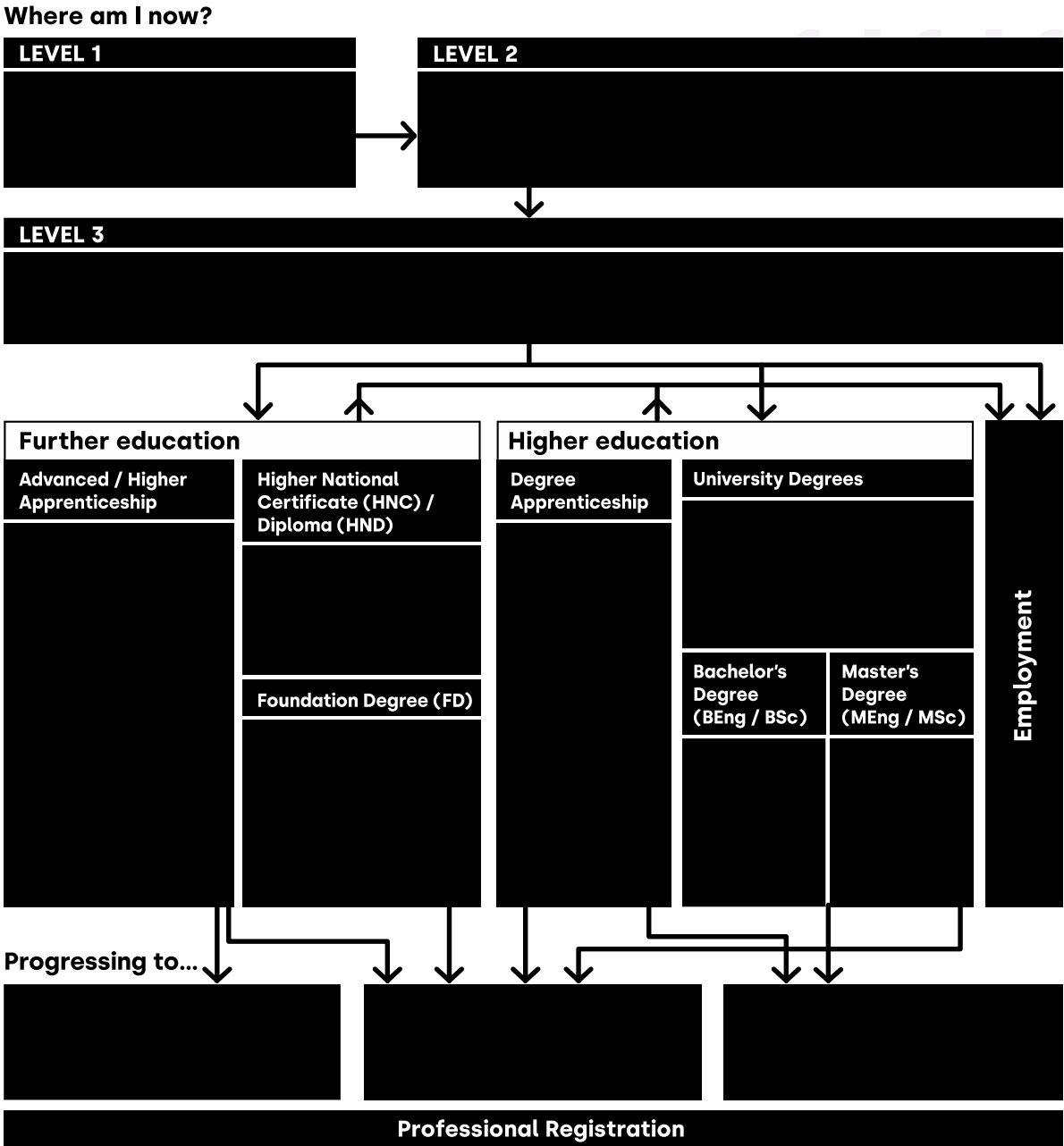


WHAT'S YOUR STORY?
HOW DID YOU GET
INTO ENGINEERING?



Source: Tomorrows Engineers – Neon
All Routes into Engineering – A Guide for Students choosing
their next step

Routes into engineering (England)



STAYING UP TO DATE WITH ROUTES INTO ENGINEERING

What are T-Levels?

- Career-focused qualifications
- Made up of 80% classroom learning and 20% workplace experience
- Consisting of a 45-day industry placement
- Take 2 years to complete and are equivalent to 3 A levels
- www.tlevels.gov.uk/students

Example T-Levels Available:

**Design & Development for
Engineering and Manufacturing**

**Maintenance, Installation and
Repair for Engineering and
Manufacturing**

**Building Services Engineering for
Onsite Construction**

Science

**Digital Production, Design &
Development**

**Design, Surveying and Planning for
Construction**

**Engineering, Manufacturing,
Processing and Control**

STAYING UP TO DATE WITH ROUTES INTO ENGINEERING

Types of Apprenticeships

Apprenticeships exist at different levels and tend to take between 1 and 5 years to complete, depending on the level.

- Intermediate Apprenticeship – equivalent to Level 2/GCSE
- Advanced Apprenticeship – equivalent to Level 3/A level/ T Level
- Higher Apprenticeship – equivalent to Levels 4-7/Foundation Degree and above
- Degree Apprenticeship – equivalent to Levels 6-7 / Bachelor's or Master's Degree

www.apprenticeships.gov.uk



[illegible]

**A Levels in engineering, maths,
computer science (at a UTC)**

Degree Apprenticeship in software engineering (The BBC and Queen Mary University of London)

USEFUL SIGNPOSTING

- <https://www.tomorrowseengineers.org.uk>
- www.neonfutures.org.uk
- hireanapprentice.campaign.gov.uk
- amazingapprenticeships.com
- www.notgoingtouni.co.uk
- nationalcareersservice.direct.gov.uk
- www.utcolleges.org.
- [The Guardian University Guide](#)
- [Prospects](#)
- [UCAS](#)
- [The Year in Industry](#)



POSTER

Green engineering careers posters

A set of 4 inspiring green engineering careers posters for students to think about how they can change the way



PRESENTATION

Engineer your future

A PowerPoint presentation for teachers, advisers and ambassadors to use with 14 to 19 year olds, to inform and inspire young people about a



LEAFLET

Inspiring future engineers: notes for teachers

Teachers can use this 4-page leaflet to familiarise themselves with key points

The screenshot shows the 'Amazing Apprenticeships' website. At the top, there's a navigation bar with links: HOME, RESOURCES, EVENTS, ABOUT US, NEWS, CONTACT US, CAREERS WITH US, and SUBSCRIBE. Below this is a large 'RESOURCES' banner with the text: 'Explore our range of inspirational and informative resources, helping to explain apprenticeships whether you're a parent, teacher or thinking of becoming an apprentice yourself.' Below the banner is a search bar with the placeholder text 'Search Resources' and a 'SEARCH' button. At the bottom, there's a 'REFINE RESULTS' section with a filter for 'CATEGORIES (RESOURCE TYPE)' including 'New', 'Live Broadcasts', and 'Apprentice Stories'. To the right of the search bar, there are two featured resource cards: 'NEW! BE YOUR STORY AND INSPIRE OTHERS...' and 'NEW! MOVING ON UP... SUPPORTING CARE LEAVERS THROUGH APPRENTICESHIPS'. On the far right, there's a 'FEATURED RESOURCE' section with a photo of a man wearing a turban and glasses.

KEY TAKE-AWAYS FOR YOUNG PEOPLE

- Engineering is about making a positive difference to people's lives and the planet.
- Engineering is for everyone.
- Engineers are in demand and earn well in a rewarding career.
- Engineers and technicians work everywhere!
- You don't need top grades in maths and physics to become an engineer.
- You can work towards professional registration as an engineer.



Mechanical engineers will find solutions to some of the world's biggest challenges.

- How can we feed a growing population?
- Where will we get all the energy we need?
- How do we live more sustainably?
- When will we put people on Mars?
- What will keep our infrastructure secure?

Mechanical engineers are the inventors who turn ideas into reality.

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THANK YOU.

Institution of
**MECHANICAL
ENGINEERS**

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