Careers resource pack

What is engineering?

Future Lifesavers

Lifesavers

Space Explorers

Did you know?

Do you know a 10-year-old or under who's doing an amazing job?

Submit their name and a sentence about why they've impressed you.
Our Tomorrow’s Engineers careers resource pack has been put together for teachers, advisers and ambassadors to use with groups of students. It is intended to inform and inspire young people and their influencers about the exciting opportunities presented by a career in engineering.

We have put together some useful guidelines on how to use the different resources contained in the pack, along with some frequently asked questions about engineering careers with suggested responses. You will find classroom display posters, themed postcards, ‘routes into’ booklets for students, a lesson plan and a list of useful links.

You can download the whole pack or choose the individual resources that you wish to download.

If you would like to order printed copies of the pack or any of the resources contained within it (free of charge) please visit: www.tomorrowsengineers.org.uk

Contents

P3 Notes for teachers
4-page leaflet covering key points for talking about engineering careers with students.

P4 Themed postcards - find your route into engineering
A series of themed postcards showing exciting areas where engineers are making a difference: electronics, medicine, power, products, space, sport, transport and water.

P5 What is engineering?
A leaflet for students aged 11 to 16, describing what engineering is and explaining the different routes into engineering.

P6 From idea to career: explore 12 areas of engineering
A closer look at 12 different engineering disciplines to help students work out which area(s) might be right for them.

P7 Make a difference to the world: vocational and apprenticeship routes into engineering
Earn money while training to become an engineer. An essential guide for any student considering an engineering apprenticeship or a vocational pathway.

P8 Make a difference to the world: engineering at university
Everything you need to know about studying engineering at university.

P9 Save lives as an engineer: poster and lesson plan
Find out how engineers who work in disaster response save lives on a massive scale with this curriculum-linked lesson plan, poster and booklet.

P10 10 great reasons to become a scientist or engineer
A colourful display poster to inspire young learners to consider the exciting and meaningful careers available in science, technology, engineering and maths.

P11 100 jobs in science, tech, engineering and maths
Our popular poster shows 100 exciting job roles that link to science, technology, engineering and maths.
There is a high demand for engineers in the UK – in fact engineering is one of the most in demand jobs globally.

From apprentices to technicians; graduates to postgraduates – engineers are needed at all levels, in a wide range of sectors. This leaflet helps teachers explain the exciting career opportunities available in engineering and the different routes into the industry. Information about earning potential, qualifications and professional registration is also included, along with useful links to speakers, activities, events and places to visit, for those who want to learn more about engineering.

4-page leaflet covering key points for talking about engineering careers with students.

There is also an interactive PowerPoint presentation that can be adapted and used to support your discussions with young people about engineering careers:

www.tomorrowsengineers.org.uk/makeadifference
Themed postcards - find your route into engineering

A series of themed postcards showing exciting areas where engineers are making a difference:

- electronics, medicine, power, products, space, sport, transport and water.

These handy postcards, aimed at students aged 11 to 14, are designed to showcase the broad and exciting range of careers available in engineering. Each postcard has a discussion point around a future world challenge and features a case study of an inspiring young engineer.

Future Lifesavers (Medicine)
Hair-Raising (Products)
On the Move (Transport)
Smart Living (Electronics)

Space Explorers (Space)
Sporting Success (Sport)
Sunshine and Showers (Power)
Water Works (Water)
What is engineering?

A leaflet for students aged 11 to 16, describing what engineering is and explaining the different routes into engineering.

The work that engineers do affects billions of people. It is creative and hands-on.

It is about solving problems, designing things and improving things. As an engineer, you could tackle some of the world’s most pressing problems - from dealing with cyber security and maintaining clean water and energy supplies to finding sustainable ways to grow food, build houses and travel.

This 8-page leaflet helps students and teachers understand more about engineering careers, giving examples and listing important subjects and different routes into engineering, such as apprenticeships, vocational qualifications and degrees.
Explore 12 areas of engineering and work out which area(s) might be right for you.

Engineering is a diverse, wide-reaching sector and it can be hard to decide which of the many areas to pursue.

In this booklet aimed at 14 to 19-year-olds, you will find an overview of several different types of engineering, including:

• Aerospace & aeronautical
• Biomedical
• Chemical
• Civil & structural
• Electrical & electronic
• Energy
• Marine
• Materials
• Mechanical
• Production & manufacturing
• Software and computing

You’ll be able to find out which subjects are useful, what you might learn about, what people who work in these areas do and how much you could earn.
Make a difference to the world: vocational and apprenticeship routes into engineering

Earn money while training to become an engineer.

Engineering can be found everywhere – from the devices we use and the buildings we live in to the power we consume and the food we eat.

Engineers use their skills to improve the design, performance and efficiency of just about everything we use today and to change the way we do things in the future.

There are different routes into engineering, including apprenticeships, university and vocational qualifications. Apprenticeships combine on-the-job training with studying for vocational qualifications, or even a degree at university.

Apprentices earn a training wage for the duration of their apprenticeship. This booklet, aimed at 14 to 19-year-olds, answers frequently asked questions about apprenticeships in engineering, helping students decide whether this is the right route for them.

Make a difference to the world: vocational and apprenticeship routes into engineering

Vocational and apprenticeship routes into engineering

Why choose Engineering?

What is an engineer?
Everything you need to know about studying engineering at university.

Engineers work with others to tackle some of the world's most pressing challenges – from cyber security to maintaining clean water – and design innovative products such as driverless cars and surgical robots.

This booklet, for students aged 16 to 19, explains the benefits of choosing a degree in engineering and helps with the decision-making process around courses and disciplines.

Engineering skills are in high demand, so if you’re looking for a creative and practical job that makes a difference to the world, with real earning potential, career progression and scope for moving across different industries and sectors, an engineering degree could be the perfect launch pad.
Find out how engineers who work in disaster response save lives on a massive scale.

Our poster and accompanying teacher booklet with notes, activities and a lesson plan, help students understand the scale and impact of disaster response engineering.

Many types of engineering are employed in helping communities affected by disasters like earthquakes, tsunamis and avalanches. From designing equipment and technology used to find and rescue victims, to providing shelter and transport networks, restoring electricity and sanitation and creating medical devices, detection systems and buildings that can withstand extreme pressure, engineers save hundreds of thousands of lives.

Download poster now

Download lesson plan now

Order in print

tomorrowsengineers.org.uk/savelives
A colourful display poster to inspire young learners to consider the exciting and meaningful careers available in science, technology, engineering and maths.

Make a difference, travel the world, invent something important, earn great money, solve the world’s biggest challenges, gain respect and do something that you love. These are just a few of the great reasons to become a scientist or engineer.
100 jobs
in science, tech, engineering and maths

Our popular poster shows 100 exciting job roles that link to science, technology, engineering and maths.

Be inspired by the array of jobs you could consider in the future if you keep your options open with science and maths:

- Cosmologist
- Smart cities specialist
- Sustainable energy physicist
- Intrusion analyst
- Special effects director
- Emergency shelter disaster

...to name just a few!

download now  order in print