

Tomorrow's Engineers

Guide to delivering engineering careers activities

Developed by EngineeringUK in partnership with the Royal Academy of Engineering and business and industry, Tomorrow's Engineers is a one stop shop for engineering careers information, inspiration and activities for young people. Find out more at www.tomorrowsengineers.org.uk

Tomorrows Engineers have come up with some useful tips for embedding engineering careers information and inspiration into activities, lessons, shows and workshops. These notes are for anyone involved in planning or delivering a session or series of engagements with an engineering theme.

Relevance and accessibility

Things to consider

- Inclusivity and awareness of under-represented groups within engineering, making sure both girls and boys are engaged in every part of the session. Try to challenge stereotypes.
- Ensuring tasks are challenging but achievable – consider the students' age and ability.
- Curriculum links to science, maths and design & technology.
- Interests and topical issues relevant to the group – could be explored at the start of the session.
- Examples that will resonate with students, e.g. music, sport, food, travel, technology, clothing.
- Adapting the activities and tasks for students with specific learning needs.

Inspiration

Things to consider

- How will the session change students' perceptions of engineering? What do they already know?
- How hands-on, participatory and thought-provoking is the session?
- Use of diverse case studies and where possible, ambassadors, to support the session. Request a STEM Ambassador at: www.stemnet.org.uk
- Growth industries and the future of engineering. What will engineers be working on in ten or twenty years' time?
- Highlighting the scale and impact of engineering, e.g. protecting the environment, exploring the unknown, advancing technology, closing the poverty gap and coping with an expanding global population. The Tomorrow's Engineers postcards for students can help spark discussions: www.tomorrowsengineers.org.uk/careers_resources

Careers information

Things to consider

- Are the students at key decision-making points (e.g. Years 8 & 9, Years 10 & 11 and Year 12)?
- Highlighting engineering skills – e.g. finding solutions, being creative, working in teams, communicating ideas and reviewing progress – and showing students how these skills relate both to the activity and to their everyday lives.

- Important and useful subjects for engineering and different routes into engineering. Increase impact by weaving careers messages into the session and reinforcing them several times.
- Highlighting different industries and job roles and tailoring these to the group (i.e. local and regional opportunities and growth industries).
- Consulting students on motivating careers factors (e.g. pay, prospects, prestige, flexibility, opportunities for travel and so on) and bringing out these messages during the session.

Tomorrow's Engineers Careers Materials

Tomorrow's Engineers have developed a set of careers materials to support engineering engagements, including resource packs for teachers, classroom posters and leaflets and postcards for students. These can be downloaded from the Tomorrow's Engineers website or ordered in print, free of charge:

www.tomorrowsengineers.org.uk/careers_resources/

The materials can be used by teachers, ambassadors and those who work with young people, to inform and inspire about the exciting career opportunities available in engineering and demonstrate the routes into these careers. They offer a useful way of sparking careers conversations during activities, workshops and lessons. They can also be distributed at science and engineering fairs, and careers / options events.

Careers materials include:



Notes for teachers



Leaflets (11-16 yr olds)



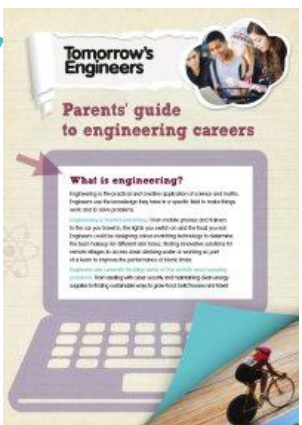
Classroom posters



Postcards: 11-14 yr olds (8 different topics)



Booklets (16-19 yr olds) Apprenticeships/University



Leaflet for Parents



Career Route Maps (All regions)



10-slide presentation to explain engineering

