

Careers conversations and learning outcomes for students undertaking engineering work experience

OUTCOME	EXAMPLE ACTIVITIES	FURTHER INFO & PROMPTS
Students will be more informed about routes into the industry in general and about specific schemes and opportunities with the company	Employees could share their own experiences of the world of work, including how and why they got into the industry/company. Students are always fascinated by this. It is also useful to highlight other routes into engineering.	<p>Diagrams showing routes into engineering can be found at:</p> <p>14-16: www.tomorrowseengineers.org.uk/simplifiedroutemap</p> <p>16-19: www.tomorrowseengineers.org.uk/routemap</p>
Students will know more about what is involved in engineering job roles	<p>Students can be directed to the following websites to watch short clips of engineers from different fields talking about what they do:</p> <p>www.tomorrowseengineers.org.uk/case_studies www.icould.com</p> <p>Students can also speak to different engineers within your company and should be encouraged to ask questions about what the different roles entail.</p>	
Students will understand how engineering and technology are related to their school subjects, skills and wider interests	<p>Find out what the student's interests, strengths and motivations are and help connect these with your industry or the engineering sector as a whole. Discussing high profile news items connected to your industry (for example disaster relief, new technology, big sporting events, sustainability, social issues) can be a great way to show the impact and scope of engineering and technology.</p> <p>Highlight the skillset of engineers, e.g.</p> <ul style="list-style-type: none"> • Practical skills (such as fixing things and working out how to improve things) • Business 'know-how' (such as managing projects and working within budgets) • Analytical skills (such as applying mathematical and scientific concepts) • 'Soft skills' (such as working in teams, communicating ideas and thinking creatively). 	<p>School subjects related to engineering include:</p> <p>Science – particularly physics Maths Design & technology Computing and ICT Construction and the built environment Engineering Art Geography Geology</p>

Tomorrow's Engineers

Students will understand the rewards a career in engineering can bring

When talking to students, the following messaging can be used to inspire and inform:

- Engineers make a difference to the world.
- Engineers design and make things that improve our lives, from driverless vehicles, laser eye surgery and prosthetic limbs to the latest apps, devices and household products.
- Engineers develop sustainable energy sources; provide disaster relief; manufacture pharmaceuticals, improve cyber security, construct buildings and help remote parts of the world access clean water. They are involved in many different industries, from music, film, food and sport to space, transport and power.
- Engineers are in demand! Engineering employers are projected to need 1.82 million people with engineering skills from 2012 to 2022.
- Engineers earn good money. Across the board, professionally registered engineers can expect to earn up to £40,000 more per year than the national average salary.
- The average graduate starting salary for engineering & technology is over 20% higher than the average starting salary for all graduates.
- On average, engineering apprentices earn over double the national minimum apprentice wage.
- Engineers can become professionally registered as Chartered Engineers, Incorporated Engineers or Engineering Technicians, meaning they can use the letters CEng, IEng or EngTech after their names.
- Professional registration is respected and recognised all over the world. Professionally registered engineers – like accountants and lawyers – can even sign people's passport application forms!
- Engineers have opportunities to work all over the world and work in dynamic teams with other professionals

Find more stats and facts, here:
www.engineeringuk.com/research

Tomorrow's Engineers have developed guides for young people considering their post-16 options, which can be viewed online and ordered in print:

University route
www.tomorrowsengineers.org.uk/university

Vocational and apprenticeship route
www.tomorrowsengineers.org.uk/vocational

Useful links for students

Students who are keen to develop their interest in engineering, both in and out of school, can be directed to the Tomorrow's Engineers website, where they can find out about science and engineering fairs, residential courses, competitions, clubs, awards, museums, attractions, industry placements and more:

14-16 year-olds: www.tomorrowsengineers.org.uk/14-16/Get_involved/

16-19 year-olds: www.tomorrowsengineers.org.uk/16-19/Get_involved/

General careers websites

www.plotr.co.uk

www.prospects.ac.uk

www.careerslab.co.uk

STEM careers inspiration

www.futuremorph.org

www.gocracker.com

Girls

www.stemettes.org

www.sciencegrrl.co.uk

www.wes.org.uk

Professional registration

www.engc.org.uk

www.engtechnow.com

Apprenticeships

www.findapprenticeship.service.gov.uk/apprenticeshipsearch

www.tomorrowsengineers.org.uk/apprenticeships

University and alternatives to university

www.ucas.com

www.unistats.com

www.whatuni.com

www.tomorrowsengineers.org.uk/university

www.notgoingtouni.co.uk

Exhibitions and events

www.thebigbangfair.co.uk

www.imagineering.org.uk

www.sciencemuseum.org.uk/visitmuseum/Plan_your_visit/exhibitions/engineer_your_future

For more information, please visit the Tomorrow's Engineers website:

www.tomorrowsengineers.org.uk