2013



PASSPORT
TO STEM CAREERS







CAREERING AROUND IS A SCIENCE, TECHNOLOGY, ENGINEERING AND MATHS (STEM) CAREERS EVENT DELIVERED BY THE TIMES CHELTENHAM SCIENCE FESTIVAL.

This year Careering Around will visit schools in Bristol, Gloucestershire, South Gloucestershire and Somerset, allowing Year 10 pupils to interact with young career scientists to learn about a wide variety of STEM career options. This has been made possible by a generous grant from EDF Energy.

Unlike a standard careers fair, Careering Around involves interactive sessions based around the speed dating format, making it lively, dynamic and definitely memorable!

This June, Careering Around will be coming to the *The Times* Cheltenham Science Festival for the first time to deliver session for Year 9 pupils - so come along to hear about a range of STEM careers.

Education and principal partner

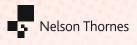


For more information about Careering Around, please email education@cheltenhamfestivals.com

WITH THANKS TO ALL OUR SPONSORS AND MENTORS FOR MAKING CAREERING AROUND POSSIBLE.



We asked the Mentors, 'What's the best thing about working for your company?'



www.nelsonthornes.com

edf.

www.edfenergy.com

The quality of training and the drive to always improve on the knowledge and experience staff possess. There is a wide range of technical work available, and it's great being able to work in a rapidly expanding industry with good prospects for future career progression.



www.ge.co.uk

Thanks to the expertise of my colleagues I am able to learn something new every day and no day is ever the same. GE's product range is really large and the type of knowledge required for each product makes working for GE challenging but extremely interesting.



- at Nelson Thornes is so strong.

www.renishaw.com

Working at Renishaw allows me the freedom to apply innovation in all aspects of my working life. I also enjoy the number of different possibilities available in terms of type of engineering career path. If I would like to try working in a different area of the company in the future, Renishaw will strive to help me achieve this.

Working as part of a larger team. It takes the talents of many people to launch a successful education resource - designers, editors, authors, sales and marketing experts, to name but a few. The team spirit - especially within the Science portfolio



www.safran-group.com

One of the best things is the global feeling you get when working with Messier Bugatti Dowty, I can be speaking to somebody in Singapore one minute and then discussing the same issue with somebody in Paris within minutes.

For more information about work experience and career opportunities at these companies go to their websites.

OTHER SUPPORTERS















'WHO KNEW THAT STUDYING STEM (SCIENCE, TECHNOLOGY, ENGINEERING, MATHS) SUBJECTS WOULD OPEN UP ALL THESE CAREERS TO US?'

ACTUARY

AIRCRAFT TECHNICIAN

ARCHITECT

ASTRONOMER

BUSINESS ANALYST

CHARTERED ACCOUNTANT

CLEAN FOSSIL FUELS RESEARCHER

COMPUTER GAMES PROGRAMMER

COMMERCIAL SURVEYOR

COMPUTER SOFTWARE ENGINEER

DENTAL HYGENIST

DENTIST

DIETICIAN

DOCTOR

ECONOMIST

ENERGY EFFICIENCY ENGINEER

FITNESS TRAINER

FOOD TECHNOLOGIST

FORENSIC SCIENTIST

FUTUROLOGIST

GEOSCIENTIST

LAB TECHNICIAN

MARINE BIOLOGIST

MEDICAL SALES REPRESENTATIVE

METEOROLOGIST

MICROBIOLOGIST

MIDWIFE

MULTIMEDIA PROGRAMMER

NASA SCIENTIST

NATURE CONSERVATION OFFICER

IT SYSTEMS ANALYST

OCEANOGRAPHER

PATHOLOGIST

PHARMACIST

PHYSIOTHERAPIST

PSYCHOLOGIST

SCIENCE JOURNALIST

SCIENCE TEACHER

SCIENTIFIC ADVISOR FOR TV AND FILM

SOUND ENGINEER

SPORTS SCIENTIST

SUSTAINABLE TECHNOLOGY CONSULTANT

TECHNOLOGY WRITER

TOWN PLANNER

TOXICOLOGIST

TV PRESENTER

VET

To find out about many more STEM careers, please go to www.prospects.ac.uk and www.futuremorph.org



Radu Sporea RAEng, Academic Research Fellow, University of Surrey

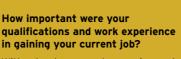
What does a typical day at work

A real mixture! One day I might be doing computer simulations of new electronic devices, the next I might be putting on overalls and going to the lab to make these very devices. I travel to conferences and meetings with companies who might be interested in my discoveries. I teach Electronics to students but also the general aspects of being a successful engineer.



Science Commissioning Editor, Nelson Thornes Publishers





Without a degree and a genuine and active interest in the nuclear industry I would not be in the position I am in today. Working in the nuclear industry is an exciting and challenging area; technically there is a lot to learn, particularly important when engaging with the general public.



Amy Prole Communications Coordinator, EDF Energy

What ambitions do you have for the future?

I want to be an internationally leading expert in state of the art advanced manufacturing and technology development. In addition, I want to be involved with shaping UK engineering policy and understand how we can continue to excel in this field. I am passionate about engineering, in particular 'making things', but recognise the increasing number of challenges facing UK manufacturing, particularly from the low cost emerging markets. I want to be able to challenge this notion and enable people, particularly young people to see a bright future in UK manufacturing and engineering in general.



Vimal Dhokia Research Fellow, University of Bath

What aspect of your job do you enjoy the most?

Learning about nuclear power generation as it is not a common subject that people study. It is interesting and challenging, and is a career with lots of opportunities.



Sam Hale Foundation Degree Student, EDF Energy



Emma Wylie Academic Clinical Fellow, NHS

What does a typical day at work

I am a kidney doctor. I spend two thirds of my time in hospital wards and clinics, and the remainder in a laboratory experimenting on ways to help people with kidney disease. My days are highly variable. I might spend all of one day in the lab, and he next performing minor operations Sometimes I spend my day asleep pefore a busy night shift!



I enjoy getting stuck in and tackling problems, working both individually and in dedicated teams. I love the pace and complexity of the aerospace industry, and how precise everything has to be - there's no hard shoulder at 35,000 feet!



others in this aspect this would be a

great achievement.

Daniel Mulley Graduate Engineer, Safran Messier Bugatti Dowty



Steven Ball Enaineer. Oxford Instruments

What aspect of your job do you enjoy the most?

Seeing something that I have nelped design go from idea to calculation, simulations to prototype, and finally to a mpleted product. It is great to put my physics degree to use to calculate the behaviour of a prototype, and to see the results of my calculations proved correct when we build the real thing.

Why do you want to take part in Careering Around? Engineering is not promoted well

enough as a career path; many young people think it is a nontechnical, low-paid career, which clearly isn't the case. Even if you enjoy Maths and Physics at school, it's not always easy to see where these subjects are useful - but they are heavily associated with Engineering, and it's important for young people to understand this.



Ross Molero Graduate Engineer, Renishaw Plo

How important were your qualifications and work experience in gaining your current job? Very important, as I had to meet certain qualifications to get onto the apprenticeship; work

Michael Williams Engineering Higher Apprentice, GE Aviation

What does a typical day at work

A variety of tasks - updating drawings, reviewing drawings and reports, answering supplier and client experience helped make me queries, setting tasks for engineers, stand out from the crowd. checking project progress against schedules, reporting progress to clients, attending design reviews, talking to and visiting suppliers, deciding on priorities, reviewing and witnessing test procedures. No two

days are ever the same!



Project Engineer, MAATS Tech Ltd



Philip Jorden Higher Apprentice,

GE Aviation

What inspired you to work in

My father is an Engineer, and as a child I loved to find out how things work and to solve problems. I really enjoy hands-on learning, and making programmes or circuits. In big companies like GE you are always being developed both personally and professionally



Engineer, GE Aviation

What does a typical day at work involve?

A typical day varies a lot. Three days of the week involve going to college to get a foundation degree in Aerospace Computer Systems. The other two days change every week, I could be going to schools, helping children get interested in engineering or doing some work around the business.



Apprentice, GE Aviation

What inspired you to work in this

I was inspired to work in this sector as I enjoy solving logical problems and making things more efficient. Prior to getting my job, I was also a hobbyist programmer and had been self-taught at software from teenage years. A friend in the ndustry was telling me about his day to day job and that inspired me to think: "Yes, I can do that!"

Why do you want to take part in Careering Around?

Mainly because I wish that it had been available when I was at school; it's really difficult to know what to expect from a science-based career. This is even truer for a subject like Engineering, which is not a subject you study at school. I didn't really know what it involved until I started looking at university courses. I also think it's important for girls to see that it's not only guys who become engineers and scientists.



Amy Boland Graduate Engineer Prodrive

Matthew Toms

Higher Engineering Apprentice, GE Aviation

What inspired you to work in this sector?

Aviation is a sector of engineering I've always been particularly interested in as it is a discipline with a lot of opportunities and transferable skills if I ever decide I want to be involved in a different engineering discipline. After spending a year in university and deciding it was not for me an apprenticeship was a perfect way into engineering in the aviation sector.



Tim Jackson Higher Engineering Apprentice, GE Aviation

Why do you want to take part in Careering Around?

To inspire students into considering a career in engineering, to pass on my experiences to students still in school who are undecided about going to university, and make students aware of the other opportunities available to them apart from university.



How important were your qualifications and work experience in gaining your current job?

n between my second and third year at University, I took an fustrial Placement position at Renishaw and I felt that this provided me with invaluable experience. During the final year of my Software Engineering degree, I was approached by Renishaw to re ioin as a graduate. The experience gained from my placement and the helped me in my job today.

What does a typical day at work involve? My main role is prospect testing -

customers sent in samples which I test. These can be anything from food powders to metal powders and they all behave differently, which means my days are varied. I spend the majority of my time in the laboratory running tests followed by writing reports. If I'm not doing this then I'm involved in Research & Development work. So my typical day is primarily spent in the laboratory with some time at my desk completing the paperwork.



Powder Technologist. Freeman Technology



Field Process Engineer, Oxford Instruments Plasma Technology

Why did you apply to take part in Careering When I was young I had a very limited

exposure to what jobs were out there. The variety of jobs available and how they are continually changing and evolving was a complete unknown to me, especially in science. Science careers are not about sitting n a lab eight hours a day. They are varied and can suit lots of different personalities not just the stereotypical scientist. I hope to help people who are interested in science but can't picture themselves working with it - gain a new perspective.



What inspired you to work in this

I always enjoyed science lessons at school far more than any other subject. I loved asking questions, performing experiments and finding the answers. It wasn't until my work placement in the 3rd year of my degree that I decided a career in medical/bioscience research was right for me. I wanted to have the freedom to focus on research questions that I was truly interested in and that had the potential to contribute to saving lives.



Research Assistant, University of Bristol

What aspect of your job do you enjoy the most?

Completion of a project or project phase is the most enjoyable part of my job. Seeing a new concept or technology come to life, knowing that you've played a part in its development is highly rewarding. I also enjoy overcoming the difficulties along the way - it wouldn't be fun if it



What inspired you to work in this sector?

I enjoyed Computer Science and could see the vast opportunities it offered across many industries. My job requires me to use skills I learnt at university - such as programming and working with databases - but also allows me to use new skills like managing teams to deliver IT projects. I love working with people and working in this sector has allowed me to develop this.



Baljeet Kalsey IT Proiect Manager. EDF Energy

Christine Waata Boilers and Plant Performance Engineer, EDF Energy

Why do you want to take part in Careering Around?

This is my opportunity to inspire the young students who will help to shape the future. There is a wide range of opportunities in different areas, and I want to encourage them to think about Engineering and the challenges of the future.

What ambitions do you have for the future? In the future I aspire to become a

senior engineer with a wealth of experience and knowledge. I'd like to be able to know and understand how things work (or be able to work it out) and be paid well for something I really enjoy.



John Clarke Graduate Engineer, Safran Messier Bugatti Dowty

What does a typical day at work involve?

As a first year apprentice I spend three days a week at college building and testing circuits, learning software and maths. The other two days vary from projects on site at work or attending enrichment activities, for example, careers fairs.





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