

Women *into* STEM

Name: Clare Ramsay

Job Role: Investment Architect

My role aims to ensure we are making the right investment for the future when buying IT systems.

Don't worry if you are unsure about what you want to do for a career right now. You have the ability to change your path at any point – I started out inputting data for a kitchen company!

Skills required:

Good communication skills

I need to be able to change my style of communication to suit the audience to get the most information from people to understand their requirements.

The ability to influence

Sometimes I need to influence colleagues to use a different technology which has more benefits for the company. This can be quite hard sometimes, especially if they have seen a new product they love!

Delegate

There are a lot of requests for new technologies at the moment and each one requires investigation. I need to be able to spread work out across the team and ask for help when needed, rather than try to do it all myself.

How did you get to where you are now?

Prior to Northern Gas Networks (NGN) I worked for a law firm working on IT and business change projects. I was approached to apply for an IT Project Manager role at NGN. I almost didn't apply because I thought the role looked too 'technical' for me. It turns out it wasn't!

Since then I have moved to Head of Technical Delivery, managing a team delivering IT projects and recently started my new role in Architecture and investment.

Looking to the future:

I am lucky in that NGN is an evolving company so new opportunities come up all the time here (hence moving from an IT Project Manager to an Investment Architect!). I have learnt to focus on what you enjoy and where your skills lie rather than a title so I would like to think my future continues to work in investment and problem solving... and I wouldn't complain if one day this branched out to one of our sister companies abroad!

Women *into* STEM

Name: Catherine Jones

Job Role: Project Manager

I primarily manage IT related projects, ensuring they are delivered on time and within budget.

Try and get some work experience, even if it isn't in the industry you would like to work in, as any experience in the working world is a beneficial skill.

I recommend the year in industry. I was able to learn so much and develop so many skills, resulting in a full time job.

Interview practice is also useful, as you are likely to experience numerous interviews before finding the job which suits you.

Skills required:

To do this job you need to be:

- Hardworking
- Organised
- Good at time-keeping
- Good at communication
- Able to prioritise tasks
- Knowledgeable about your work area

How did you get to where you are now?

As part of my university degree, I worked for a year in industry at Northern Gas Networks within the IT department. At the end of this year I was very lucky to be offered a full time role to come back to after I finished my degree.

I have been back with the company now for just under 2 years.

Looking to the future:

I hope to carry on progressing the role I'm currently in with a view of becoming a programme manager, still within the IT department.

Women *into* STEM

Name: Anna Mycoe

Job Role: Operations Manager

I primarily manage IT related projects, ensuring they are delivered on time and within budget.

Never underestimate the power of a smile, and being true to yourself. You can pretend to be someone else, but eventually you will bend back in to your true self.

Kindness and compassion are not weaknesses, and listen... every day is a school day.

Skills required:

To do this job you need to be:

- People management skills
- Understanding of business finance
- Flexibility in your approach to work and able to think outside the box
- Be fair minded
- Have an open approach and empower your team to strive for improvement

How did you get to where you are now?

I was approached via an agency, they had me on their files from a previous job search and felt that the position at Northern Gas Networks may be of interest to me.

I submitted my CV and went through an interview process that lasted a few months. Once I was successful I was over the moon.

Looking to the future:

To remain within Northern Gas Networks and grow my career, I don't think too much about the next role as such. I just want to be happy in what I do, and have a positive impact on the people around me.

Women into STEM

Name: Hannah Jewison

Job Role: Environment Officer

My role is to calculate Northern Gas Networks Carbon Footprint. I also work with colleagues to provide environmental information and education.

Keep studying! And take every opportunity that you can. In the past I've volunteered for local environmental charities as an admin assistant, travelled to Central America to take part in some wildlife surveying and undertaken additional studying through the Open University. Each opportunity gave me different skills and abilities and was worthwhile in its own ways!

Skills required:

Environmental knowledge

so that you can understand how different activities might impact upon the environment.

Good Excel skills

to help with the calculations!

Most importantly the ability to communicate effectively

It's really important to be able to have open conversations and to be able to articulate your point in a coherent way so that it is easy to understand.

How did you get to where you are now?

I was working as a temp in the records department at NGN and following a conversation with my manager about my degree (Zoology) he suggested that I should speak to the Environment Team.

I had an informal interview with the head of Environmental Health and Safety and from there I was asked to join the team and help out with the calculation of the carbon footprint.

Looking to the future:

In the future I hope that I can continue to work in this role or something similar. I'd really like to get involved with helping to embed environment in to the culture of the business to ensure it is protected and looked after at all times.



Women *into* STEM

Name: Margaret-Mary Ling
Job Role: IT Programme Manager

*Do something that you enjoy and it will make it so much easier.
Never give up, work hard and the hard work always pays off.
Believe!*

Skills required:

- Effective leadership
- Good communication skills
- Ability to create a sense of community amongst team members
- Good knowledge of planning techniques
- Good organisational skills

How did you get to where you are now?

I started my career as an Engineer with a degree in Engineering Management. I've always enjoyed making processes more effective and efficient. Having spent a short stint in consultancy I decided I wanted to be more hands on and joined Northern Gas Networks as a Support Engineer.

I quickly moved into the Innovation team where my focus was on looking at new and improved technology before moving to Business Improvements and finally settling within our IT team as a Programme Manager. I was very lucky to have some great managers who gave me some great opportunities, encouraged me to push myself and believe in my abilities.

Looking to the future:

I aim to continue to add value and deliver improved ways of working across the wider business.

Women *into* STEM

Name: Tina Regan

Job Role: Senior Analyst Programmer

I work for North Yorkshire County Council as a Senior Analyst Programmer.

Your career will span a long time and may change direction along the way. Who knows what your last job will be. You can gain a lot of transferable skills along the way. Make every opportunity count.

Skills required:

- The ability to understand the development process
- Some programming knowledge
- The ability to work under pressure and to deadlines
- The ability to solve problems
- Good communication skills

How did you get to where you are now?

I had a very strong interest in computers so chose to go to university to study Software Engineering. The course I selected contained a lot of practical project work and a year's placement actually working as a trainee programmer. Both of these aspects have given valuable experience to allow me to progress my career.

My career has had a lot of variety. Working as an embedded programmer for a manufacturing company, I spent a lot of time working with electronics. Work centred on getting each new product to market and a fair amount of site work was required.

As a desktop programmer, I spent more time on the user interface. Work was centred on large releases co-ordinated with many different companies and site work was mainly office based.

Looking to the future:

Continue to learn new technologies and pass on lessons learned.

Women into STEM

Name: Denise Robinson
Job Role: Principal Server Analyst
Technology & Change North Yorkshire
County Council

Having a role on the Service Desk is an excellent place to widen experience and can be a good way to get into other areas. There are so many different opportunities in IT and options to move around.

Skills required:

- There is not a requirement to have an IT qualification, but it is useful to have experience of using technology and important to have the enthusiasm and willingness to take on new ideas
- You have to be prepared to keep on learning all the time in an ever developing industry
- Be adaptable, methodical & well organized
- Have good communication skills, and work well with other colleagues and customers
- Be customer and business focussed
- Have a desire to see things to their conclusion and never give up

Looking to the future:

Continue to learn new technologies, be happy and fulfilled in my career.

How did you get to where you are now?

Using computer equipment at University to analyse data as part of my degree, very much fuelled my interest in Information Technology. After graduating I was given the opportunity to work as a Research Assistant for a Doctor of Community Medicine, assisting in the collation and analysis of data on a number of medical studies in the midlands.

My next job was a Computer Laboratory Assistant, which involved building and maintaining a room full of IT equipment, and also supporting students who used the systems.

After a few years of doing this I secured my first post in NYCC as a Computer Assistant in the Highways and Transportation Department. In this role I maintained and upgraded desktops and back end servers.

Due to office re-organisation, I moved into Central IT Services, still looking after servers and desktops. As a result of the growth of IT usage by the County Council, the teams became much more specialised and divided into Server and Desktop support. At this stage I then concentrated on the server side and now maintain and upgrade the main Corporate Servers. I am now a part of a hardworking, dedicated team who work away in the background to ensure appropriate, efficient, reliable and secure IT systems to the business.

Women into STEM

Name: Heather Weighell

Job Role: Senior Server Officer

I deal with Active Directory Account Management and Server Security (patching), amongst many other things

I personally believe you can gain so much learning from experienced individuals in a working environment. If you want to work in an IT related job but are unsure what you specifically want to do, working on an IT Service Desk is good grounding. It opens up gateways to other areas as you get an insight into different areas of IT and pick up so much knowledge in so many areas. I have worked with so many people who have started their career on the Service Desk as I did and moved on to achieve great things!!

Skills required:

- The ability to look at and potentially solve problems
- Flexibility and being prepared to learn new skills constantly in an ever changing environment
- Customer Service Skills – being very customer focussed
- Good team player
- Efficient and accurate keyboard skills

How did you get to where you are now?

I started as a work experience at NYCC library HQ for a short while. Then got a permanent role at NYCC in the IT Dept in Data Preparation. Then progressed onto Data Control. Through reorganisation of the department I was offered a role on the Service Desk taking IT related calls and ordering IT equipment. I never thought I wanted to work in IT but just fell into it really and found it very rewarding and challenging in a good way!!! I then progressed onto a First Line Analyst position on the Service Desk fixing more problems.

I was offered the opportunity of a secondment into the Server Team and expanded my skills via mentoring by my colleagues which meant I was able to have a permanent role as a Senior Server Analyst. I then progressed again into a Senior Server Officer role within the same team.

Looking to the future:

Just to keep gaining the skills to enable me to learn new technologies in an ever changing environment.

Women *into* STEM

Name: Karen Wilson

Job Role: Systems Development Officer

Liaise with suppliers and administer systems to ensure they meet our business needs and ensure we are getting good value.

Pursue what interests you. What you want to do might be the opposite of those around you, but don't let that stop you.

Skills required:

- An eye for detail and good problem solving skills, as systems and statistics come hand in hand.
- You also need to be able to adapt to change well and enjoy working with a variety of different people.

How did you get to where you are now?

After leaving sixth form, I completed a Business Apprenticeship at an Awarding Body and learnt a lot about system reporting and databases. My interest in this led me to become a Management of Information Systems Officer in the Education Department within NYCC. I've been supporting various systems, liaising with suppliers and their users, ever since!

Looking to the future:

I'm very enthusiastic about what I do and hope to encourage others in their career by leading and progressing a team as well as enhancing my own skills as new technologies and training become available.

Women into STEM

Name: Lorena Philips

Job Role: I work for NYCC as a Technology and Change Corporate Systems Team. I manage the Education and Skills Team which supports IT systems holding data for all students who have special needs.

Gain qualification in the area that interests you, research about the company / authority you would like to work for and learn about what they are set to deliver, changes they might be facing etc.

Skills required:

- Strong ability to analyse, understand and resolve problems
- Understanding of and sensitivity to the implications of handling data
- Understanding of the role of information systems in supporting business needs
- Good understanding of IT industry best practices and procedures
- Understanding of ITIL change, incident and problem management processes
- Good understanding of service call management systems and workflow
- Knowledge of ISO27001
- ICT Security practices
- Awareness of service delivery in an ICT environment
- General knowledge of Local Government business processes

How did you get to where you are now?

I have worked for North Yorkshire County Council since October 2006, where I have been lucky to have had the opportunity to be exposed to different kinds of working environments from Payroll to Human Resources, Training and Development, Projects and finally joining the CYPS Systems Team in May 2011 as a Systems Management Assistant.

I quickly established myself within the team and in January 2013 I was promoted to System Development Officer. In 2014 the team went through a restructure and became the Corporate Systems Team. In March 2015 I was offered the post of Senior Systems Officer (SSO) within the Corporate Systems Team, managing the Education and Skills theme.

Looking to the future:

I would like to keep working within Technology and Change and develop my Managerial Skills. I enjoy working with people but also love managing change and developments for ICT Systems.

Women *into* STEM

Name: Natalie Coulson
Job Role: NYCC -
Systems Development Officer

Career opportunities do not usually present themselves in pristine packaging, in fact you may not even realise the potential of an opportunity until you open your mind and think about the bigger picture. Think about what you would like to achieve and consider which doors will lead you to fulfil what you set out to do. For example in my career I wanted to ensure my role had social purpose, this had lead me to gravitate towards public sector roles.

The fast paced nature of the discipline provides challenge but with that also innovation. If you can influence change with innovative technical solutions you will not only enrich your organisation but also shape your own career path.

Skills required:

I find that organisational skills are key in fulfilling my role.

How did you get to where you are now?

I originally was part of a graduate apprenticeship scheme. I was positioned within a housing association and tasked with launching an employee HR portal. I then moved to the NHS where I supported further corporate NHS systems which broadened my knowledge and experience. Now I am a Systems Development Officer at North Yorkshire County Council, where I support and continue to develop the HR/Payroll system.

Looking to the future:

I hope to continue to work for organisations with social purpose ensuring that technology is used to maximise the business operational need. I would like to envisage that I will be a part of shaping the future of the north east's public sector landscape.

Women *into* STEM

Name: Sonya Hooper

Job Role: Principal Analyst Programmer

This involves developing and supporting custom built web applications as well as integrating with third party systems.

Don't be afraid to give things a go, nobody knows everything!

Work experience is a great way to get valuable hands on, understanding and know how.

Skills required:

- You need to be able to keep up with new ideas and technology and 'think outside the box'
- There are many ways to do things in IT – being innovative and utilising your logic and problem solving expertise are handy skills to have
- Also, the ability to get your head down and get on with it is a valuable skill - sometimes there are very tight deadlines

How did you get to where you are now?

I did Business Computing (Hons) at University which had a 1 year sandwich course. During this year, I worked as an Applications Developer at the BT research centre. The knowledge and skills I acquired in this year provided an excellent base on which to further develop my development skills. I started at NYCC as a Senior developer and have since progressed to Principal Analyst Programmer.

Looking to the future:

Technology and Change is a continually adapting industry and there is always a lot of new and exciting things to learn and implement – the world is there for the taking!

Women into STEM

Name: Lily Clarke

Job Role: Physics Undergraduate, York Uni.

I'm a third year MPhys Physics student at the University of York, where I also act as Undergraduate representative on the Department Equality Committee.

Study what you're passionate about and the hard work won't feel so much like hard work. Also, don't be disheartened if you feel like you've chosen the wrong A-levels or if you change your mind about what you want to study.

There are options such as Foundation Years which make it possible to change your mind and ensure you're studying the subject you really want to.

Skills required:

Studying Physics at university requires you to be a proactive and hard-working person. The work can be difficult at times and can require a lot of time and effort, but it is extremely rewarding. It's important to be a good problem solver as Physics is all about solving challenging problems which involve thinking outside the box.

How did you get to where you are now?

After completing my A-levels in History, Art and Physics, I applied to study Physics with a Foundation Year at York. The Foundation Year allowed me to learn A-level Maths as well as learning the basics of electronics, and so I could transfer straight onto the MPhys Physics course.

Looking to the future:

After I graduate next year, I hope to go on to become a Physics consultant, particularly in the medical devices field. This summer I am undertaking an internship with a technical consultancy in Cambridge and I hope that this experience will help me to get a job in the field after graduation.

Women *into* STEM

Name: Keren Wild

Job Role: Service Manager – Schools ICT

My role is varied, I manage a team of technical people, and ensure that we deliver solutions that customers will buy.

Never say no to an opportunity that arises for developing yourself or learning. You will learn from it, even if it does not go anywhere, you can say you have tried it, and experience counts for a lot. Listen to what people are telling you, you have two ears and only one mouth. Use your ears twice as much as your mouth, you will pick up on things, and be in a better position to deal with what is put in front of you.

Skills required:

A full understanding of how WAN's, LAN's, servers and computers work. Microsoft accreditation. Project Management (PRINCE2). Business Administration and Management. I have a MBA, and also a degree in Politics, Psychology, and Economics, which helps me deal with the environment that I work in, as it is in Local Government. One think I would add here, is fully understand the environment you are working in and delivering services to, even if it is not your actual job, mines IT, but I understand the environment I work in. That is why I took the degree.

How did you get to where you are now?

I started off my working career as a procurement officer, within a large engineering company, buying components for large scale projects within the chemical and brewing industry. An opportunity arose to build a database to deal with the above processes around the buying of components, to the delivery of the completed project. I put my hand up!

Spent many a happy hour learning on the job, looking at process driven systems, project cycles, database programming, alongside implementing a computer network across an organisation that at that point really did not know what computers could do. So we also had to manage a large culture change as well.

This opportunity took me into the career I have now, of building customer focused solutions using technology, and I have built my career around this.

Looking to the future:

To carry on taking the opportunities when given, and to keep looking for opportunities! You never know what you might learn.



Women *into* STEM

Name: Thanh Sutton

Job Role: Senior Analyst Programmer

I work in the Technology and Change Team.

Information Technology is a very exciting and diverse area. It has a lot of job opportunities and requires different skill sets, not just coding.

Whatever skills you have or subjects you enjoy at school, you can certainly transfer and apply in IT. You just need to have an open mind and give it a go.

Skills required:

You need to be analytical, methodical and enjoy problem solving. You might be required to translate a user requirement into a technical specification, which is essentially on how to use machine coding to do the task. You might also try to solve a bug in the system. This is an unknown territory as the error could be anything from user to data to coding error. You also need to be able to think on your feet. It could be challenging and could also be stressful. But once solved, it could be so satisfying.

As with any other jobs, being communicative and able to work in an interdisciplinary team would be a bonus. A sense of humour is also recommended.

How did you get to where you are now?

My background degree is Chemistry and Maths.

I started my career as a laboratory researcher in Food Technology.

While using database system and working with some programming software's to process my experimental data, I realised I quite like programming. Hence I took a programming course in Oracle and have been an analytical programmer ever since. I also have picked up other programming languages in order to work with different database systems.

Looking to the future:

Keep learning the new technologies that have evolved in the last few decades to the present.

Keep coding and enjoy doing it.

Women *into* STEM

Name: Dr Louise Russell

Job Role: EC&I Engineer

I work at James Fisher Nuclear Ltd. My role includes electrical design, programming, and writing technical documents.

Don't do a job just because it's good pay or easy. Do it because you enjoy it. You don't need to be an 'Einstein' to do a certain job.

Also, you never know where a career might take you. I started in Engineering, worked with surgeons, and ended up in nuclear.

Skills required:

As with all Engineering roles, you need to be good at problem solving, by understanding a problem and coming up with an effective solution. Another key skill is being able to communicate with others. It's often no good talking technical gobbledy-gook to Mechanical Engineers, so instead I have to explain what I'm trying to achieve in terms they will understand.

How did you get to where you are now?

After completing my GCSE's and A-levels, I went to Leeds University to study Mechatronics and Robotics. After achieving my MEng I continued in academia and completed my PhD in Surgical Technologies, working alongside surgeons. The focus of this work was instrumenting tool to monitor forces, which provided me with many transferrable skill that I brought into industry.

Looking to the future:

I am hoping to complete my professional registration and become a Chartered Engineer, but for now I am enjoying learning new skills and finding out about the world of nuclear engineering.



Women *into* STEM

Name: Charlotte Bell
Job Role: Environment Officer,
Sirius Minerals

Be proactive – the reason I got my first job was I just sent my CV out to lots of firms with a covering letter. The job wasn't formally advertised - they just liked what they saw! Also, try and get work experience – it really helps to get an idea of what you mind end up doing and if you'll enjoy it. Finally, don't let anybody tell you science is not for girls – anybody can do it!

Skills required:

You need to not mind being outside in any weather! You also need to be a good communicator – it's up to me to tell the engineers building the mine if a proposed activity could have a negative impact on the environment, and to advise how to do it a different way. Good maths and good writing skills are important to be able to interpret complex scientific data and explain it simply to non-technical people. Computer skills are also essential, as a lot of the geology data and mapping tools we use is managed in electronic systems.

How did you get to where you are now?

I had a broad interest in science from a young age, but I didn't just want to study physics, chemistry or biology – I liked all three! I also really enjoyed the outdoors, so geology seemed perfect because it combined all three sciences with field work. So I did a degree in geology and a masters in environmental engineering, which led to a job with an geo-environmental consultancy (a company that advises on both geology and environmental matters for engineering firms). After being involved with Sirius Minerals as a consultant for many years, an opportunity arose to join the project and I jumped at the chance!

Looking to the future:

I don't really have a vision of being a high-powered executive – I like doing the day to day scientific work. That's why I moved to Sirius.

Women *into* STEM

Name: Jess Diffey
Job Role: Marketing Analyst,
Sirius Minerals

Be proactive, resilient, apply yourself and relish in a good challenge.

I started the role with little industry experience, but by making most of what I had, applying a 'can do' attitude to my work and having a genuine desire to learn and develop new skills, I've succeeded in the role.

Skills required:

Being a team player is absolutely essential in my role as every aspect of my job involves working closely with others to achieve a collective goal.

There are still fairly few women in the industry so resilience is key.

You also need to be adaptive with a 'can do' approach and the ability and desire to learn new skills and develop yourself.

I'm a logical thinker with an eye for details, a consistent, methodological approach and an interest in solving problems, which has really helped me in my job.

How did you get to where you are now?

After school, I completed A-Levels in French, business and psychology, before moving on to an undergraduate degree in psychology. I learnt a lot about people, behaviours and thinking, and worked with statistics which made me recognise my enjoyment for numbers, analytics and methodology.

I started a career in the NHS as an analyst which helped me to build up my skills. The opportunity came up at Sirius which looked a great challenge and gave me the opportunity to get involved in a huge project for both the town and country.

Looking to the future:

This role inspires me to keep learning, developing and challenging myself. I love where I work and in the future, would love to continue my involvement with global projects of a similar scale.

Women *into* STEM

Name: Natalie Griffiths
Job Role: Director of Engineering
at Scarborough UTC

Gather as much information as you can about a wide range of careers that reflect your interests and ability. Talk to people actually doing the jobs you think you may be interested in to find out what it will be like in the real world. Don't let stereotypes or peers influence your decisions

Skills required:

As a manager I have to work with the management and staff team in a cooperative and supportive manner. I have to be organised and efficient in order to fit in planning, delivering and assessing my own lessons, and contributing to leading the college. I liaise with parents and employer partners so have to adopt a professional manner at all times. The most useful skills you need for teaching students? Enthusiasm and patience!

How did you get to where you are now?

How did you get to where you are now? Following A Levels I completed a HND in Computer Aided Engineering then a BEd in Design and Technology. I progressed through to Head of Department roles, incorporating industrial placements and introducing new engineering courses along the way. I completed MSc in Education Leadership and Management. My current UTC role combines the best of everything I've experienced and working with industry partners. I also work with examination boards and have been fortunate in having some of my work published.

Looking to the future:

Maybe one day I'll run my own UTC?

Women *into* STEM

Name: Nicola Morris
Job Role: Sirius Minerals,
Finance Assistant

Do what you enjoy – you spend so much time at work, so if you spend it doing something you enjoy, the rest will come. Don't worry if you don't know what you want to do – I put too much pressure on myself when I was younger to find my path. You can find your way once you're on it – you don't need to decide as soon as you leave school.

Skills required:

You need to have an interest in maths, and the company support me through my accountancy qualifications. But most of all, be organised, have attention to detail and be a team player. We work with lots of different people so you need to be flexible enough to cope with that. Having a passion for your job, everyone works hard here you won't succeed if you don't have that. Wanting to have fun while you're working is a bonus – if you can't have a laugh with the people you're working with, the hard times can drag you down.

How did you get to where you are now?

I didn't really know what I wanted to do when I left school – I tried hairdressing, travel and tourism, even working with animals! But I came to realise that I was quite an organised, process driven person, and I should do a job where those skills and behaviours were important. Accounting and finance seemed ideal! So I started doing an accountancy course at Yorkshire Coast College in my spare time. An apprentice from Sirius Minerals came to talk to my class to tell us about the company and its opportunities – I was so impressed that as soon as a job came up, I applied, and here I am!

Looking to the future:

Complete my professional accountancy exams and become a qualified accountant. From there, the world is my oyster!

Women *into* STEM

Name: Hannah Magowan

Job Role: Advanced Electrical Engineering

I have a rotating apprenticeship with the opportunity to spend time in all the engineering departments of the business.

Apprenticeships are a great way to start your career, gain qualifications and gain valuable experience making you very employable!

Skills required:

Engineering relates to Maths and Science so it is useful to have an interest and a good level in these.

In order to do an apprenticeship you need GCSE's A to C in Maths, Science, English, and ICT but don't forget to incorporate your functional skills as these will make up for any lacking qualifications.

You can start an apprenticeship from any age after 16. If you have A levels or higher qualifications in the appropriate subjects you may have the opportunity to start at a Higher level of Apprenticeship.

How did you get to where you are now?

I applied for this job in year 11 before taking my GCSE's. I applied to Derwent Training who sent my CV out to local engineering businesses and gave me details of some businesses I could apply to directly. Dale Power Solutions was one of these, and I was invited to have a tour of the factory giving me a chance to find out what opportunities were available. I loved it, and later that year I was offered a job.

Looking to the future:

Currently I am working in the design department, getting trained up in electrical design, mechanical design and PCB development. I love learning all of these and hope to continue these and specialise in PCB development in the future. This area excites me as everyday there is a new challenge and there will always be new things to learn as technology progresses.

I also hope to progress on to a Higher Apprenticeship with an opportunity to gain a fully sponsored Degree after this.

Women *into* STEM

Name: Karina Beeke

Job Role: I work for Arqiva, a Communications Infrastructure Company mainly on Radio Frequency Safety and Spectrum Planning

Do what you are interested in – you can't please everyone! It's also useful to check if courses and training are accredited by the relevant professional organisation

Skills required:

Mathematical skills are definitely key in my role; also the ability to think logically and assess/analyse the situation. Being able to explain technical matters to both other engineers and non-engineers is also useful; as is the ability to write clear technical reports. Computational skills are a pre-requisite; I find it useful to be able to write my own code as well as using specialist software.

How did you get to where you are now?

I did Maths, Further maths, Physics and Chemistry A-levels, followed by a degree in Engineering Science. This was general engineering for the first two years and then we could specialise in the final year. I opted for the electrical engineering option and chose modules related to communications. I then was successful in gaining a Graduate Trainee position.

Looking to the future:

As retirement approaches I think I'd like to do some form of voluntary tutoring with people who need help with maths – perhaps starting at GCSE level. Let's get more people comfortable with STEM subjects!

Women *into* STEM

Name: Laura Cotter

Job Role: I am Director of BStreamlined Ltd which is my own company that specialises in process improvement and lean manufacturing.

Engineering is a great foundation and can open up many doors to a large variety of careers in the future. It is much more than the traditional hands on dirty job people think of.

Skills required:

Academically maths and science skills are really important but I also think engineers are very creative people. Whether it's product design or problem solving you need to be able to think outside the box. It is also really important to be able to communicate clearly with people both in writing and speaking to get your ideas across.

Persistence and determination are really useful in an engineering environment and so is a great sense of humour, I know lots of fun loving engineers!

How did you get to where you are now?

As a child I always loved making things and playing with my tool kit so a degree in manufacturing engineering was a natural choice. I was sponsored through university by JCB and worked for them for 10 years. My favourite days were driving the big diggers! I started my own business 2 years ago using the knowledge from University and the skills and life experience from JCB and I love being my own boss.

Looking to the future:

I still love making things today so my next business step would be to start a company making products that interest me. Now that would be really exciting!

Women *into* STEM

Name: Micha Hannaby

Job Role: I work at UNISON and I am training to be a fully qualified Electrical Engineer

I would advise people to try anything and not to be put off by what other people say or think.

Skills required:

- Communication
- Organisation
- Patience
- Observation
- Flexibility
- Team work
- Maths
- Dedication

How did you get to where you are now?

I explored a few career options which weren't for me and after helping my Dad with various home renovations, I really enjoyed it and decided to try out Electrical Engineering as a career. I achieved my Level 2 & 3 Engineering and chose to go for an apprenticeship to expand my knowledge in a working environment.

Looking to the future:

I hope that I can achieve all my qualifications to a high standard. I also hope to have a very successful career at Unison.



Women *into* STEM

Name: Rebecca Vos

Job Role: Associate Lecturer at
The University of York teaching Physics
and Electronics

Obviously: work hard and get good qualifications.

But also: be proactive, contact people/companies you want to work with even if there are no opportunities advertised. The worst they can say is "no"!

Skills required:

- Knowledge of Physics and Electronics.
- Teaching and communication skills.
- Understanding of foundation year students' different situations.
- Ability to produce materials such as lectures, assignments, exam papers.

How did you get to where you are now?

I was a PhD student teaching at the University, and a vacancy arose for this job. I was interested in teaching and I felt like this job would be a perfect fit for me, so I applied and got it!

Looking to the future:

In the short term I'm still hoping to complete my PhD!
In the long term I hope to continue teaching and develop a research career.

Women into STEM

Name: Allyson Lister

Job Role: Ontologist & Knowledge Engineer.

I work for FAIRsharing, where I develop a registry which helps everyone share their data responsibly.

You don't have to take the "standard" career path into academia. Non-standard research positions, especially in informatics and knowledge engineering, are available to researchers from many backgrounds.

Before I started my Masters, I had no idea that Computer Science and Biology could be combined, much less that it was a discipline that was in such great demand in the modern age of Big Data in Biology!

Skills required:

Technical knowledge in your subject area. Social skills to get researchers engaged in discussions about data standardization, and a strong network of colleagues with the same vision.

How did you get to where you are now?

Although I had started out studying "traditional" biology, I quickly discovered that my temperament was not suitable for laboratory work. However, I loved Biology and when I discovered Bioinformatics I realized that this is where my future lay. Data management and standardization are vital tools to modern researchers, and I help them all find the data they need, structure their own data, and share everything with the research community.

Looking to the future:

I am lucky enough to be able to work part time so that I have time to spend with my family. I enjoy organizing and structuring scientific data, and hope to continue in this research area.



Women *into* STEM

Name: Amelia Gully
Job Role: PhD Student –
Electronic Engineering.



Be open to everything. I was very set against engineering when I was at school, because didn't realise how many different and exciting areas engineering actually covers.

Skills required:

The most important skill is organisation and time management. When you start a PhD, it feels like you have forever to get things done and it's very easy to get into bad time management habits!

I use my programming skills nearly every day, so that's been a really important skill for me. I wasn't great at programming when I started; it's definitely something that has improved as I've gone along.

Finally, being able to communicate what you do to a wider audience is essential. Again, this is something you learn with practice!

How did you get to where you are now?

I was doing a Master's degree at York on Digital Signal Processing and we had a module on speech which I found really interesting. I went to chat to a lecturer about it and he suggested I apply for PhD funding, which I was lucky enough to get. I hadn't considered doing a PhD before, but I'm really glad I went for it!

Looking to the future:

I would like to keep working on speech synthesis research, either for a university or for a company, and develop a personalised synthesiser that allows people to get their own voice back.

Women *into* STEM

Name: Bernice Ridley

Job Role: Course Reviewer

I work for the Society of Cosmetic Scientists, reviewing course content, working with the authors, and helping to update the notes.

Try to keep your subject choices as wide as you can at GCSE and A-level and do the subject you love at University, through an apprenticeship scheme or other route that suits the way that you learn.

Take any opportunity you can to get work experience or shadowing to see how different jobs work, it will help you see the reality of day-to-day work and perhaps identify other opportunities that you didn't know about.

Skills required:

It is important to understand how any science fits into the real world, and to be able to communicate this to a wider audience. A combination of analytical and creative skills is essential, combined with enthusiasm and a little bit of tenacity.

How did you get to where you are now?

I have worked in a number of different roles within Research & Development in the chemical industry. I have managed people and projects, presented to, and helped solve problems for a variety of customers. I am passionate about cosmetic science and the power of education, and so my current role is perfect for me to help improve the way people in the personal care industry can learn, and develop their understanding of the products they make.

Looking to the future:

I hope that the chemical industry can continue to evolve, finding more sustainable ways to deliver innovative products.



Women *into* STEM

Name: Mickyle Clark

Job Role: Business Support Apprentice

I work at Dale Power and keep employees / clients safe by ensuring correct training and keep risk assessments up to date.

Don't ever feel that you only have one option when you leave school, if you pursue one avenue and it doesn't work out, you can pursue another. I don't think I'm a typical apprentice, successfully making a career change at 23 from professional dancer to Health & Safety advisor, but I do think I represent all that is possible from apprenticeships if you have the right aspirations. Even if you don't get great GCSEs you can still be successful. Don't lose hope, keep trying until you are given the opportunity to prove you are capable.

Skills required:

I would say it is about pushing yourself and striving for more, wanting to develop personally and professionally and taking responsibility when the opportunity arises.

How did you get to where you are now?

After leaving my dancing career I wanted a career in business. Taking an apprenticeship provided the opportunity to learn academically (I didn't get the best GCSEs) and look at various areas to establish a career.

Having started an Advanced Business Administration Apprenticeship, I moved into Health and Safety and started a Higher Business Administration NVQ and have since gained my NEBOSH Certificate.

Looking to the future:

Having spent time in several areas of the business I have decided to develop my career in Health and Safety. I will now gain experience through implementing Health and Safety across Dale. It's an area all businesses need and is continually being developed. It's challenging, highly responsible and very interesting.

Women *into* STEM

Name: Sarah Crookes
Job Role: Engineering Teacher
at Scarborough UTC

Get the best qualifications you can as you never know when you might need them in the future even if they don't seem relevant now.

Skills required:

People skills are paramount in any job and engineering is no different. From dealing with customers, students, project teams or senior managers, how you interact with people will ultimately influence others more than being technically brilliant.

Determination and tenacity will ensure that you always do your best and achieve whatever you set out to accomplish.

As well as having brilliant ideas you need to be able to communicate these to other people.

How did you get to where you are now?

I joined the Royal Navy after my degree in Mechanical Engineering and served as a Warfare Officer. I then worked as a Project Manager for an Electrical Engineering company before transferring all these skills to the charity sector and working for the Royal National Lifeboat Institution both in the Technical and Operations departments. After having children I chose to move into teaching.

Looking to the future:

Inspire the next generation to have interesting and varied careers just as I have had. Qualifications in Engineering can lead you anywhere and I hope to build on my experience in industry and bring this to education.

Women *into* STEM

Name: Jenny Ellerton

Job Role: I work as a hydrogeologist for SLR Consulting, which involves studying the quality, quantity and movement of groundwater.

Work hard at school as it will open many opportunities for you in the future; consider gaining work experience from companies during the school holidays to extend your skillset.

When deciding on a career, remember that it should be in something that you truly love - don't just get a job because it pays well.

Skills required:

Mathematics and science are essential but also writing and speaking skills to communicate to convey information effectively.

Judgment and decision-making is important when considering the relative costs and benefits to choose the most appropriate one. Being organised and a good coordinator also helps in this role and the ability to manage your time effectively.

A foreign language can be a major benefit if you're considering ever working abroad.

How did you get to where you are now?

At school, I was really interested in geography and loved studying volcanoes and earthquakes. I knew I wanted to go into something scientific and something that allowed me to travel the world.

I completed 'A' Levels in maths and geography which led me to a BSc degree in geology and physical geography, before completing a master's degree in hydrogeology.

I have now worked as hydrogeologist for 12 years in the UK and South Africa which has enabled me to travel to the Congo, Namibia and Mozambique for work.

Looking to the future:

I am currently working towards becoming chartered. Accreditation as a chartered geologist is a sign to clients, regulators and employers that you are a competent professional who can demonstrate a high level of knowledge, skills and experience. I can also add 'CGeol' at the end of my name!

Women *into* STEM

Name: Julia Clark

Job Role: I work for Link Microtek and my job role is Electromagnetic Field Safety Specialist. I do training and consultancy to protect people from harmful EMFs.

Take every opportunity that presents itself and never think "I can't do that". Many careers are built by people taking opportunities out of their comfort zone

Skills required:

You need expertise and experience in this area primarily but then you also need to be able to communicate well and explain the concepts in a way that people new to the subject can understand. If you are training there is no point being brilliant if you can't share your knowledge in an accessible way.

How did you get to where you are now?

I did maths and physics A levels, then I did part of a Maths degree before changing to Electronics and Communications Engineering. At 22 I joined the Independent Broadcasting Authority as an engineer. This progressed through many roles to specialising in health and safety for people working on masts close to antennas and managing a team of 6. When the new Regulation came out in 2016 I started specialising in all EMFs.

Looking to the future:

Before I retire I want to train more companies so that they can manage their own EMF Safety issues without calling on consultants. I am about to become a Granny so that's a whole new life role for me.



Women *into* STEM

Name: Kelly Lambert
Job Role: Apprentice Fabricator
and Welder

*Try every opportunity as you never know
where it might lead!*

Skills required:

- Adaptability
- Willing to learn
- Use of PPE
- Good team player
- Dedication
- Communication

How did you get to where you are now?

I first became interested in engineering when helping out at a local workshop. I was able to oversee lots of different engineering and some car mechanics. I realised that I enjoyed the tasks and that it was very fun to see what you can produce. It also opened my eyes to how vast engineering is and what it entails and made me want to experience other areas of engineering. I decided that an apprenticeship would provide many benefits and is where I would gain the most knowledge.

Looking to the future:

I would like to complete my apprenticeship and continue to develop my skills and learn more about setting up a business. Then in five years time I am also looking towards setting up my own business.



Women *into* STEM

Name: Laura Speakman
Job Role: Junior Draughtsperson

Don't be scared to pursue opportunities that are completely different to your friends i.e. "male dominated" job roles.

Skills required:

Technical skills such as ICT Skills e.g. CAD, Excel, Outlook, Maths, Tekla and a good understanding of basic structural engineering.

How did you get to where you are now?

I was scouted whilst I was working in a similar job role with another company. Originally, I applied to Derwent Training Association who found me the job role I started my Apprenticeship in.

Looking to the future:

I intend to continue draughting for the foreseeable future, or potentially move into Project Management.

Women *into* STEM

Name: Lisa Adams
Job Role: Production Manager,
Duraweld Limited

Think about what you really want to do, think about your future not what all your friends are doing, experience something YOU really want to do with your life.

Skills required:

- You need to be confident in your decision making, you need to be able to implement change and be able to influence your staff to work to high standards to gain the best quality.
- You must be a team player.
- Process flow is very important, if you follow the process the other parts fall into place.
- Planning is key. Be confident and kind but firm!

How did you get to where you are now?

I started my career on the shop floor at Duraweld in the HF welding area gaining knowledge as I went of all the processes that are in involved in making a binder, I then moved in to the estimating side of the business where my knowledge grow with the business learning all the processes within that department and implementing some new ones.

One day I was asked to do some planning training with the supervisors and I loved the role been involved with the planning process. The Production manager role came up and I went for it I was nervous but confident I could do it. I got it and I love it running production, planning and new processes.

Looking to the future:

Doing the Operations Manager role!

Women *into* STEM

Name: Peggy Barker
Role: Studying Combined
Engineering at CU
Scarborough.

There are many different paths available into engineering so don't give up hope if you don't think you have the right qualifications or experience. As long as you are driven to succeed you will.

Skills required:

Whichever branch of engineering you want to go into an interest and good level of understanding in maths and physics is a must. To be an engineer you will need skills such as being able to work effectively in a team, good communication so you can present your ideas.

Another important skill is to be able to 'think outside the box' to solve obscure and difficult problems.

How did you get to where you are now?

After completing my GCSEs I then went on to study A-Level Product Design and IT at sixth form. I didn't know if I would be able to study engineering at degree level as I didn't have A-Level Maths or Physics. I have always been interested in engineering and I was determined to further my knowledge of the subject.

Then I found that CU Scarborough offered a foundation course in engineering, that would then allow me to progress to degree level Combined Engineering.

Looking to the future:

I am unsure as to what aspect of engineering I would like to go into as there are so many, by completing the Combined Engineering degree it will allow me to gain valuable experience that will make me employable. However, I am interested in design engineering and the renewable power industry. Which are both growing and ever developing fields of engineering that I find equally enjoyable and exiting.

Women *into* STEM

Name: Roxanne Mennell
Job Role: Apprentice Electrician

Take all the opportunities you can get. Don't let anyone discourage you from following whatever career path you choose.

Go to Open Days, contact companies, be as active in researching as you can to get the career that you want!

Skills required:

Communication skills

I have to communicate effectively with both customers and colleagues and adapt my language to suit the knowledge of my audience.

Technical skills

I have to be able to install and test electrical equipment to fit with current regulations.

Technical knowledge

Electrical knowledge as learned on the job and at college.

How did you get to where you are now?

I became interested in engineering after school. I was unsure of what to study so had a go at electrical engineering at Yorkshire Coast College in Scarborough where I discovered it was the career for me. I then decided to do an apprenticeship with Derwent Training Association and I'm very much enjoy it.

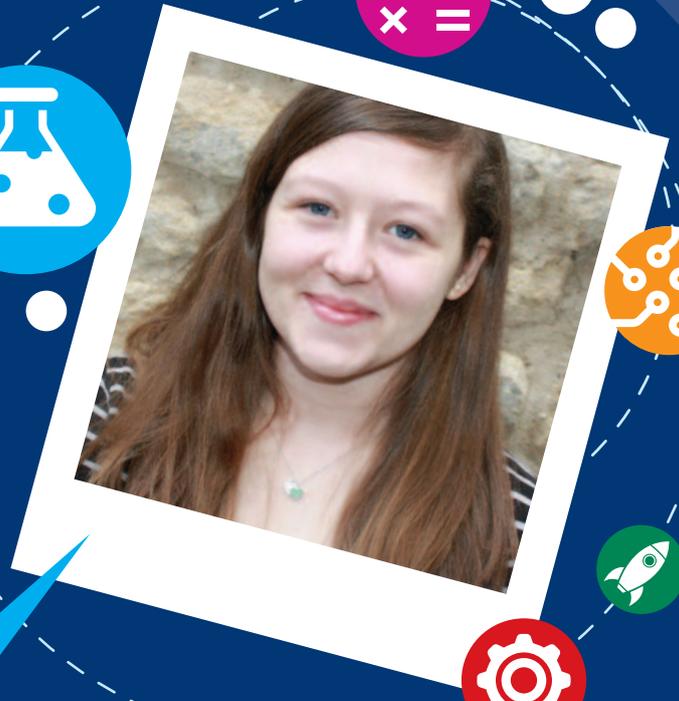
Looking to the future:

I hope to become a fully competent and qualified electrician. Then in the future I hope to pass on my skills to train other people to become competent electricians.



Women *into* STEM

Name: Kirstie Allen
Job Role: Commercial Account Handler



I found out about McClarrons at a careers fair at school and after completing my GCSEs, decided to apply for a job. I started by doing filing and postal work before moving into Personal insurance handling where I dealt with home and car policies. After a few months, I became a Commercial Account Handler and since then have achieved my Certificate in General Insurance with the Chartered Institute of Insurance.

Skills required:

- Process renewal documents for clients
- Make pre-renewal calls to see if there have been any changes that will mean their insurance policy needs adapting
- Negotiate changes and premiums with insurers, and make any necessary amendments to the businesses' policies
- Write letters and check accuracy of documents before they are sent to clients
- Build relationships with new clients, gathering the necessary information to be able to put together a suitable insurance solution for their business
- Discuss client requirements with sales
- Handle client and insurer queries

How did you get to where you are now?

- Good I.T. skills for generic Microsoft packages and ability to learn how to use insurance databases and quote systems
- Strong communication skills
- Pride in carrying out tasks to a high standard
- Basic numerical and writing skills
- Ability to learn, adapt and prioritise
- Be highly organised

Looking to the future:

I would like to start working with larger businesses who have more complex insurance needs. I would also like to expand the client base I work with to learn about a more diverse group of businesses. I have already started to expand my expertise by specialising in specific products for unique types of businesses, such as Agricultural Motor Traders, which I hope will continue.

Women *into* STEM

Name: Rebecca Knight

Job Role: I work at Scarborough UTC as Assistant Director for Engineering Design and as the pastoral lead for KS5.

I'd say that there's no rush to decide your whole career. Explore subjects and hobbies that you enjoy and look at all of the different options. Find something you're really passionate about and if you don't find it straight away, it will come to you eventually.

Skills required:

Every day in a college is different. Different classes need different approaches, as do the individual students. Even a change in mood can impact on an entire lesson!

Perseverance – Sometimes things don't go according to plan and we need to resist the urge give up. If students know we're not going to give up on something, they are less likely to do so themselves.

Communication – Standing in front of a class can be terrifying and it takes time to build that confidence. Being able to explain topics coherently and in a range of different ways is a vital skill for any teacher

How did you get to where you are now?

I went to university with the intention of being an architect, but in the end it just wasn't the career for me. After volunteering in a special needs school I knew that I wanted to teach.

I have spent 6 years teaching and leading design and technology courses for students aged 7-18 in the East Midlands. It has allowed me to share the passion for design that I have always had.

This year, I am excited to use this knowledge and experience to educate future engineers in a part of the country that I've always loved, North Yorkshire.

Looking to the future:

Having just started in a new role, at a new college, in a whole new part of the country, I am excited to see how things work out!

I would like to continue as a developing manager, working with sixth form students to ensure they develop into confident, responsible adults with a vision for their own future, however clear that may be!

Women *into* STEM

Name: Aisha Freeman

Job Role: I work at George Pindar School and other primary and secondary schools on the North Yorkshire coast as a Specialist Lead Practitioner.

Do your research. There are lots of jobs that people don't know exist, especially in STEM industries. If you need support looking at future careers ask a teacher or your Careers Advisor at school.

Skills required:

My role is very varied. The teaching aspect requires me to be an excellent communicator and enthusiast in the topics I teach as well as having practical science skills to demonstrate and organise class practical work.

As a Specialist Lead Practitioner I also work with lots of staff from other schools and other businesses. I have to assess the needs of Science Teachers on the coast and plan how to meet those needs. Organisational skills in both areas are a must!

How did you get to where you are now?

At college I studied Chemistry, Physics, Geography and Art & Design A' Levels and volunteered at Elland Road Study Support Centre to support KS2 pupils in numeracy, literacy and ICT. Whilst studying for my Chemistry with Pharmacy and Forensic Science degree I took part in the Student Associate Scheme, working as classroom support in a science department in a secondary school.

Once I had qualified to teach I took on numerous responsibilities in my first school coordinating KS3 science, BTEC science and training staff on teaching and learning strategies. In my second school I was the Science Teaching and Learning Coordinator. In all of my previous roles there was a strong focus on collaboration and enabling staff to share their best practice with others – something that's key in my current role.

Looking to the future:

I would love to grow the Coastal Science Network of science teachers and further improve the provision of science education on the North Yorkshire coast.