



**Name:** Caroline Mutch

**Job Title:** Science Technician

**Organisation:** St Ninian's High School

**Qualifications:** Four scottish highers  
Applied animal science degree  
Higher national diploma (HND)  
in biotechnology

**Salary:** £20,000 - £25,000

**Registers:** Chartered Biologist (CBiol)

#### About me and my job:

I service the biology, chemistry and physics laboratories within the school by ensuring that all equipment and chemicals required are properly prepared and available in a safe and functional condition. I prepare and set out a variety of practicals. I visually check equipment on return and carry out basic maintenance and calibration of equipment. I maintain all glassware and stocks of equipment and order new stocks of these. I prepare a range of chemicals and solutions and am familiar with relevant health and safety regulations. I deal with both students and teachers and ensure all teachers have the necessary equipment to carry out their practicals and assist students with these.

I always enjoyed biology, particularly at school and after school I did a youth trainee scheme (the equivalent of an apprenticeship nowadays) with GlaxoSmithKline. It was in a microbiology laboratory role. Looking down the microscope and seeing the structure of things you cannot see with the naked eye always amazed me. After spending eighteen years in science roles in industry, a local school science technician job arose and I was successful. I have now worked in four different schools as a science technician and I love it.

I enjoy the variety of my role and the diversity of things you have to learn; no two days are the same. I enjoy being a part of the school environment and helping children to achieve the qualifications that could enable them to go on and pursue their own career in science. I also enjoy building relationships with all school staff and pupils. You are involved in every area of the sciences and can get involved in different aspects of the school environment.

#### Advice about the sector:

Take two of the three science subjects at school as any two of them will be useful. An appropriate science based qualification at higher national diploma (HND) level, or equivalent, is essential. In addition you should have experience in the care, use and maintenance of science equipment and have an awareness of current health and safety practices. You may only do one particular experiment once a year so a good memory is helpful. You can progress to be senior technician and can then move out into industry or college/university technician roles. If you enjoy the school environment and want to do some further study, you can also move into a teaching role.



**Name:** Clare Adams

**Job Title:** Biosciences Laboratory Technician

**Organisation:** Nottingham Trent University

**Qualifications:** MSc zoology

**Salary:** Under £15,000 - £25,000

### About me and my job:

I have had a lifelong interest in science, particularly in biology and animals. I am currently employed as a biosciences laboratory technician at Nottingham Trent University. I am focused mainly on microbiology modules, although I also contribute to biochemistry and chemistry modules. My job involves preparing any requirements for classes, which includes equipment and consumables such as petri dishes and setting these out on the day of the practical. My classes can vary from as little as eight students to over a hundred! This is because I am based in the Superlab. I am also responsible for clearing away after classes and ensuring that anything that needs to be kept or incubated for a following class is put in the appropriate place. Further to this, I also support students who are carrying out projects by showing them basic techniques such as how to pour agar plates and how to use particular pieces of equipment, answering their questions and providing them with any necessary items.

I enjoy the daily interactions with my team, the academics and the students. There is a lot of support gained by working in a university environment. I also like the scientific nature of my role, as I am constantly learning and trying things out.

After college I worked for Youngs Bluecrest Seafood as a laboratory technician in their microbiology laboratory. I wanted a career in science, and felt a laboratory job was a good start. After three years I then decided to go to university to pursue a degree in zoology. Following this, my experience as a laboratory technician coupled with my degree enabled me to attain my job at Nottingham Trent.

### Advice about the sector:

Science A levels are usually required, and whilst having a degree in a scientific field is not always necessary, it is useful for making you stand out. Keep trying. The job market is tough and it may take many applications before you succeed, but do not give up. Try applying for companies that test food for example, as these companies are the most likely to not expect prior laboratory experience. Once you have the experience you can go on to other laboratories where the work may be more exciting. Career progression opportunities can include positions such as senior laboratory technician and laboratory co-ordinator and manager.



<b>Name:</b>	<b>Harbans Singh Marway</b>
<b>Job Title:</b>	<b>Platforms And Pipelines Research Assistant</b>
<b>Organisation:</b>	<b>The Genome Analysis Centre (TGAC)</b>
<b>Qualifications:</b>	<b>A levels 2.1 BSc biological sciences MSc biotechnology</b>
<b>Salary:</b>	<b>£20,000-£25,000 (in Norwich)</b>

### About me and my job:

My role is to receive new samples and check the quality of them. This is to ensure that we know the quality of the sample so that we can inform our downstream decisions on how to treat them. The better our sample quality, the better the data at the end of the process will be.

Being able to set my own goals, be it daily or monthly, is a definite bonus. It's a great feeling leaving work at the end of a day knowing that I achieved what I set out to do. It is also a challenging role, so there's never time to be complacent. Being challenged and pushed, in my opinion, go hand-in-hand with job satisfaction.

I approached the TGAC for the opportunity to visit the workplace for a few days as a sort of 'work experience' whilst I worked elsewhere and I got to meet people and have insight into what a working biosciences company looks like. I was then invited to join TGAC for an outreach project and invited to interview for a position within the laboratory. I think that there is no harm in reaching out to a company for the opportunity to have a look around; you'll often find that they are more approachable than you may think and will welcome the interest.

### Advice about the sector:

Honestly speaking, it's really fun! It is a genuinely rewarding experience and I do look forward to going to work in the mornings. The business aspects of the field surprised me – there are a wide variety of fields within TGAC, with people from a broad range of different backgrounds – which just adds to the experience.

I would strongly suggest reaching out to a facility nearby so that you get to experience what the working environment is like-the experience is invaluable.

From working in a lab, you can move up in the ranks within the lab, or move on to management, or a number of things.



**Name:** Maeve O'Rourke

**Job Title:** Assistant Oilseed Rape Breeder

**Organisation:** Limagrain

**Qualifications:** Degree in environmental plant biotechnology  
License for pesticide application

**Salary:** £20,000 - £25,000

About me and my job:

I have always been interested in nature and science, and my dad is a very keen gardener so I was always surrounded by lots of different plants. After I finished my degree I knew I wanted to do something with plants, but wasn't sure what. I joined Syngenta as a breeding technician for barley. My current role as an assistant breeder came 3 years later when I wanted to progress, so I moved company to Limagrain to work in oilseed rape.

My "Winter" tasks are mostly in the glasshouse, involving crossing new material, selection of this material via phenotypic and marker testing, harvesting and multiplying what is selected, sending seed to research facilities, ensuring parent material and harvested collections are stored safely and multiplied for fresh seed when needed, test crossing new female/male combinations for hybrid productions and analysis of oil content. "Summer" tasks involve selecting plots in the field based on genetic markers and agronomic attributes, combine harvesting, analysis of harvest data to create next year's trials, creating trial books and dispatching seed globally for trials. I like that every day is different. I enjoy seeing my plants grow from that first cross to full trial plots. There's often a bit of flexibility in the workload too, so if it's a very wet day I might be in the lab or glasshouse, whereas on a sunny day we'll head to the field. I like being able to walk fields with my colleagues rather than sitting in a cubicle.

Advice about the sector:

Most breeding stations usually hire temporary staff throughout the year to help with work load, which is a good way to try a job before you apply. Knowledge of genetics and a general understanding of plant growth is very useful. An eye for detail is important, whether it's spotting a trial plot seed mix up or a leaf developing a disease, and most of all patience and perseverance, because plants sometimes won't grow, are below standard or will grow too fast and you don't have pollen when you need it. I've gone from being a breeding technician to an assistant breeder. Ideally I will become a senior breeder, which means I get more paperwork and my own programs to develop and select. Colleagues have gone into management and other roles within the wider breeding world such as lab testing, seed production, trial management and purity.



**Name:** Rebecca Manning  
**Job Title:** Research Technician  
**Organisation:** University of Durham  
**Qualifications:** A levels in maths,  
biology, business studies  
2.1 BSc (Hons) human  
genetics  
**Salary:** £20,000-£25,000

### About me and my job:

I am a research technician and work in 3 different labs. My time is split between working in a skin based research group, a plant based group and in a DNA sequencing facility. I do a wide variety of experimental techniques and have published papers and book chapters.

As I work in 3 different labs I have learned a wide variety of techniques, including cell culture, real time PCR, westerns and many more. I get to do all the fun lab work without the extra pressure associated with post doc research. I'm also fortunate to be a permanent member of staff.

I started off working in the DNA Sequencing unit from a temp agency and was hired to work there on a permanent basis. I was then moved into the research labs after a few years of working in the department.

It's a fun job that can be very rewarding. On the negative side it can be quite demoralising if experiments don't go as planned and the pay is not fantastic.

### Advice about the sector:

I've been surprised by the variety and flexibility of the job. Be prepared to plan your time extremely well and be willing to work overtime if an experiment requires it.

A level in biology is required, a degree is very useful. There is the possibility to do PhD if you would like to progress higher up the payscale.





**Name:** Rory Geoghegan

**Job Title:** Technician (aquatics and zoology)

**Organisation:** IBERS, Aberystwyth University

**Salary:** £20,000 - £25,000

About me and my job:

My job involves the supervising and maintenance of daily operations within teaching and research aquariums. I assist project managers with a variety of tasks from project design, ordering equipment and materials and plumbing systems, to field work with students, animal husbandry, design of whole aquarium systems and public engagement - quite a varied role!

I enjoy the practical aspects of my job - producing tanks and novel aquatic systems, along with imparting my practical skills to students.

I applied and took a short term contract as a research technician working on Upland Streams, and then I applied for a permanent position as an aquarium/fieldwork technician.

I have always had an interest in aquatics and marine life, but I was also inspired by great biology teachers in my secondary school.

Advice about the sector:

It's important to develop a robust and direct attitude to dealing with work, and having confidence in your own ability, even when working with academics can prove daunting, however don't be afraid to put forward your own ideas and always be willing to help someone.

Some of the people who have not been through the academic system are often well learned and interesting however a degree level qualification in a zoological discipline is desirable.



**Name:** Sarah- Jane Hutchings

**Job Title:** Herbicide Resistance Experimentalist

**Organisation:** Syngenta

**Qualifications:** A Levels- art, law, sociology  
BSc natural sciences  
National certificate in horticulture  
MSc structural molecular biology

**Salary:** £30,000 - £40,000

#### About me and my job:

I work in a small team that is responsible for herbicide resistance research. We research how weeds become resistant to herbicides. I saw an advert in the local paper for a trainee with Syngenta, one of the largest agrochemical companies and leapt at the opportunity. I started in the plant production team, producing and maintaining plants for research, moving to the screening team two years later and after a year moved to my current position as the herbicide resistance experimentalist within weed control research.

At Syngenta, I design and construct all of our herbicide resistance experiments. This can be anything from basic glasshouse studies to carrying out molecular biology experiments. No two experiments are the same and each requires a detailed objective and robust design. Tests can range from screening new seed batches from a country to confirm resistance, generating data for publications and product launches, to carrying out fundamental research into the mechanism of resistance in weeds.

I work closely with other teams on site, as well as directly with our global colleagues in the field so that we can build our understanding of herbicide resistance, a field of research that still has many fundamental questions yet to be answered. Part of my time is spent explaining what we do to external audiences, either through visits to site or at academic conferences and I am also responsible for two people in our team who work on specific projects.

A typical week would involve conducting 1-2 spray tests in the greenhouses, including assessments and generating reports. I would also have several meetings discussing various projects with chemists, biochemists, field reps and technical managers and then design experiments based on these discussions.

#### Advice about the sector:

Try to work in an area you enjoy. I am passionate about plants in general, and find them fascinating so it doesn't feel like a job to me. A levels and preferably a degree in a science related subject - this does not have to be biology, for example a background in chemistry is very useful when looking at the biochemistry of plants. Having a good grasp of maths is also very important, and some basic knowledge of statistics is preferable.



<b>Name:</b>	<b>Ben White</b>
<b>Job Title:</b>	<b>Project Support Officer</b>
<b>Organisation:</b>	<b>The Genome Analysis Centre</b>
<b>Qualifications:</b>	<b>A levels 2.1 BSc biological sciences</b>
<b>Salary:</b>	<b>£20,000- £25,000</b>

#### About me and my job:

I help manage and support activities to ensure the efficient, competitive and effective delivery of high-throughput sequencing projects, primarily within the subject areas of food security, health, and sustainability. I talk with researchers from all over the world about their DNA/RNA sequencing projects they would like to have with us: how to do it to answer their experimental aims, how much it would cost, and how long it would take. I also have to schedule research assistant's time in the lab and ensure they know what to do, perform quality control of sequencing data, and keep up to date with the science behind all new sequencing technologies.

I enjoy my role as I get to talk to many different people, and learn about a variety of different research topics from across all of life sciences.

I applied for a similar job at The Genome Analysis Centre just before graduating, was offered the job after an interview, and then applied for this more senior position after a year of working in my old job role

#### Advice about the sector:

Apply before you graduate and beat your peers! Read up a lot on the field you're entering into, and find out as much as you can about what you would be doing daily if you got the job- feel free to email the person advertising the job, as they'll likely have a job specification you can see.

You could continue working and training to become a fully qualified project manager, senior sales representative, or another managerial position involved in the operations of a science company/research institute.





**Name:** Bethany Cole

**Job Title:** Modern Apprentice

**Organisation:** University of Durham

**Qualifications:** National extended diploma in applied science (Forensics)  
BTEC Level 3  
IMedia

**Salary:** Under £15,000

#### About me and my job:

My job role involves providing support to the electron microscopy unit. Some days I will help prepare samples for transmission electron microscopy (T.E.M) or scanning electron microscopy (S.E.M), other days I could be getting samples ready to be looked at under either of the electron microscopes. I enjoy my role because even though the processes stay the same, no two days are alike.

I found my job when I was looking online on the apprenticeship website and came across an advertisement for a laboratory technician at Durham University. I applied for it straight away and within a few days I had a phone call asking if I would like to go to the University for an interview.

Until I was offered the apprenticeship in the biology department of Durham University, I did not know much about electron microscopy. The first time I was given some tissue to take all the way through the fixation process, then section and examine under the transmission microscope I was able to see organelles that I had only seen in text books before. It was completely different to just seeing images in text books because it was something that I had done and knew what it had taken to get it to that point.

#### Advice about the sector:

It is important to have good GCSE grades in maths, English, science and IT. Unless an apprenticeship is available, I would definitely consider a degree in biology as I think it would be helpful.

Also to give you a taste of what the area is like, contact the head of department at various different universities and biological companies, to see if they provide some work experience over the summer or in school holidays.

<b>Name:</b>	<b>Lynn Sears</b>
<b>Job Title:</b>	<b>Senior Pharmacy Dispenser</b>
<b>Organisation:</b>	<b>Alliance Boots</b>
<b>Qualifications:</b>	<b>Natural science Bsc (Hons)</b>
<b>Salary:</b>	<b>£15,000 - £20,000</b>
<b>Registers:</b>	<b>Registered science technician (RSciTech)</b>

#### About me and my job:

My role involves delivering the safe and effective supply of prescription medicines to community patients. Aside from checking that the medication is appropriate to the condition, in-depth knowledge of human physiology and the pharmaceutical properties of substances is also needed. Competency in IT is important due to working with various databases. In addition there is a requirement to work within the legal frameworks surrounding clinical governance, information governance and safeguarding, and a good understanding of stock control.

I have always been drawn to biology, particularly human anatomy, physiology, and health. I worked in a non-pharmacy role when my children were still of primary school age, and needed to change my hours due to personal circumstance changes. I was offered a role in healthcare, showed aptitude and was fast tracked through the dispenser programme. Along the way I have worked in the pharmacy support office, buying drugs for the company and writing communications pieces, then managing a busy care home dispensary before returning to community pharmacy. Despite a decade in this field, there are still opportunities to learn. I enjoy making a difference in people's lives, through helping them to manage their health condition and get the best from their medicines.

#### Advice about the sector:

Be very sure that this is the job you want. The face of pharmacy is ever changing as a result of changes within the NHS. The role I have today is very different from the role I started with. Pharmacy dispensers are now required to hold or be training for NVQ3 in pharmacy services and pharmaceutical science. This qualification must be provided by the employing pharmacy via General Pharmaceutical Council (GPhC) approved providers such as the National Pharmacy Association (NPA). Pharmacy dispensers can progress to become a pharmacy technician, which requires registration as a pharmacy technician (RPharmTech) with the GPhC, along with CPD requirements. From there it is possible to progress to accredited checking technician, which also requires registration and CPD cycle completion. While there is no direct progression route from dispenser to pharmacist, it is not unheard of for Dispensers to decide to go to university to gain their master of pharmacy (MPharmS), while working as a dispenser to support their studies.

**Name:** Rob Glover

**Job Title:** Technical Officer/Research Scientist

**Organisation:** Processors and Growers Research Organisation

**Qualifications:** Botany BSc (Hons)  
National diploma in horticulture

About me and my job:

I got into my career through a background in horticulture and research and I have always had a passion for plants.

Day to day we deal with numerous field trials from a wide range of companies, both private companies and government funded projects. I assist in all areas of these, and see trials through from start to finish. This means setting up the trials in the field and then producing the final reports at the end. Our area of expertise is in legume crops, for example peas and beans, and our role is to provide independent research and advice for the whole of the UK. In some years we have also worked with other crops.

I enjoy the variation of activities and tasks with each trial and having a share of indoor and outdoor work. In this role I also get to meet a lot of people from all aspects of the industry from farmers to scientists.

I have been surprised by how much work goes on behind the scenes in food production which unfortunately the media and general public are unaware of.

Advice about the sector:

Go for it. There will only be an increase in the need for biology and more specifically to my job role is that food production alongside research and development is a key part of this. Either experience in agriculture or a relative qualification such as a diploma or degree is useful.

There are many ways to progress as the area is so diverse. Many of the larger companies have multiple locations throughout Europe as well.

**Name:** Robyn Graham-Wilkinson

**Job Title:** Apprentice Laboratory Technician

**Organisation:** Northumbria University

**Qualifications:** Working towards BTEC Level 3 extended diploma in applied science and Level 3 NVQ diploma in laboratory and associated technical activities

**Salary:** £15,000 - £20,000

About me and my job:

My job involves maintaining an efficient working tissue culture laboratory and a post graduate laboratory. I ensure that these areas are both clean and safe to work in. I monitor and maintain stocks within my laboratories in order for it to efficiently work. I have had practice in culturing cells to gain practical experience and knowledge in cell culture. I am also responsible for enforcing health and safety rules and regulations to ensure maximum safety. I carry out routine tasks such as removing waste, filling up regularly used liquids, checking gas levels on cylinders etc. I also deliver the work experience programme. This entails running practical sessions for work experience students, planning, preparing equipment and solutions, mentoring the students throughout the week and learning the student's practical skills. I assist other technicians in practical sessions with students by preparing equipment, solutions, culturing bacteria and providing assistance to academic staff and students. I also see CPD as being important for my career, so I try to be involved with activities outside of work such as volunteering for scientific events and I have now applied to become a STEM ambassador.

I enjoyed studying all science subjects at school; however, biology was always the most interesting. I got into the career of being a laboratory technician through an apprenticeship at the University. I began the apprenticeship straight after obtaining my GCSE results from school. Every day is different, which keeps the job interesting. I enjoy working as a team and with people, which my role entails. I also like working within an educational environment as there are always different things happening and endless things to learn.

Before starting work at a university, especially at a young age, I had a perception that the professors would not be as friendly as they are. However, everyone in the workplace is very friendly at all levels and they have provided amazing support throughout my apprenticeship.

Advice about the sector:

A levels or equivalent are useful. However, an undergraduate degree in a relevant subject would also be helpful. Upon completion of my apprenticeship I will be promoted to an assistant technician. In addition to this, I will be undertaking my undergraduate degree in biomedical science part-time whilst also working as an assistant technician for the University. Be prepared to work hard and it will reward you.