



WEEKLY OPPORTUNITIES NEWSLETTER

YEARS 7 & 8

w/c 9th January 2023



Dear Student/Parent/Carer,
Recording interactions on Unifrog

Could you let Mrs Farmer know if you take part in any virtual or in person opportunities advertised in this Newsletter please? It is important that young people keep an electronic record of all the interactions you have with Further Education, Higher Education and employers. Please email ffarmer@toothillschool.co.uk with the date of the activity and the name of the activity.

Enjoy

The Toot Hill Careers Team

Use the Contents section to skip to the information relevant for you. You can use the 'Back to Top' button to get back to this Contents section.

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Career Of The Week

Geneticist



What you'll do

Geneticists use the information in genes to make discoveries and developments in a range of areas like medicine and agriculture. Depending on the area you work in, your role could include:

1. developing disease and drought-resistant crops
2. finding and recording disease-causing genes
3. using genes to chart animal populations and conserve wildlife
4. researching and developing new drugs and gene therapies
5. using genetics in archaeology
6. teaching students about genetics in a university
7. diagnosing genetic diseases

Your day-to-day duties could include:

1. using laboratory techniques to prepare and analyse samples of genetic tissue
2. recording and interpreting the results of experiments and tests
3. using data and statistics to develop computer models of genes
4. writing reports for other professionals
5. reporting and publishing your findings in scientific papers
6. planning lectures and teaching students
7. supervising, training and mentoring other laboratory staff

Record relevant activities you've already done on the [Activities tool](#)

Working hours and environment

You'll usually work Monday to Friday, 9am to 5pm. You may also need to work evenings and weekends.

You'll spend a lot of time in a laboratory using scientific instruments like microscopes. You may also spend a lot of time working at a computer.

In a laboratory, you'll be expected to wear protective clothing, like a laboratory coat and safety glasses.

Career path and progression

As a research geneticist, with experience you may be able to work your way up to laboratory supervisor or clinical study manager. Lecturing in a university or teaching may also be an option.

You could move into scientific sales or, with further studies, qualify as a genetic counsellor.

Skills required

You'll need:

1. practical scientific skills
2. IT skills
3. the ability to think clearly and logically
4. problem-solving skills
5. the ability to work with statistics and relevant computer packages

Got evidence of these skills? Record your examples on the [Skills tool](#)

Entry requirements

You'll usually need a degree or a postgraduate master's qualification in genetics or a related course which includes genetics, like biology, biochemistry, molecular biology, life sciences or biological sciences.

A PhD, or working towards a PhD would also be helpful.

The [Royal Society of Biology](#) has more information on becoming a geneticist.

Related university subject profiles

These university subjects are related to this career; check out their profiles on the Subjects library:

1. [Biology and Biological sciences](#)

Related career profiles

You may also be interested in:

1. [Clinical scientist](#)
2. [Microbiologist](#)
3. [Higher education lecturer](#)
4. [Biologist](#)
5. [Forensic scientist](#)

Explore

Want to see what relevant education and training opportunities are available right now? Search here:

Biology and Biological sciences at uni:

[USA](#) [UK](#) [Canada](#) [Europe](#) [Asia](#) [Australasia](#) [Ireland](#)

College / Sixth Form:

[UK](#)

Labour Market Information (LMI)

UK Current Jobs

Natural and social science professionals (SOC3)

UK jobs: 126,500

Nottinghamshire jobs: 1,770 (15th of 214 UK LEAs)

Top 5 LEAs: Cambridgeshire (6,508), Oxfordshire (6,223), Hertfordshire (4,003), Surrey (3,546), Kent (3,304)

UK Salary

Biological scientists (SOC4)

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UK annual median: £33,477

Natural and social science professionals (SOC3)

UK annual median: £40,822

East Midlands annual median: £38,611

Top 3 regions: London (£46,860), Scotland (£42,219), East of England (£41,486)

UK Prospects

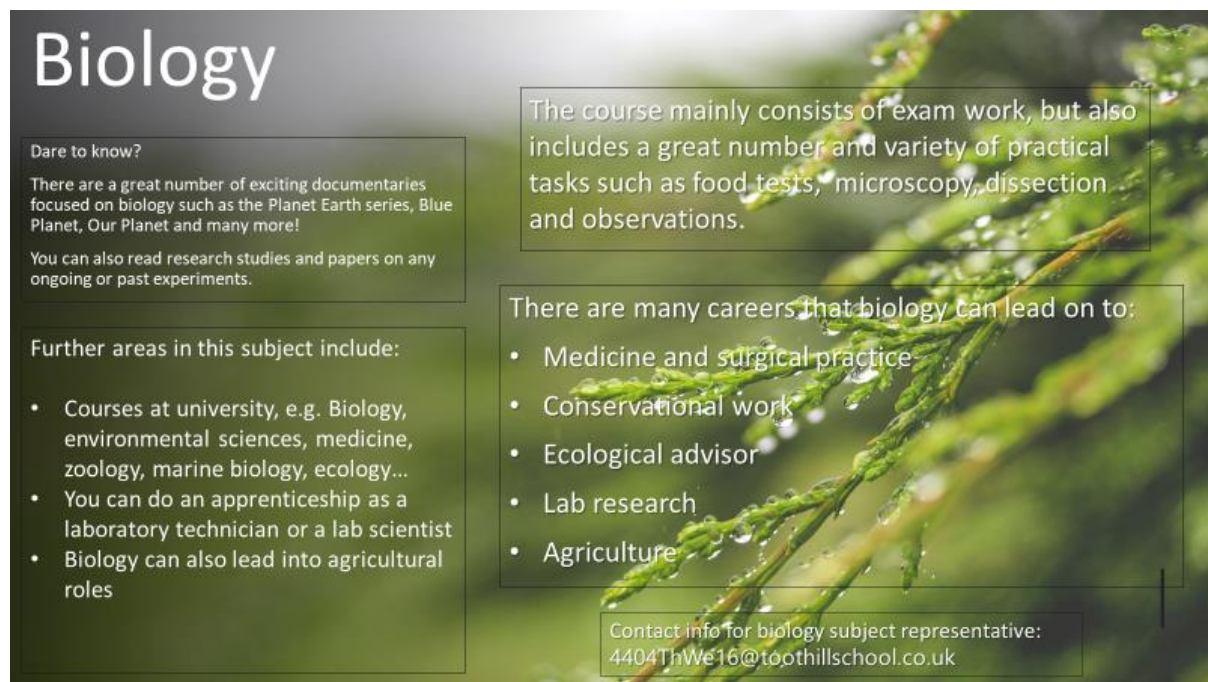
Science, research, engineering and technology professionals (SOC2)

UK growth: +9.1% from 2017 to 2027, creating 159,466 jobs

East Midlands growth: +10.7% from 2017 to 2027, creating 12,438 jobs

USA growth: 3.7% from 2020 to 2030, gaining 1,700 jobs per year.

Subject of the week



Biology

Dare to know?

There are a great number of exciting documentaries focused on biology such as the Planet Earth series, Blue Planet, Our Planet and many more!

You can also read research studies and papers on any ongoing or past experiments.

Further areas in this subject include:

- Courses at university, e.g. Biology, environmental sciences, medicine, zoology, marine biology, ecology...
- You can do an apprenticeship as a laboratory technician or a lab scientist
- Biology can also lead into agricultural roles

The course mainly consists of exam work, but also includes a great number and variety of practical tasks such as food tests, microscopy, dissection and observations.

There are many careers that biology can lead on to:

- Medicine and surgical practice
- Conservational work
- Ecological advisor
- Lab research
- Agriculture

Contact info for biology subject representative:
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Toot Hill Alumni

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FREYA ANDERSON

I started at Toot Hill School in 2012 and moved on to the College in 2017. When I was at Toot Hill College I was co-president of the Students Union. I led the organisation of the Christmas College Lunch, the Christmas Party for disadvantaged primary school children and the College Ball. I also took part in the Engineering Education Scheme, organised by Mr Lawrence, which involved my student team working with Boots at their site in Beeston and experimenting in the laboratory facilities at Loughborough University to devise a way to make their on-site HGVs more environmentally friendly. Outside of studying I was a Beaver Leader at my local scout group and volunteered on international camps, as well as completing my Gold DofE.



Whilst I didn't do much traditional 'extra reading', I learned about specific subjects through film, documentaries and podcasts. I would highly recommend the Christmas Lectures on BBC Four and of course the classic Professor Brian Cox and David Attenborough documentaries. When applying for universities, I found that it was important to make the most out of the open days to better compare the courses and the cities. I think that made me stand out and helped put a face to my personal statement because some lecturers recognised me on my first day in classes. The chemistry open days involved the classic parade around the high-tech labs but sometimes they would let us have a go at an experiment. I used this time to ask the student demonstrators questions about their experience with

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TOOT HILL ALUMNI



the degree and if they had any advice. I also researched ahead of time what scientific papers the department I wanted to study in had been publishing so I could discuss the subject and reference it in the personal statement; chemistry at Liverpool was notoriously strong in inorganic chemistry. The best advice I was given about applying to university was not to worry too much about making the right choice, you will have a good time wherever UCAS/clearing takes you!

After completing my GCSEs and A-Levels (Maths, Physics and Chemistry) at Toot Hill in 2019, I moved to the University of Liverpool to study a BSc in Chemistry. Although online learning in my second year reduced my laboratory time, I enjoyed the challenge of adapting to new methods of science communication. My dissertation research investigated the applications of injectable insulin hydrogel systems for diabetic treatments, and I graduated in 2022 with a First-Class Honours degree. Studying chemistry takes resilience, hard work and a high level of personal drive, it's a challenging course but teaches excellent problem-solving skills.

During my degree, I took every chance I could to develop my skills aside from my grades; I was the leading course representative for my year group throughout my degree, I demonstrated experiments at the Chemistry department open days and helped run outreach events with local schools and scout groups in the laboratories. At any university, on any course, I would highly encourage joining societies to expand your social network. I joined the Chemistry Society and Mountaineering, which gave me amazing travel opportunities. In addition to all of this, moving away from home, learning to work with people from different backgrounds and facing criticism in your work makes you a better professional and is intrinsic to any university experience.

After graduation, I moved to the University of Manchester to study a MSc in Science and Health Communications which I will graduate from at the end of 2023. Even though I love experimental work, my real passion is talking about science (something your science department teachers will agree with). Over the COVID pandemic, the nation had a massive boom in the volume and diversity of science media, meaning scientists had to be able to communicate their research effectively and create trust in their findings. I am therefore pursuing a career in science broadcasting to produce engaging science communication. To support this, alongside my studies I am a science writer for [The Mancunion](#), the largest student newspaper in the UK, and a senior editor and treasurer for Planet Bee Magazine which communicates Manchester students' voice on science.

At [The Mancunion](#) we pitch ideas for articles at group meetings and volunteer to write on exclusive opportunities offered to the newspaper such as a press briefing or a new science

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exhibition. Our articles are then edited by student subject editors and the piece is published online or in print.

For Planet Bee Magazine, my role is editing submitted science articles and acting on behalf of the committee as treasurer to find funding within university departments for the cost of the magazines printing.

I would advise current students to build skills outside of their academic studies. Simply 'being clever' will not get you far enough. Everyone at university had to be smart enough to get there, how can you make sure people notice **you**? This is important for any job, not just for students looking at

university pathways. You need to be able to hold a conversation confidently, work together to achieve team goals and adapt to changing environments. For students looking to go into STEM, specifically women, never underestimate the importance of being able to articulate your ideas. In a room full of competitive and individualistic students, the lecturer will remember the student who volunteered an answer, discussed learning in seminars or worked well in a group. There is a lot to gain from you becoming both a great scientist and an excellent communicator.



Unifrog Gazette: Book your place on Unifrog's Next Steps Fair

Happy New Year! In this edition: Unifrog's Next Steps Fair > Jo New: Career of the week >



Book your place on Unifrog's Next Steps Fair on Wednesday 8 March

Taking place during National Careers Week, Unifrog's virtual Next Steps Fair gives students a unique opportunity to compare post-school pathways side by side, so they can make the decision that's right for them.

They'll get the chance to meet leading employers, universities, and apprenticeship providers in live sessions and drop by their virtual booths to chat with them directly!

> [Sign up or share with your students](#)

Career of the week: Economist



Know a student who's into maths, statistics, and business?

Being an economist is a high-responsibility role that can mean advising governments, keeping an eye on financial trends, and analysing data.

In this Careers library profile, we also show students the skills, qualifications, and career paths they might want to pursue to get into this sector.

> [Read more or share](#)

Year 7-10 Personal Development Curriculum - Careers - w/c 7 January - w/c 6 February 2023

I am pleased to confirm that we will be running Careers as part of the PDC this half term. Students will be working with their tutors during their lesson and they will be set some homework on Unifrog which is a Careers Platform. We will be asking for students to record and evidence their skills and detail the activities they do on Unifrog. Students will also be asked to do some research on subjects and careers too. This will be explained in detail by their tutors during the PDC lesson. All students will have their own personal account and will be provided with details of how to sign in.

If you have any concerns or your child cannot log in please let me know
ffarmer@toothillschool.co.uk

University of Sheffield - Jazz Camp for Girls

We are delighted to bring you news of Jazz Camp for Girls - taking place on Saturday 25 February in the Department of Music at Sheffield University for 9-15 year olds who are grade 1+ players. Participants will join workshop leaders [Sarah Heneghan and Emma Johnson](#), alongside the University of Sheffield's [Tim Knowles](#), for a day of musical fun, an unforgettable first experience of improvisation that will help build their confidence and musical curiosity.

[Find full details, including how students can request a place and apply for bursaries](#)

This is a great enrichment opportunity. If you do attend please let Mrs Farmer know ffarmer@toothillschool.co.uk who will record this enrichment interaction for you on Unifrog. Students can also record this on their Activities on Unifrog too.

ITV LIVE ON-LINE WORK EXPERIENCES

First Step = (year groups 7-9)

Next Step = (year groups 10-13)

Monday 30th January at 4.30pm - [ITV "First Step" live online career challenge](#) -

Who should be the main sponsor of Britain's Got Talent in 2023?

[Register to attend](#)

**Tuesday 31st January at 5pm - [ITV "Next Step" live online career challenge](#) -
ITVX – Ads or No Ad's that is the question!**

[Register to attend](#)

Thursday 2nd February at 6.30pm - [ITV live online career panel](#) - We invite students, parent to discover more about their career and placement opportunities in data!

If you have any comments or feedback on the Newsletters please email ffarmer@toothillschool.co.uk and not reply to this email as these Newsletters are sent from a no reply email address.

Thank you