



SURBITON

HIGH SCHOOL

Careers and Higher Education Newsletter

Spring 2021

Welcome to the latest edition of our Careers and HE Newsletter, which is full of information to help you find, or get further along, your chosen career pathway. No matter which year group you are in, it's never too early to start! Find out more in the following sections:

Section 1 Careers Focus

Including Engineering, "making" a doctor, work for the secret service (MI5), embracing the digital world, virtual work experience week 2021, medical school virtual work experience programme.

Section 2 Beyond the Curriculum

Including the Surbiton Super-Curricular Bible, university taster lectures and online careers programmes.

Section 3 Exploring Higher Education & Super-Curricular Activities

Including what's been happening in school, UCAS, medic interview practice, mock interviews, A-level pathways, GCSE options, global university rankings and an Oxford and Cambridge Special Q&A.

Section 4 Competitions

Careers Future Factor and NHS competitions, external competitions.



Highlights



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Virtual Medical Work Experience for 2021, page 10 | *Oxbridge Special*, page 18

Section 1 – Careers Focus

Career Insights

Engineering Focus

What is Engineering? It's all about solving problems using specialist technical and practical skills. It's all about maths, science, research, prototypes, design, maintenance and production. There are so many different areas of engineering to work in; however, most engineers choose to specialise in just one, such as chemical, automotive or robotics. Engineering careers are constantly varied in terms of their job responsibilities, but also in their working locations. As an engineer, you could be working in an office, in a laboratory, on an oil rig in the middle of the ocean, in a factory, or even in outer space.

Each engineering discipline requires professionals with very specific skill-sets. However, each and every area of this sector is as complex as the next. Consequently, all engineers need to have strong mathematical skills, logic and the ability to rise to intellectual and practical challenges.

A massive variety of industries need professional engineers. Some of the most popular include:

- **Defence**
- **Space**
- **Energy**
- **Transport**
- **Environmental**
- **Medical and pharmaceutical**
- **Marine**

Many engineers have a variety of technical skills; however, many choose to specialise in a specific type of technical function, such as:

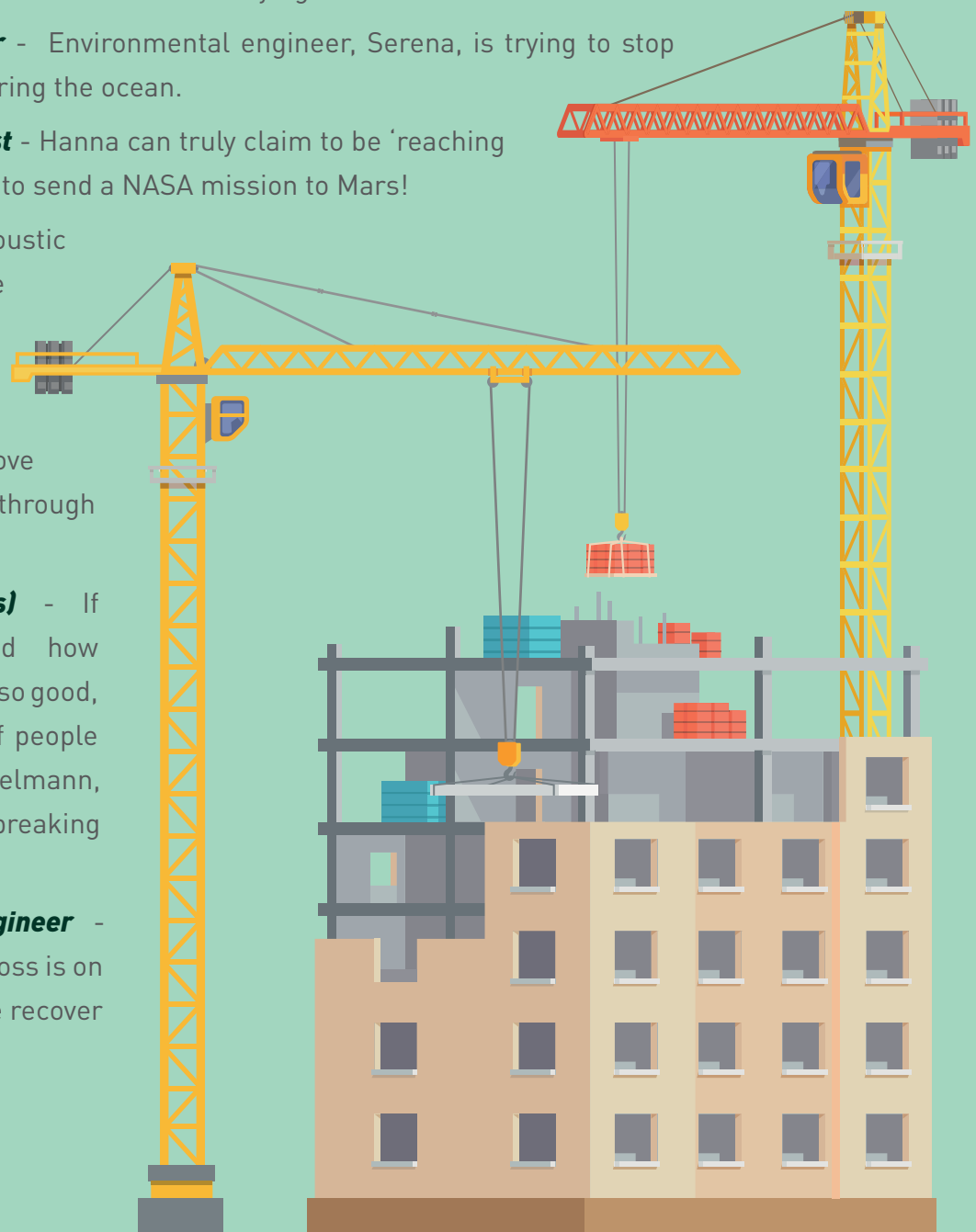
- **Design**
- **Research and prototype development**
- **Production**
- **Installation and maintenance**

Moreover, as discussed above, most engineers tend to select one expert area of engineering and develop their career in that one niche area.

The **Neon website** is a fantastic resource for budding engineers and provides access to numerous challenges and real-life experiences through STEM.

There is a great section that has **career profiles** and video case studies highlighting the many different jobs that are available within engineering, with many different entry level qualifications such as:

- **Rollercoaster Engineer at Thorpe Park** - Rollercoasters are an adrenaline rush, but did you know that it's engineers putting the thrills and chills into your favourite rides?
- **Graduate Marine Engineer** - About 70% of the Earth's surface is covered by water, and engineers like Martin help to create ways of travelling across it. From transporting products to different countries, to protecting the seas and helping get energy from under the sea-bed, Martin helps Rolls-Royce create the propellers, boats or products to meet their customers' needs.
- **Sound Engineer** - From the Arctic Monkeys to Ed Sheeran and the Manic Street Preachers, Guy Massey is the sound engineer recording some of the best in the business.
- **Mechanical Engineer** - Angela is a mechanical engineer, bringing buildings to life so we can live and work in them - from offices to train stations to swimming pools.
- **Materials Engineer** - Imogen chooses sustainable materials for a building project.
- **Aeronautical Engineer** - Daniel is a graduate engineer at Rolls-Royce, working in the Aerospace sector
- **Automation (Robotics) Engineer** - Ashley's Higher Apprenticeship Degree meant he got paid a salary to programme robots and make cars while studying.
- **Environmental Engineer** - Environmental engineer, Serena, is trying to stop microplastics from entering the ocean.
- **Engineer/Space Scientist** - Hanna can truly claim to be 'reaching for the stars' by helping to send a NASA mission to Mars!
- **Acoustic Engineer** - Acoustic engineers make gigs, concerts and speeches sound great. Arthur works with architects to improve sound in new buildings through good design.
- **Visual Effects (movies)** - If you've ever wondered how blockbusters get to look so good, it's down to the work of people like Eugenie von Tunzelmann, who make ground-breaking visual effects.
- **Water and Habitat Engineer** - Chung from the Red Cross is on a mission to help people recover from disasters.



The *ultimate* guide on how to make a doctor!

Do you want to be the protagonist in saving lives? Do you want to be a part of pivotal moments in people's lives, hearing their stories, and contributing to their care? Do you want to contribute positively to society whilst being there for patients during the best and worst moments of their life? Does the human body fascinate you? Well this may just be the recipe for you!

Disclaimer: This may not be to everyone's taste, so be sure to test it out thoroughly (through things such as research and work experience) before you commit!

You will need:

600g of the 'NHS six Cs' (100g each of: care, compassion, competence, communication, courage, commitment). Add extra if needed.

500g of the 'GMCs core organisational values' (100g each of: integrity, excellence, collaboration, fairness and transparency)

250g of teamwork

200ml of motivation to study medicine

100ml of a constant desire to learn for life

100ml of knowledge

50g of patience

20g of empathy

10g of the ability to teach and listen

1 tbsp of sympathy

A heaped tsp of resilience

50g of respect and dignity

20g of impartiality

5 tsp of optimism

A dash of a desire to advocate for patients from all walks of life

100g of an ability to work in high pressure environments

A generous sprinkling of confidence (be sure not to mix this with arrogance!) (More could and should be added accordingly!)



Instructions:

1. Mix the NHS six Cs with the **GMC** core organisational values in a large bowl to create a solid foundation.
2. Mix all remaining dry ingredients (the human side of medicine) with the wet ingredients (the scientific knowledge) in a separate bowl.
3. Place the contents of both bowls into one large bowl and mix thoroughly with the support of friends and family. Be sure to take a holistic approach when combining the mixtures – what you will see is a human whose priorities and issues around their health need recognising, rather than a disease.
4. Add remaining ingredients (measurements given are just a guide more could be added according to taste).

If you prefer GP – you may want to add some adaptability, teamwork, advocacy and teaching skills and you may want to add an extra sprinkling of sympathy, respect and dignity.

If you prefer mental health – you may want to add some more sympathy, patience, resilience, ability to listen as well as understanding.

If you prefer surgery and inpatient medicine – you may want to add more resilience, teamwork, ability to work under pressure, communication and stress management.

If you prefer emergency medicine – you may want to add more ability to work under pressure, teamwork, resilience as well as conscientiousness.

(Note: this is only recommended as a guide, not a 'golden rule'. Adaptations and modifications should be made constantly.)

5. Leave to marinate for five years of medical school, cook for two years of foundation training and leave to cool for five to eight years of speciality training (or three if GP is more to your taste!).

Tips and tricks: being a doctor is by no means an easy feat. However, it is definitely a rewarding job where the positives definitely outweigh the risks. It is important to gather enough experience before deciding on a career in medicine as it may not be to everyone's taste. It's also important to know when enough is enough as well as finding a 'work-life balance' that works for you and having a good support system. You will spend all your time helping other people so be sure – to have people around to help you!



Embrace the Digital World

Every career path is being shaped by the digital revolution. Technology is changing the future of work and the skills young people need to adapt. Have you got the skills to thrive in the job market? One thing is certain – data, technology and automation will play an increasingly important role.

Skills Gap have produced an excellent careers guide on what employers are looking for and how you can build a balanced skills profile that blends qualifications, tech know-how, emotional intelligence and a growth mindset.

Use this checklist to develop your skills profile:

Emotional Intelligence

- Understand and manage emotions positively
- Effectively communicate with a wide range of people
- Show resilience and overcome challenges
- Empathise with others and defuse conflict
- Work well in teams and individually

Professional Qualifications

- Academic/technical training (e.g. degree)
- Academic aptitude matched to career path
- Relevant work experience with strong references
- Genuine, clearly visible interest in chosen career
- Ability to talk about future role passionately and fluently

Tech Skills

- Knowledge of job-relevant tech
- Understanding of broad core tech and data principles
- Ability to quickly learn and develop skills
- Appreciation of relevant technological changes
- Interest in innovation and future advances

Growth Mindset

- Love of learning and continuous personal development
- Belief that hard work and dedication are as important as talent
- Takes personal responsibility and seeks out challenges
- Resilient to setbacks, taking the learning positively
- Strong team player, celebrating success of others



Work for The Security Service (MI5) without a degree

The UK Intelligence Agencies protect the UK from a range of threats, including terrorism and espionage. They are looking for school leavers to join their organisation and to play a part in keeping our country safe. They offer a **range of opportunities** from busy administrative roles to technical training programmes, including degree apprenticeship programmes so you can earn while you learn!



Virtual Work Experience Week

Last year, our Year 11 pupils took part in a specially created Virtual Work Experience programme to ensure that they don't miss out on the opportunity to engage with the world of work and explore their career options. The programme included an impressive series of webinars and live Q&A sessions run by employers representing a wide variety of careers. These **work experience webinars** are available to watch on the **Surbiton High School Learning Space** and on the **Surbiton Careers You Tube channel** and includes careers from banking and finance, dentistry, TV, film and media, psychology, law, marketing, HR, engineering, property, economics, beauty, science research and technology and the performing arts.

As well as the webinars, pupils completed a range of activities, specially created to help them better understand their strengths, skills, interests and values, and relate these to future career choices. Pupils also embarked on a special project, requiring them to creatively apply their learning from the week, which they presented in groups on a virtual platform on the last day of **Virtual Work Experience week**.

Virtual Work Experience week was also rolled out to our Year 13 students with some specific sessions added to recognise their age and maturity, as they prepare for the transition from School to the next phase in their career.

Comments from Students - Year 13 students

"Prior to today's activities, I wasn't entirely sure what career path I wish to pursue and today's activities have helped me have a greater awareness of the values I possess and has opened my mind to a few more careers which I hadn't necessarily considered before."

"Personally, I found the work experience very useful and it allowed me to reflect on the different careers that I am potentially thinking about, and how to improve my CV."

Comments from Pupils - Year 11 Pupils

"This activity has confirmed my career path and allowed me to learn more about the career I wish to go into."

"My career ideas have not necessarily changed, but my way of thinking about jobs has changed and I will alter my approach when researching careers and getting involved."

"Yes, I feel more certain about the path I want to pursue because the activities that I have done has reassured me that I have the right skills and attributes needed for a career in medicine."

Comments from Pupils

Year 11 Pupils

"I have opened the door of research into a wider variety of career choices that I didn't consider before."

"I feel more certain about the career path I wish to pursue because I never really thought about values or what makes a company attractive and now that I have looked into that, it makes me more certain that this is the right path to go down as the values reflect my personal values."

"I think my career ideas haven't changed that much since I am not decided on a certain career path yet, but in the future, I will also try to focus more on what kind of company I want to work for as well as just the job I want."



Parent Feedback

"I just wanted to thank you for the useful and enjoyable work experience week that you recently provided for Year 11. I can imagine that it must have taken a huge amount of thought and time to organise, in addition to the work you are normally doing at this time of year. Kate found many of the career sessions to be interesting and informative. I even watched one myself and learnt something new!"

Medical School Virtual Work Experience Programme

Brighton and Sussex Medical School have designed **this excellent online** course to provide a virtual work experience for those looking to apply to medical school. You will be introduced to the NHS before exploring the roles and skill sets of six different medical specialists. Along the way, you will also consider some of the challenges and wider issues doctors face.



Section 2 - **Beyond the Curriculum**

Surbiton Super-Curricular Bible



This booklet (which can be found in the **Careers Learning Space**) is a bible of all things super-curricular (those academic activities that go beyond your curriculum studies) It supports students to explore their subjects in more depth and breadth than they might have done otherwise. It also enables them to explore subjects that are not offered in School. In so doing, it will help students to make more informed choices about their university subject and develop the independent study skills so valued by universities. In due course, it will help students to find the content that will help them write their UCAS personal statements.

Please follow the Career Department's new **YouTube Channel** for tips on exploring and using super-curricular resources.



University Lecture Taster Courses



Free Online University Courses

There are many free online courses (sometimes known as MOOC's – Massive Open Online Courses), lectures, podcasts and much more, offered by the best universities worldwide. They are not only interesting, but can also help you to explore your potential university subject(s) and evidence your interest in your chosen degree in your UCAS personal statement.



Portals for exploring what's available include:

MOOC

Futurelearn

Coursera

Open Culture

Oxford University Podcasts

Thinking about a degree in a subject you haven't studied before? Moocs are not just a great way to display supra-curricular engagement to impress universities for any subject, they are particularly useful to test whether you find a new subject that you haven't studied at School interesting.

For example, thinking about a law degree? Consider this ***Introduction to Common Law MOOC***



Online Careers and Work Experience Programmes

This year there are some great winter courses available that are being made available online (fees apply). These are a great way to explore areas of interest, to help with university applications or to find out more about a career you hadn't maybe considered before.



The **InvestIN programmes** prepare students for the world's most competitive and prestigious careers through these immersive career experience programmes (fees apply). They are currently advertising the following events based in London locations, however, courses may also be provided online at this time. Please note that the educational establishments used for the locations are not providing any of the course content:



Section 3 - Exploring Higher Education & Super-Curricular Activities

What's been happening in School?

YEAR 13

UCAS – Well done for sending off your higher education applications. If you need any guidance on your offers, please do contact a member of the Careers Department or Sixth Form Team.



Medical School Multiple Mini Interviews practice (MMI's) – In November, the Year 13 medical, veterinary and dental students were provided with a virtual multiple mini interview practice event, to help them prepare for the medical school's application process. We also offer practice and advice for any student invited by a university to an interview regardless of the subject. If you need any help, please do ask. Best of luck with the real interviews!



Please note: invitations to interviews do not show up on the staff side of UCAS, so you will have to tell us.

Oxbridge Mock Interview Practice – The Year 13 students who have applied to Oxford and Cambridge Universities attended virtual mock interviews with external specialist interviewers in June and again in November 2020, just before the real interviews in December. There was also a mock interview exchange with Kingston Grammar School in November. Our interview preparation provides invaluable practice for our applicants, enabling them to use the feedback to hone their skills ahead of the real thing.



Eight students in Year 13 have just received Oxbridge offers for entry in 2021 - see more about this as well as our advice about making an Oxbridge application in the Oxbridge Special on pages 18 to 21.

YEAR 11

A-level Choices

During the Spring Term, you will be making your A-level choices. To help with this, you will each have a Careers Interview during the Autumn Term to discuss your career aspirations and study options, using the Morrisby profile report that you completed in Year 10. Personalised reports and action plans, subject video's and the Sixth Form prospectus will be provided to help with your decision making. After your mock exams, you will meet with the Sixth Form Team to discuss your choices.

If you need any further help researching career options then **UCAS** have a great website.

A-level Pathways

During the Spring Term, you will meet individually with the Head of Sixth Form to discuss your chosen higher education subjects. You can of course arrange to meet with a member of the Careers Team any time before then if you need any information or have a query.

Surbiton High School A-level Pathways

- 1** Three A-levels
- 2** Three A-levels plus EPQ
- 3** Three A-levels plus AS Maths (2 years)
- 4** Three A-levels which must include Maths plus AS Further Maths (2 years)
- 5** Four A-levels

YEAR 9

GCSE Options

Year 9 is an exciting year where pupils get the first real opportunity in their academic careers to follow their own passions and decide how they want to spend the next two years of their schooling. A virtual options evening will take place in January to explain all that you need to know about the process and what tools they'll need to consider when making their choices. This will be followed by a parents evening to enable GCSE choices to be made in early February.



YEAR 7

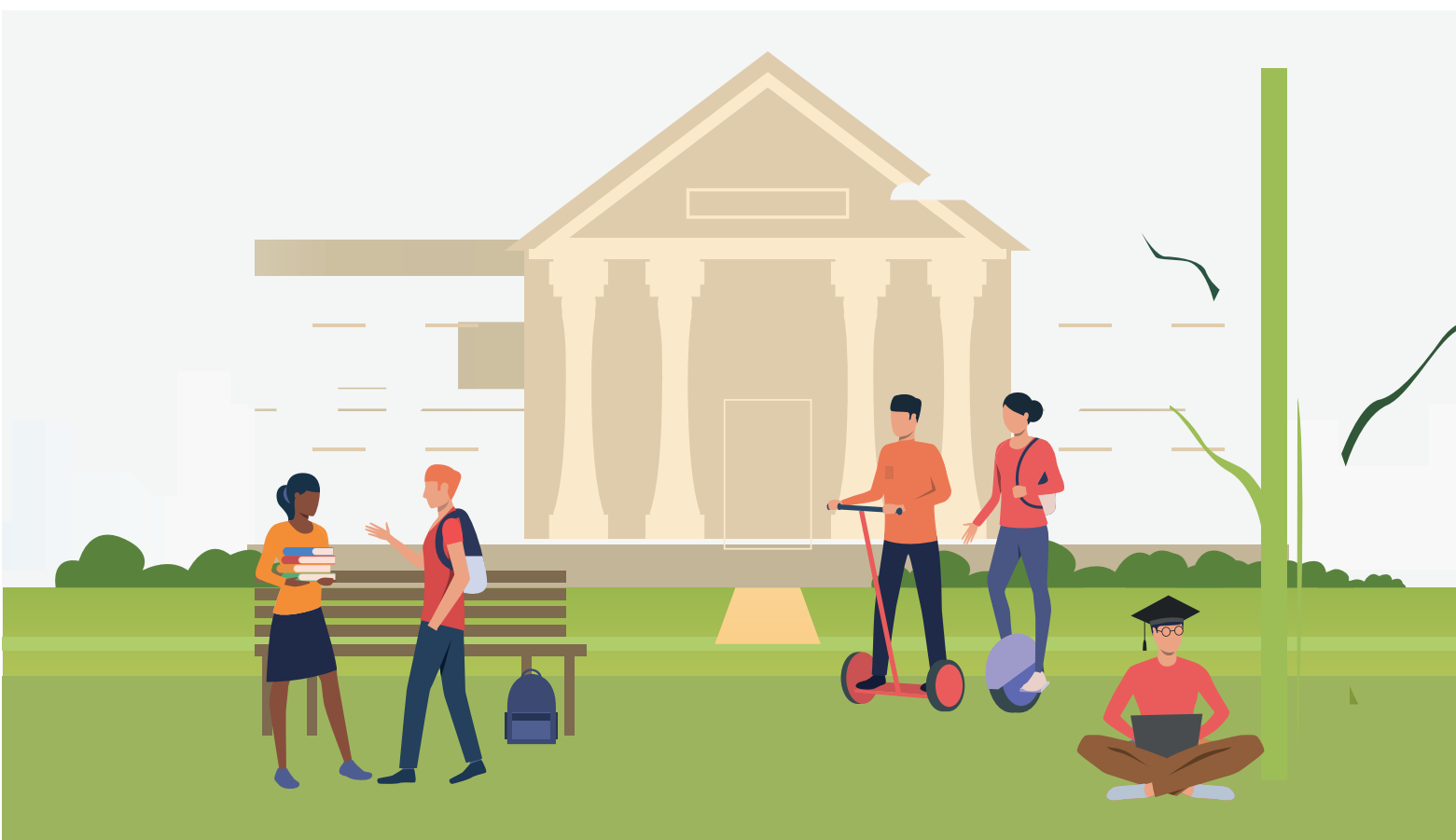
Modern Foreign Languages Options - During the Spring Term, pupils will be choosing which two of their four languages they would like to study further, effective from Year 8.



The Times Higher Education Global University Ranking 2020



Rank	Institution	Rank	Institution	Rank	Institution
1	MIT	20	Edinburgh	93	Leeds
2	Stanford	27	Manchester	96	Nottingham
3	Harvard	33	Kings	97	Southampton
4	Oxford	44	LSE	100	St Andrews
5	Caltech	49	Bristol		
6	ETH Zurich	62	Warwick		
7	Cambridge	67	Glasgow		
8	UCL	78=	Durham		
9	Imperial	78=	Sheffield		
10	Chicago	81	Birmingham		



Oxbridge Special: Q&A with Terry McDermott, Surbiton High School's Director of Careers and Head of Oxbridge

Why Should A Student Consider Oxbridge?



They spend more on you than other universities – a lot more – which means you get better facilities and much more contact time (particularly the unique supervisions (Cambridge) or tutorials (Oxford))

It's also a unique, fun experience (see misconceptions below) that has a way of forming friendships for life.

Finally, it provides you with superb career prospects. Oxford and Cambridge are the most globally recognised UK university brands and in a world where increasingly careers are international, this can a particular advantage.

What are Some of the Misconceptions About Oxbridge and What are Your Responses?

"I won't have fun" – there's a vibrant social scene with all the clubs and music venues you'd expect from medium sized cities. On top of that, you have the club nights, balls, sports, theatre, etc. which go on at a university level but also, crucially, at college level. Arguably, Oxford and Cambridge are more fun and vibrant than similar sized cities as a result of the college system. Further, Oxford and Cambridge are only an hour or so from London by bus or train, so if you're desperate for the megacity experience, it's not difficult to find it.



"It's more pressured" – you will likely have more work than at many other universities, but students there compare the hours to what you do in Surbiton High School Sixth Form. One said she was more surprised by how little some of her other friends were doing at their universities than how much she was doing at Oxford.

"I won't be good enough" – Oxford and Cambridge put a lot of effort into selecting their students. They look at interview performance, use tests, look at schoolwork – all this is designed to select people who are going to thrive. As a result, Oxford and Cambridge have the lowest drop-out rates of any universities and students achieve amongst the most higher degree classifications of any university (i.e. firsts and upper seconds, where around three quarters plus students achieve at this level).



"I'm not suited to it" – perhaps not, but if teachers are indicating they think you may be, you have little to lose by applying since you get four other university choices anyway. If you are vaguely realistic as an Oxbridge applicant, it is very highly likely you will get offers elsewhere.



“It’s not diverse” – this is something I’ve been hearing more recently – perhaps the old buildings and centuries of history embody privilege in the age of BLM and #metoo? However, around 70% of students are from state schools. Approximately a quarter of students at Oxbridge identify as BME, similar to the national proportion of BME in the 17-25 age group and far more than the overall proportion in the UK. Just over 3% of students identify as black, again similar to the overall national percentage. At Cambridge, 19% of students identify as non-heterosexual compared with 1.5% of the wider UK population and Cambridge has been called the UK’s “gayest university”. The gender balance is approaching parity with 47% of students at Oxbridge female. While these stats over-simplify the situation and there are still improvements to be made, Oxbridge is more diverse than many top UK universities.

What are Your Top Tips for Gaining A Place?



Choose the right degree subject: sometimes the right degree course for you isn’t one of your A levels or isn’t obviously career-related, like law or medicine. Stop and really consider what makes YOU curious. If that’s Anglo Saxon Norse and Celtic Studies, knock yourself out and yes, you can still get a good job! Remember 2/3+ of careers can be entered with any degree. Similarly, be open-minded to new options.

Some of the less considered degrees are relatively undersubscribed precisely because they are not on everyone’s radar like the most popular subjects. This does not mean you should apply strategically, but with subjects like theology, classics, archaeology or earth science, be open-minded to really exploring them if there’s indications you could be suited to them.

Make the right choice between Oxford and Cambridge: some degrees are only offered at one or other university, in which case this isn’t a factor, e.g. architecture and veterinary medicine are both only available at Cambridge. However, if there is a choice, think carefully about differences between the courses and the differences in the way they select you. For example, the economics-related courses at Oxford and Cambridge suit different people and the selection approaches are quite distinct – you could be a competitive applicant for one and not the other. We have a lot of expertise at Surbiton High School to help you understand this.



“Read” – you should be “reading” beyond your GCSE and, particularly, your A-level studies. I say “reading” because this could also be doing academic competitions, attending galleries, lab work experience, MOOCs (mini university courses online) and watching lectures. It is anything that is meaningfully helping you to explore your subjects. It is particularly important to do this super-curricular work in subjects you don’t study at school, such as law, engineering, archaeology, anthropology, etc., since no course page on a university website will give you a true flavour of the degree. The **Surbiton High Super-Curricular Bible** is a fantastic tool for finding resources that will help you delve into your prospective degree subjects.

Talk to other people about your subject and ask them to challenge you: this will help you develop the critical verbal skills for the interview. So perhaps read an article with a friend or family member and then ask them to speak to you about it. How would you summarise it, what do you think about what it's saying and above all, get them to challenge your point of view.



Understand how your Oxbridge application relates to your other university applications:

you have one personal statement for five universities, so you will need to apply for roughly the same course across your choice; it's unwise to choose a course at Oxbridge you would only be happy studying at Oxbridge. However, it is possible to write a thematic personal statement so that you could viably and successfully apply for theology at Oxbridge and English and theology or theology and philosophy elsewhere (e.g. by talking about existence of God (cover theology and philosophy) and then religious themes in literature (covers any courses with English in them while not compromising your Oxbridge choice). You should focus your personal statement at your Oxbridge personal statement choice and then cover your other different choices thematically. If this proves too difficult, check that your other university will accept a supplementary personal statement – many do. And some may not even look at your personal statement.

There are a few Oxbridge courses, such as land economy and education, where they understand you will likely be applying for a different degree elsewhere. In these cases, it is fine to focus on your main subject of application elsewhere, although it is likely to have some relevance to your Oxbridge choice. Note: if it is a Cambridge course, you should explain in your Supplementary Admission Questionnaire (SAQ) why you want to study this particular, unique Cambridge course, like education or land economy (there is a 1200 character space in this form that Cambridge requires you to complete for this).



Don't focus on the wrong things: for example, being a great rower or Head Girl or doing Duke of Edinburgh or Young Enterprise are all worthwhile things to do for many reasons, but they will not directly aid your Oxbridge application. Oxbridge – and most other universities for that matter – are interested primarily (in the case of Oxbridge, exclusively) in your academic passions and abilities. With this in mind, if you

are seriously interested in Oxbridge, I would encourage you to think carefully about how much extra-curricular (as opposed to super-curricular) you take on. If you are a committed rower, then you probably won't have the time to also do lots of other extra-curricular activities as well as making a competitive Oxbridge application.

Similarly, don't agonise over college choice. For the most part, it isn't very relevant in determining whether you will get a place or not. We can advise on the rare occasions where it might be. Therefore, choose a college that you think you will be comfortable at, but don't be too wedded to the decision since many students end up at other colleges anyway through the various pooling systems Oxbridge operate. Everyone ends up loving their college.

Why is Surbiton High School good at Supporting Students Applying to Oxbridge?

We really understand the issues involved in making the most competitive applications. From the differences between subjects and between Oxford and Cambridge to what should go in a compelling teacher reference and student UCAS personal statement, these are all things in which we are well versed.



Our Oxbridge Mentoring Programme, which starts in Year 12, is also highly individualised. Each applicant receives a subject-specific mentor with whom they meet every week or so to help with aspects of the application. During Year 12, the focus is on exploring their prospective degree subjects, being guided on reading, particularly in areas of the degree which a student may not ordinarily come to on their own. Over time, students begin to apply their learning in interview type situations, such as becoming used to dealing with unseen extracts or problems. They are also supported with aspects of the application, such as the personal statement, written work submissions (for many arts and humanities subjects), entry test preparation and much more besides.

We have averaged over eight offers a year over recent years, equating to between five to 10 percent of the Year 13 group. This compares favourably with schools with even better GCSE results than ours and is significantly better than other schools with similar GCSE results.

I would say this wouldn't I, but I genuinely believe that there is no school you could go to where you will have a better chance of securing an Oxbridge place. The value added that characterises Surbiton High School generally certainly extends to our Oxbridge provision and outcomes.



We are delighted to announce that 8 offers have been received for 2021 Oxbridge entry. This means over 7% of our current Year 13s received an Oxbridge offer.

In any year this would be a fantastic achievement but this year Oxbridge have offered fewer places due to having to admit more students than expected last year and because they expect to have to do the same this year given the cancelling of A level exams. This year also saw a record number of offers to state school students and early indications suggest most independent schools have had another very challenging year - it is heartening that once again Surbiton High is bucking this trend.

Offers at Oxford are for:

PPE (Philosophy, Politics and Economics)
German
Fine Art

Offers at Cambridge are for:

Medicine
Engineering
Education, Policy and International
Development
Philosophy
Classics



Congratulations to all these students. However, all applicants, regardless of the outcomes of their applications, can be proud of their achievement. Their willingness to challenge themselves and aim high will stand them all in great stead going forward into their adult lives.

Section 4 - Competitions

YEAR 9

Future Factor Entries

All Year 8 pupils (current Year 9) entered our annual Careers Competition, where they had to research a specific job or course and produce a promotional video, poster or similar as well as a job or course description. The entries were so creative and well researched, and the Careers Team were incredibly impressed with the standard. It was very hard to choose a shortlist, however, we were delighted to announce Iman and Roxana as the winners with their entertaining promotional video for a music therapist. Runners-up researched careers as a lawyer, a detective, a neurosurgeon, clinical pharmaceutical scientist, an environmental health advisor, a virologist and a cosmologist!

You can view the winning video here!



Future Factor Entries



Aeronautical Engineer

What you do as an aeronautical engineer?
Essentially as an aeronautical engineer you work with aircraft, especially with designing and building the propulsion system of the aircraft. They also study the aerodynamic performance of the aircraft and the construction materials and work with the theory, technology and practice of flight.

Why you should become an aeronautical engineer:
As an aeronautical engineer, you can design and build quicker and safer aircraft which are better for the planet. You can also try and invent things like a flying car, or hovering pushchair.

What degrees are needed to become an aeronautical engineer:
GCSE: 5+ subjects including English, Maths and triple science or physics
A-level: Maths and physics or level 3 engineering
Degree: BEng/MEng (mechanical engineering degree)
Post-grad: masters for BEng graduates

Film Director

Social Skills

- Creativity
- Communication
- Leadership & Management
- Technical
- Education & training

Degrees

- Degree Required
- Bachelor's degree
- Degree field
- Film, cinema
- Other requirements
- work experience

Salary

- Salary depends on the size & scale of the project and the level of experience of the director

Specifications

To become a director you need to understand the movie production as well as including skills in scripting and story boarding.

Structural engineer

Brief job description:
A structural engineer is responsible for the design and construction of buildings and other structures. They ensure that the structures are safe and sound. They work in close partnership with architects and other professional engineers. You'll help to design most structures, including houses, hospitals, office blocks, bridges, airports and aircraft.

Salary

- The typical salary of a graduate structural engineer is from £22 000 to £28 000.
- However, with two or three years' experience, £25 000 to £40 000 can be earned.
- The salary of a senior level structural engineer or with at least 5 to 8 years of experience is generally £40 000 to £70 000.
- Some companies offer more as well, e.g. a company car or private health insurance

Working hours
Your working hours will usually be 9am to 5pm, Monday to Friday, with some occasional evening and weekend work where necessary.

Qualifications

GCSE

- 5 or more subjects including:
 - English
 - Maths
 - Strong science (ideally physics)

A-Level (preferably)

- Maths
- Physics

University

- A degree in civil and/or structural engineering

YEARS 7 - 13

There are a range of competitions available to students throughout the year which, apart from being fun and interesting and lots offering cash prizes, they also look great on a UCAS application form and are particularly helpful in helping you to stand out if you are applying for highly competitive courses.

If any competition has a limit on the number of applications per school, please let us know your plan to enter before entering. Carefully note any age restrictions.

If you are in Year 7 to 11 - contact Mr Reeves and Ms Gore: paul.reeves@surbitonhigh.com and rachel.gore@surbitonhigh.com

If you are in Year 12 to 13 - contact Mr McDermott: terry.mcdermott@surbitonhigh.com

The competitions are updated annually, so keep an eye on the websites for the latest competitions.

Art	Closing Date	Year Group
<i>The Nancy Rothwell Award (Art & Science) – The Royal Society of Biology</i>	July (open in March)	Years 7 - 13
Classics		
<i>Classics Essay Competitions (Cambridge University)</i>	Various (questions released in December)	Year 12
Economics		
<i>Bank of England and Financial Times School Blog Competition</i>	January	Years 12 & 13
<i>Young Economist of the Year (Royal Economic Society and The Financial Times)</i>	June	Years 11 -13
<i>The Marshall Society Essay/Article Competition (Cambridge University)</i>	September	Years 11 -13

Engineering	Closing Date	Year Group
<i>The Big Bang UK Young Scientist Competition: The Big Bang Competition</i>	January - March	Years 7 - 13
English		
<i>Peterhouse Thomas Campion English Prize (Peterhouse, Cambridge)</i>	February - April	Year 12
<i>Christopher Tower Poetry Competition (Christ Church College, Oxford)</i>	November - March	Years 11 - 13
<i>Royal Commonwealth Essay Competition</i>	June	Years 7 - 13
<i>Connell Guides Essay Prize</i>	September	Years 10 - 13
<i>BBC Young Reporter Competition</i>	October	Years 7 - 13
French		
<i>French Film Competition (Oxford University)</i>	December	Years 7 - 11
Geography		
<i>Royal Geographical Society – David W. Smith Memorial Prize</i>	March	Year 12
<i>Young Geographer of the Year</i>	October	Years 5 - 13
German		
<i>German Olympiad Competitions (Oxford University)</i>	March	Years 7 - 13

History	Closing Date	Year Group
<i>Julia Wood History Essay Prize (St Hugh's College, Oxford)</i>	February	Years 12 & 13
<i>The Historical Association Historical Fiction Prize and the Joan Blyth Memorial Prize</i>	June	Years 5 -9
<i>The Young Walter Scott Prize (History)</i>	October	Years 11 -13
<i>Peterhouse Vellacott History prize (Peterhouse College, Cambridge)</i>	February	Year 12
Law		
<i>Lord Toulson Essay Prize in Law (Jesus College, Cambridge)</i>	April	Years 12 & 13
Linguistics		
<i>The Nancy Rothwell Award (Art & Science) – The Royal Society of Biology</i>	March - July	Years 7 - 13
<i>Linguistics Essay Prize (Trinity College, Cambridge)</i>	August	Year 12
Mathematics		
<i>National Cypher Challenge (A nationwide, online code-breaking competition)</i>	Monthly	Years 7 - 13
<i>UK Mathematics Trust (UKMT) Challenges - Junior, Intermediate and Senior</i>	Various	Years 7 - 13
Media		
<i>Journo Resources – list of Student Journalism Competitions</i>	Various	Years 7 - 13
<i>Young Financial Journalist Competition</i>	November - January	Years 10 - 13

Philosophy	Closing Date	Year Group
University of Sheffield Philosophy Essay prize	March	Years 10 - 12
Lloyd Davis Philosophy Prize (Oriental College, Oxford)	April	Year 12
Trinity College Cambridge Philosophy Essay Prize	May	Year 12
Science		
Imperial Faculty of Natural Sciences - Schools Science & Innovation Competition	September-December	Years 7 - 13
Chemistry Olympiad (Royal Society Chemistry (RSC))	September - January	Years 12 & 13
Kelvin Science Prize (Peterhouse, Cambridge)	December - April	Year 12
British Biology Olympiad (The Society of Biology)	From November	Years 12 & 13
Beamline for schools (in association with CERN) - Physics	March	Years 7 - 13
The Nancy Rothwell Award (Art & Science)	March - July	Years 7 - 13
C3L6 Competition - Cambridge Chemistry Challenge (Cambridge University)	Ongoing	Year 12

Spanish	Closing Date	Year Group
<i>Spanish Flash Fiction competition (Oxford University)</i>	December	Years 7 - 10, 12 & 13
The Queen's Commonwealth Competition		
<i>The Queens Commonwealth Essay Competition - Royal Commonwealth Society</i>	June	Years 7 - 13
Theology and Religion		
<i>Keble College Essay Competition in Theology & Religion (Annually in June)</i>	June	Years 12 & 13
Various Subjects		
A number of colleges run competitions covering a range of subjects, so always check these out. <i>Newnham College Essay Prizes (Cambridge University) – Biological Sciences, Engineering, History, Modern and Medieval Languages, Music, Philosophy and Physical Sciences</i>	December - March	Year 12
<i>Humanities Writing Competition (Girton College, Cambridge) (this competition can be linked to a wide range of humanities subjects)</i>	March	Year 12
<i>Annual Essay Competition (Fitzwilliam College, Cambridge) (last year this included Land Economy, Architecture, Ancient World Classics, Archaeology)</i>	March	Year 12



Useful Websites



- UCAS (university applications) www.ucas.com
- Morrisby Careers Guidance www.morrisby.com
- Prospects (careers guidance) www.prospects.ac.uk
- The Medic Portal (advice for aspiring medics) www.themedicportal.com
- University open day listings www.opendays.com
- Surbiton High School digital learning space www.learn.surbitonhigh.com

Careers Team Contacts



Just a reminder that the Careers Department are in the Study Area on the 2nd floor of the Sixth Form when in School. Come along and have a chat or arrange to speak to us online:

Mr McDermott, Director of Careers and Head of Oxbridge:

terry.mcdermott@surbitonhigh.com

Mrs Leckie, Assistant Director of Careers (leads on Work Experience):

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Mrs Parsons, Careers Officer:

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Thank you to all students, staff and parents who have contributed to the production of this newsletter.

