

Welcome to issue 5 of the Welling School Newsletter which will provide information on education opportunities after post 16 and post 18, work experience placements and employment opportunities in the local area. This is a monthly newsletter and if you have any queries about the topics covered then please contact the Careers Lead, Jas Sanghera:

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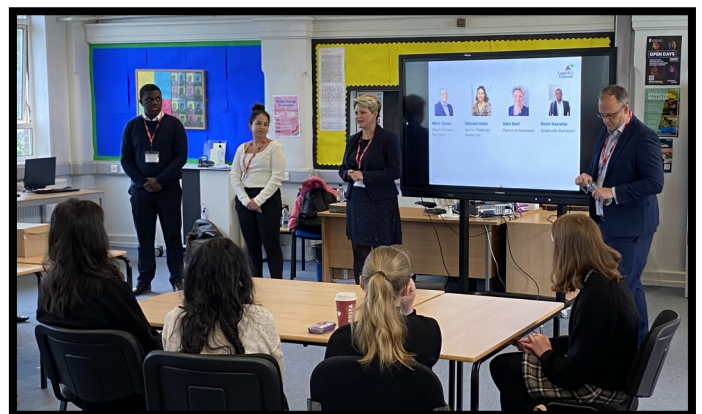
## CAREERS RELATED EVENTS

Welcome to the June/July edition. There have been more Careers related activities happening around the school this half term and you can read all about it below!

## LEGAL AND GENERAL WEX WORKSHOP

In preparation for their work experience placements in September, the year 12 students had a presentation from the staff at the Legal and General organisation. The presentation was aimed at giving an insight into how to get the most out of any placement followed by group work on the type of employee employers are looking for.

This was an important session for the students as they would not have had an opportunity to attend work experience due to Covid and it is important that we give students the tools to maximise their potential on the placements in September.



## SHOOTERS HILL COLLEGE

Normally, the KS3 students don't expect to meet representatives from local colleges because they are not applying for college places until they are in year 11. However, we have found that when students start applying for colleges in year 11, they don't always understand the different courses on offer or even how a college differs from a sixth form.

Therefore, we have asked Shooters Hill College to come and present to year 7, 8 and 9, the courses and facilities on offer at their college, so that students are thinking about the different career pathways now and are making informed decisions about their futures in year 11.

## THE TALENT FOUNDRY

The Talent Foundry aims to increase social mobility by helping young people discover what they are amazing at, develop valuable new employment skills and take that first step into the world of work.

35 of each of our year 7 and 8 students were lucky enough to be able to work with volunteers from Talent Foundry and Logicor. The programme gave students the chance to work as part of a team to learn and practice key skills that they will be able to use in employment after their education. The Team leader was full of praise for our students and had the following to say:

*The students conducted themselves well, working effectively with the team of volunteers from Logicor. The students worked together in small groups to create their very own warehouse park, via a series of exercises throughout the day. They drew on a number of transferable skills which were introduced at the beginning, putting each skill into practice in their own way. The students were positive and creative, considering a range of ways to solve problems when faced with different situations.*

*Great teamwork within the teams enabled the groups to design and create their own unique warehouse parks which they presented to the rest of the students at the end of the day. A vote was taken and each day there was a winning team. There was a lot of energy in the room throughout the sessions; every student brought something different to the team, whether it was an alternative design idea, a team name, or great presentation skills. The Reach Dartford project was fun as well as meaningful and gave the students an insight into the world of real estate.*

Helen B Bryant



## MOCK INTERVIEW DAY

No one likes attending interviews, but students in year 11, 12 and 13 will have interviews for either College, University, Apprenticeship or Employment applications. Therefore, we wanted to give year 10 students the opportunity to understand and practice their interview skills and improve their chances of success in their chosen pathway.

Each student was given a 10 minute interview on a fictitious part time job in JD Sports with a volunteer from industry followed by feedback on their verbal and non verbal skills. The students were prepared for the big day by their tutors during registration, who worked with students to look at examples of positive body language to be used and practiced answers to potential questions that they could face.

The students found the day a really useful experience and were praised by the business volunteers for the professional way they conducted themselves during the interview and for the exemplary answers they were giving to tricky questions.



“Nothing is impossible, the word itself says  
‘I’m possible!’”

Audrey Hepburn

## TKAT ASPIRE DAY

The Sixth Form team took the year 12 students to the TKAT Aspire Day being held in Greenwich University. This important event helped students towards the next stage of their life. The aim of the day was to ensure our students are feeling aspirational for their future, whether that be through attending university, securing an apprenticeship or applying for their dream job.

Whilst at the event students had the opportunity to attend a range of workshops and lectures as shown below:

- How to write Personal Statements for UCAS delivered by Eton College
- How to write cover letters and CV's for employment
- Early applications to Oxbridge, Medicine, Veterinary and Dentistry delivered by St Hugh's College, Oxford University
- Applying for apprenticeships delivered by the Institute of Apprenticeships and Technical Education

All students were also able to attend an exciting motivational speech delivered by Para-Olympian, Steve Brown and an exciting interactive employment skills workshop delivered by Zurich which aided all students no matter what their aspirations are.

Finally, there was a question and answer session with current students at Greenwich University. Students were able to put their questions forward on such topics as budgeting, socialising and workload.



# CAREER OF THE MONTH - PART 1

## Civil Engineer

### What is Civil Engineering?

According to the Institute of Chartered Engineers (ICE): “Civil engineering is a professional engineering discipline that deals with the design, construction and maintenance of the physical and naturally built environment.”

Civil engineers plan, design and manage construction projects to create and improve the buildings that make up our world; bridges, roads, railways (such as London's Crossrail project), canals, dams, tall buildings and other large, one-off structures such as the Olympic Stadium. “Civil” engineering was initially called this to distinguish it from military engineering, and so it covers an extremely wide variety of types of construction.

Civil engineers generally operate wherever there is an infrastructure-related project. They could be involved in structural work, such as dams or oil pipelines; transportation, such as roads and railways planning; environmental, including waterways and flood barriers; maritime, working on ports and harbours, or geotechnical - which essentially means mining and foundations work.

Responsibilities are likely to be similar across the disciplines, from planning the site requirements and analysing local survey data to creating build plans and blueprints and feasibility studies, as well as monitoring and directing the build throughout the construction phase. They will usually be involved from the very beginning of a project right to the end.

### What are the different roles of civil engineers?

Civil engineers can perform all kinds of tasks in all kinds of sectors, depending on their chosen specialisms and the requirements of individual clients and tasks. What a civil engineer does will generally fall into one of these broad categories:



## CAREER OF THE MONTH - PART 2

### **Structural engineering**

Involvement in a building project might see you employed as an architectural engineer or a construction engineer. When working on these kinds of jobs, the engineer's job will be to ensure that the building meets health and safety regulations and does not negatively impact the local environment.

They may also be involved with confirming the economic viability of a project - for example, liaising with local businesses as they seek renters for a new commercial structure.

### **Infrastructure engineering**

This involves the utilities that underpin everyday life. Think water supplies, electricity and gas works, internet and phone connectivity. These systems must have contingency plans drawn up to keep operations moving in times of renovation or damage.

### **Transport engineering**

Without transport engineers, how would we ever get anywhere? Keeping roads, rail lines and more up to standard plays a large part in this role. Optimising routes for future traffic management is also key, whether that be to handle population expansion or one-off events.

### **Ecological engineering**

Projects must not only consider how they will benefit the human world but also how they will fit in and potentially shape the natural ecosystems within which they sit. This field is becoming increasingly important as construction projects have more eco targets attached to them.

### **Geotechnical engineering**

Before spades go into the ground, it must be investigated properly to ensure that it is suitable to be built upon. This field sees engineers test and monitor the elements that make up the soil and earth before construction projects take place.



## CAREER OF THE MONTH - PART 3

### What skills do you need to be a civil engineer?

The role of a civil engineer involves combining many – if not all – of the following key skills:

- **Management and communication:** Can you lead a team of others, and can you get what you need by managing upwards and getting key stakeholders to buy into your vision
- **Analytical and critical thinking:** Are you able to look at different aspects of a project, promote what will work best and discard what will cause delays or overspending?
- **Technical skills:** Are you capable of using the many different programs, systems and devices required in this role?
- **Creativity:** Can you bring to life ideas in a way that communicates thoughts and makes them easy for others to understand?
- **Negotiation skills:** Can you fight for exactly what you need, whether it is financial resource or a larger team with which to operate?
- **Attention to detail:** Can you zoom in on things to find potential weaknesses before they cause problems for the wider project?
- **Good time management:** Can you keep to deadlines and make sure that others complete work in a timely manner, too?
- **Commercial awareness:** Can you see the bigger picture and see how a project or building will fit into the business goals of certain stakeholders?

If you've answered yes to the majority of these questions, it's likely that a career in civil engineering is perfect for you!



## CAREER OF THE MONTH - PART 4

### What are the different routes available to becoming a civil engineer?

You can get into this job through:

- A university course
- A college course
- An apprenticeship
- Working towards this role

### University

You can do a foundation degree, higher national diploma or degree in civil engineering. Many universities specialise in particular areas of civil engineering, like:

- Structural engineering
- Environmental engineering
- Coastal engineering

Some courses include a work placement, which can be useful for making industry contacts to help find work after you finish your studies. You can apply for a postgraduate master's award in civil engineering if you've got a related degree like Maths, Science or Geology.

### Entry requirements

You'll usually need:

- 2 or 3 A levels, or equivalent, including Maths and a Science for a degree
- A degree in a relevant subject for postgraduate study





## CAREER OF THE MONTH - PART 5

### College

You can take a higher national certificate (HNC) or diploma (HND) at college, which may help you to find work as a trainee engineer. You'll do further training on the job to qualify.

#### **Subjects include:**

- Level 4 HNC in Engineering
- Level 5 HND in Construction and the Built Environment

#### **Entry requirements**

You'll usually need:

- 1 or 2 A levels, or equivalent, for a higher national certificate or higher national diploma

### Apprenticeship

You could complete a civil engineer degree apprenticeship.

#### **Entry requirements**

#### **You'll usually need:**

- 4 or 5 GCSEs at grades 9 to 4 (A\* to C) and A levels, or equivalent, for a higher or degree apprenticeship

### **What are the benefits of being a civil engineer?**

A poll run by the ICE found that professionals in the civil engineering industry had an extremely high level of job satisfaction, highlighting the following five reasons for their happiness:

**Varied working:** No two projects in civil engineering are likely to be the same. What is required to plan and build a museum will incorporate many different things than if you are working on the creation of a new high-speed rail line. There are also many different directions in which you can take your own career, whether you are guided by pre-existing passions or develop a specific field of interest on the back of your experiences.

**The creativity of the job:** The job involves quite literally creating the world around people, forming the structures and pathways that will shape their lives and experiences for decades. If you're keen to develop artistic and creative skills, bringing to life engineering plans is a great way to do that while also leaving your mark on the world.

**Working in a team:** Civil engineering projects typically involve huge amounts of people. If you like working in big teams and presenting ideas to many different people, it could be an ideal opportunity. As you build up your knowledge base, you may well find yourself leading some of these teams, sharing your wisdom and helping to mould the engineers of the future.

**Travelling the world:** Projects will require your skills and expertise across the globe. Those who are able to carve out a specialism may particularly find themselves able to take on lucrative consulting jobs in many different projects in glamorous locations such as the United States, Australia and the Middle East.

## CAREER OF THE MONTH - PART 6

Making a difference to the world: Many civil engineering projects are now focused on making the world a more hospitable place and helping human development to go hand-in-hand with the health of our planet. You could well find yourself working on something that protects the planet and all of us who call it home for generations to come.

### How much do civil engineers earn?

Civil engineers' salaries can vary greatly depending on the location of the job as well as your qualifications and experience.

Whether you are working for a firm as a contracted staff member or consulting on a job can also have an impact, with consultancy fees often highly lucrative.

Junior engineer salaries generally range from £20,000 to £26,000. Those who are not a member of the ICE can expect an average salary of around £30,000. However, it pays to become a chartered engineer, as this could see you earn up to £50,000.

Most employers also provide additional benefit packages including a pension programme, healthcare cover, life insurance and a company car and work phone.

