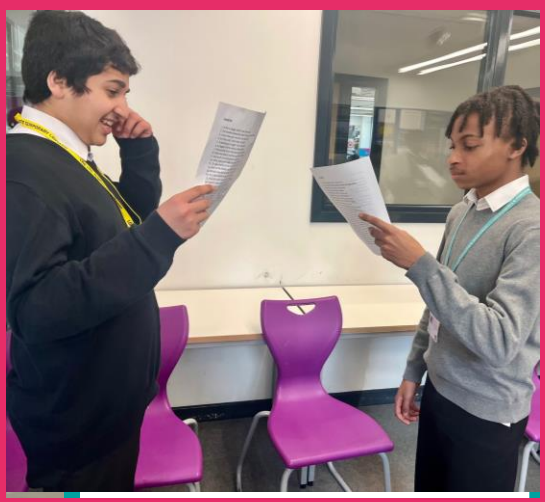
London Design & Engineering UTC

London Design & Engineering UT6 Form

Spring Update

2025



- Employer Engagement
- Careers
- Apprenticeships
- EDI and wellbeing events

Engineering

Moramma Sketching Masterclass

Our year 13 Engineering were set an Employer Led Project with Ben from Morrama, where they were tasked with designing an electric toothbrush. This session supported learners with Unit 9 on the curriculum – Mechanical Design with the focus of improving 2D and 3D sketching techniques.

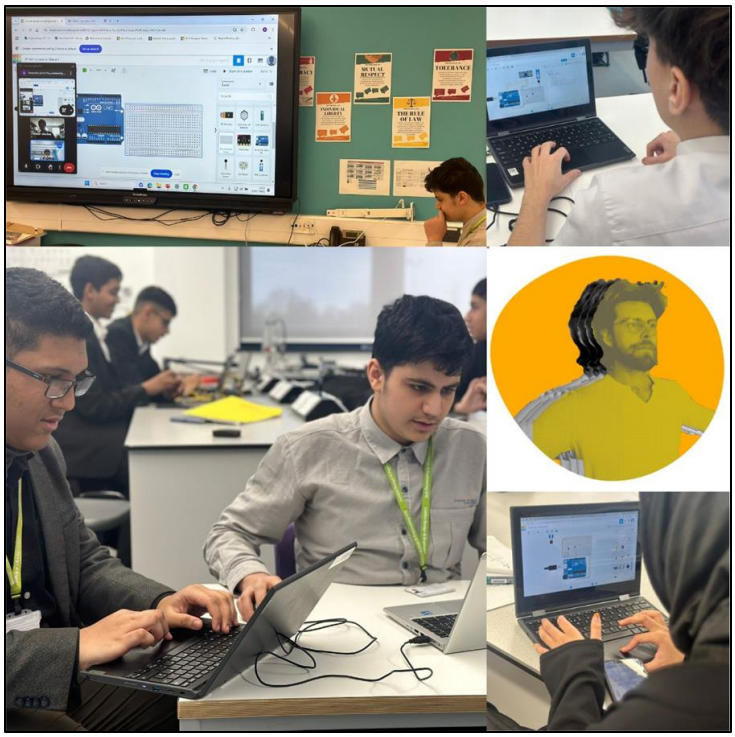
To set the ELP, Ben visited our learners to demonstrate the importance of sketching in the process of generating ideas for a new project. He discussed how ideas transition from initial ideas and sketches to Computer-Aided Design and finally the physical product. To showcase the importance of sketching in the engineering process, Ben showed learners the development of some of the products Morrama have had a hand in creating such as the Apex Bike. He discussed how an effective sketch must balance between giving sufficient information whilst not being overly detailed and time consuming.

Following this, our visitor led learners through sketching activities focused on key techniques such as perspective drawing, using ellipses and line weight. Emboldened with the professional expertise of an engineering professional, our learners set to designing their mechanical toothbrushes with amazing 2D and 3D concepts. These designs were then uploaded onto Padlet and shared with Ben, who offered our learners valuable feedback.

"It was great to see the student outcomes, they have all implemented the techniques covered such as perspectives, construction and line weight. I hope they were inspired to look closer at careers in engineering and the creative industry from our time together," Ben, Morrama.

"Visual communication in engineering is an important tool to learn as it quickly shares an idea amongst a team and Ben did an amazing job to showcase how it is used in industry. He explained the importance of sketching and the conventions of sketching to enhance communication skills visually and how to apply this effectively. This helped the learners go from very little experience and skillset in drawing, to being more confident in their drawing skills to demonstrate drawings that appear more professional and visually appealing," Teacher of engineering, Heman.

Mechatronics Master the Milli () Function



Our year 11 Mechatronics learners welcomed Joe of Tinker Studios for a virtual masterclass exploring programming languages and electronic systems.

During their coursework, our mechatronics learners encountered difficulty using object-oriented programming rather than synchronous sequence programming. To help the learners overcome this obstacle, teacher Heman drafted in coding expert Joe to help learners better understand the milli () function and work on text-based coding.

Joe Founded Tinker Studios in 2019 with the aim of getting young people into tech, making his experience as a creative technologist the perfect aid for our learners.

He introduced the session by talking about careers in the tech industry, whilst also touching upon the intersection between creativity and technology that can often be overlooked when tech enthusiast seek out careers.

Joe then led our learners through exercises to practise using the milli () function.

"It was brilliant to see learners of different abilities give text-based coding a go, as it's not an easy skill to master. Within the brief, we have noticed block-based coding does cause issues as it does not have enough functions to perform simultaneous operations. Learners are required to therefore learn code to edit and understand these further functions. Within the curriculum, it is required for learners to understand the types of programming languages, systems and their main features and how to produce microcontroller programs that perform different functions through a programming language; in this case C++. It was great to see how far the learners are upskilling their coding understanding as the task Joe asked of them is of a high ability for GCSE students. This in turn will support their understanding in their coursework," Heman, teacher of Mechatronics.

Reflecting on the session, learner Zainab shared, *"It was helpful having Joe lead us through coding exercises. It was also really fun because we were able to apply our coding skills to realistic scenarios. I feel a lot more confident with my coursework thanks to Joe!"*

Thank you to Joe for lending our learners expertise and industry insight as well as fostering an exciting learning environment. Our learners will no doubt overcome this obstacle in their coursework!

Cyber Security with TATA Consultancy Services

Our year 12 T Level Design and Development for Engineering and Manufacturing learner benefitted from a masterclass delivered by Raghav from TATA Consultancy Services, focusing on cyber security.

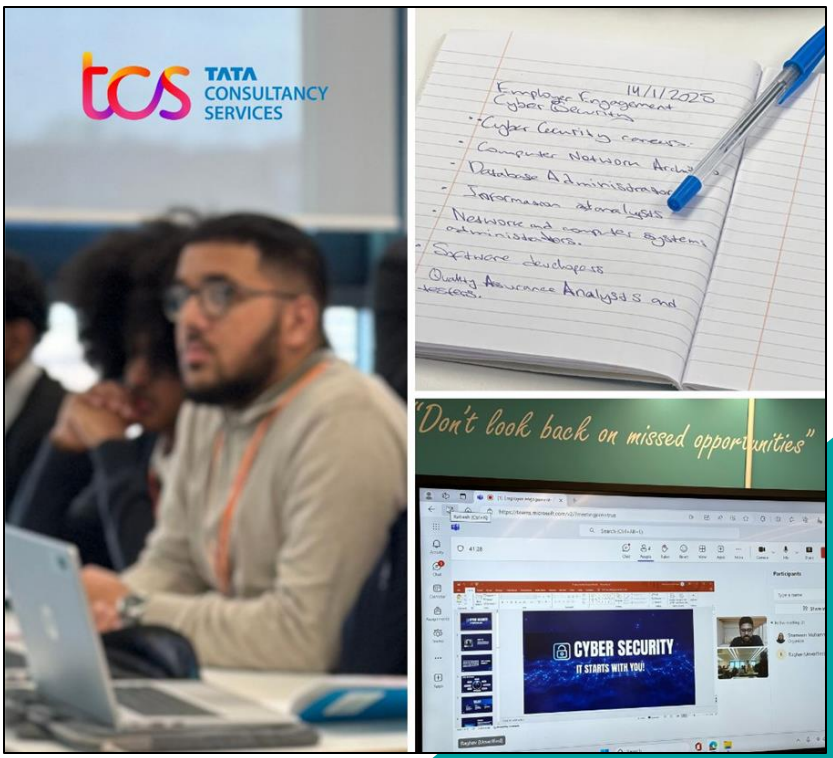
Tata Consultancy Services is an IT service that partners with many of the world's largest businesses, helping to transform them through technology. They work in many sectors many such as banking, communications and media, public services and travel.

Learners enjoyed an interactive session that challenged their knowledge and understanding of cyber security. Raghav discussed the key ways that hackers try to get data such as phishing and malware attacks. He detailed how these attacks differ when targeting large corporations such as banks and hospitals in comparison to personal attacks. He also offered valuable tips to keep yourselves safe when using the internet.

"It was interesting hearing about the dangers of the internet and how we can protect ourselves from them. I was also unaware of the ways companies protect themselves against this threat but feel I understand it more now," Yaqoub, year 12 learner.

Our visitor concluded the session by sharing career pathways into the cyber security industry, whilst sharing his personal career progression and the responsibilities in his role at TATA.

Reflecting on the impact of this session, Teacher Shameem shared, *"Raghav's masterclass on cybersecurity was closely aligned with the T Level curriculum, focusing on analysing various engineering roles and exploring the future of engineering. He explored key aspects such as engineering responsibilities, safeguarding engineering systems, and understanding communication systems like the Internet of Things (IoT) and cloud computing. The session also emphasised technologies used to protect communication and database systems through cybersecurity (from unit 2,3,7 and 14). Additionally, it supported the curriculum's connection to industrial placements and career pathways. Raghav's insights on cybersecurity and career advice provided learners with valuable opportunities to explore roles within the engineering sector of cybersecurity. Thank you for taking the time to deliver such a valuable learning experience!"*



Aviation Learners Meet BA Cityflyer

Our Aviation learners had the exciting opportunity to engage in a virtual masterclass with industry leaders from BA CityFlyer. Organised by Julie O'Neil, Fleet Manager People at British Airways CityFlyer, the session featured a dynamic Q&A with four experienced professionals: two pilots, the Head of Training, and the Technical Safety Manager.

During the session, the speakers shared their unique career journeys, highlighting the diverse pathways into the aviation industry. While each route had its own challenges, a common theme emerged – passion and perseverance are essential for success in aviation.

Beyond discussing the steps to becoming a pilot, the professionals also introduced our learners to the wide range of roles within the aviation sector. They encouraged learners to explore different disciplines, emphasising that exciting opportunities exist in various departments beyond the cockpit.

Year 13 aviation learner Adam reflected on the experience, stating: *"The masterclass with BA CityFlyer pilots and professionals was incredibly informative and inspiring. Hearing their career timelines, especially from those who started in places similar to ours at LDE UTC, gave us the confidence that we, too, could follow in their footsteps. Whether aspiring to be pilots, engineers, cabin crew, or fleet managers, we now feel even more motivated to pursue our dreams in aviation."*

The Aviation Team echoed Adam's sentiments, expressing their appreciation for the invaluable insights shared: *"We are truly grateful to the BA CityFlyer team at London City Airport for delivering such an engaging and informative session. Their broad representation of career professionals provided our learners with an in-depth understanding of the diverse pathways into aviation, along with invaluable advice based on real-world experiences. Their guidance and insider knowledge of BA operations have given our students an enriched perspective on the industry."*

T Level Learners Tackle Real-World Lighting Design

London Design & Engineering UTC Form

Our Year 12 T Level Design and Development for Engineering and Manufacturing learners have begun an Employer Led Project focused on mapping lighting systems. Curated with the support of John Ilegbusi from Ardmore Group and Joshua Shakeshaft from Waterstone Design, our learners have been tasked to map a lighting system on a real-life floor plan provided by our employers.

When mapping out this lighting system, they must consider the following elements:
Product: selecting lighting fixtures appropriate to their environment
Layout: design a lighting layout for the office areas
Switching: design a switching arrangement for the areas
CMS: Cable management systems for the cable to be routed on
Engineering: culminate a lighting board schedule.

Before introducing the project, learners enjoyed an engaging talk from John who shared details about some of the fantastic projects Ardmore have undertaken and his role as a project manager. When discussing his pathway into his current role, John shared how he aspired to become an engineer during university but – following a unit on project management during his master's – realised this was the career pathway for him. During an interactive Q&A, John shared how everyday as a project manager is different, exciting and challenging – he even told our learners how at 9:15 in the morning he had already taken six phone calls about the current project he was working on!

Joshua then set the project for our learners, where he spoke in detail about the elements learners had to consider when mapping out their lighting systems. Reflecting on the project set by our employers, learner Anas shared, *"I'm proud to have the opportunity to work with distinguished employers and gain insight into their companies—this could even lead to a future placement or career. The project is challenging, but it pushes me to research industry standards, think critically, and gain valuable real-world experience."*

Class teacher Famida shared the value undertaking this project, *"I invited Ardmore Group and Waterstone Design to present our learners with a real-world scenario, allowing them to see the practical application of key T Level concepts. Learners will be exposed to vital industry standards and practices such as Ohms law, CIBSE and BS 7671. This project connects to electrical principles, design processes, and technical drawings, giving students hands-on experience in industry-relevant skills. It also relevant to the occupational specialism exam where they have to design and produce an electronics project."*

Through this ELP, learners are encountering several components of the T Level in Design and Development for Engineering and Manufacturing curriculum, integrating both core content and occupational specialisms, particularly within the Electrical and Electronic Engineering pathway. We are excited to see the designs our learners produce!

A Fascinating Look into the Life of a British Airways Pilot

We had the pleasure of welcoming Guy Glaves, Senior First Officer at British Airways, for an engaging and insightful session about his career and the wider aviation industry. He shared his journey into aviation and encouraged learners to consider career opportunities at British Airways and the RAF.

Guy walked us through a day in the life of a long-haul pilot, discussing responsibilities, flight planning, and the commercial considerations airlines must balance. He provided a detailed look at the information pilots must review before every journey and shared intriguing insights about the considerations pilots must make such as timing meals and rest during long-haul flights.

Aviation learner Deniz shared, *"The experience he had amazed all of us. Also, this talk was really helpful for aspiring pilots and those who wants to take part in aviation industry, particularly within British Airways."*
"Having such a distinguished pilot come to visit our learners was an absolute privilege! It was great to see how interactive our learners were throughout the session, they really got the most out of the session and gained unparalleled insight into the working life of a pilot," Andrew, teacher of Aviation.

The session ended with a lively Q&A, where Guy answered questions about aviation, training, and life in the cockpit. His knowledge and enthusiasm made a lasting impression, and his visit was truly inspiring for our learners.

A huge thank you to Guy for sharing his time and expertise—it was an eye-opening experience that will no doubt encourage future aviation professionals.

Airport Baggage Processing Masterclass

Linda Amaah delivered an insightful masterclass on Airport Baggage Processing as part of Unit 31 on the aviation course. This unit equips learners with essential skills to prepare passenger baggage for travel while ensuring security and efficiency.

Linda provided an in-depth look at key processes:

Checking baggage equipment serviceability

Interpreting baggage labels

Understanding security requirements

Completing baggage manifests

Using her airport experience, Linda made complex procedures engaging, likening baggage handling to a Formula 1 pit stop, where precision and coordination are vital. She also emphasised security measures and airline-specific requirements for special handling.

Learners found the session eye-opening. One shared, *"The masterclass was incredibly informative. I had no idea how intricate the process was. It opened my eyes to career opportunities in aviation."*

Linda was equally impressed by the learners' enthusiasm, stating, *"It was a pleasure visiting. The students were engaged, asked great questions, and showed keen interest in aviation careers."*

The session not only deepened learners' understanding of baggage processing but also inspired them to explore diverse aviation career paths.

Digital Media

Littlemisshatter Mentors on Game Design

At University of East London's Creative Industries Festival, our Digital Curriculum lead Alan had the privilege of meeting with Jenna Bidwell (aka littlemisshatter), where they instantly connected through their shared love of game design and development. Following this, Jenna agreed to visit our year 12s and deliver an interactive masterclass on game design. As a recent graduate in computer game development with a first-class honours, Jenna was the perfect person to both relate to and inspire our learners. During this session, learners explored the pillars of games design and using Unreal engine.

Jenna was so impressed by our learners' enthusiasm that, following her fantastic masterclass, she began to mentor our learners through their unit 4 extended project which requires learners to develop an interactive media product for a given brief.

Learners were given the following scenario:

You work as a games developer for Royal Docks Digital and have been working on developing a new game. A motion picture visual effects and computer animation digital studio has asked for a new interactive multimedia product to be developed that can be played on a PC and will complement their range of characters and storylines. The product will be targeted at a wide range of users but especially at reaching new audience members of the film/series, existing fans of the films/series and gamers/game developers who are interested in knowing more about the game development.

Thanks to Jenna's expertise and support, learners have upskilled their game development processes by working with her on level design concepts for their games, games design documentation and project management plans.

Year 12 learner Nubia shares, *"Jenna really helped with unreal engine and showed us how to use the tools in an effective way to get the most out of them. Her expertise has really inspired me to come up with some great ideas for my own game!"*

"Having Jenna join us on this game development journey is so valuable! She helps to align learners to a clear goal to work towards by offering a professional perspective and communicating clear industry requirements. Thanks to Jenna's support our learners have really challenged themselves to come up with creative and innovative concepts that they are inspired to see through to completion," Alan, Digital Curriculum lead.

Intel: Digital Twin Collaborative Project

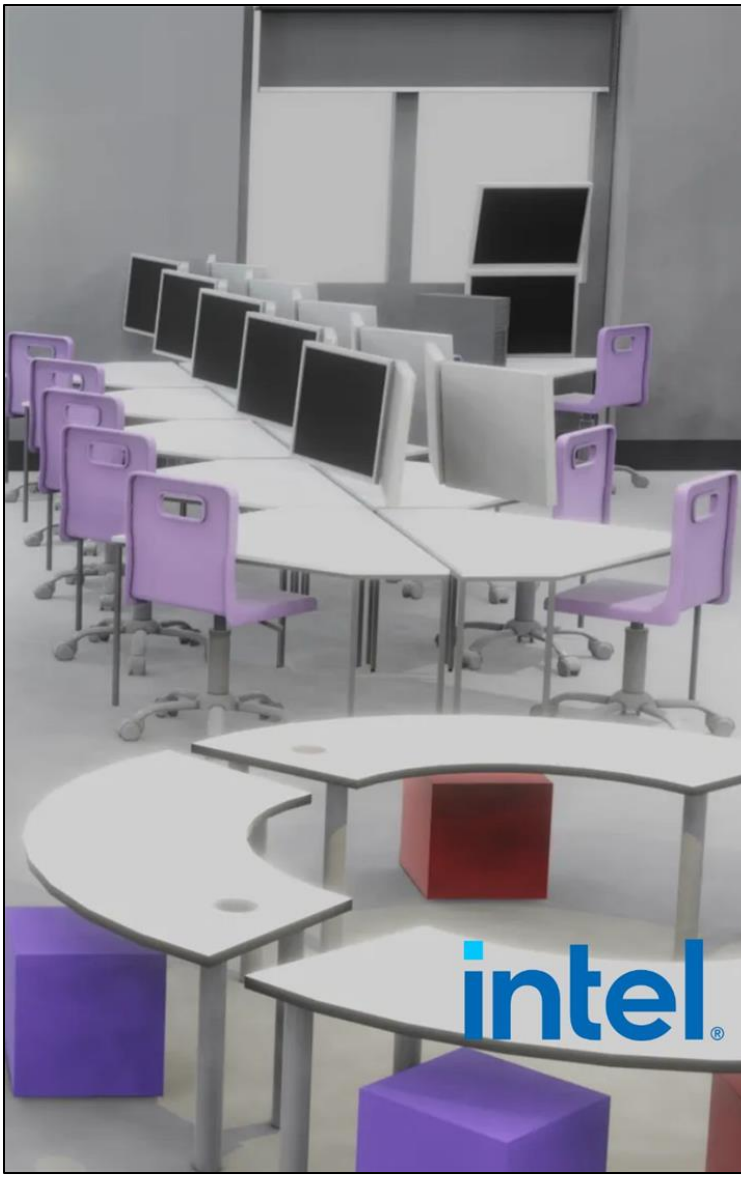
In an exciting collaboration with Intel, our year 12 Digital Media and year 12 Digital Production Design & Development T level learners undertook an Employer Led Project where they were tasked to create a digital twin of an LDE classroom that present real world data of its energy use, heat distribution, occupancy movement whilst being virtually represented. This project was closely linked to the curriculum, with our Digital learners working on 3D modelling, data analysis and interactivity and our T level learners working on data analysis and digital environments.

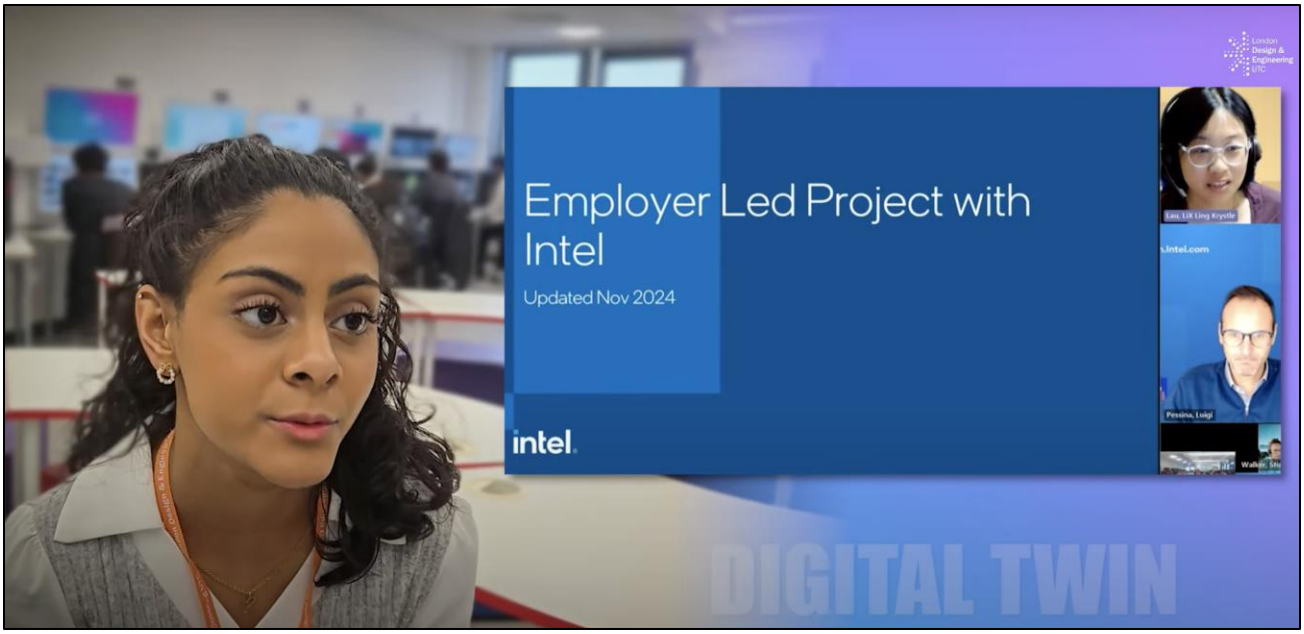
Learners were set the following brief:
Create a digital twin of your LDE UTC classroom / parts of your campus, collecting and using real-world data (temperature, humidity, electricity usage) to simulate and propose energy-saving solutions. This challenge leverages Intel SFi's mindsets and skillsets, particularly in problem-solving, data science, modelling and simulation, computational thinking, and design thinking.

James shared, *"As both a CTO and a teacher of digital media, I recognise the immense value in learners taking part in the Digital Twin project with Intel. This initiative, which we co-created is about more than just learning technology—it's about actively contributing to something innovative. Learners are directly involved in creating virtual models and generating data, while also exploring the potential of AI analysis to optimise and enhance these interpretations. The project's topical relevance is clear, and it lays the groundwork for a scalable initiative that will soon allow schools across the country to take part in similar projects, empowering the next generation of creators and thinkers."*

To fulfil this brief, learners collaborated across the two subject areas, reflective of projects Intel would undertake in industry. Digital Media learners were each responsible for one aspect of the room, creating a digital asset that precisely reflected its physical counterpart. To successfully do this, learners used industry standard programs such as AUTODESK 3DSMAX, Sketchfab and Unreal Engine. T level learners had to apply their knowledge of digital environments and collect heating, lighting and power usage data over a period of time. Based on the data, they were able to provide visualisations of their findings using graphs, charts, data tables whilst using AI to access higher concepts and to enhance the functionality of their code.

Learners across both subjects collated all their work create A 3D virtual model of the classroom that incorporates real-world data on temperature, humidity, and energy consumption. Using our VR headsets, learners were able to walk through the digital twin they collaboratively created whilst seeing the data that had been collected, analysed and presented in real time.





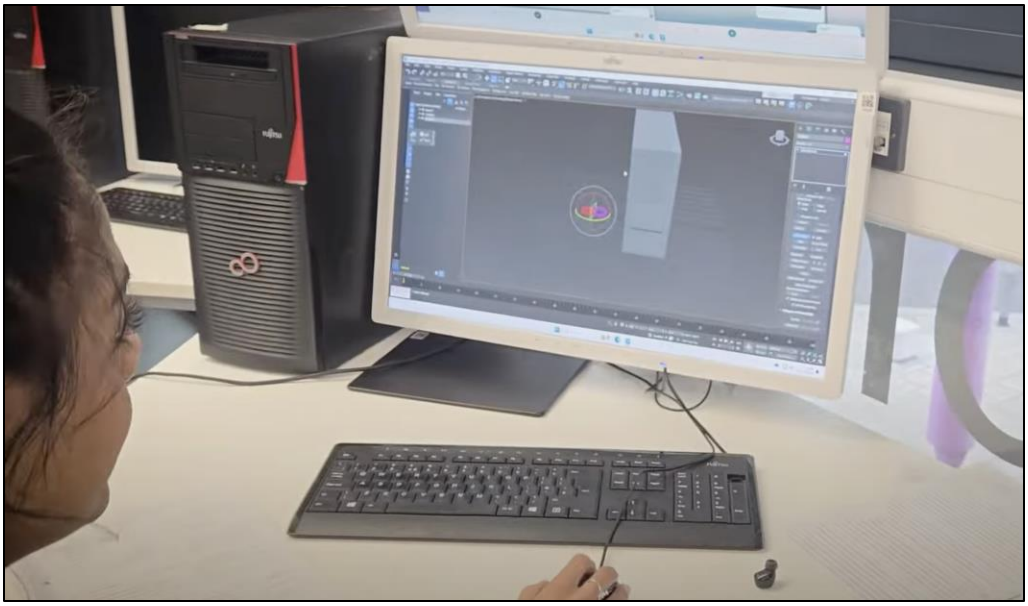
Our learners did not stop there! They used their findings to work together and propose data-driven sustainability strategies to reduce energy consumption.

Reflecting on the unique and special opportunities this ELP offered, learner Leia shared *"We were inspired by Intel's virtual visit to give this project our all. Using the intel skills resources as a reference was really useful to create our own digital twin room. It was amazing to a part of creating such an immersive experience and being able to work for such a prestigious corporation and alongside my peers to achieve something that we are all really proud of!"*

Having achieved such an impressive feat of collaboration, it's was an absolute privilege to be invited to present our Digital Twin at the Bett show in front of an audience of thousands of attendees. CTO James and Digital learner Leia and T level learner Arifah has the privilege of representing us on the panel.

Cigdem Ertem, General Manager for Education at Intel, who invite us to speak with her at the Bett show shared, *"Thank you to my panellists! We were able to show that AI is here and real — with personal examples and applications. What I loved the most is the confidence of the students, Leia and Arifah, Wow! Once youth get the chance to learn AI skills, they can create incredible projects, use tech such as Digital Twins to help manage complex systems, or develop award-winning apps like .Well done and thank you for your efforts to make the world a better place."*

We were immensely privileged to be the first school to co-create a project such as this with Intel!



Learners Steal the BETT2025 show!

Five sessions, four stages, three days... our learners and alumni discussed and demonstrated the power of education technology and AI at #BETT2025 as both panellists and exhibitors.

Let's hear from them about their experiences during this amazing week!

Day one: Promethean & Redborne school

Not only do Promethean supply all our classroom screens, but they have also developed a special relationship with the college by striving to support our educative aims as we prepare our young people for an increasingly technological working landscape. Annually, Promethean invite us to collaborate on a project where learners are challenged to create interactive content to be displayed and demonstrated on their screens at BETT. This opportunity provides learners with unparalleled professional networking and presenting opportunities.

At the stand NK30, LDE UT6th form and Redborne Upper School joined forces to showcase their incredible soundscape and animation presentations. Using the Promethean ActivPanel 10, learners showcased our multi school, collaborative ELP which incorporates Redborne Soundscapes with LDE animations. This ELP supported key elements of the OCR Digital Media curriculum. Redborne Upper and LDE learners had the opportunity to participate and present a shared unit of work at the BETT Show (Digital Media Cambridge Technical Level 3 Unit 11 & Unit 16 creating soundscapes and virtual 3d scenes). This opportunity was not only a celebration of amazing digital work showcased on Promethean boards, but also a celebration of cross-school collaboration that is reflective of large industry projects.

Year 13 learner Sonny shares, *"The Betts Show was an exhilarating experience! Being able to present my work and talk on a microphone about using the splendid Promethean screens was astounding. If I had the opportunity to go again, I would in a heartbeat. It really made me feel that all the effort and hard work I put into my projects were rewarded with an exciting experience!"*

Day two: Intel panels

Intel is a major supplier of educational technology at LDE. Our CTO James Culley is a certificated INTEL technology coach and gold ambassador for the INTEL Skills For Innovation (SFI), making our college a contributor to their amazing teacher CPD and learning resources. We have had the privilege of collaborating with leading professionals at Intel, as they support us to showcase the industry importance of the curriculum topics we teach.

On the Teaching and Learning stage, Lyndsay Baker, Funmy Adeojo and LDE alumni Rosie joined Luigi Pessina to discuss Intel's #SkillsForInnovation resources and to highlight the impacts of our learner-led A.I. community workshop project.

Alumni Rosie shared, *"I have spoken at the Bett show three times now but this year I went a step further by talking in front of a bigger audience and I even got to wear a headset mic which was really cool! Being able to share the stage with Luigi, Lyndsey, James and Funmy who have done so much already in the world I felt so privileged to talk alongside them. I loved every second of the panel talk and love inspiring younger people to be confident."*

Meanwhile for Intel's Cigdem Ertem Keynote BETT arena presentation, she drafted in the support of Digital Media Teacher and CTO James Culley and learners Leia and Arifah where they discussed their cross-collaboration project led by Intel. For this project, learners were tasked to create a digital twin of an LDE classroom that present real world data of its energy use. Our Digital Medial learners had the opportunity to work on 3D modelling, data analysis and interactivity and our T level learners worked on data analysis and digital environments.

Reflecting on being given the opportunity to discuss this project at the BETT show, Leia shared *"The experience on the panel during the Bett show was a unique one, by actually discussing the progress of the intel project, it gave me an opportunity to understand how useful and vital this project was, not only for the course but also for employer skills. Having an opportunity to share this project in front of a large audience that was truly interested in technology was also great confidence boost and unforgettable day."*

"I couldn't be prouder of Leia and Arifah today, confidently describing technical concepts and speaking with confidence and control about our project in front of such a large arena audience too! Well done! A big thank you to Intel Corporation," James, CTO and Teacher of Digital Media.

Following the vibrant panel discussion Cigdem Ertem shared, *"I delivered my keynote at the Bett Global show today and it was such an incredible experience! Each of the past three years I have spoken in the Bett keynote Arena about how AI is coming, how it would change our workplaces and the ways we live, and of course, how it would transform education. In the meantime, the AI Revolution has started to impact all of us. So, this year I decided to bring educators, learners, policymakers and technologists to the keynote stage with me to show the impact AI is making on education, along with challenges, successes and personal stories about how Intel is supporting them in this evolution. It was a revealing and thoughtful conversation. Thank you to my panellists! We were able to show that AI is here and real — with personal examples and applications. What I loved the most is the confidence of the students, Leia, Arifah and Paarth."*

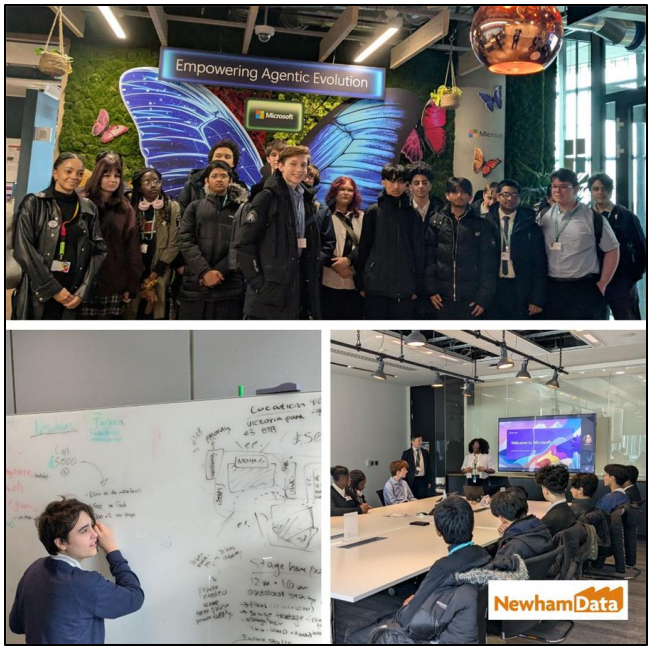
Day three: BETT show panel

A fantastic end to the week, year 12 learner Favour joined James as a panellist on the 'Empowering Futures' session to discuss employer engagement and education technology in the classroom. Favour made some fantastic points on mastering a generalists skill set and gaining real world experiences in the classroom.

Favour shared, *"On the panel I talked about the advantage getting technical experience, through working on employer-led projects. Meeting with the panel and conversating with each panel member was eye-opening for me and I feel I've learnt so much from this experience."*

What a week packed full of unforgettable experiences! A massive thanks to #Bett2025, Intel and Promethean for inviting us to be a part of such a special event and congratulations to our learners for making the most of this unforgettable opportunity.

Year 10 Learners Dive into Data Careers with Data Ambassador Programme



Over the course of five sessions, Year 10 Computer Science learners participated in the Data Ambassador Programme, a unique initiative aimed at preparing young people for careers in data and technology. Delivered in collaboration with industry professionals and facilitated by Newham Data, this hands-on programme provided learners with an array of essential skills including data ethics, interview techniques, problem-solving, and app development, concluding with an exciting visit to Microsoft headquarters. This programme strongly linked to the OCR Computer Science curriculum, reinforcing key concepts such as problem-solving, algorithmic thinking, data security, and software development.

The programme began with an interactive app design challenge, where learners applied computational thinking, algorithm design, and robust programming principles. Working in teams, they were each assigned roles with each learner being responsible for one of the following areas: leadership, design & tech, sales, marketing, and finance. Through collaborating as a team, learners gained firsthand experience in project management and problem-solving towards of the aim of designing an app. The session encouraged learners to develop confidence, leadership skills, and teamwork, with employer mentors offering guidance throughout the process.

In the second session, learners engaged in interview training and practice, receiving expert advice from professionals in data and computing careers. This session not only enhanced their oracy but also provided a real-world understanding of job application processes and industry expectations.

The third session focused on data ethics, legislation, and responsible data use. Learners explored key topics such as copyright ownership, the importance of ethical data handling, and the role of legislation in protecting digital information. This session reinforced the idea that technical skills must be accompanied by ethical awareness and data security practices, ensuring that future professionals are well-equipped to navigate the increasingly digital landscape.

The fourth session provided an insider's perspective on problem-solving in the workplace, featuring insights from professionals working in multinational companies like Microsoft. Learners gained valuable strategies for tackling real-world challenges in computing and data-related careers, broadening their understanding of the industry landscape and career pathways.

The programme culminated in a visit to Microsoft headquarters, where learners toured the offices, engaged in hands-on activities, and applied their newly acquired skills in an immersive workshop. This experience solidified their learning from previous sessions while exposing them to the front lines of the industry many of them are interested in working in.

Teacher of Computing, George, shared: *"The learners have experienced a diverse range of tasks and skills, from interview techniques and data handling to app design and computing in multinational companies like Microsoft."*

Design

T Level Learners Visit Ardmor

LDE UT6th form T Level Design, Surveying and Planning for Construction learners had the exciting opportunity to visit one of Ardmore Group's construction sites in Hackney!

As well as supporting learners to understand the application of different roles and responsibilities on a construction site, this visit supported learners with the units 'relationship management' and 'construction and the built environment industry' on the T level course.

Learners enjoyed engaging presentations shared by staff with diverse skills in H&S, Project Site Engineering and Senior Design Management. One of the highlights was hearing from Joe, an apprentice at Ardmore, who shared his journey and the invaluable skills he's gained through his apprenticeship. His confidence and enthusiasm were truly inspiring for our learners!

A big thank you to Ardmore Group for providing such a unique and insightful learning opportunity for our young learners seeking to enter the construction industry.

Reimagining the Royal Docks: A Vision for Sustainable Development

A plot of land totalling 400,000 square metres located on the Royal Docks has been left largely vacant for over two decades. Where investors have allowed this space to become a wasteland, with problems and restrictions too difficult to overcome, our year 12 T Level Design Surveying and Planning for Construction learners must propose a mixed-use solution. They have been tasked with delivering a sustainable development grounded upon local community benefit, environmental responsibility and social value and present their ideas in a Crit to leading professionals in the Architecture research institute at University of East London.

As a framework for our learners to create their transformational mixed-use vision, the project has been split into four phases: research (site analysis), concept designs, final design + master plan and creating the final crit that will be presented at UEL.

To further support our learners through this extended employer led project, we invited Christoph Hadrys to deliver a masterclass that explored these four phases. Christoph is a lecturer in architecture at UEL and is also on the design team that have been tasked with presenting solutions for this area, making him a perfect person of aspiration for our learners.

In the research and site analysis stage of the project, learners must find out about site constraints, the surrounding area, existing infrastructure and historical significance. Christoph shared a detailed overview of the site and area surrounding it. He spoke about the height restrictions of buildings in the area due to the nearby airport and other constraints placed on the area due to the river.

He also presented different masterplans of the area proposed by various architects throughout the last two decades and detailed the vision and aims of their designs. This helped to inform our learners with phase two of the project where they must produce 2-3 conceptual designs aligned with their mixed-use vision for the area.

Finally, Christoph shared some of his and his colleagues conceptual work, sketching and drawings that they have produced for the land. These concepts considered the use of this space in a range of compelling ways with considerations such vistas to make the area walkable and have an accessible view of the skyline, developing the area based on where people are most likely to congregate and seeking out sustainable solutions to make the water line less harsh. Our visitor showcased impressive isometric drawings, plan views and sketches to our learners which will no doubt inform them in the final two stages of their project.

"Christoph spoke through his proposed framework plan for the area of unused land, highlighting key principles of land use planning, sustainability, and site development which directly align with the T Level curriculum. His talk gave learners insight into the history and expected structural arrangement of the area to meet the requirements of 'what makes a good city'. Through sharing his concepts and drawings, he also illustrated the expectations and standards of the industry," shared Midia, teacher of the T level course.

As our learners embark on a project totalling over 30 hours, which is both closely linked to the T level curriculum and representative of skills needed in the construction and architecture industries, Christoph's masterclass offered a vital source of information and inspiration.

"Christoph's talk completely opened my eyes to what this project could be and the potential of this area. Learning about the history of the area was really informative because he was really passionate about it. For my crit, I hope to achieve a fun, vibrant and enjoyable area with buildings that can benefit the community and reflect the diversity of Newham," T level learner, Jasmeen.

Exploring Circular Economy and Carbon Impact in Construction

Year 12 T Level learners in Design, Surveying, and Planning for Construction recently participated in a masterclass led by We Made That, an architecture and urbanism practice renowned for its commitment to public sector projects and equitable urban development. This session provided valuable insights into the circular economy and doughnut economics, directly linking to the curriculum by exploring sustainable practices within the construction industry.

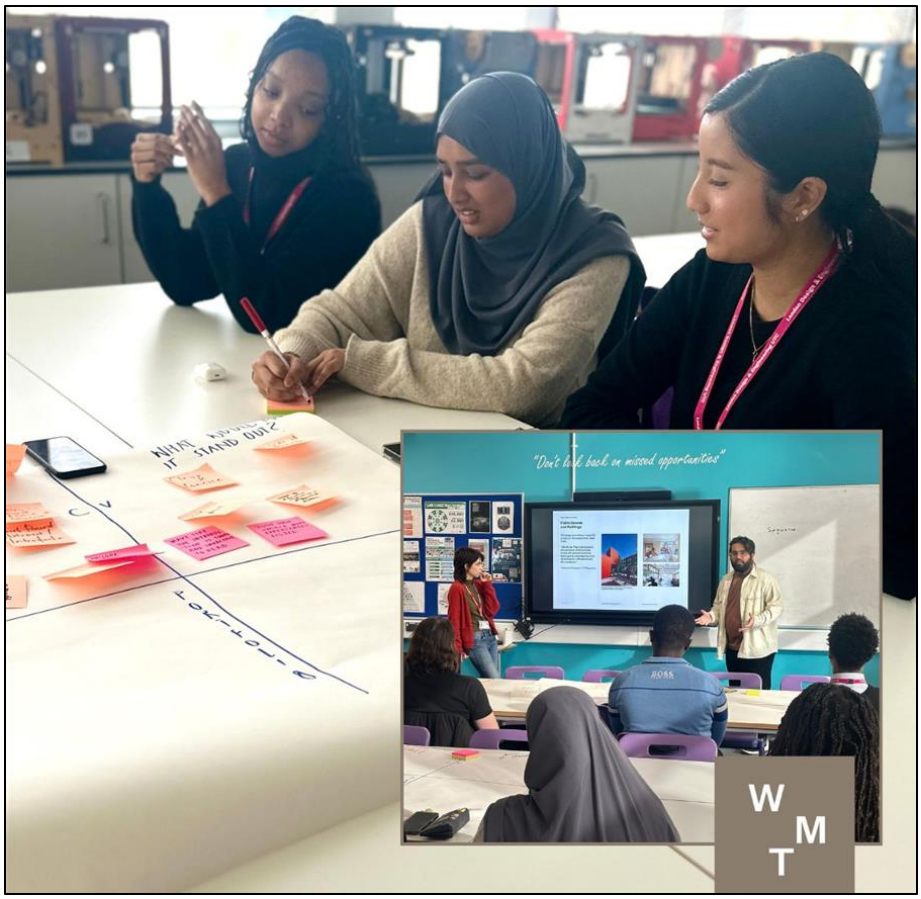
During the masterclass, learners explored how materials and resources can be reused, repaired, and recycled to minimise waste in construction, aligning with circular economy principles. They also discussed doughnut economics, a framework that balances economic development with social and ecological responsibility. A key focus of the masterclass was understanding the role of carbon in construction, from embodied carbon, encompassing emissions from raw material extraction to construction, to operational carbon, accounting for emissions during a building's use. Through dynamic discussions, learners analysed the environmental footprint at different stages of a building's life cycle and proposed strategies to mitigate its impact. The session also encouraged learners to apply these sustainability principles to their local high streets, considering how urban spaces can be designed to benefit communities while ensuring long-term environmental sustainability.

This engaging session provided learners with a practical understanding of sustainability in construction, inspiring them to think critically about their future roles in the industry. Learner Feranmi reflected, *"The session with We Made That was an eye-opening experience as it taught us the importance of being aware of the impact of carbon emissions and how society have the power to change things, so our future is not harmed. This session inspired us to implement our knowledge of sustainability and think deeper on how we can benefit society."*

We are proud to collaborate with industry experts like We Made That, ensuring our learners gain the skills and awareness needed to shape a more sustainable built environment.

"LDE UTC have been very welcoming with us. Yetunde, Saad and the staff have created a supportive and warm environment for us to deliver the workshop and for the learners to take part in the activities. We're really pleased that the students engaged with the activities and found the session informative," Silvia Commisso, Senior Urban Designer.

We Made That Mentor



We Made That returned to the college to deliver an interactive masterclass for our year 12 T-Level in Design, Surveying, and Planning for Construction learners and year 13 Built Environment learners. The session provided valuable insights into various career pathways within the built environment sector, worked on writing CVs that stand out, explored how to craft compelling portfolios and exposed our learners to unparalleled insight from industry professionals.

The T-Level in Design, Surveying, and Planning for Construction course focuses on preparing learners for the construction industry, emphasising sustainability, digital technologies, and the practical aspects of design and project management. We Made That's approach aligns perfectly with these goals, as their work in urban regeneration, placemaking, and equitable design demonstrates a strong commitment to sustainable and socially responsible practices, while also incorporating innovative design and project management strategies.

Zeeshan, a Year 13 learner, reflected, *"The session provided me with an insight into future career paths within the architecture industry. I also realised how versatile architecture can be, opening up many career opportunities."*

Bennet added, "It was an informative workshop, offering insight into the world of architecture and the necessary steps to become a chartered architect."

Saad, teacher of the T-Level course, shared: *"We Made That truly created a special environment for our T level learners looking to get into the industry. There were questions and discussions throughout the session and our learners left not only informed but truly motivated to pursue a career in or related to architecture."*

English & Humanities

Daniel Rosenthal Masterclass

To help our year 10 English learners gain a broader understanding of Macbeth, we invited leading author and lecturer Daniel Rosenthal to deliver a masterclass exploring the on-screen recreations of Shakespeare's works. This masterclass supported our learners with GCSE AQA English Literature Paper 1, Section A.

Daniel has lectured on Shakespeare and film since 2001 as well as publishing influential books exploring the different ways productions have translated the iconic works of Shakespeare onto to the screen.

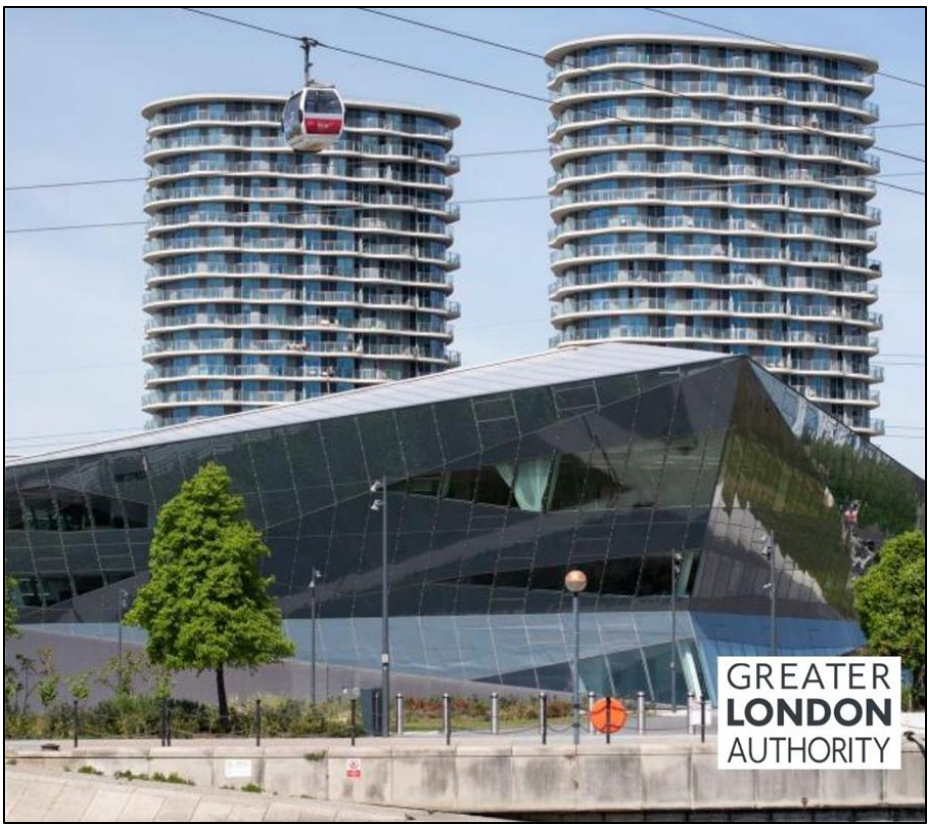
With such an interesting expertise within the study of Shakespeare, Daniel was able to help our learners explore and cultivate alternative interpretation and different perspectives towards Macbeth. Throughout the masterclass, learners discussed the different forms of Macbeth (e.g. stage, screen and text) and how this affects how the story is told. Learners also watched and discussed clips from differing on-screen adaptations, focusing on key elements such as staging, plot and character portrayal. As each adaptation explored during the session was an alternative interpretation of Macbeth, learners were led by our visitor through many new and exciting ways of approaching this play.

Reflecting on the impact of exploring Shakespeare in this way, teacher of English Aminul shared: *"Daniel is a truly exceptional professor who is an expert on Macbeth. He stretched and challenged the views and perspectives of our learners as they reconsidered their understanding of themes, key characters, staging and many other elements of the text."*

As well as kindly offering his time to inspire and spark ideas in our learners, Daniel also donated signed copies of his books to the college library should our learners wish to delve further into what was explored during this session.

"The class were a very engaged and responsive audience. I hope the session has provided useful food for thought as they continue to study Macbeth." Daniel Rosenthal.

Exploring Sustainability: Year 10 Geography Learners Visit City Hall



Our Year 10 Geography learners recently visited the new City Hall in Newham, supporting with their understanding of urban sustainability—a key component of the AQA GCSE Geography curriculum's 'Urban Issues and Challenges' unit. This unit examines the complexities of urban growth and the pursuit of sustainable urban development.

City Hall, formerly known as The Crystal, is a neo-futuristic building that achieved the highest sustainability accolades from LEED and BREEAM upon its completion in 2012. Initially serving as an exhibition centre for sustainable architecture, it became the headquarters of the Greater London Authority (GLA) in January 2022, following its relocation from Southwark.

During the visit, learners engaged with a council member to discuss urban regeneration from economic, social, and environmental perspectives. They also explored London's historical development, gaining insights into the city's evolution and the GLA's role in promoting sustainability initiatives, such as the Ultra Low Emission Zone (ULEZ), which has significantly improved air quality in recent years.

Reflecting on the experience, teacher of Geography Nawid shared, *"This trip provided our learners with invaluable real-world insights into sustainable urban development. It allowed them to connect classroom learning with the dynamic processes shaping London's future."*

Field Studies Council River Profiling Practical

Our Year 11 learners embarked on a field trip to Epping Forest, working alongside professionals from the Field Studies Council to conduct their river profiling fieldwork. Epping Forest was chosen for its rich variety of geographical features, making it an ideal location for studying river systems in action.

For GCSE Geography Paper 3, learners are required to describe and evaluate the methods used to collect data in their fieldwork investigation or explain how their fieldwork improved their understanding of a geographical issue. These questions require learners to discuss data collection techniques, analyse their findings, and evaluate the effectiveness of their approach. The field trip provided an excellent opportunity for learners to develop these essential skills.

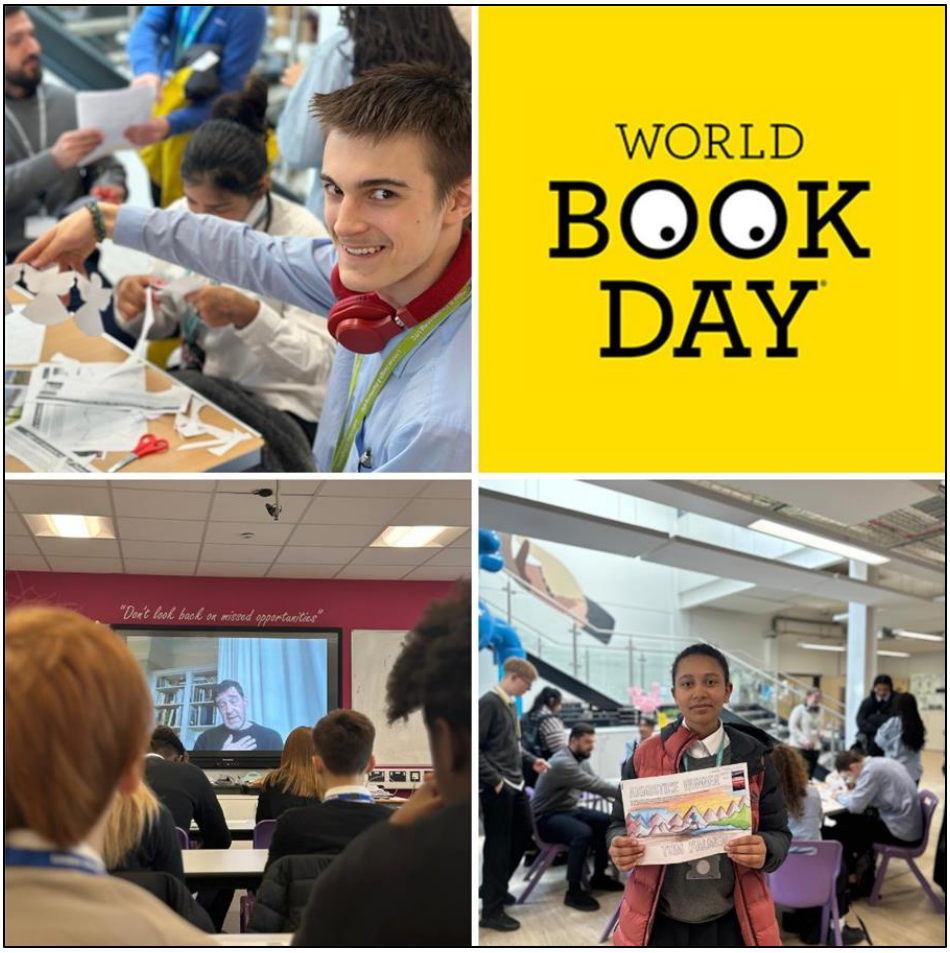
To support them through this process, we enlisted the help of the Field Studies Council, who have over 80 years of experience in delivering environmental education. Throughout the day, learners engaged in various data collection methods, such as transect studies to examine the physical features of the river and environmental quality surveys to assess the surrounding ecosystem. They measured key features of the river, such as its width, depth, and flow velocity, to analyse how these change at different points along the river's course. Learners also had the opportunity to evaluate the environmental quality of the area by assessing factors like vegetation and water quality. In addition to applying practical fieldwork skills, learners were encouraged to collaborate with professionals from the Field Studies Council and work in teams with their peers to communicate their findings and verify their conclusions.

Teacher of Geography Nawid shared the value of our learners taking part in this trip in preparation for their exams: *"The river profiling trip provided learners with hands-on experience, enhancing their understanding of physical geography and fieldwork techniques. As they measured various features of the river, the learners developed critical observation, data collection, and analytical skills. This practical engagement not only reinforced their theoretical knowledge but also encouraged teamwork and problem-solving in a real-world setting."*

Learner Abdullahi reflected on the trip, saying, *"It was great to see geography in action. Doing the river profiling made me realise how much more there is to learn by being in the environment and applying the methods we've studied in class. It really helped me understand the concepts better."*

The combination of field-based learning and collaboration with experts gave learners valuable insights that will support them not only in their exams but also in developing skills that are highly valued in any career.

World Book Day with Tom Palmer



To celebrate World Book Day, we held a series of events throughout the college day to celebrate the power of that can be uncovered when taking the time out to read.

During registration learners enjoyed 'The Voice' reading activity, where mystery members of staff read out extracts from different texts. As well as guessing who the staff member was that was reading, learners also discussed the different texts, how they varied in their subject and style whilst also engaging in wider discussions about the role reading has in their lives.

In English lessons, our year 9 learners were virtually visited by Tom Palmer, an accomplished author of over 60 children's books. In preparation for the session, learners discussed different questions to give the author. The session was spent with Tom talking about his relationship with reading growing up, his pathway into becoming an author and answering the questions the learners prepared. During the session, Tom praised our learners' questions, even sharing that they had inspired him with new ideas and ways of looking at his creative practise! From tips on writing and idea generation, to the responsibilities authors have when writing about real life events – the masterclass with Tom traversed many interesting and informative topics.

Learner Hallima shared, *"The talk was really inspiring as I am currently writing books of my own. It was interesting to hear about all the different places he draws ideas from."*

Finally, we celebrated WBD during our lunchtimes with various creative writing activities focused on the author Tom Palmer and how our learners can generate starting points for their own stories.

"It was truly rewarding to see Tom Palmer inspire a real level of engagement from our learner, especially our reluctant readers. We are grateful that he was a part of our World Book Day activities, and I look forward to reading the work of future published alumni!" Assia, Reading Lead and teacher of English.

Learners Take to the Stage with The Globe Players

Our Year 10 English Literature learners recently took part in a hands-on masterclass with actors from The Globe Players, enhancing their understanding of Shakespeare's texts. This exciting session allowed learners to act out key scenes from the plays they are studying for their GCSEs, offering a unique opportunity to experience the texts as they were originally intended—on stage. By embodying the characters and actions, learners gained deeper insights into the writer's intentions and the impact of his choices, helping them better interpret and engage with the text.

The session also included discussions with the actors, enabling learners to develop their inferences and better understand the historical and social context of Shakespeare's work. This interactive approach gave them the tools to critically analyse the language and themes in a fresh, dynamic way, supporting their GCSE exam preparation.

Kate, English Lead Practitioner, praised both the learners and the visiting actors: *"It's been a fantastic experience for our learners to engage with Shakespeare in such an interactive way. The Globe Players brought the text to life, and our learners responded with enthusiasm, demonstrating their engagement and deeper understanding of the material."*

Macbeth at The Globe

Selected Year 10 and 11 English Literature learners travelled to the Globe Theatre to enjoy a daring production of Macbeth, directed by Lucy Cuthbertson. This production was created especially with young people in mind, pairing modernity with Shakespearean language and bringing a new dimension to the learners' understanding of historical and social context.

Watching the performance of Macbeth in the setting of the Globe Theatre was like being thrown back into the heart of the playwright's period, helping learners to develop a greater appreciation of the play. When a play steps off the page and onto the stage, it comes alive in a new way—the interaction between the audience and actors becomes a sacred dialogue, giving fresh meaning to key moments of tension, humour, sorrow, and catharsis.

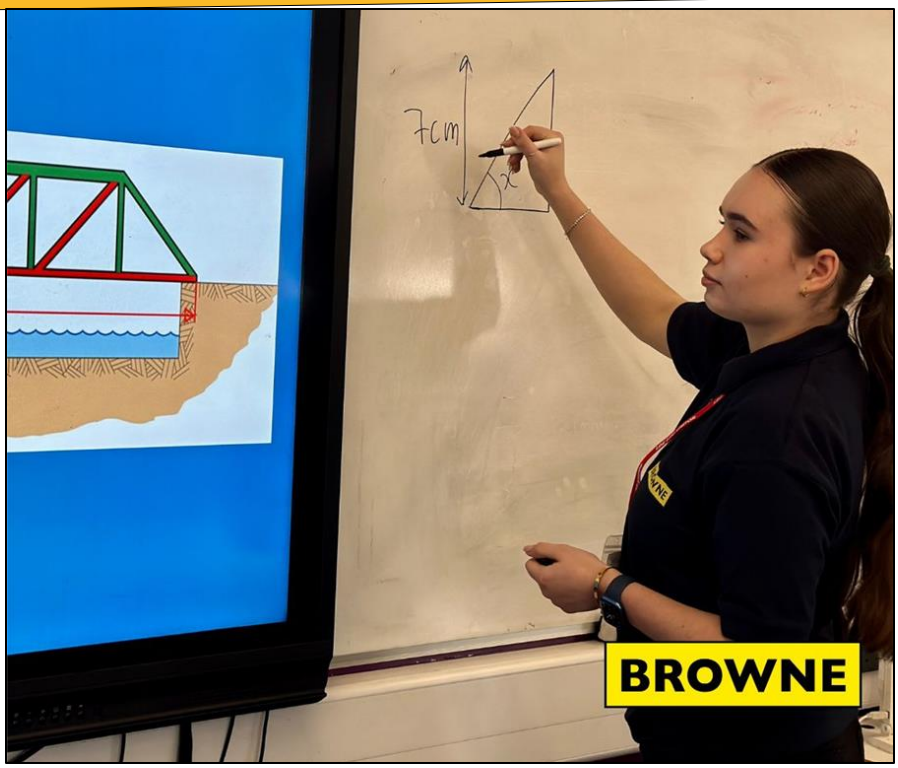
Year 11 learner Lorella shared, *"I enjoyed every minute of it!"* Her enthusiasm echoed the excitement of her peers, who were captivated by the immersive storytelling and dynamic performances. Reflecting on the experience, English Lead Practitioner Kate said, *"Seeing our learners engage so passionately with live theatre was inspiring. The Globe is truly a magical place where literature comes to life."*

The Globe theatre's bold adaption of Macbeth reinforced the timeless relevance of Shakespeare's work - proof that great theatre has the power to transcend time, place and generations.

Mathematics

Browne Group Trigonometry Masterclass

***"Students often ask this question, especially in maths: 'When am I ever going to use trigonometry after I leave school?' By delivering these maths masterclasses and connecting them to real-life situations within engineering, we help students understand why it's important and where it can be applied," Sophia* Bruce, Learning and Development Advisor.**



Our year 10 GCSE maths learners enjoyed a masterclass by Browne, working on trigonometry. Focusing on SOH CAH TOA, our visitors delivered a session that demonstrated the real-world applications of trigonometry through industry inspired worded maths problems. As this masterclass aligns with Unit 1 on the KS5 Engineering course, Browne group will also deliver this session to our year 13 engineers.

Browne Group's visitors began the session by sharing some of the operations they undertake, including wastewater maintenance, developer services, clean water networks, and infrastructure projects. They explained how the application of trigonometry is important in utility services, offering case studies of projects to example this.

Halima, our math teacher, shared, *"Seeing maths transcend theory and be put into industry specific, practical scenarios is both beneficial as a source of inspiration for our learners and a way to work on critical thinking skills as learners must read through worded problems and decide correctly where to apply their knowledge of trigonometry."*

Learners were challenged to use trigonometry in bridge design style worded problems, highlighting how SOH CAH TOA is applied in finding missing sides and angles in right-angled triangles.

The session concluded with an interactive Q&A, giving the learners the opportunity to quiz our guest about all things maths and utility related.

What now after mocks?

Sean year 11

Selected year 10 learners were invited to attend an event organised by Advanced Mathematics Support Programme (AMSP) called 'Girls into Maths'.

This event offered learners an opportunity to be inspired by all that maths has to offer at KS5 with exciting problem-solving challenges. *"The event was fantastic, our learners thoroughly enjoyed themselves. ASMP presented maths problem-solving questions in escape style games where learners worked together in groups of 5 to creatively think and collaborate,"* Gazala, teacher of Maths.

Learners also enjoyed insights from female role models sharing their mathematical journeys. Through these talks, learners explored an array of exciting maths related topics such as Florence Nightingale and data visualisation, forensic accounting and the world of finance, the maths behind a google search and even the use of maths in space exploration. Learners also got to hear a presentation by Professor Aoife Hunt MBE on the exciting world of crowd-modelling.

"The 'Girls into Maths' event was so much fun because we got to participate in a mathematic escape room activity where we had use skills that we learnt in school and apply them to solving problems in the room. ASMP presented maths in a new way, it was like they made maths into riddles and we had to work together to solve them!" year 10 learner, Kierrana.

Thanks to AMSP for inviting us out to such an inspiring day for our female mathematicians and showcasing role models they can aspire to emulate in the STEM field.

Unlocking Potential: Year 10 Learners Develop Core Enterprise Skills

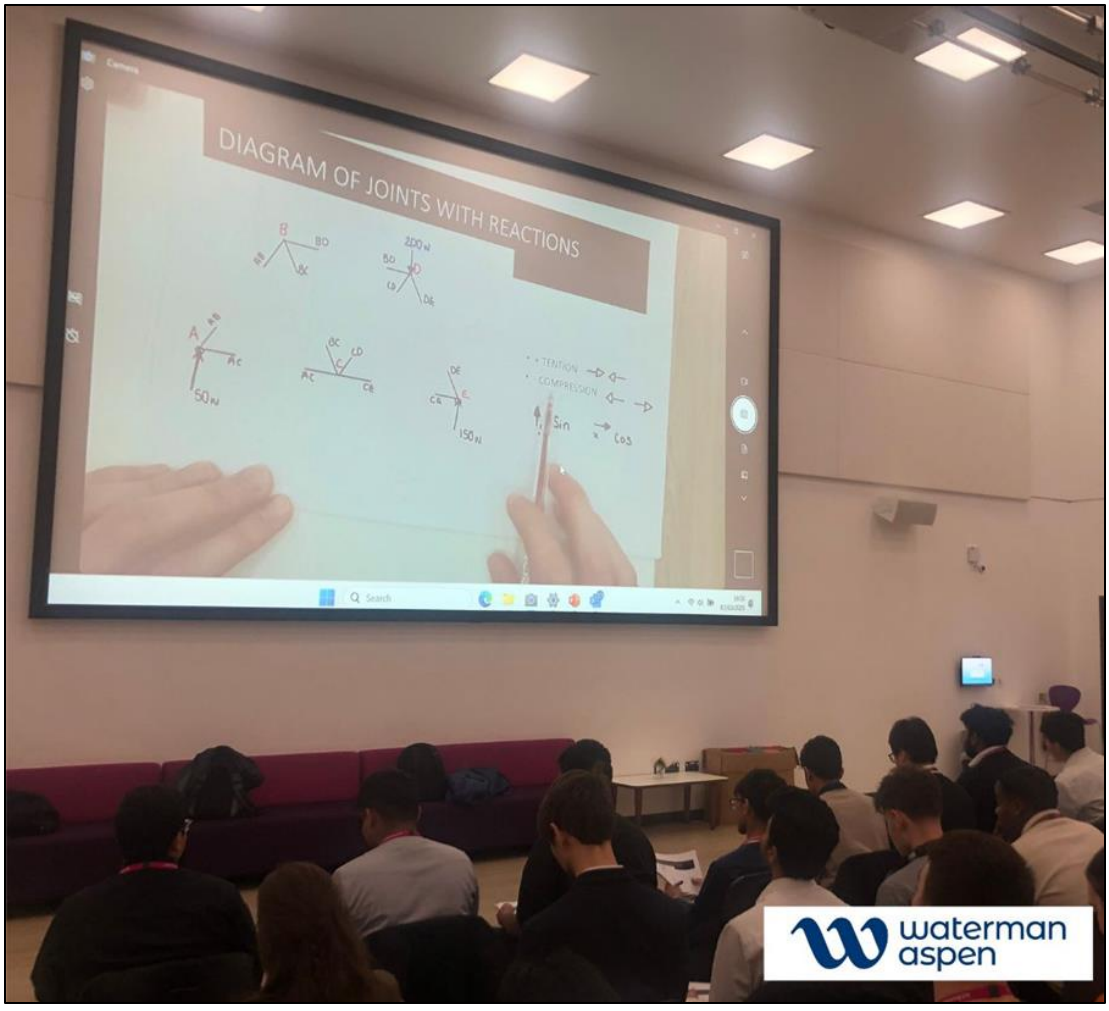
Our year 10 Enterprise learners enjoyed an Award-winning core skills development programme, delivered by Cleon Wilson from The Talent Foundry. This masterclass focused on helping learners to develop the skills and attributes they possess to reach their potential.

During this interactive session, consisting of various self-reflective activities, learners explored their professional personalities, worked on employability and soft skills and identified how they can apply their own talents towards future career ambitions.

This masterclass aligned closely with the Pearson BTEC Enterprise curriculum, particularly Component 1: Exploring Enterprises and Component 3: Promotion and Finance for Enterprise. In Component 1, learners examine the characteristics of enterprises and the skills needed by entrepreneurs. The session's self-reflective activities, where learners explored their professional personalities and identified their talents, directly support this by enhancing their understanding of the attributes vital for enterprise success. Meanwhile, Component 3 focuses on developing key employability skills such as self-management and professional development. The emphasis on soft skills and career ambition in this workshop equipped learners with the competencies necessary to apply their talents effectively in future business and enterprise contexts.

"Thank you to the Cleon and The Talent Foundry for working closely with the college to deliver key areas of the curriculum in such a dynamic and interactive setting," Teacher of Business and Enterprise, Sharian.

Truss Calculations with Waterman Aspen



Our A-Level Maths learners recently participated in a masterclass led by Waterman Aspen, gaining valuable insight into the role of maths in civil engineering and construction. This session aligned directly with the Edexcel A-Level Maths curriculum, particularly Chapter 4 – Moments and Chapter 5 – Forces, helping learners apply their mathematical knowledge to real-world structural engineering.

The masterclass focused on truss bridge calculations, exploring the mathematics behind moments and forces in equilibrium. Learners examined different truss bridge styles, including Pratt, Howe, and Warren designs, before tackling calculations used in real engineering projects. With guidance from industry professionals, they worked through truss bridge problems, deepening their understanding of the forces acting on structural frameworks.

By applying their classroom knowledge to real-world problems, learners gained a clearer understanding of how maths underpins civil engineering and infrastructure. Rhys, A-Level Maths teacher, praised the session, saying: *"This was a fantastic opportunity for our learners to see how the mechanics of moments and forces are used in real-world engineering. The interactive approach really engaged our learners, and the industry insight from Waterman Aspen was invaluable."*

Thank you to Waterman Aspen for an inspiring and insightful session, bringing A-Level Maths to life through civil engineering.

Science

National Grid Visit LDE

Leading employers from National Grid visited our learners to deliver an exciting project – in teams of eight, year 10 learners had to build an electricity pylon for National Grid. We were privileged to be visited Emma Cattermoul; the Recruitment Coordinator from National Grid Asset Operations, Fergus Hynd; Senior Manager and Nicolette Whittaker; Coordinator from National Grid Social Mobility team.

The electricity pylons were part of a line of pylons taking electric cables from a substation to the customer's home. The teams had to build a working pylon to the specification National Grid provides. They were equipped with the following building materials: KNEX Box, pylon spec brief, measuring tape and a top tips sheet.

Learners were given different roles:
Construction Engineer - responsible for the fabrication of our transmission tower.

Electrical Engineer - responsible for making sure the transmission tower can carry the overhead electrical cables. The Electrical Engineer must collaborate with the Construction Engineer so that your transmission tower can carry the cables.

Spokesperson - responsible for presenting the team's transmission tower to the clients. They must deal with media enquiries and present their group's pylon in the most professional way possible.

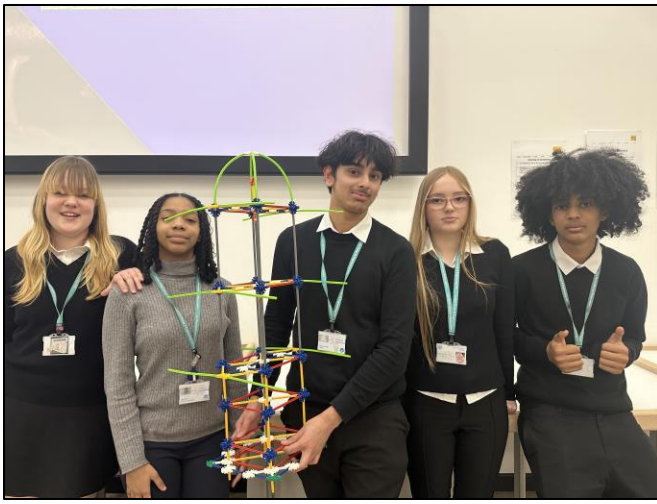
Head of Customer Liaison - responsible for handling any customer questions or complaints. The customers' complaints are briefed by the National Grid client.

On top of these roles, all learners are responsible for supporting the construction of the transmission tower or cabling.

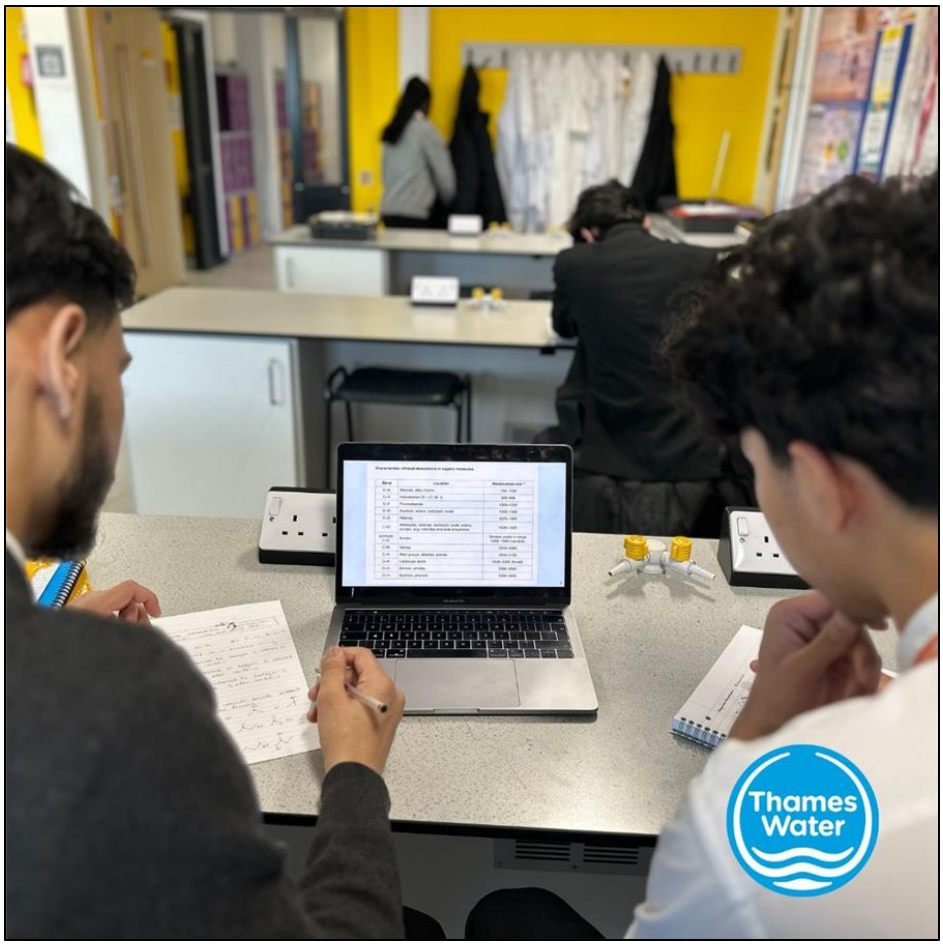
Learner Sapphire shared, *"I was chosen to the spokesperson for my group, and it was fun to do. I enjoyed presenting my groups ideas to the clients."*

Perla echoed her sentiments, sharing *"I have learned a lot of new facts about pylons and about what National grid works thanks to this activity. I also feel I developed teamwork skills with my friends who became colleagues for this challenge."*

Of all the amazing pylon designed, there were four winning teams chosen by National Grid judges for building impressive designs that met the design brief specifications and speaking articulately about their concept.



Spectroscopy with Thames Water



We invited Alex Ttofi to deliver a masterclass to our year 12 & 13 scientist offering a fascinating glimpse into the world of analytical laboratories. This showcased both routine and non-routine analysis of materials and chemicals.

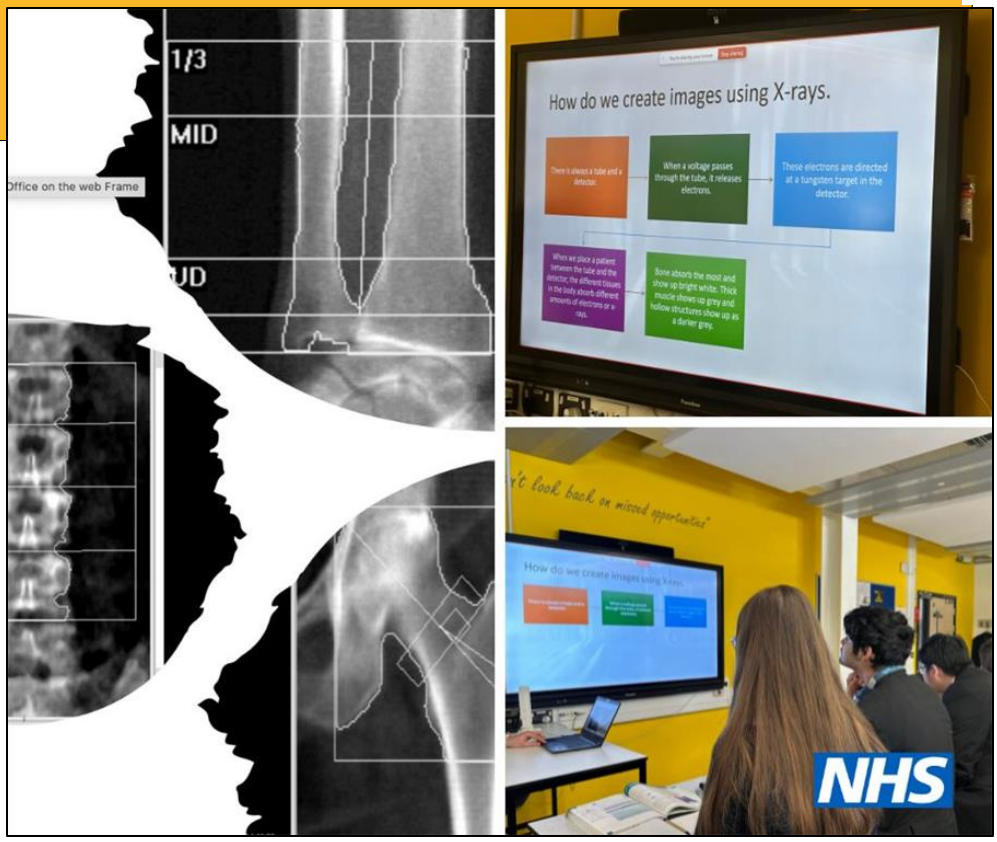
During the session learners analysed the lubricating oil from a racing car, where contamination was found to have caused significant damage to an expensive vehicle. They also explored the critical work that goes into ensuring that our drinking water remains safe from unexpected contaminants.

Alex shared the vital work he does for Thames Water. For our A-Level learners, who often study spectroscopy through abstract data analysis alone, this session was an eye-opening experience as they saw how spectroscopic, and separation equipment are used in real-world applications.

Teacher of Chemistry Babu shared, *"It was an engaging and compelling session, punctuated with surprising elements that kept the learners captivated."*

The session sparked thought-provoking questions from the learners and proved to be a highly enriching experience.

Masterclass in Medical Imaging with Lead Radiographer Laide Bashoru



For OCR A level Physics, learners cover Medical Physics – Using X-Rays. To support in the delivery of this key curriculum area, we welcomed lead DEXA radiographer Laide Bashorun to deliver a masterclass on her role at Homerton University Hospital Trust.

"Laide provided the perfect example of what we are aiming for at LDE: giving learners real insight into how the academic topics they encounter in the classroom are applicable in the workplace and wider society. The combination of detail about the DEXA process, comparison with other imaging techniques, and patient health considerations really brought learning into the real world. The volume and quality of student questions asked at the end, with comprehensive answers from Laide, demonstrated just how much they got out of it," Andy, Teacher of Physics.

Laide spoke about her career pathway into her industry and discussed the various routes our learners can consider taking. Then she delved into DEXA imaging, which stands for dual energy X-ray absorption. She shared the various uses for DEXA scans, discussed the benefits and disadvantages of it and compared it to other modalities of imaging such as MRI and nuclear imaging.

The session was concluding with a wide-ranging Q&A session exploring the medical industry, Laide's career and going into more depth about using X-rays. Thanks to Laide for bringing this key curriculum area to life!

"I found it a real pleasure engaging with potential future scientists and healthcare professionals, they asked great questions which demonstrated a well-rounded knowledge and a keenness in Physics and its intrinsic relationship to medical imaging. I am glad to have had the opportunity to share my experiences with such an engaging group of learners," Laide Bashorun, DEXA Modality LEAD Radiographer.

Careers

Local Leaders Visit LDE UT6Form to Learn About Innovative T-Level Courses

LDE UT6Form was delighted to welcome several distinguished guests, including Rokhsana Fiaz, Mayor of Newham; Howard Dawber, Deputy Mayor for Business and growth; Paul Nowak, General Secretary of the TUC; and Dan Bridge, Director of the Royal Docks Team. The visit showcased the exciting and forward-thinking T-level courses available to college learners.

T-Levels are a new two-year qualification designed for 16- to 19-year-olds. Equivalent to three A-levels, they are developed in collaboration with employers to help young people build the knowledge and practical skills they need for the workplace. The courses offered at LDE UT6Form focus on employer-led, project-based learning, which gives learners hands-on experience and prepares them for future employment.

During the visit, the guests were treated to demonstrations by learners enrolled in Digital Media, Mechatronics, and T-level design and Craft (Furniture) courses. The learners showcased their innovative projects, reflecting the creativity and skills they had gained through their studies.

One of the highlights came from Ilia, a Year 12 Mechatronics learners, who presented their project to the visitors:
"I was quite nervous to present my work, but because we've practised giving presentations before, I felt confident. It was really enjoyable to show the visitors our invention and see how impressed they were," Illia said.

The guests were impressed by the quality of the learners' work and the focus on practical, real-world applications. Mayor Rokhsana Fiaz commented on the significance of the opportunities provided by the college:
"The opportunities for young people here at LDE, many of whom come from Newham, are truly exceptional. It's inspiring to see the thought and effort that goes into designing courses that not only develop skills but also prepare learners for their future careers."

The visit highlighted the vital role LDE UT6Form plays in supporting young people from diverse backgrounds to achieve their potential. The emphasis on project-based learning, combined with a strong connection to industry, ensures that learners graduate with both confidence and competence to thrive in their chosen fields. By fostering partnerships with local leaders and employers, LDE UT6Form is making a lasting impact on the community and shaping the future of education in Newham.

LDE Host College Fair

As part of our commitment to ensure that our learners have all the information they need to make the best decisions about their next steps, we hosted a college fair for our year 10 and 11 learners. The colleges who attended were London Screen Academy, Waltham Forest College, New City College, Access Creative College, Newham College as well as ASK who shed light on apprenticeship opportunities.

Whilst we would love for all our amazing learners to remain at LDE for sixth form, we recognise that some may wish to study alternative courses elsewhere. We have an entry criterion for enrolment onto our year 12 courses at LDE and therefore, seek to ensure that our learners have access to information on alternative colleges and apprenticeships as they make decisions that decide their future at the end of year 11.

To ensure the continued development of young people, our career programme spans from year 9 to year 13 with sessions taking place throughout the year.

Careers Fair with a Difference!

Learners attended an engaging careers fair at the Guildhall, organised by the City of London Livery Companies. The event showcased a wide range of professions, trades, and crafts, offering valuable insights into diverse career pathways.

Hands-on experiences brought careers to life, with learners witnessing skilled professionals in action—from watchmaking to basketmaking. Interactive demonstrations and practical tasks introduced them to unique job possibilities.

Beyond observation, learners engaged in discussions with experts, gaining guidance and inspiration for their future careers. This invaluable opportunity broadened their horizons and deepened their understanding of various industries.

"At the careers event, I was able to learn about soft skills and how they could help me achieve a job but also how to make my character stand out. We got to meet all types of people including manager and people who working in accounting and also got to do interesting tasks such as sketching a picture based on a description," Zack, year 10 learner.

A huge thank you to the City of London Livery Companies for organising such a dynamic and inspiring event!

Exploring Excellence: Year 12 Learners Experienc Cambridge University

Selected Year 12 learners were chosen to visit Cambridge university, enjoying a taster day at Gonville and Caius College.

The University of Cambridge consistently ranks among the top universities globally and within the United Kingdom. In the 2025 Times Higher Education World University Rankings, it secured the 5th position worldwide. Within the UK, Cambridge achieved the top spot in the Complete University Guide's 2025 rankings.

By providing learners with direct exposure to university life and academic opportunities, learners are strongly supported with Gatsby Benchmark 7 (Encounters with Further and Higher Education). Experiencing the campus, attending talks, and engaging with lecturers and students help broaden learners understanding of higher education pathways. Such visits allow learners to explore subject choices, entry requirements, and career prospects, enabling them to make informed decisions about their future. By immersing themselves in a prestigious academic environment such as Cambridge, learners can raise their aspirations and gain a clearer perspective on what studying at a top university entails.

Throughout the day, learners enjoyed a talk about how Oxbridge differ from any other university, how to apply to Cambridge and what to consider when applying. They enjoyed a Q&A with the admissions tutor, where he explained to us the key features of a successful application, and what to look out for when writing our Personal Statements. They also enjoyed a tour delivered by students of Gonville and Caius college, followed by a delicious lunch in the beautiful dining halls. The day was concluded with a taster session, where the group split into two and enjoyed a STEM session and Humanities session.

Reflecting on the day, Ans shared, *"Before coming to Cambridge, my initial perception of it was an elite university with a very prestigious reputation, which is very hard to get accepted into. However, from my visit today, I realised that this was not the case. Cambridge is a very welcoming and surprisingly normal University with ambitious students, who are passionate about the subjects they study. Overall, I had a thrilling experience here at Cambridge today. I learned a lot about the application process, and I look forward to applying here in the future."*

Thanks to Gwyneth Hamand, London Outreach Officer, for facilitating this aspirational experience for our learners.

Preparing for Success: Building Confidence Through Mock Interviews

Seventeen companies visited our college to support selected year 11 & 13 learners who are considering apprenticeships, by conducting mock interviews to help them gain practical skills and insight into giving informed responses to prospective employers.

In attendance were professionals from Costain Group PLC, Skanska, AGGORA Group, Borras Construction Ltd, Browne Group, Canary Wharf Group, Galldris Group, Jerram Falkus Construction Limited, National Grid, Morgan Sindall Construction, Morgan Sindall Infrastructure, Schneider Electric, Tilbury Douglas, Kilnbridge, Neilcott Construction Limited, Reds10 and Berkeley Group Plc.

As our Year 13 learners approach their post-college pathways, mock interviews are a practical way of equipping them with confidence and insight into an essential step on their journey toward their desired career. Mock interviews support several Gatsby Benchmarks for good career guidance. They align with Benchmark 5 (Encounters with Employers and Employees) by providing learners with real-world interactions with professionals, helping them understand employer expectations. Additionally, they support Benchmark 3 (Addressing the Needs of Each Pupil) by offering tailored feedback, helping learners improve their employability skills. Finally, mock interviews reinforce Benchmark 8 (Personal Guidance) by complementing individual career advice with practical experience.

Though interviews may be views as a daunting undertaking for many, our learners were able to walk through this process in a non-pressurised environment, with industry professionals who were able to help our learners best articulate their skills and experiences. Learner quote.

Learner Tahiyyah shared how the mock interviews helped her grow in confidence, *"I did feel quite tense at first, but I grew in confidence as the interview went on. When I have interviews in the future, I can use the experience and feedback gained from this mock interview to help me be better prepared."*

Harry Nicholson, Graduate Planner at National Grid, who conducting mock interviews with our year 13s shared, "The students I saw were a great example of what to look for when holding such sessions and were genuinely inquisitive when they got the chance. They displayed great passion for what they were talking about, which was really refreshing to see."

These mock interviews provided our learners with valuable hands-on experience, helping them feel more confident and better prepared for future opportunities, whether in job interviews, apprenticeships, or university admissions.

Thank you to all the employers who took time out to invest in our learners.

Creating my Future Careers Fair 2025

Our college proudly hosted its annual Careers Fair—ensuring our learners gained meaningful employer encounters, personal guidance, and insight into diverse career pathways. This year we successfully brought together a wide range of organisations to engage with our learners.

Those in attendance were AGGORA Group, Aspectus, BA Cityflyer, Bouyges, Construction Youth Trust, Costain Group PLC, Cubic Transportation Systems, Galldris Group, Hill Group UK, Jerram Falkus Construction Limited, Keltbray, University of East London, Kingston University, University of Hertfordshire, Greenwich University, Coventry University, University of West London, Escape Studios, Loughborough University, City University, University of Staffordshire, Oxford Brookes University, Schneider Electric, KeolisAmey Docklands, Morgan Sindall Construction, Morgan Sindall Infrastructure, National Grid, Neilcott Construction Limited, NG Bailey, Mace, PlanBee, Powerday, Royal Air Force (RAF), Ramboll, Reds10, Royal Navy, Skanska, Stagecoach London, TfL Places for London, Thames Water, Vistry Group, Bunzl UK and Ireland and Volker Fitzpatrick.

Throughout the college our career's provision ensures to offer vibrant and varied experiences. The Careers Fair is truly a culmination of this – directly supporting several Gatsby Benchmarks, including Benchmark 1: A Stable Careers Programme, as it has become an established part of our career's strategy, consistently delivering high-impact employer and university engagement. Benchmark 2: Learning from Career and Labour Market Information was met by providing learners with crucial industry insights and vocational guidance directly from professionals. Benchmark 5: Encounters with Employers and Employees was evident as learners engaged in meaningful conversations with industry representatives, gaining first-hand exposure to different sectors. Finally, Benchmark 7: Encounters with Further and Higher Education was fulfilled through universities and apprenticeship providers offering valuable information about post-college opportunities, broadening learners' aspirations.

Learners of all year groups eagerly networked with potential employers, apprenticeship providers, and university representatives. Exhibitors praised their professionalism and enthusiasm, highlighting their eagerness to explore future career paths. Many learners left with valuable insights, key industry contacts, and a better understanding of their potential pathway.

Our Careers Lead Janice reflected on the significance of the day, sharing *"The Careers Fair has provided our learners with direct access to employers, universities and apprenticeship providers all in their very own lecture hall. The level of engagement from our learners was truly commendable and we look forward to the future success stories that arise from this day."*

A heartfelt thank you to all the organisations that contributed to this successful event and to our learners for making the most of this invaluable experience. We look forward to continuing this tradition, ensuring our learners are well-prepared for the exciting futures ahead.

International Women and Girl's Day in STEAM

To celebrate International Women in STEAM, our teacher of Engineering Famida (along with support from the EDI team) organised a morning filled with inspiration for our female learners and staff. With the aim of celebrating the achievements of inspirational women and girls, we invited 25 industry leaders to take part in panel discussions, lead our learners through interactive activities and be a part of our networking session.

Our panel talk was centred around what our panellists have achieved, where they have come from and their career pathways and how our learners can accomplish their aspirations. To host this conversation, we were privileged to invite Arti Hala who is an Executive Coach, trainer and consultant specialising in confidence and communication with three decades of experience in tv presenting, media, and business. On the panel, we enjoyed hearing from a diverse range of professionals:

Cydonie De-Gale – CEeng MCIBSE Squadron Leader, RAFAC: Cydonie studied Mechanical Engineering at UCL gaining both a BEng and MSc and moved into the construction industry as assistant MEP project manager. She also volunteers her time in London Wing of the Royal Air Force Air Cadets as a Squadron Leader, mentoring young people and helping them foster an interest in aviation and learn skills for life.

Rebekah Datt – Social Impact Coordinator, Balfour Beatty: With a background in health, safety, and environment, Rebekah transitioned into her current role two years ago, bringing a unique perspective to project teams focused on social impact. Her commitment to supporting underrepresented groups has allowed her to work on initiatives that promote inclusivity and create lasting, positive change within the industry.

Maz Weineck – Modelmaker, Stanton Williams: Maz has a degree in modelmaking from the Arts University Bournemouth and gained experience in prop-making and museum exhibit making before focusing on architecture. They are passionate about using their art and skills to help charity organisations and have had their art auctioned at fundraising events alongside artists such as Antony Gormley and Banksy.

Skye Maclean – Trainee Site Manager, Hill Group: A valued alumnus of the college, Skye now works as a site manager where every day is different and filled with dynamic challenges. Skye is motivated by making her family proud, and aspires to complete her degree, achieving a first class honours and becoming a site manager.

Lorraine Casey – Pre-Construction Director, Lovell: Lorraine began her career as an estimator in 1999, steadily progressing to senior estimator, associate director, and eventually preconstruction director, where she has successfully coached and led teams to achieve outstanding results.She embraces change and possesses effective change management skills, which are essential in navigating the ever-evolving business climate, political landscape, and technological advancements.

Although these panellists stretched across the field of STEAM, they all shared the same passion for fostering community and using their experiences to impact others which really showed through the inspiring conversations had at the event. Year 13 learner Corina shared, *"I was fully absorbed in the conversation, I acknowledged how important is to be confident and independent thanks to the inspirational stories of our guests."*

Learners also enjoyed interactive activities where our employers shared key insights about their respective industries. Reflecting on one of the workshops, a fantastical chocolate wielding session led by inventor, author and presenter Ruth Amos, year 11 learner Nina shared, "This was such a creative way to approach a strand of engineering, I really loved it!"

Following a networking lunch with over 25 different professionals, learners enjoyed speeches from the CEO of Baker Dearing Trust Kate Ambrosi and Ruth Amos. The event was then concluded with Q&A where learners and audience members shared all that they have had gained throughout the day.

As a result of this unforgettable morning, learners were left motivated, encouraged and informed about a variety of careers. Thanks to all the female industry champions who took the time out of their day to inspire the future STEAM trailblazers of the world.

A special thanks to: Lorraine Casey, Rebecca Clearly, Lily Fearnhead, Hannah Rastrick, Cydonie De – Gale, Katy Eddington, Susan Lloyd, Keshini Nonis, Monique Campbell, Rebekah Datt, Sandra Connor, Skye Maclean, Ivy Edemafaka, Lauren Foster, Dawn Helsby, Montoyé Baker, Caitlyn, Carol Glenn, Dunni Adebiyi, Nieves Valle, Annabel Cook, Maz Weineck, Arti Halai, Kate Ambrosi and Chioma Fanawopo. The meaningful conversations you had with our learners will leave a lasting impact.

Apprenticeships

Apprentices Visit the House of Commons

Geoffrey Fowler, CEO, Sharna Rolle, Head of Apprenticeships, and three engineering apprentices from London Design & Engineering UTC, along with Elena Fowler, a Year 10 student at Bedford Modern School, had the remarkable opportunity to visit the House of Lords after receiving an invitation from Lord Mair CBE, Chair of the All-Party Parliamentary Engineering Group (APPEG). They were part of 60 participants from across the country who engaged in a debate on engineering solutions for achieving net zero.

The apprentices, including one studying at Level 3 and two at Level 4, found the experience both inspiring and educational. Chris, a Level 4 Civil Engineering apprentice, remarked, *"It was an honour to represent LDE UTC at the event held at the House of Lords, where we explored the pivotal role of civil engineering in driving sustainability and highlighted advanced solutions for a more sustainable future."*

In addition, Elena reflected on her experience and described the event as an "honour" and found it "inspiring, interesting, and educational."

The debate featured esteemed speakers, including Professor Paul Shearing from the University of Oxford, who spoke about advancements in battery technology and the potential of lithium-sodium combinations to revolutionise production. He also highlighted Norway's innovative efforts to repurpose electric car batteries for energy storage, significantly extending their lifespan. Professor Andy Sloan from COVI UKP discussed large-scale infrastructure projects, such as Sizewell B and Hinkley C, focusing on sustainable nuclear energy solutions and cutting-edge hydroelectric power initiatives.

Leon, also a Level 4 Engineering apprentice, described the event as *"an inspiring and fulfilling lunch conference with civil engineering leaders, sharing insights and celebrating innovation in the built environment!"* The event provided a unique opportunity for attendees to engage with leading figures in the engineering sector, offering valuable insights into the future of sustainable energy.

This remarkable experience encouraged the apprentices and students alike to explore potential careers in engineering, inspiring them to contribute to a greener, more sustainable future.

O'Reilly Precast

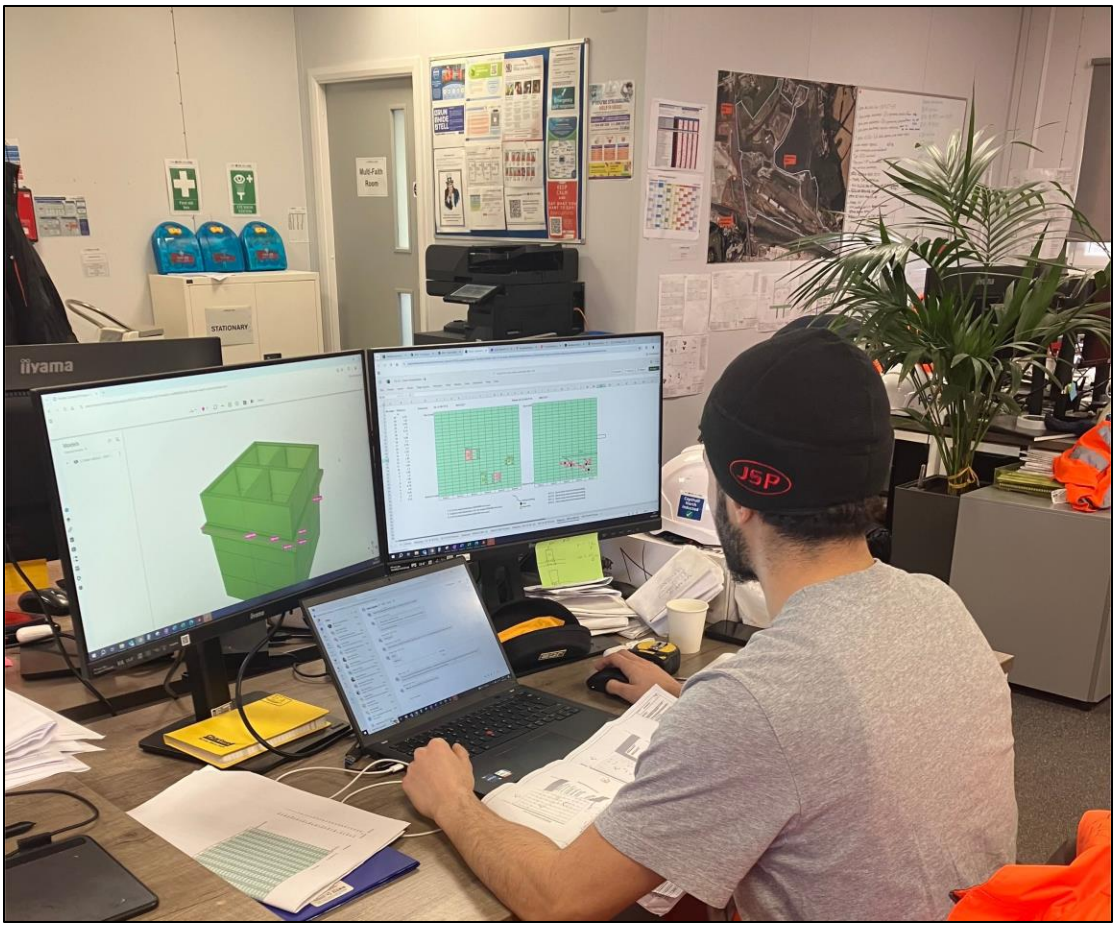
We invited Shane Galligan, Head of Sales at O'Reilly Precast, to deliver a masterclass to our Civil Engineering Apprentices exploring the benefits of precast concrete construction. This session offered apprentices industry insight into the manufacturing, processing and technology of construction materials with the specific focus on precast construction projects. As this content is also relevant to our T Level Design, Surveying and Planning for Construction, they were also invited to be a part of the session.

Precast concrete is a form of concrete that is prepared, cast and cured off-site, usually in a controlled factory environment and then brought onsite to be assembled. O'Reilly Precast offer a complete range of precast concrete solutions resulting in the company becoming one of the market leaders in the UK and Ireland.

Shane offered our apprentices and learners insight into a leading modern method of construction. He explored the different advantages of precast construction such as having the option of offsite production which is beneficial to construction projects in areas with limited space such the inner city. Our visitor spoke about the working environment at O'Reilly and the roles and responsibilities of his role.

"Shane's industry expertise helped our learners to consider the construction design process, an important part of the curriculum, through the lens of an innovative construction company. Thank you for taking the time out to visit and we hope to work with you again in the near future!" Yetunde, Subject Lead of Built Environment. that they presented to leading architect Clare Penny.

A day in the life of an Apprentice: Anwar



Here is a glimpse of the day in the life of one of our fantastic apprentices studying here at Engineering Skills College:

My name is Anwar, and I'm a Level 4 Apprentice Civil Engineer with STRABAG, working as part of the SCS JV team on the HS2 project. Outside of work, I enjoy weightlifting and MMA as hobbies that keep me active and focused.
I was drawn to this apprenticeship because it offers the perfect blend of hands-on experience and structured learning, allowing me to develop both practical skills and technical knowledge. Working on a major project like HS2 provides an incredible opportunity to be part of something impactful and challenging, while also building a solid foundation for my career in civil engineering.

A typical day at work involves a mix of office and site-based activities. I start by reviewing project plans, schedules, and any updates with the team. On-site, I assist with inspections, monitoring construction progress, and ensuring that work aligns with design specifications and safety standards. I also collaborate with engineers, supervisors, and subcontractors to resolve any issues and keep the project on track. The variety in my role keeps every day interesting and helps me learn something new.

After I complete my apprenticeship, I aim to become a qualified and chartered senior engineer.

Anwar is just one of the many apprentices we have helped to educate and gain professional competencies in partnership industry leading companies.