# ICE London’s innovative education initiatives build pipeline for future civil engineers



The Institution of Civil Engineers (ICE) in London offers a comprehensive support framework designed to inspire and guide those interested in pursuing careers in civil engineering. For individuals at various educational stages contemplating what subjects to study, ICE provides tailored advice and guidance. This support extends beyond students to include educators and others involved in promoting civil engineering careers, ensuring that the profession is accessible and well-understood. The ICE London branch maintains a rich repository of resources specifically aimed at those living and working in the region, targeting local schools and colleges to foster early career interest.

Among the standout resources is ICE Futures, an innovative and interactive website that employs character-led storytelling set within a dynamic 3D city environment. Through the journeys of characters such as Mae, Omar, and Robyn, users gain bite-sized insights into how civil engineering projects influence sectors like clean energy, sustainable development, and environmentally friendly urban planning. This platform is crafted to align with educational curricula and helps illustrate the practical ties between academic subjects such as mathematics, science, and geography and civil engineering careers, thus enhancing students’ understanding of the field’s relevance.

Complementing digital engagement, ICE runs the CityZen competition, a multi-award-winning initiative aimed at providing practical, hands-on experiences for students. Supported by STEM Ambassadors, this competition encourages creativity and problem-solving by inviting young people to tackle real-world civil engineering challenges. Such active learning experiences are designed to instil enthusiasm for the profession while demonstrating the tangible impact of engineering work.

Additionally, the ICE Virtual Work Experience programme, accessible through the Springpod platform, offers young people aged 14 and above the chance to explore civil engineering careers through on-demand, interactive content. This free programme highlights the varied and rewarding opportunities within the profession, promoting a deeper understanding of how civil engineers contribute to shaping infrastructure and society.

For educators, ICE provides a broad suite of digital and printed resources suitable for students aged from 4 to 18. These educational tools include activities, case studies, and information crafted to meet curriculum standards, making it feasible for teachers to integrate civil engineering concepts seamlessly into their lesson plans. This effort underscores ICE’s commitment to nurturing interest in engineering from an early age and supporting educators with high-quality materials.

Further reinforcing its educational mission, ICE collaborates closely with academic institutions through its academic partnerships. These relationships are designed to enhance the quality and relevance of civil engineering instruction at both further and higher education levels. By facilitating research initiatives and sharing best practices between academia and industry, ICE aims to equip future engineers with cutting-edge knowledge and skills, preparing them for successful careers.

Lastly, the Education FAQs section on the ICE website serves as a valuable resource providing clear answers to common queries about studying civil engineering. It offers guidance on educational pathways, suitable subjects, and the range of career options within the profession, helping students, parents, and educators navigate the steps necessary to enter this vital engineering field.

Together, these initiatives reflect ICE London’s broad commitment to enhancing civil engineering education and career awareness from early schooling through to professional development, creating a pipeline of motivated and well-prepared future engineers.

### 📌 Reference Map:

* Paragraph 1 – [[1]](https://www.ice.org.uk/about-us/ice-near-you/uk/ice-london/education)
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Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.ice.org.uk/about-us/ice-near-you/uk/ice-london/education> - Please view link - unable to able to access data
2. <https://www.ice.org.uk/your-career/education-resources/ice-futures> - ICE Futures is an interactive website designed to help young people explore careers in civil engineering. It features character-led storytelling within a dynamic 3D city, allowing users to follow characters like Mae, Omar, and Robyn as they work on infrastructure projects. The platform provides bite-sized insights into civil engineering, demonstrating its impact on clean energy, sustainable development, and environmentally-friendly living spaces. It's a valuable resource for students, teachers, and careers advisors, aligning with curriculum standards and highlighting the connection between subjects like maths, science, and geography to engineering careers.
3. <https://www.ice.org.uk/your-career/education-resources/ice-cityzen-competition> - The ICE CityZen competition is a multi-award-winning, structured activity supported by an ICE STEM Ambassador. It offers an easy-to-run, engaging experience for students, encouraging them to explore civil engineering concepts through practical challenges. The competition is designed to inspire young people by providing hands-on activities that demonstrate the real-world applications of civil engineering, fostering creativity and problem-solving skills among participants.
4. <https://www.ice.org.uk/your-career/education-resources/virtual-work-experience> - The ICE Virtual Work Experience programme offers on-demand civil engineering experiences for individuals aged 14 and above. Hosted on the Springpod platform, this free programme allows young people to learn about the exciting and rewarding aspects of civil engineering. It provides insights into the profession, showcasing the diverse opportunities available and the impact civil engineers have on shaping the world.
5. <https://www.ice.org.uk/your-career/education-resources/teaching-resources> - ICE offers a comprehensive range of digital and free printed resources for students aged 4 to 18 years. These materials are designed to help educators and students understand civil engineering, its importance, and the pathways to becoming a civil engineer. The resources include activities, case studies, and information that align with curriculum standards, making it easier for teachers to incorporate civil engineering topics into their lessons.
6. <https://www.ice.org.uk/your-career/education-resources/ice-academic-partnerships> - ICE collaborates closely with further and higher education providers to support the development of civil engineering students and academics. These academic partnerships aim to enhance the quality of civil engineering education, ensuring that students receive relevant and up-to-date knowledge and skills. The partnerships also facilitate research opportunities and the sharing of best practices between academia and industry.
7. <https://www.ice.org.uk/your-career/education-resources/education-faqs> - The Education FAQs section provides answers to common questions about pursuing a career in civil engineering. It covers topics such as the subjects to study at school, the pathways to becoming a civil engineer, and the various career opportunities available. This resource is designed to guide students, parents, and educators in understanding the steps involved in entering the civil engineering profession.