

How professional bodies engage with the STEM Ambassadors programme



Background: Institution of Civil Engineers – Lily Speer, Education & Inspiration Administrator and Rachel Hayden, STEM Ambassador

The Institution of Civil Engineers (ICE) is a professional membership body and a registered charity. They support civil engineers through their career from when they are students through to becoming fully qualified and chartered. They advise government and industry, and lead the debates around infrastructure and the built environment.

The STEM Ambassador relationship

We use the STEM Ambassadors (SA) programme as our route to connect young people with civil engineering.

Any time a member asks about volunteering their time in a school, we send them to STEM Learning and tell them how to sign up as a STEM Ambassador. The programme is a great place to direct our members to: it is well-established, respected and known.

We promote the STEM Ambassadors programme to our members to encourage as many people to take part as possible.



Lily Speer

We also regularly review the opportunities available on the STEM Ambassador platform and share a selection of them in our newsletters. Occasionally we use the platform to list our own activities – we launched a digital competition for schools which was a bit like Sims for civil engineering, and we needed STEM Ambassadors to support it, so we advertised the opportunity ourselves.

It is essential that anyone who does outreach in a school on behalf of ICE has a valid DBS check, and this is something that our members can get through the STEM Ambassadors programme.

Although schools do approach us sometimes asking for someone to come and help them, **another benefit of the programme for ICE is that it provides our members with many more opportunities than we could offer them ourselves.** It's often the case that many generic STEM opportunities on the SA platform are suitable for our civil engineers, and then they can run the activity but also talk about civil engineering at the same time.

We also run our own STEM Ambassador of the Year competition, where we celebrate the activities that our members do on behalf of ICE.



My journey to becoming a STEM Ambassador – Rachel Hayden

I am a field engineer for an engineering, construction and project management company, and I've been a STEM Ambassador for six years.



Rachel Hayden

I went to an all-girls school in Jersey. No-one did engineering or even knew anything about it there. When I was 16, the Channel Island group of engineers did a competition to get students to build a bridge out of pasta. I entered the competition and I won!

After that, I applied for an Arkwright Engineering scholarship. I was the only girl who applied. The other applicants all brought the robots or computers that they had built. I brought a piece of jewellery that I'd made in a DT lesson at my school.

I left the interview wanting to go away and change the profession for other girls like me. If it wasn't for the competition and the scholarship scheme, I wouldn't have ended up in engineering myself. The next thing I did was to set up my own engineering competition for females called 'Building the Future – Shaping our World'. I started with schools in Jersey. I designed the competition, found sponsors locally and internationally, managed to get iPads for the winners and organised a ceremony on the island. And then I opened it up globally, getting schools from Nepal, India and elsewhere in the UK to take part. When I was 17, I flew over to the UK to present a trophy to the winners!

People asked me why I didn't open the competition to boys. **It was really important to me to encourage women to pursue a career in the engineering sector. I knew nothing about engineering when I ran the competition, but I was passionate about giving back to others and providing other girls with similar experiences to the ones that helped me to get where I am in my career.**

Once I was at university studying for my degree, I joined the Institution of Civil Engineers. They directed me to STEM Learning, and so I signed up to be an ICE STEM Ambassador.

About STEM Ambassadors

STEM Ambassadors is a fantastic volunteer programme that has been running for over 20 years.

Our volunteers offer their time, passion and energy to visit schools, colleges and youth group organisations to deliver requests from teachers and youth group leaders who want to link STEM subjects to the real world of work.

Find out more at our [information session](#).



Become a partner

Our STEM Ambassadors programme inspires the next generation and helps young people to develop the skills, confidence and mindset to build successful futures in STEM.

By running a STEM volunteer cohort we provide even more opportunities to connect young people to real-life STEM careers, prioritising support for those who need it most.

Find out more at our [information session](#).



My experiences as a STEM Ambassador

"Over the last five years I have reached somewhere between 21,000 and 22,000 students, according to the STEM Ambassador platform, but that's only part of the story! The conversations that come after a session that I've run, the sharing of the resources I've taken to a school, the publicity that comes from an event – all of these might have triggered who knows how many more people to consider engineering!

I find using the STEM Ambassador platform really easy. I use it to find activities where I can offer my time to schools and young people every month or six weeks. Since the pandemic there have been more online opportunities which have been easier to fit around my work. They've also given me the chance to interact with many more people than I can reach when I visit a single school.

I am always trying to encourage my colleagues to get on board with the SA programme too. I run sessions at work to promote it, I encourage other SAs to share their experiences, and I show people how they can sign up. There's often a misconception that to be a STEM Ambassador requires a big time commitment, but actually it is so flexible that you can do as much or as little as you'd like.



Whenever I do a STEM Ambassador activity, my first priority is to give young people an insight into what they can do and the things they can achieve as an engineer. I love to encourage them to do something that they will enjoy. I talk about being a civil engineer and my journey.

I think that young people can take life lessons away from listening to that even if they don't want to do the exact same job as I do. I talk to them about the hurdles I've overcome and the setbacks I've had and what they have led to. I want to inspire them and to reassure them! There is so much pressure on young people to focus on grades, but that's such a small thing once you are in the workplace – who you are as a person means a lot more.

I always signpost young people to the Institution of Civil Engineers and the opportunities like the Quest Scholarship which was set up to encourage young people to pursue careers in civil engineering. Schemes like this were such a big part of my own development – they are amazing opportunities.

I don't volunteer as a STEM Ambassador for myself – I do it to give something back as that's what's important to me. Giving someone your time is much more powerful than giving money. Young people get so much more out of this. If someone had just thrown money at me when I was younger, it wouldn't have had the same impact. I have only got to where I am today due to the opportunities and experiences I was given, and I want to be able to do that for other people.

Saying that, I get so much from being a SA. **I can have the worst day in the world, but then I do a mentoring session, or I speak to a group of kids and I leave beaming and re-energised, knowing that I made a difference!**

How to get involved

If you have been inspired by how STEM Ambassadors support the learning and development of young people across the UK and you'd like to know more, please contact us at employersupport@stem.org.uk or visit stem.org.uk/stem-ambassadors/partner-info

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