

STEM Ambassador Programme – Information for Employers

The Problem:

We know there's a Science, Technology, Engineering and Maths (STEM) skills shortage in the UK. Currently there is a shortfall of 173000 skilled workers¹ with 89% of STEM businesses struggling to recruit². The skills shortage is costing UK businesses £1.5 Billion per year in costs associated with longer recruitment times, training and temporary staffing². The number of new STEM roles is expected to double in the next 10 years which could result in economic disaster if the skills shortage continues¹.

Many young people remain uninformed about the opportunities and social mobility that a career in STEM can bring. STEM also has an image problem, with media portraying people in STEM roles as wearing white lab coats and being socially awkward. Whilst roles and colleagues like those portrayed in the media do exist, not all young people are able to identify with them. Young people need to see that "people like me" work and thrive in a variety of STEM roles.

The current picture in Greater Manchester:

There are 4 main growth sectors in Greater Manchester: Manufacturing, Financial and Professional Services, Digital and creative industries and Health Innovation³. Digital skills, in particular, will be needed not only in the digital sector, but across the most others as well, as digitisation and automation transform the way we work. We need the right skills to help Manchester thrive economically and help these industries reach their full potential. Currently, Greater Manchester is facing a skills gap in higher technical and technician levels (Level 3 qualifications and above)³.

What we're doing about it:

The STEM Ambassador scheme is a government funded role model volunteering scheme.

STEM Ambassadors are from a broad range of jobs and backgrounds who are passionate about inspiring young people to pursue STEM studies and careers. With a community of over 30,000 volunteers nationally, they are an important and exciting, free of charge resource for learners, teachers, youth and community groups and other individuals working with young people across the UK.

As professionals and specialists in their field, STEM Ambassadors bring real-life industry experience into context and enrich young people's knowledge of the breadth of STEM-related careers and opportunities available. They get involved in a variety of activities both in and outside of the classroom, including STEM Club activities, speed networking, mentoring and large festivals and fairs, as well as helping to develop resources or other forms of support. STEM Ambassadors can help provide a link between the curriculum and real-life skills whilst injecting the next generation of innovators with imagination and curiosity. Evidence shows that 90% of young people who engage with STEM Ambassadors say that it increases their engagement with STEM, helping them to make informed decisions about their future careers⁴.

Why should your business help?

Having a presence in the local community helps young people to understand the opportunities that are available to them locally, in the short term (e.g. school leavers entering apprenticeships), medium term (graduate and postgraduates) and long term (young professionals/early career). Not only will young people be aware of your name, but they also understand what you do and how it is relevant to their lives and the lives of their family and peers, promoting a positive and inspiring image of your industry. Contributing to the STEM skills landscape and eco-system in Greater Manchester by inspiring young people to build their STEM skills and continue with STEM subjects post-16, will mean that a higher proportion of these young people will have the skills you are looking for when you come to recruit in the long term.

In the short term your employees will become upskilled, and more motivated. Evidence shows that being a STEM Ambassador provides volunteers with a better understanding of education, increases their professionalism, confidence, enthusiasm and motivation while improving their organisational, communication, team-working and leadership skills. In fact, 90% of STEM ambassadors said that being part of the programme increased their sense of satisfaction with their work⁴. Together, this combines to increase a STEM Ambassador's employability, and supports their retention in a career within STEM-related employment.

How can your business help?

By signing your employees up to the scheme, you can help us inspire and engage young people, having a direct impact on their social mobility and life chances.

As part of the national STEM Learning Network, the STEM Ambassadors programme is working to make a difference in STEM education and address the UK's skills gap. Together, we can help those working directly with young people to deliver activities that are engaging and up to date with the current industry trends. Linking to real life examples can be vital when posed with the age old question of "When will I use this subject in real life?"

Taking part is free of charge to your business. You only need to pledge that your employees will complete one volunteering activity per year (but of course you can do more if you wish) – including activities that can be done remotely from your desk!

Anyone who is over the age of 17, uses STEM skills and is willing and able to excite young people about STEM subjects, can become a STEM Ambassador. Talk to holly.jones@scienceandindustrymuseum.org.uk to find out how your employees can register for the scheme.

We already have a CSR or volunteering scheme, why should we take part in the STEM Ambassador Scheme?

- Access to local young people and their influencers – We have links to the majority of state funded Secondary Schools in Greater Manchester, as well as links to primary schools, further education colleges and community groups. We can help advise and facilitate introductions to local schools that will help you meet your CSR objectives.
- A **free** enhanced DBS check for your employees recognised by schools and organisations working with young people
- The opportunity to be part of a nationally recognised volunteering scheme for STEM professionals and enthusiasts including invitations to regular networking events
- An enamelled STEM Ambassador pin badge for your employees to wear whilst taking part in activities
- Access to additional and ongoing training if desired
- Access to a physical and online resource bank that can be used by STEM Ambassadors delivering activities including: Lego Mind Storm and Lego WeDo Robots, 3D printer (A full list of resources can be provided on request)
- Full cover by our STEM Ambassador insurance when taking part in activities (if logged on your employees STEM Ambassador profile in advance)
- Opportunity to take part in high footfall events run at the Science and Industry Museum
- Opportunity to apply for national recognition and awards
- A twice monthly bulletin advertising other STEM volunteering opportunities in the Greater Manchester area (and beyond)
- Access to reporting on number of volunteer hours completed to feed into CSR reports or contract bids
- Access to the STEM Learning network with opportunities to support long term projects
- Access to cutting edge research into STEM communication and engagement which is used to inform and underpin our approach to engaging with young people

¹STEM Learning, 2018, '[Skills shortage costing STEM sector £1.5bn](#)'

²STEM Learning, April 2018, '[STEM Skills Indicator](#)'

³Greater Manchester Combined Authority, 2015, '[Greater Manchester Work and Skills Strategy and Priorities 2016 – 2019](#)'

⁴STEM Learning, 2016, STEM Ambassadors, '[Making an Impact](#)'