



The Employer Handbook

A guide for employers engaging in the
STEM Ambassador programme

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Welcome to the STEM Ambassador programme

Science, technology, engineering and mathematics are fundamental to meeting the challenges we face today and in the future. At STEM Learning, we believe every young person needs and deserves a world-leading STEM education, one that engages and nurtures their unique talents, and provides the knowledge and skills they will need to participate fully as the creators and citizens of tomorrow.

We need your help to do this – enabling all young people to engage with employers, to help them understand the possibilities open to them and achieve their potential, is central to what we do.

The STEM Ambassador programme is a fantastic opportunity for your organisation to make a difference – to young people, their schools and teachers, families and communities. In return, you will further develop your understanding of education today and strengthen links – with your local community and further afield. Even better, your staff will benefit too – developing their skills and confidence, and nurturing their pride in what they do.

STEM Learning is unique in the way that it works with teachers, schools, colleges, community groups, employers and others to support young people and give them the help and inspiration they need to be successful – as individuals, in their careers and within society. With your help, we can achieve sustainable, significant positive change for young people across the UK.

Employers have always been crucial to the success of the STEM Ambassador programme – never more so than now. Thank you for getting involved – we look forward to working together to achieve our shared goals.

Yvonne Baker
CEO, STEM Learning



STEM Learning and the STEM Ambassador programme

This handbook provides information on the STEM Ambassador programme and how your organisation can make the most of being involved. It outlines the support available to employers, helping you maximise your outreach and support your staff in delivering successful engagements. It is a reference tool that can be used flexibly alongside the additional resources on the [STEM Learning website](#), and as the programme grows we welcome your ideas on how we can make future improvements.

Who is STEM Learning?

The STEM Ambassador programme is managed by STEM Learning.

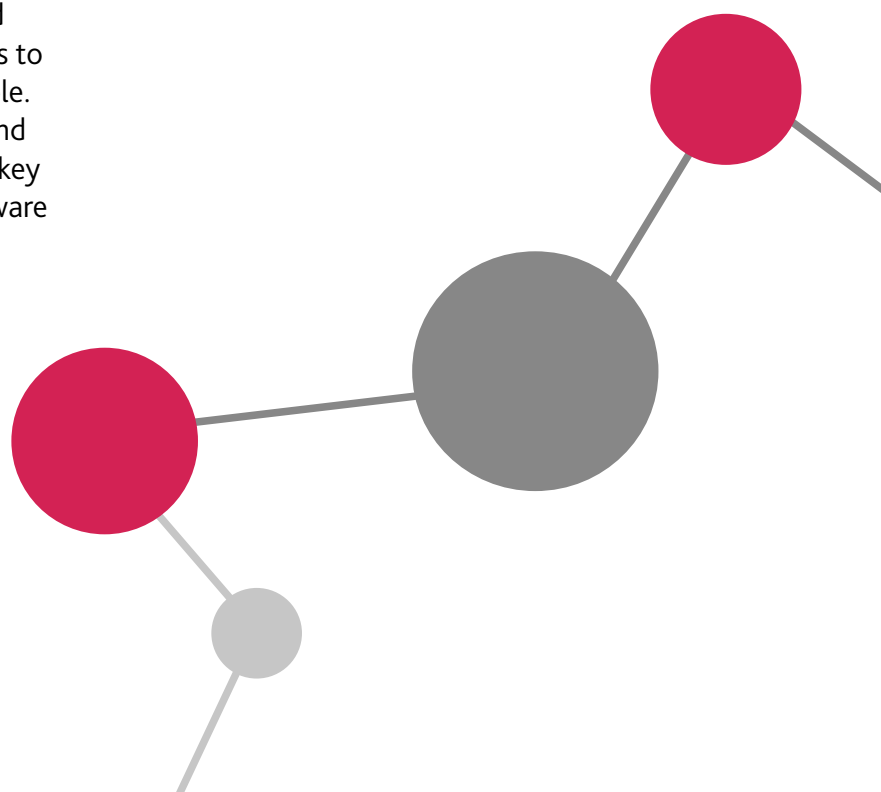
We are the largest provider of education and careers support in science, technology, engineering and mathematics (STEM). Our vision is to provide a world-leading STEM education for all young people across the UK.

Who are STEM Ambassadors?

STEM Ambassadors are positive role models, aged 17 years and over, who give their time and enthusiasm for free to help bring STEM subjects to life and demonstrate their value to young people. By working with schools, colleges, and youth and community groups, STEM Ambassadors play a key part in inspiring young people, making them aware of the wide range of opportunities available to them and the various career pathways.

Our regional network of 17 STEM Ambassador Hubs co-ordinate the volunteering opportunities of all our STEM Ambassadors. Your local Hub is your main point of contact if you have any questions and you can find their details on the [STEM Ambassador website](#).

The STEM Ambassador programme is supported by UKRI, the national funding agency investing in science and research across the whole of the UK.



What are the benefits of being involved?

- 1 Engage and develop your employees' skills and experience
- 2 Access to free training, online and face-to-face, and resources suitable for all ages through your local STEM Ambassador Hub
- 3 Flexible engagement to suit your organisation
- 4 Raise your profile within the local community, whilst also expanding your regional and national presence
- 5 Support your recruitment efforts, boosting your future technical and graduate pipeline
- 6 Offer specific and sector careers information to young people and their influencers
- 7 Local support from your STEM Ambassador Hub



"Knowing that we are part of a network of over 30,000 STEM Ambassadors all making a difference helps us to co-ordinate and target our outreach to where it is most needed."

Nicola Swaney
Rolls-Royce



A flexible programme

The STEM Ambassador programme is incredibly flexible in terms of engagement and commitment and can suit the needs of all companies, no matter the size of your business.

You set the level of engagement that's right for your organisation, and we understand that this may change over time. Whatever your level of engagement, we are here to provide you with support and help you achieve the impact you are striving towards.


Consider these questions:

- 1 Do you have an existing outreach strategy?
- 2 How do you track your existing outreach?
- 3 Why do you want to increase your outreach?
 - to support employees with training and skills development?
 - raise your organisation's profile in the community?
 - to support young people and educate them about your sector?
 - improve your corporate social responsibility?
 - drive local recruitment, highlighting career opportunities in your industry and organisation?
- 4 How many employees would you like to sign up as STEM Ambassadors?
- 5 What commitment would you ask from your employees?
- 6 How would you like to support your employees in their volunteering?
- 7 What support would you need from your local STEM Ambassador Hub?

Choose your level of engagement

The following table gives some examples of different levels of engagement and their benefits to your organisation:

Level of engagement	What does it look like?	Impact on organisation	Support from STEM Learning
Low	Encourage staff to sign up, sharing the STEM Ambassador handbook and sign-up guide. Allow time off for volunteering.	Increase morale and employee retention – companies that offer 1-3 days' volunteering time are more likely to retain staff and have a happier workforce. Develop skills such as communication and teamwork. Increase awareness of your sector and organisation.	Access to free training online and delivered by your workplace by the local STEM Ambassador Hub. Employees register as STEM Ambassadors and receive a free enhanced DBS/PVG check. Make connections with schools and the community and find volunteering opportunities using the STEM Ambassador platform.
Medium	Host a sign-up event. Develop targets around engagement with young people. Host activities at your site or plan your own bespoke activities to deliver to young people at school, in the community or online.	Improve local recruitment. Positive brand awareness. Develop relationships with schools and community groups.	We can help with volunteering management. Our employer reporting helps you set up events and keep track of hours of time volunteered to feed into reporting (see page 17).
High	Embed the programme into your workplace culture. Promoting it in inductions and including it as part of any apprenticeship or graduate programme. Run events for young people at your workplaces. Work with STEM Learning to develop bespoke resources for volunteers related to your company or industry. Appoint a volunteering or outreach co-ordinator.	Demonstrate sector leadership through best practice in outreach. Increase recruitment and retention at all career stages through a strong programme of CSR and employee development opportunities. Support the future pipeline in your organisation and sector.	Your local STEM Ambassador Hub can work with you to develop and implement an education outreach strategy. Creating careers resources for your organisation, supporting events and possible PR opportunities. We can also work with you to develop and implement an education outreach programme.



"We focus on employability skills and raising aspirations of local young people. Our staff are allowed time off to be mentors, deliver workplace tours and help with mock interviews."

"Each year our apprentices design an activity to deliver to local youth groups, this inspires young people in the community and also helps our apprentices develop skills such as leadership and teamwork."

"We have a STEM committee who agree our outreach aims and evaluate our projects. The committee design activities to deliver online or face-to-face, and staff choose their preference."

"Our employees complete one activity each year and share with others through our newsletter, this is great for staff morale and really raises the profile internally."

Managing your volunteers

STEM Ambassadors manage their volunteering via an online platform connected to the STEM Learning website or through the STEM Ambassador app. This allows them to easily find relevant, local opportunities and quickly make arrangements with teachers or community group leaders.

Volunteering is completely flexible and Ambassador activities can be carried out both online or face-to-face. In addition to this, organising training and volunteering opportunities offered to other STEM Ambassadors also counts towards your volunteering hours.

Every organisation has a different approach to volunteering and the types of activities they choose to deliver or support.

STEM Ambassadors can express interest to support existing requests from schools and community groups or alternatively can advertise their own Offer online, showcasing what they can offer their local community.

The more activities an Ambassador can support, the greater the impact they will have – but they are only expected to give as much time as they can spare. To keep their STEM Ambassador status, Ambassadors are asked to complete just one activity per year, however, many do more. Ambassadors must log all their activities on their STEM Ambassador profile and are recognised for their volunteering through our STEM Certificates and STEM Inspiration Awards (more information available on page 18).

What activities would you like to deliver or support?



Careers talk



Practical demonstration



Speed networking



Mentoring



Site visit



Science fair



School governor



STEM Club


Local support: STEM Ambassador Hubs

Your local STEM Ambassador Hub is available to support you with anything related to the STEM Ambassador programme. They are very happy for you to get in touch to discuss your plans and involve you in their local initiatives.

Get in touch

Contact details can be found on the [STEM Ambassador Hub webpage](#). You can also contact the national STEM Learning Employer Engagement Team at **employers@stem.org.uk**





"As a STEM Ambassador representing the armed forces I believe what I am doing is beneficial to young people, they can see I genuinely care and want to help. This has increased my confidence, creativity and desire to find ways to support young people. The response from students and teachers gives me inspiration every day."

Michael Hancock
British Army

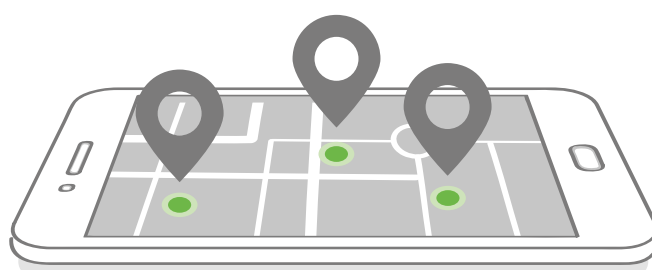
Support from your local Hub

Whether your organisation is completely new to the STEM Ambassador programme or has been involved with it for some time, your local STEM Ambassador Hub is there to answer any questions you might have and provide a range of support to help you get the most out of your outreach efforts and involvement.

Your local STEM Ambassador Hub can give guidance and help develop a strategy which will help you achieve your intended outcomes and embed the STEM Ambassador programme within your organisation.

How your local STEM Ambassador Hub will support your STEM Ambassadors	Help them find, create or plan STEM Ambassador activities
	Offer training (varies by Hub according to local needs)
	Help them through the registration and induction process, and provide them with a free DBS/PVG check
	Run STEM Ambassador networking events
	Free loan of resources from your local Hub's physical resource collection for activity delivery
STEM Ambassador support available at stem.org.uk/stem-ambassadors	Introduce local schools and community groups
	An access point to a library of downloadable resources and handbooks
	Access to online training courses
How your local STEM Ambassador Hub will support you as a STEM leader in your organisation	STEM Ambassador handbook
	Provide information on existing local STEM initiatives
	Ongoing help and advice to develop a strategy and run a successful engagement programme
	Add employer reporting access to your STEM Ambassador profile (more info on employer reporting on page 17)

The STEM Ambassador App is now available to download on Android and iOS devices, allowing STEM Ambassadors to manage their volunteering more easily.



Online support for your STEM Ambassadors

STEM Ambassador induction

The online STEM Ambassador induction prepares STEM Ambassadors for their role, providing further information about the STEM Ambassador programme, guidance for getting started and safeguarding training.

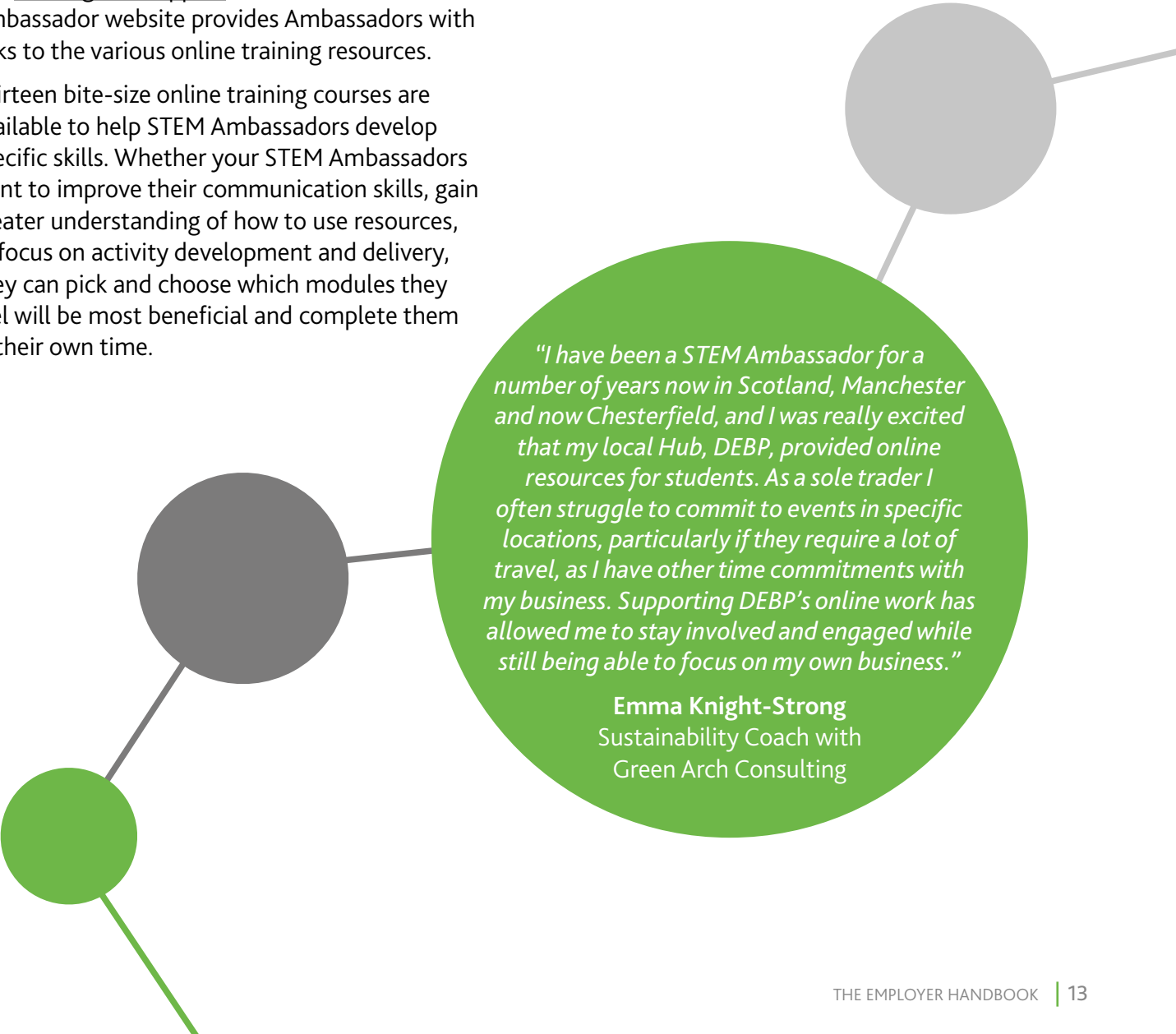
Further training

The [training and support](#) section of the STEM Ambassador website provides Ambassadors with links to the various online training resources.

Thirteen bite-size online training courses are available to help STEM Ambassadors develop specific skills. Whether your STEM Ambassadors want to improve their communication skills, gain greater understanding of how to use resources, or focus on activity development and delivery, they can pick and choose which modules they feel will be most beneficial and complete them in their own time.

STEM Ambassador handbook

The [STEM Ambassador handbook](#) is a guide to volunteering for new and experienced STEM Ambassadors. Following this guide will help STEM Ambassadors get the most out of their volunteering.



"I have been a STEM Ambassador for a number of years now in Scotland, Manchester and now Chesterfield, and I was really excited that my local Hub, DEBP, provided online resources for students. As a sole trader I often struggle to commit to events in specific locations, particularly if they require a lot of travel, as I have other time commitments with my business. Supporting DEBP's online work has allowed me to stay involved and engaged while still being able to focus on my own business."

Emma Knight-Strong
Sustainability Coach with
Green Arch Consulting

Inspiring and mobilising your STEM Ambassadors

1. Share your vision

- Share your vision with employees, explain how employees and the company benefit from being involved.
- Encourage your STEM Ambassadors to actively seek STEM outreach work.
- Support your STEM Ambassadors to make Offers on the STEM Ambassador website.

2. Provide opportunities

- Allow your STEM Ambassadors to drive the outreach of your organisation with their enthusiasm, holding meetings where they can share their ideas, propose strategies and discuss opportunities they are interested in.
- Provide employees with a volunteering allowance, usually one to six days of paid time to take part in STEM Ambassador activities, on or away from site. Alternatively, let your staff know that they can request volunteering time if they come across an opportunity they are interested in or have an activity that they want to lead on and deliver.
- Be ready to support your volunteers by supplying resources.
- Run internal networking events for volunteers.
- Add employer-led activities for your STEM Ambassadors to the website and track them using the employer reporting functionality.

3. Offer our resources

- Signpost STEM Ambassadors to attend networking events led by their local Hub.
- Encourage STEM Ambassadors to make use of available online and face-to-face training.
- Create teams of STEM Ambassadors to work together so they are not working on their own, or a buddy system to support new Ambassadors.

4. Grow the programme

- Promote your outreach internally through any channels you have eg your newsletters, website, intranet etc.
- Embed STEM outreach goals in employees' Performance Development Plans.
- Work with your local STEM Ambassador Hub to identify target schools and link with other institutions or membership organisations.
- Develop an internal rewards or recognition system for employees involved in STEM outreach. Find out more about STEM Learning's recognition schemes on page 18.



"Our STEM Ambassadors receive direct skills because they are given the opportunity to plan, set up and lead events. Whilst carrying out these activities they react to questions from students and pass on feedback and words of encouragement, which in turn helps our STEM Ambassadors to grow in their own leadership skills."

Paul Byrne
STEM Ambassador and Director
of Sales and Technology at
Lear Corporation

Health & safety/Insurance

Approved STEM Ambassadors are covered by our insurance policy whilst undertaking activities. The online STEM Ambassador induction outlines the health and safety guidance that all STEM Ambassadors are required to follow, including safeguarding training.

Responsibilities

STEM Learning	To provide insurance and health and safety training to all involved with the STEM Ambassador programme.
STEM Ambassadors	<p>Their own health and safety.</p> <p>Duty of care for young people, this involves reporting anything of concern to the activity organiser.</p> <p>Assisting the activity organiser by providing a risk assessment of the activity they plan to deliver; this may not be required if the activity organiser already has a risk assessment for the planned activity. If the STEM Ambassador is running an activity at their workplace they would also need to supply the activity organiser with a site risk assessment which can then be adapted by the activity organiser to address the possible risks associated with the group visiting.</p>
Activity organiser The organiser of the activity is generally the teacher or youth/community group leader. On rare occasions, STEM Ambassadors are classed as activity organisers when they are running their own event at a venue separate to their worksite eg an exhibition at a conference centre.	<p>Supervise young people for health and safety and behaviour.</p> <p>Making sure that the correct risk assessments are in place before the activity takes place. Help and support on how to carry out a risk assessment can be obtained from your local STEM Ambassador Hub.</p>

If you have any questions or concerns regarding health and safety or insurance, then contact your local STEM Ambassador Hub.



Employer reporting

STEM Learning has developed a purpose-built employer reporting system which can be added to your STEM Ambassador account. This enables organisations to support and manage outreach of their own STEM Ambassadors. Once the registration process is completed, including signing a Data Sharing Agreement by the appropriate member of your organisation, STEM Learning will activate this feature on your account. It provides access to up-to-date information which can be used to mobilise your STEM Ambassadors and better understand the reach and impact of their activity.

Employer reporting allows you to:

- access an overview of activity for all STEM Ambassadors from your organisation (eg the total number of STEM Ambassadors, number registered in the past year, hours of volunteering, activities completed)
- review who is registered as a STEM Ambassador within your organisation
 - please note: only details of employees who have agreed to share their details with your organisation will be shown. If they have not consented, their volunteering hours and activity numbers will still be shown but they will be anonymised
- apply search filters to see a list of STEM Ambassadors from a specific location, who have registered between a specific date range, who are no longer active or whose DBS is due to expire
- advertise and manage STEM Ambassador activity on behalf of your organisation, with the ability to invite STEM Ambassadors from your organisation to support it, as well as STEM Ambassadors from other organisations if you wish

If you are interested in accessing employer reporting please contact employers@stem.org.uk



Recognition and impact

Anyone who volunteers through the STEM Ambassador programme has the opportunity to be recognised for their efforts. Making your STEM Ambassadors aware of our recognition scheme can encourage them to increase their level of engagement with the programme. Many organisations also choose to run their own internal recognition system for outreach efforts of their staff, from internal awards ceremonies to point systems. If you'd be interested in setting up your own recognition system for your STEM Ambassadors, then your STEM Ambassador Hub may be able to give you a few ideas.

STEM Learning also run two national recognition schemes for the programme.

The STEM Inspiration Awards

The STEM Inspiration Awards celebrate the work that individuals, employers, and youth and community groups do to inspire young people in STEM.

Free to enter, these annual awards offer individuals and organisations from every area of the STEM sector the chance to shine.

STEM Certificates

STEM Certificates are digital awards given to STEM Ambassadors in recognition of sustained volunteering. Each digital certificate is easy to display across all social media platforms and provides a record of the STEM Ambassador's achievement and professional learning journey.

Outstanding New STEM Ambassador, STEM Inspiration Awards 2019 – Tim Chapman (Fujitsu)

In the past two years, Tim has achieved a phenomenal amount as a STEM Ambassador. Through his volunteering, he has consistently broadened the horizons of the students he encounters. Working in the Cyber Security division at Fujitsu, Tim has brought his own industry expertise into his work as an Ambassador, setting real-life challenges for his Code Club and moving students on from Scratch to programming with Python. Trips to Big Bang events, the Lego Innovation Centre and Wavemaker Creation Studios in Stoke have all played a part in expanding the Club's knowledge of STEM careers. Tim has also taken his experiences back into Fujitsu, inspiring other colleagues to start Code Clubs and championing women in STEM by helping to develop Fujitsu's 'Girls Day'. What's more, Tim was part of the Department for Education's Panel of Professionals helping to develop the new T level curriculum.



Inspirational STEM Employer, STEM Inspiration Awards 2019 – Raytheon UK (joint winners)

Raytheon UK is a first-class example of a business that supports STEM engagement. Working with the STEM programme since 2013, the company currently has over 240 STEM Ambassadors.

Raytheon has dedicated resources and created programmes, like the Quadcopter Challenge, which young people can engage with. Raytheon ensures that each project has a practical understanding of STEM and a clear application which will inspire young people to consider a career in the field.

Employers who encourage staff to volunteer reap many benefits: working with STEM Ambassadors increases staff engagement and boosts their confidence, communication and presentation skills. Passionate employees are fantastic role models and volunteering increases Ambassadors' job satisfaction and knowledge, as well as opportunities to develop their own professional network within and beyond their own organisation or sector.

STEM Ambassadors can help employers connect with local communities and build understanding of the career opportunities they offer with teachers, families and young people.

STEM Ambassadors tell us that participating in the programme brings them many benefits

- 92% increase their sense of achievement or rewards
- 58% report increases in their presentation skills
- 74% feel more confident
- 91% say it increased their satisfaction with their work

The programme benefits teachers and STEM Ambassadors

- Over 90% of event organisers (mostly teachers) report that STEM Ambassadors boost their knowledge, confidence and enthusiasm for STEM – and their ability to bring it to life by linking lessons with STEM careers and real-world contexts
- 90% of STEM Ambassadors report strong personal satisfaction from their volunteering and the support it gives their local community

STEM Ambassadors work for employers

- Volunteering boosts staff engagement – we also know from feedback that STEM Ambassadors increase their job satisfaction and knowledge, as well as confidence and communication skills
- STEM Learning have developed new tools that enable employers to support and manage outreach of their own STEM Ambassadors, connecting with local communities, teachers and parents, as well as young people

"Within the first three years of the Unilever Bright Future programme becoming established, eight out of nine members of the core team were promoted. A further two employees identified new passions and changed job roles, one moving from R&D to become a brand manager and the other employee decided to leave Unilever and become a secondary science teacher as engagement with the STEM programme gave her the passion and courage to change career.

Since the start of the programme there have been in excess of 20 promotions of volunteers who have engaged with the Unilever Bright Future programme who credit some of their success to the skills they gain through the volunteering and activities they run, especially highlighting the build in confidence and ability to communicate to a diverse audience."

Robert Dawson, Unilever

Case studies

Bombardier

Bombardier Transportation are a global leader in the rail industry. In the UK their Rail division has volunteered over 7,500 hours from 267 STEM Ambassadors.

How has being involved in the STEM programme benefited Bombardier?

It has positively developed our relationships with local schools and students, we have been able to enthuse students about careers and pathways to our industry. Our employees share their career journeys inspiring students and support them with exciting projects and activities, giving students a real feel of the world of work and how the curriculum translates to our workplace.

This has had a positive impact on our early careers talent pipeline with more candidates from underrepresented groups, including women, applying and securing apprentice and graduate positions.

Are there any strategies you use to help mobilise your STEM Ambassadors and keep them active?

We have built an effective STEM Ambassador community and successful framework over the last five years. We have established STEM and Outreach Management Hubs at our key sites which consist of a group of key STEM Ambassadors who communicate and facilitate our strategy and the opportunities across the wider STEM Ambassador network at Bombardier. These Hubs are great in supporting the management of our external-facing schools and organisations, ensuring that interactions are maximised for students. We have also developed

a bespoke internal Share Point which acts as a central point for STEM resources, calendar of events and general networking.

What strategies would you recommend to other companies to help them mobilise their STEM Ambassadors and keep them active?

Sponsorship of the STEM strategy from the highest levels in the organisation is key, this has allowed our strategy to be embedded successfully across our business. STEM is included in our induction programmes for new employees which clearly sets out the importance and impact of our activities for our communities and our business. Creating a STEM Ambassador community internally, which communicates and works together, provides the Ambassadors the support and motivation to be active in their roles is important. STEM outreach has been built into our early careers programmes and objectives, further supporting the Ambassadors to be active in enthusing and inspiring talent as well as supporting each other. Recognition of the great work the Ambassadors do has been key at Bombardier with regular feedback and recognition of efforts through management teams and senior leaders.



Rolls-Royce

Rolls-Royce have been a long-time supporter of the STEM Ambassador programme with 3,000 Ambassadors volunteering over 50,000 hours.

What support do you offer your STEM Ambassadors to help keep them active and achieve their outreach goals?

We use various internal communications channels to showcase upcoming STEM Ambassador opportunities, share Rolls-Royce STEM resources for primary and secondary school pupils and families, share case studies of success stories from our STEM Ambassador network, and offer reminders and guidance about the need to record activities for our Rolls-Royce 25M STEM Reach target.

Are there any strategies you would recommend to other companies to help them mobilise their STEM Ambassadors and keep them active?

Yes, we use a mix of the following strategies. Regular communication and sharing best practice between our STEM Ambassadors, using social media to highlight activities, reminding the network of the benefits of being a STEM Ambassador both for the individuals, for the company and most of all for the pupils, teachers and families.

