

BAE Systems explains how running STEM Clubs, careers fairs and work experience inspires their current and future workforce

BAE SYSTEMS

Background

BAE Systems helps its customers to stay a step ahead when protecting people and national security, critical infrastructure and vital information. Their work spans developing new defence technologies, designing and manufacturing military aircraft, submarines and surface ships, and providing cyber, intelligence and security capability.

Developing the skills of their people and attracting new employees is critical to the success of BAE Systems. They work closely with schools, colleges and universities, as well as engineering and business organisations in all their markets to promote and inspire people about STEM best practice in business and the world of work.

Sheree Waring is an **Education Outreach, Events and Ambassador Practitioner** within BAE Systems' Education Outreach Team. Here she describes their experiences with the STEM Ambassador programme.

The STEM Ambassador journey

"In the beginning, we had our own internal version of STEM Ambassadors, and we would send them out to schools and local organisations, but we weren't as effective as we could have been. In 2018, we began working with the STEM Ambassador programme formally and all our volunteers registered on their systems. It's now much easier to co-ordinate our activities and materials to use in schools, and we use their systems to log and record what we deliver. We have a good grip of what's going on, access to more resources and we can express interest for activities via STEM Learning as opposed to waiting for schools to find us.



We have many STEM Ambassadors – over 1,000 are registered across 40 BAE Systems sites in the UK – so it's quite a big job to give opportunities to all of them.

There are lots of reasons why we take part. It's all about **STEM inspiration and our future staff pipeline**. It's a way for us to reach the younger generation, to educate them about what STEM really is and about what it is like working within STEM. **We also try and show young people how they can work 'in a STEM industry' but not 'in STEM' like I do.** There are so many roles available in project management or finance, for example, with links to STEM somewhere along the line, working alongside our engineers or colleagues who work more in science or mathematics. We encourage students to think about our organisation or others and how their hobbies, interests or favourite subjects at school could help them to access jobs in the future.

We encourage all our staff to get involved. The satisfaction of knowing that you've helped someone to find their career is huge. **It's massively impactful hearing from a STEM Ambassador (and from schools themselves!) that we have inspired a young person to pursue a different career or to change their direction because we've changed their perception of our industry.** We are role models for young people and that in itself is a huge morale boost!

Because we operate out of 40 sites, we have STEM Ambassadors doing something every day, every week, all year. We offer three days a year to everyone for volunteering activities, but people can request more than this at the discretion of their manager, and we do have some people who do this. We are pretty flexible; if you have the capacity to leave your job for a few hours without disrupting business as usual, then it's very likely that we will give permission.

Being a STEM Ambassador is one of the stretch assignments we give to apprentices and graduates within their off-the-job training. It enables them to go off-site and to develop soft skills. Lots of them will co-ordinate or lead projects, which is great experience.

A key part of our STEM Ambassador programme is work experience. During the pandemic we created virtual opportunities for young people so that we didn't have to stop. Elsewhere in the business, some of our STEM Ambassadors have developed a series of engineering fairy tales, like the Gingerbread Man or Goldilocks, all with a STEM feel to them. We share the stories with the children and then run activities alongside them. Our Barrow site developed a box of resources that they use with children to create their own gingerbread men!



We attend numerous careers fairs and our STEM Ambassadors support that. Some of our volunteers run STEM Clubs in local schools; others have links with local Brownie or Guide groups. We also take part in a 'Movement to Work' programme which is government funded and designed to offer mentoring to NEET young people [young people not in education, employment or training]. Our STEM Ambassadors support this and act as mentors, working with a student for two weeks, setting them a STEM project and checking in every single day.

Another example of something our STEM Ambassadors do is to try and encourage more females to work with us, so we run the Women in Craft Engineering programme, designed to introduce craft engineering to as many young women as possible.

We work with young people of all ages, in both primary and secondary school. Our local sites tend to work with the schools local to them, and they have developed some really strong relationships. This means we can tailor our programmes to the needs of a school, but it also links to our recruitment pipeline too – we try and see the same students at primary school, at secondary school and in college, so that they don't forget about us. When they're ready to take the next step, they remember us!"



Making an impact

"We have found that hands-on, practical activities have a big impact. We also understand the importance of targeting the right audience and ensuring the activities we run are appropriate. For the younger learners, for example, we avoid using too much jargon. They don't need to know the ins and outs of how a plane works, but they can get involved in demonstrations about flying. **We want to generate enthusiasm and give the children fun ways to engage.** For secondary school students, they tend to be interested in you as an individual – how you started out, how well you did at school and how you got into your job.

We also find that it works well to relate what we're talking about to something the young people themselves are interested in. Technology is massive now – they are all so used to using a phone and playing computer games for instance – and we have a digital intelligence team that wants people with those skills in our company!

We always ask for feedback, and we evaluate every programme we do. We use that information to improve things. Did the young people experience the outcomes we intended them to? Was the activity aligned to the curriculum? Did it work? If not, we will change it. When we were so reliant on online and virtual delivery, some things worked better than others. We learned to adapt things as a result.



It's a massive achievement for us to be able to reach a lot of different regions across the UK due to the number of sites we operate and the large number of STEM Ambassadors we have. We are very proud that we keep this going and that the connections with local schools are there. We would hope that if you went into a school near to one of our locations that they would know who we are. We invest a lot into our education work, so the impact should be high.

We know the impact that being a STEM Ambassador can have; you're a role model for you and for our company. **We are making a difference, and that's why people keep signing up!"**

How to get involved

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

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