

STEM (Science Technology Engineering and Maths) Learning FAQs

We all know that engineering provides a worthwhile and interesting career. Yet many young people have little awareness or experience of how science is used in everyday life or what an engineer does. This IOR Education Policy Guidance Note provides information for IOR Members about resources and support available to encourage the take up of STEM subjects in schools. It explains how IOR members who want to get involved in promoting refrigeration or air conditioning careers and science learning in schools can get involved in an organisation called STEM Learning who can help you through this process.

Q1. Who are STEM Learning?

A1. STEM Learning are the UK's largest provider of education and careers support in STEM subjects. They aim to develop, inspire and engage teachers, leaders, groups, communities, employers and industry. STEM is supported by a unique partnership of Government, charitable trusts and employers. They are dedicated to raising young people's engagement and achievement in STEM subjects and careers. Find out more at <https://www.stem.org.uk/about-us>.

Q2. Why do the IOR see STEM Learning as a partner?

A2. The IOR and STEM Learning share very similar objectives. Due to the ageing demographic and shortage of skills in the RACHP industry, the IOR and its Members see the need to engage in raising the profile of the industry on a national scale in order to attract the next generations into the sector. STEM Learning work with over 30,000 STEM Ambassadors and over 2,500 different employers, meaning that STEM Learning are the UK's largest provider of education and careers support in STEM subjects. Utilising this fantastic platform will be pivotal, so the RACHP industry too can also develop, inspire and engage teachers, leaders, groups, communities, employers and industry, alongside other industries who operate in the STEM arena.

Q3. Is the IOR recognised by STEM Learning? Will I find the IOR listed on the STEM Learning website?

A3. Yes. STEM Learning work with various industries who have STEM subjects in their DNA. RACHP is no different. In fact, it is the perfect industry as RACHP includes all STEM subjects within one field. The IOR is a Professional Institute / Trade Organisation and STEM are very pleased to include the RACHP industry within their portfolio.

Q4. What is a STEM Ambassador?

A4. A STEM Ambassador is someone who volunteers their time and enthusiasm to help bring STEM subjects to life and demonstrate the value of them in life and careers. STEM Ambassadors include people from a range of disciplines and backgrounds, including engineers, designers, architects, scientists and technicians. Several IOR members are already recognised as STEM Ambassadors.

Q5. What is the aim of being a STEM Ambassador?

A5. To help bring a new and inspiring perspective to STEM lessons and career opportunities, particularly RACHP.

Q6. Does a STEM Ambassador have to be an individual or can my company get involved?

A6. You can register as an individual or an employer – you can even register a youth or community group.

Q7. What benefits do I get from being a STEM Ambassador?

A7. 92% of current Ambassadors say their sense of achievement or reward has increased. 58% say it has increased their presentation skills. 74% agree it increased their confidence, while 91% said it increased their sense of satisfaction with their work.

Q8. What do I have to do to become a STEM Ambassador?

A8. An interest in RACHP, Science, Technology, Engineering and Maths and most of all, enthusiasm is what is most needed! Across the UK, STEM Ambassadors volunteer their time and support to promote STEM subjects to young learners in a vast range of original, creative, practical and engaging ways. There are 5 steps to becoming a STEM Ambassador.

1. Register by creating a STEM account
2. Complete 7 module induction course
3. Apply for a DBS/PVG check (see notes below)
4. Verify your identity
5. Await DBS approval
6. Pass all of the above and receive certification and ID

Follow this link <https://www.stem.org.uk/stem-ambassadors> to the STEM Website, where you can register on their database, view your dashboard, build and edit your profile to specifically suit you.

Q9. How many activities do I have to do per year?

A9. The minimum requirement is 1 activity per year to keep your status as a STEM Ambassador. For those who carry out 3-4 activities they will be awarded 1 Star status. For volunteers who do 5-9 activities per year are awarded 2 Star status and for a 3 Star status, the volunteer will need to do 10+ activities per year.

Q10. What type of activities can I do?

A10. Career talks, offer advice, practical work, judge a competition, speed networking, visit a workplace, attend events and exhibitions, deliver a lecture or assembly around STEM careers, support educators by developing resources and activities, develop and run CPD for educators, help with mock interviews and employability skills.

Q11. What materials are available for me to take to an activity?

A11. STEM have an enormous amount of resources and materials available; you can also create your own. It is possible to share your resources with STEM so that others involved can utilise these during their activities. The IOR have resources you can use from the Careers in Cooling video (YouTube or DVD if preferred) showing the diversity of careers, to fliers and posters supporting that. In addition the www.fantasticfridges.com website, which has games for younger children and other science and careers resources for older ones.

Q12. Is training available?

A12. Yes, there are a range of online courses including practical, handbooks, induction and mentoring resources available to support you with training, whether you are new to the Ambassador

role or not. These are designed to develop your skills and increase your confidence as an Ambassador.

There are a range of resources to top tips available to get you the inspiration you need to deliver effective STEM Ambassador activities. Contact STEM for additional support.

Q13. What is a STEM Club?

A13. STEM Clubs are particularly aimed at schools to develop, they are out-of-timetable sessions that provide young people with the chance to explore aspects of STEM in less formal settings.

Q14. What is a Local STEM Ambassador Hub?

A14. There are 19 STEM Ambassador Hubs throughout the UK. The Local STEM Ambassador Hubs offer a range of support, opportunities and local expertise. They develop links between groups and individuals working to enhance young people's STEM education. Whether you are a teacher, group leader, STEM Ambassador or employer, your local STEM Ambassador Hub is available to support you with anything related to the STEM Ambassador programme.

Q15. Can I speak to other IOR members who are STEM Ambassadors to find out how it works?

A15. IOR is keen to set up a RACHP Stem Ambassadors club to bring together members who are doing this important volunteer work and support them. If you want to speak to other IOR STEM Ambassadors contact ior@ior.org.uk initially and we will put you in touch with others.

Q16. I'm ready to sign up where do I start?

A16. You can find more in depth information and a handbook for Ambassadors is available at: <https://www.stem.org.uk/stem-ambassadors/join-stem-ambassador-programme>

This Education Policy paper was prepared by the IOR Education Training Policy Group in August 2020

The charitable objects of the IOR are:

1. The general advancement of refrigeration in all its applications, in relation both to the perfection of its methods, and to the extension of its services to the community.
2. To promote means of communication between members and their interchange of views.
3. To encourage invention and research in all matters relating to the science and practice of refrigeration.
4. To co-operate with educational institutions for the furtherance of education in the science and practice of refrigeration.
5. To hold meetings of the IOR for reading and discussing papers dealing with refrigeration and allied subjects.
6. To publish and distribute the proceedings or reports of the IOR.
7. To do all other things, incidental or conducive to the attainment of the above objects or any of them.

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More information about DBS Checking Procedures

A Disclosure and Barring Service (DBS) check is necessary to check the criminal record of someone who will be working with children or vulnerable people. It is compulsory for you to have a DBS check when working through STEM.

There are four forms of DBS - Basic (contains details of any unspent convictions or conditional cautions the applicant has). Standard (Contains details of any spent or unspent convictions, cautions, reprimands or warnings the applicant has, as long as they're not protected). Enhanced (contains the same information as a standard check, as well as any relevant information held by the applicant's local police force). Enhanced with barred lists (which shows the same as an enhanced check plus whether the applicant is on the list of people barred from doing the role).

You will need "an Enhanced DBS" with a check of the Children's Barred List for the Child Workforce

Q I need some help with the DBS application online where can I find tips?

A STEM Learning have an DBS Application guide for Ambassadors available from your STEM Ambassador Hub <https://www.stem.org.uk/stem-ambassadors/local-stem-ambassador-hubs>

Q What documents do I need or how many forms of ID do I need to present?

A You will require 3 forms of ID and 1 must prove your current address. There are 3 routes to gathering the documents STEM Learning require. Scanned documents are not accepted, only originals!

Q What happens once my DBS application is sent?

A Once STEM receive the results and are able to approve your application you will receive notification that you are an approved STEM Ambassador. Your STEM Ambassador badge and the photo uploaded to your profile (this can be done as you build your profile throughout the registration process) your ID will also be issued to you.

Q How much does a DBS check cost?

A Applying for a DBS check through the STEM program is generally free of charge however with the alternative route now in place using External Verifier STEM are not responsible for any costs associated with the verification of ID through a professional person.

Q I have a DBS certificate already, can I use this instead?

A If you have a DBS certificate issued after 17th June 2013 and have signed up to the update service STEM may be able to use this service to process your DBS check more easily. Your current DBS must be an Enhanced DBS certificate with a check of the Children's Barred List for the Child Workforce. STEM would need to see your certificate to allow them to use this.

Q What is the DBS Update Service?

A The DBS update service allows you to transfer your DBS certificate between organisations where the same type and level of check is required. This is a free service for voluntary positions e.g. the STEM Ambassador Programme. It also allows to check for updates to your DBS.

Q How long does my DBS certificate last for

A DBS certificates for the STEM Ambassador Programme last for three years, in line with their safeguarding procedure, after which time you will need to do another application for a new certificate.

Q Can STEM Learning speed up my renewal of my existing DBS certificate?

A If your certificate is registered on the DBS update service and you give STEM Learning express permission to run a check via the update service they can update it from their desks and you will not need to do another application for a DBS certificate for the STEM Ambassador Programme

Q How long do I have to register my DBS certificate on the Update Service?

A From August 2017 you have 30 days. Once this time period has elapsed, you will not be able to register your DBS certificate on the update service. Use this link for the Update Service registration page: <https://www.gov.uk/dbs-update-service>

Q How can I get my ID checked if STEM can not do it in person due to COVID19 and social distancing rules?

As of July 2020 STEM are allowing the verification of ID's through the use of an External Verifier. An External Verifier is someone listed on the acceptable professionally qualified persons list set out by STEM. These include: HR Manager at place of employment (CIPD member); University Lecturer / Teacher; Warrant officer and ranks above (or equivalent ranks); Barrister Lawyer / Solicitor; Chartered accountant/Legal executive; Chemist / Pharmacist / Member of Parliament; Doctor / Dentist / Police officer; Justice of the peace. There may be a charge for working with an External Verifier - this will vary depending on the verifier's terms and conditions for ID checking.