

# An employer's guide to supporting STEM careers education in England

THE CAREERS &  
ENTERPRISE  
COMPANY

 STEM  
LEARNING

This guide provides advice for employers on how best to contribute to science, technology, engineering and mathematics (STEM) careers education in England, contributing to the eight Gatsby Benchmarks for Good Career Guidance.

## Support from employers is a vital part of all young people's careers education.

**For employers,** engaging in careers education can:

- ✓ engage and develop your employees' skills and experience
- ✓ support your recruitment efforts, boosting your future technical and graduate pipeline
- ✓ offer specific and sector careers information to young people and their influencers

[STEM Ambassadors: the Employer Handbook](#)

**For young people,** employer engagement can:

- ✓ raise aspirations and broaden horizons
- ✓ tackle gender and other stereotyping from an early age
- ✓ give reliable, first-hand evidence on different routes into work

[Education and Employers: The case for employer engagement in state schools](#)

“STEM related careers experiences and inspiration have never been more important, given the environmental, health and economic challenges we are facing in today's world. Helping young people to understand the jobs that exist now and those predicted for the future and the skills they will need to succeed, not only helps the young people themselves but it's vital for business and for society.”

**Aimee Higgins, Director of Employers & Partnerships, Careers & Enterprise Company**

## Working together

Schools and colleges need a wide range of employer volunteers that can provide online and in-person support. If you are interested in supporting schools and colleges, consider joining a national volunteering or coordination programme:

### STEM Ambassadors

A network of over 33,000 volunteers from more than 7,000 different employers, volunteering their time, enthusiasm and experiences to encourage and inspire young people to progress further in STEM subjects.

### Enterprise Advisor network

Working with a local school or college, your role as an Enterprise Adviser can help support pathways into your industry and shape young people's futures.

### Tomorrow's Engineers Code

The Tomorrow's Engineers Code is a commitment to work toward common goals to increase the diversity and number of young people entering engineering careers. Any UK organisation that funds, designs and/or delivers activities to encourage young people into engineering, is invited to join the Code Community.

### Inspiring the Future

A free online service connecting employers and volunteers from the world of work with primary and secondary schools across the UK. People from all levels and all economic sectors volunteer from an hour a year to chat about their job and career route.



Since the introduction of the Government's Careers Strategy in 2017, schools, colleges and organisations from across England have been working towards building a high-quality careers system, underpinned by the **eight Gatsby Benchmarks** for Good Career Guidance.

Using the Benchmarks to guide employer engagement in STEM careers education will help to ensure that your investment in time, effort and funding best meets the needs of schools and colleges.

### The eight benchmarks are:

**Benchmark 1** – A stable careers programme

**Benchmark 2** – Learning from career & labour market information

**Benchmark 3** – Addressing the needs of each student

**Benchmark 4** – Linking curriculum learning to careers

**Benchmark 5** – Encounters with employers and employees

**Benchmark 6** – Experiences of workplaces

**Benchmark 7** – Encounters with further & higher education

**Benchmark 8** – Personal guidance

“ *By providing STEM-related career experiences and inspiration, employers can help schools and colleges to achieve the Gatsby Careers Benchmarks, ensuring that young people in all types of educational provision are able to reach their full potential.* ”

**Gemma Taylor, STEM Learning**

## Further resources and training:

### Careers & Enterprise Company Resource Directory

Searchable, trusted, high-quality careers resources for schools, volunteers and employers.

### STEM Ambassador Handbooks

A collection of in-depth guides that cover a range of topics, from signing up for the STEM Ambassador programme and health and safety considerations, to planning and delivering successful, engaging activities for young people.

### STEM Ambassador Training Courses

Free online and in-person training sessions that will develop skills as a volunteer and an understanding of education.

### STEM career resources for schools and colleges

Use these quality-assured resources, toolkits and guidance to support your STEM careers activities.

### Neon

List your engineering careers themed activities on Neon, a website which brings together the UK's best careers experiences to help STEM teachers bring their subject to life.

### Skills Builder Partnership

The Skills Builder Universal Framework is fast becoming the national standard for essential skills development across education, employment and the non-profit sector. Apply the Framework within your STEM outreach programmes, supporting students to identify, demonstrate and articulate the essential skills for success.



## Benchmark 1 – A stable careers programme

Every school and college should have an embedded programme of careers education and guidance that is known and understood by students, parents, teachers, governors and employers.

Employers have valuable experience of delivering complicated projects with strategic direction. Use your expertise to help schools and colleges create and deliver a high-quality careers strategy.

### Volunteer as an Enterprise Advisor:

Enterprise Advisers volunteer their time to support a school or college's leadership team. They help to build a strategic approach to employer engagement, providing an employer's perspective on careers education. Enterprise Advisers volunteer to meet with their school or college once every half term, approximately 6 times a year.

Find out more about the [Enterprise Advisor Network](#)

### Become a Governor or Trustee:

Governors or trustees, volunteer their time to develop the future of a school or college. Their experiences and expertise are used to support and challenge leadership, leading to improvements for staff, young people and the wider community.

Explore the support available from the [National Governance Association](#) or sign up for local opportunities with [inspiring governance](#) or [inspiring FE governance](#).

“ As an Enterprise Adviser I work closely with a variety of staff across the school, providing an insight into my industry, broadening their knowledge of employment and supporting them to provide careers activities for their students.

As I develop relationships with the school and its staff, I am supporting them to achieve the Gatsby Benchmarks, providing high-quality careers education to young people.

”  
**Mike Bowen, Jacobs and volunteer Enterprise Adviser**

## Benchmark 2 – Learning from career and labour market information (LMI)

All young people and parents (where appropriate) should have access to high-quality information about future study options and labour market opportunities.

Helping young people to understand the opportunities and skills needed in the workforce will equip them to succeed and help navigate the wide range of opportunities available.

### Encourage young people, teachers and Careers Leaders to stay up to date with LMI:

Your company can play a vital role by providing physical and online information about what your company does and the career pathways that are available.

- provide information on your website about the different roles available within your organisation and highlight upcoming opportunities that may be of interest for young people
- support teachers to keep up to date with industry developments, new technologies and future skills gaps by providing presentations on your sector, supporting curriculum development and opening the doors of your site
- create a strategy for engagement with key educational establishments, for example, those linked to a geographical site or schools and colleges that you have existing relationships with
- consider working with your Human Resources Team to link your volunteering activities to upcoming recruitment opportunities, ie apprenticeships

[Take a look at these resources](#) for further ideas on how you can support teachers and students to stay up to date with LMI

## Benchmark 2 – Learning from career and labour market information (LMI)

### When providing careers activities:

- talk to young people about the future and how your sector might develop over the coming years. What are the big challenges that your company and sector are working on? What are the skills that will be needed? What jobs might be created?
- raise awareness of both STEM and non-STEM skilled roles in your workplace as this will help students to see the full range of careers available to them
- leave suggestions of further research that students and teachers can explore to find out more information about your sector. Take a look at these examples from the [construction industry](#) for inspiration
- reference the people that you work with, explaining what their jobs involve, their career journey and how their role impacts on your work. This increases the range of jobs that young people are aware of
- create a summary of jobs within your company to hand out. Include information about what different jobs involve, the skills used and key facts like working hours, qualifications needed and salary range

“ *Engaging in careers education is so important because you're helping to develop the next generation of workers. Particularly in an industry like construction where we have an ageing workforce, we need to attract new talent.* ”

**Becky Tranter, Fusion**





## Benchmark 3 – Addressing the needs of each pupil

Opportunities for advice and support should be tailored to the different stages of education, with equality and diversity embedded in the careers programme.

Employers can support schools and colleges to provide an inclusive careers offer that ensures that a broad range of young people understand the opportunities open to them in the STEM labour market.

- include a wide range of role models in your presentations, literature and website. This will help young people to see that STEM careers are enjoyed by a wide range of people, and help to challenge misconceptions (ie you have to be academic to work in STEM, computer scientists are all geeks, engineering is for boys)
- on your website, literature and careers activities, try to use language that is inclusive and accessible, for example using non-gendered terms and terminology that will be understood by those outside of your organisation
- go back to your old school or college to help with careers activities; this will enable young people to see the experience of someone from their local area who is successful in a STEM industry



## Benchmark 3 – Addressing the needs of each pupil

- share the career journey of an apprentice, showcasing the opportunity that high-quality apprenticeships offer to earn while you learn in the STEM industries, including at degree level
- be inclusive: offer opportunities for all students rather than focusing on specific gender, ability or ethnicity groups
- work with schools and colleges to support young people who need additional support with STEM careers learning. For example, those young people who do not have a strong STEM influence at home or are underperforming in STEM-specific lessons

Take a look at resources from organisations such as [WISE](#), the [Institute of Physics](#) and [The Royal Society](#).

## Consider how you can support students with Special Educational Needs and Disability (SEND):

Employers form an important part of the careers education within specialist provisions. These include special schools and colleges (SEND), alternative provision (AP) and pupil referral units (PRU). It is important that all young people have access to develop their work-related skills and have access to the same opportunities as their peers in mainstream schools and colleges.

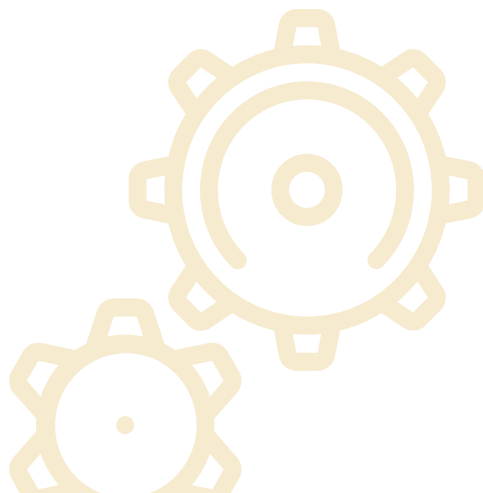
- if you are delivering a careers activity, ask the school or college for advice on how to pitch your content so that it is accessible to the young people involved
- bring examples of equipment that you use to careers events so that young people can benefit from multi-sensory learning
- encourage colleagues to share their personal stories about overcoming barriers and accessing support, where appropriate

Take a look at these guides for employers on [working with young people with SEND](#) and the [Fuelling Futures](#) employer toolkit.

“ To meet the needs of the SEND students, our plans, resources and approach had to be adjusted very quickly to deal with some quite challenging behaviour at the outset of the project. Witnessing positive changes in the behaviour, attitude and commitment of students has been the highlight of the project and made all our efforts worthwhile.

Sarah Hopkinson, ENGIE and volunteer Enterprise Adviser

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## Benchmark 4 – Linking curriculum learning to careers

All subject staff should link curriculum learning to careers.

Your career experiences contain a wealth of examples that can help teachers to illuminate the curriculum, enabling young people to see the link between what they are learning and future career opportunities.

### Support schools and colleges to make links to industry in lessons, clubs & competitions

- use your website and literature to provide examples that teachers can use in lessons. This might include examples like a video of a process or images of products that can be shared with young people
- sharing your expertise and enthusiasm with teachers will help them to develop up-to-date industrial examples in their teaching and equip them with the knowledge they need to link these industrial examples to the curriculum
- if you have an existing relationship with a school or college, volunteer your time to work with curriculum leaders and review where your industry experience can add real-life context for lessons. This might include providing images, samples of equipment or examples of problems that young people can work on
- support local or online [STEM Clubs](#), [Code Clubs](#) and STEM competitions (ie as a mentor or judge). [Becoming a STEM Ambassador](#) will help you find out about these types of opportunities

Visit [STEM Ambassadors](#) for further support on providing curriculum linked careers activities.

## Benchmark 4 – Linking curriculum learning to careers

### Support young people to understand how STEM subjects are important to their lives:

- link the skills that you use to tasks that are relevant to the lives of young people. For example, using mathematics skills for financial planning, using digital skills to set up a website for their own business or protect themselves from cybercrime
- explain how a recent story in the news that young people might be aware of, links to your employer or sector. Keeping content recent and relevant will help to communicate the impact that STEM careers and employers have on local, national and international issues
- make links to local and global challenges, such as climate change, air quality, healthcare, etc. This will help young people to see how STEM subjects are part of finding solutions to problems that are a part of their lives and the lives of others
- if you are attending a parent event, reinforce the message that STEM skills are transferable for a wide range of roles and are a valuable part of education for young people
- share scientific and technological developments that are taking place in your sector. What future problems might young people solve if they decide to work in your industry?

Use examples from both the inspirational and the everyday to help young people understand how what they are learning in education is important to their lives and the lives of others.

## **Benchmark 5 – Encounters with employers and employees**

**Every student should have multiple opportunities to learn from employers about work, employment and the skills that are valued in the workplace.**

Directly supporting young people in schools and colleges provides them with insight and inspiration, helping them to understand the world of work and which jobs and working environments will best suit them.

### **Provide online and in-person STEM careers activities for schools and colleges:**

Opportunities to meet and learn from employers should be embedded into every school, college and specialist provision's careers strategy.

There is a wide range of STEM careers activities that employers can provide. Each activity should include some interaction with the young people attending and be designed with their age-appropriate needs in mind (in collaboration with the hosting school or college).

Where possible, try to link the activities that you provide to your employer's strategic plan for outreach. This might include highlighting upcoming apprenticeships or highlighting particular projects that you would like the community to be aware of. The options for activities are endless, so try to think about which activities you wish to support and offer these to schools and colleges, as well as responding to requests.



## Benchmark 5 – Encounters with employers and employees

For support with creating and delivering STEM careers activities, take a look at:

- [free training available from the STEM Ambassador Programme](#)
- [this practical employers' guide on supporting careers and enterprise activities in school](#)
- [these top tips for delivering engineering activities](#)

“ *In order for students to be inspired and motivated to succeed they need to have access to high-quality, enthusiastic and positive role models within industry who can open their eyes to the realities, criteria and core values required to reach their career goals. You can't be what you can't see.* ”

**Nikki Coleman, Head of Careers Education, Information, Advice and Guidance, Prospect Trust**



deliver part of the curriculum in collaboration with a teacher, referencing the world of work

volunteer for a STEM activity day or competition as a judge

meet with teachers and subject leaders to understand how you might be able to help them develop industry links in their curriculum

provide in-person or online careers talks as part of a lesson

support a themed awareness event, ie [British Science Week](#), [National Careers Week](#), [Ada Lovelace Day](#)

host a workplace visit or a virtual workplace tour

work with a school or college to set a brief for an employer-led challenge, linked to a lesson topic

support a STEM Club, helping with the delivery of activities

mentor a team for a STEM competition or research project

support young people to develop their employability skills through an activity or presentation

For ideas and guidance on how to engage with schools and colleges online, [take a look at this Can Do Guide for Employers.](#)

## Benchmark 6 – Experiences of workplaces

Every young person should have first-hand experiences of the workplace through work visits, work shadowing and/or work experience to help their exploration of career opportunities and expand their networks.

By providing experiences of the workplace, you are giving young people the opportunity to gain real insight into the world of work and what an organisation or sector can offer.

### Open your workplace to in-person and online STEM-themed work experience opportunities:

Experiences of the workplace are a core part of careers education for young people in both schools and colleges.

Online experiences of the workplace offer young people access to careers that would otherwise be unavailable to them in person (ie where sites have barriers due to health and safety) and reduce the need to travel. Consider how your experiences might be delivered in part or fully online, taking advantage of remote-learning software and equipment.

[Take a look at these resources supporting virtual work experience](#)

“ We are proud of our structured online and in-person work experience programme that is interactive, giving students the opportunity to manage a project as a team and deliver an end result. At first we didn't think that running a comparable online experience was possible, but we've found that students are using the online format to ask more questions than ever and their presentations at the end are incredible!

**Helen Clements, Morgan Sindall Construction**



## Benchmark 6 – Experiences of workplaces

### When designing online or in-person experiences:

- try to show young people as many departments as you can and allow them to meet a range of people in both STEM and non-STEM skilled roles. If you have apprentices and graduates, get them involved and encourage them to talk to students about their journey into a STEM career
- where possible, plan the experiences with the school or college involved to agree suitable outcomes for the young people and, if possible, tailor a programme to suit. Be open and clear about the experience that you can offer (ie what will the young people be able to take part in? How will their time be spent?)
- make experiences interactive by giving the young people a relevant STEM project to work on that lasts for the duration of the experience, bringing in multiple elements of the business to the project. If you are providing a group experience, set them a group task or project to work on that will give them opportunity to develop skills that are relevant to your sector and learn more about what it is like to work in your company
- work with partner employers and supply chains to create a joint experience. This type of collaboration might involve each site offering part of the experience or working together to host experiences jointly
- consider how your company can support longer-term placements in collaboration with post-16 study programmes and vocational qualifications (ie T levels and other vocational qualifications)
- build digital skills into your experiences, for example, attending and participating successfully in online meetings and working collaboratively in a remote setting
- build in opportunities for young people to ask questions and provide feedback on their experiences

Host a [Nuffield Research Placement](#) and provide talented Year 12 students with the opportunity to learn about the work of researchers and industry professionals.



## Benchmark 7 – Encounters with further and higher education

All young people should understand the full range of learning opportunities that are available to them. This includes academic and vocational routes, and learning in schools, colleges, universities and in the workplace.

Supporting this Benchmark can highlight the pathways available to young people interested in joining your organisation or sector.

### Support young people to understand the variety of STEM pathways:

Young people need to be aware of the options that are available to them, without prejudice, enabling them to make informed choices about their future. There are a variety of STEM-related pathways that young people can choose from. For example:

- academic qualifications allow young people to continue studying individual subjects, for example A levels, GCSEs
- technical qualifications support young people to train for a technical occupation and include an element of mandatory work experience, for example T levels
- vocational qualifications provide learning in a practical way and are usually linked to a specific job or career route, for example BTECs
- apprenticeships are vocational courses that allow young people to earn whilst they undertake a qualification, combining learning with on-the-job experience



## Benchmark 7 – Encounters with further and higher education

Support young people to be more aware of the study routes that lead to a role in your company, or typical roles in your sector:

- highlight the range of qualifications needed for entry into your organisation on your website and careers literature. Remember to keep this information updated so that it remains relevant
- reference study routes in careers presentations and activities that you support. You might wish to talk about your own experiences, or reference more general advice about entry into your STEM sector
- provide opportunities to meet role models from your organisation who have undertaken a variety of study routes. For example, hosting a [Nuffield Research Placement](#), inviting apprentices to support a careers fair or inviting graduates to attend a careers presentation
- when you have the opportunity to engage with parents, for example as part of an open evening, careers fair, celebration event or after work experience, use this time to share information about the range of STEM study routes that link to your industry

Keep up-to-date with changes to qualifications by speaking to your existing contacts within schools and colleges, contacting your professional institution, taking a look at the [National Careers Service](#) and contacting your local [Enterprise Coordinator](#).

“ It's imperative that we support young people to find out about the STEM careers available to them and help them understand how they can access these careers through academic, technical and vocational pathways.

Christina Reffold, Careers Leader, Canons High School

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## Benchmark 8 – Personal guidance

Every young person should have opportunities for guidance interviews with a Careers Adviser.

Careers Advisers are an important resource for young people. Ensuring that they have up-to-date information on your organisation and sector will support them to provide the latest information to young people.

### Support Careers Advisers by providing recent and relevant information:

- provide information to schools and colleges about the career opportunities within your company or sector. For example, information about apprenticeship programmes, minimum qualification requirements for roles within your company and the selection process for new employees
- provide STEM-specific careers materials for school and college careers areas. This might include posters, flyers and resources that help explain the opportunities available in your sector
- offer to meet with Careers Advisers and Careers Leaders to talk about your sector and share relevant labour market trends about your industry
- invite Careers Advisers and Careers Leaders to visit STEM sites of interest so that they can gain first-hand experience of local STEM opportunities
- encourage young people to take advantage of the careers support that is on offer to them. Help them to consider the many ways that they access STEM careers education, from careers presentations and independent research to participating in STEM Clubs and competitions

What contributes to a young person's STEM career journey? [Take a look at this poster and STEM Ambassador guidance](#)

Find out about careers events happening in your region through your local [STEM Ambassador Hub](#) and [Enterprise Coordinator](#).





If you have been inspired to support STEM careers education in England then contact us at [employer@stem.org.uk](mailto:employer@stem.org.uk) or find out how to [get involved](#).

[STEM Learning](#) is the largest provider of education and careers support in science, technology, engineering and mathematics (STEM). We work with schools, colleges, STEM employers and others working with young people across the UK.



[The Careers & Enterprise Company](#) exists to facilitate a world-class careers education, inspiring and preparing young people for the world of work.

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