This guidance is provided as part of the STEM Careers toolkit[1] produced for Careers Leaders in secondary schools and colleges. It provides ideas and practical suggestions on how STEM-specific content can be used to support achieving the Gatsby Careers Benchmarks[2]. For wider advice and guidance on the Gatsby Careers Benchmarks, visit the Careers & Enterprise Company website[3].

All references and weblinks are provided in full at the end of this document.

Gatsby Careers Benchmark 6
Experiences of workplaces

For schools

Every student 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.

For colleges

Every learner 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.

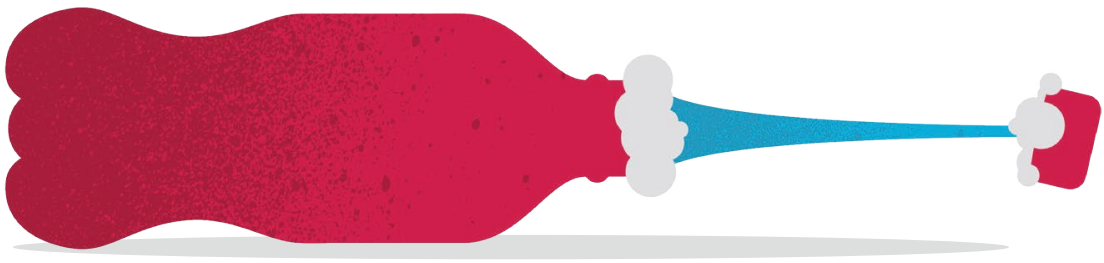
What this means for STEM

Top tips

1. Use workplace experiences as an opportunity to engage colleagues in STEM career learning. Where possible, ask your STEM colleagues to support events or accompany students on workplace trips.
2. Work experience, work shadowing and workplace visits can all contribute to the STEM careers experience that you provide for your students. Work with your careers networks and The Careers & Enterprise Company Network[4] to find out what support your local STEM employers can offer and keep a database of experiences to draw from in the future.
3. Use virtual tours to give students experience of STEM workplaces that have working environments that are unsuitable for workplace visits.

Useful resources

1. Find out about your local Careers & Enterprise Company Network[4]
2. Contact your Local Enterprise Partnership[5]
3. Find out more about your local STEM Ambassador Hub[6] networking events
4. Careers & Enterprise Company: How to Engage Employers[7]
5. STEM Work Experience Handbook for Students[8]
6. STEM Work Experience Handbook for Employers[9]
7. Find out about Gatsby Benchmark 6[10]
8. **STEM-specific workplace experience programmes:**
   - The Smallpeice Trust: www.smallpeicetrust.org.uk
   - programmes from the Engineering Development Trust: www.etrust.org.uk/edt-programmes
9. **STEM-specific award programmes:**
   - Industrial Cadets: www.industrialcadets.org.uk
   - Engineering Education Scheme: www.etrust.org.uk/ees
   - Big Bang Awards: competition.thebigbangfair.co.uk
   - CREST Awards: www.crestawards.org



Develop relationships with STEM employers

Setting up workplace experiences with some STEM employers can be challenging, particularly where health and safety considerations prevent under-18s from entering a site. Developing relationships with a range of STEM employers will give you more potential workplace opportunities to draw from.

- Increase your STEM employer database by contacting local employers directly, contacting parents and student alumni, and working with your Local Enterprise Partnership[5] or Careers & Enterprise Company Network[4] to identify new employers. Contact STEM-specific organisations that can provide employer workplace experiences for students and teachers, for example The Smallpeice Trust[11] and Engineering Development Trust[12].
- Use labour market information (LMI)[17] to provide workplace experiences around key local STEM sectors (eg digital, construction and manufacturing). This takes advantage of employers that are likely to be more interested in working with students, in an effort to secure a talent pipeline and it also supports students to explore sectors that are more likely to be a local destination.
- Advertise your requests for workplace support through an employer newsletter. Creating and circulating an employer newsletter will help you to keep employers engaged in your careers strategy and prompt for specific help as you plan your workplace provision.
- Provide your employers with a point of contact within your organisation. Where possible, empower your STEM colleagues to develop their own contacts through attending their local STEM Ambassador Hub[6] networking events and share any new contacts with you as they develop.
- Use workplace experiences as an opportunity for colleagues to gain ideas for linking a workplace to their curriculum. Ask colleagues to support events or accompany students on workplace trips.

Consider a flexible approach for STEM employers

When working with a STEM employer, consider a flexible approach to developing workplace experiences, combining opportunities such as traditional work experience, structured tours of workplaces, world of work weeks and work-related challenges.

- STEM workplaces can often have working environments that limit students from entering sites and, as a result, these employers might not be able to offer traditional work experience to students. Some STEM employers provide structured work experience programmes that run for a specific time during the year.

- Other STEM employers may be open to providing a limited work experience offer, arranging activities that avoid limiting environments or working with students online via a platform like Skype in the Classroom[18] or Google Meet[19]. Work with your Careers & Enterprise Company Network[4] to understand the options that are available to you.
- Workplace visits provide a tour of a STEM workplace, ideally involving several departments and showcasing as many different STEM careers as possible. Visits can often be developed with an employer and with planning, can be targeted to focus on a particular curriculum area:

For example:

- **design and technology:** tracking the journey of a product through a factory
- **science:** visiting a power station as part of a topic on energy generation
- **mathematics:** visiting a local retail store to understand stock levels, pricing and how many sales are required per week to attain a certain level of profit
- **computing:** visiting a software company or exploring how IT is a core business function for most employers

- Work-related STEM challenges support students to work on an employer project, ideally tackling a typical problem that employees might face. Some employers may have a challenge in mind, others may be able to create a challenge with support from STEM teaching colleagues. Work-related challenges are a good way for students to experience workplace roles and develop their Essential Skills[20]. Consider using STEM award programmes such as Industrial Cadets[13], Engineering Education Scheme[14], Big Bang Awards[15] or CREST Awards[16], as these will provide additional accreditation for your students' efforts.
- Multiple experiences of workplaces will help to develop a wider range of STEM experiences for students. Some employers may be able to combine their experiences to create a programme of support across multiple sites. Other employers may work with you to develop a programme of support, contributing tours, presentations and careers sessions as and when they have capacity. Ask your Careers & Enterprise Company Network[4] for support to create a programme of activities.
- Consider providing STEM-specific experiences by exploring STEM skilled roles in non-STEM sectors, such as fashion or hospitality.

- **textile technologist**[21] – working within the fashion industry to ensure that products meet the standards required of them before going to retail
- **operations director**[22] – managing the costs and supporting staff management for a chain of hotels

- For general guidance on collaboration with industry there is lots of information in the Careers & Enterprise Company guide on How to Engage Employers[7].

Quality versus quantity

Considering the time and effort needed to arrange workplace experiences, it is important that you assess the impact of your STEM workplace programme and identify any gaps in provision. Use data from students, colleagues and employers to create a picture of what works.

- Plan achievable outcomes for workplace experiences that are developed in partnership with the employer. Work with tutors and STEM colleagues to share the outcomes with students in advance of their experience and develop pre- and post-content that supports students to plan and reflect. Create opportunity for students to discuss and record their experiences, focusing on questions such as: What STEM careers did they find out about? What routes into STEM careers did they find out about? What did they enjoy during the experience?
- If it works, shout about it! Use evaluation tools provided by the Careers & Enterprise Company[23] to help record activity and share a summary with colleagues and your Leadership Team. Share news of your successful workplace experiences with parents, governors and the wider community via newsletters and blogs, through your website and social media.
- Work closely with employers to ensure that both your and your employers' expectations are understood. Take a look at this STEM-focused Work Experience Student Handbook from Cogent Skills[24] and share this handbook for STEM employers[25] with your employer contacts to help their planning.
- Support employers to understand the key deliverables for an experience. For example, providing students with:
  - experience of different entry routes such as apprenticeships, college and university
  - increased awareness of the range of roles within STEM sectors
  - opportunity to develop Essential Skills[20], relevant to the workplace

AN EXAMPLE OF ... A STEM-specific workplace experience programme

Industrial Cadets[26] is an accreditation programme for industry-related work experience and activities. The award is recognised by industry employers as an objective demonstration of the level of time, passion and dedication students have shown whilst engaging in workplace-relevant experiences.

Young people take part in a structured programme of activities including project work, site visits, presentations, hands-on team tasks, workshops and role model interaction. They gain recognition for their experience and achievements, and graduate as Industrial Cadets.

The Industrial Cadets framework allows:

- young people to have the opportunity to get an insight into industry and demonstrate experience and progression. Their skills and knowledge are built and enhanced whilst being supported by industry, engaging with role models and developing skills. They receive recognition at the end of their experience, building their Industrial Cadets portfolio and are signposted to further opportunities
- schools to enrich the curriculum, with inspiring experiences that provide unique insight into courses, careers and routes to employment whilst engaging with local communities

Five levels of accreditation[27] are available, each requiring various working or learning hours to complete the competencies and skills per level. Contact Industrial Cadets[13] to find out more about the programme.

AN EXAMPLE OF ... A 'team effort' approach to workplace experiences

The Pledge Partnership[28], part of the Cheshire and Warrington Local Enterprise Partnership (LEP), have developed sector-specific 'experience of work' weeks that provide small groups of students with a co-ordinated week of themed workplace experiences, working with local employers, further education and higher education provisions.

The experiences are themed around a chosen sector (ie digital, construction) giving groups of students the opportunity to understand a range of experiences within their chosen sector.

The activities for the week include:

- a trip to an FE provider and themed activity related to further study in the chosen sector
- a trip to an HE provider with a tour of the relevant courses and faculties linked to that sector
- a day of activities and student presentations in school, partnering with an employer. The activities are themed around a contextualised problem to solve, ideally linked to the employer
- a day of visits to local small and medium-sized enterprises involved with that sector
- a day of mock assessments and interviews, followed by reflective tasks to evaluate the week

To replicate this type of experience yourself, advice provided in Benchmarks 5, 6 and 7 of this toolkit will support you to develop contacts with employers, further education and higher education. Your Enterprise Coordinator and Local Enterprise Partnership can help you to identify local businesses with an interest in engaging with education in order to spot future talent.

References

[1] www.stem.org.uk/rxgajd

[2] www.careersandenterprise.co.uk/schools-colleges/gatsby-benchmarks

[3] www.careersandenterprise.co.uk

[4] www.careersandenterprise.co.uk/schools-colleges/join-our-network

[5] www.lepnetwork.net/

[6] www.stem.org.uk/stem-ambassadors/local-stem-ambassador-hubs

[7] www.careersandenterprise.co.uk/sites/default/files/uploaded/1059_school_guide_digital3.pdf

[8] www.bioindustry.org/uploads/assets/uploaded/75cb56d3-a39b-45ba-80c6e818482a1fe6.pdf

[9] www.bioindustry.org/uploads/assets/uploaded/8547ca85-8b4e-425e-a796d89c4db290da.pdf

[10] www.careersandenterprise.co.uk/schools-colleges/gatsby-benchmarks/gatsby-benchmark-6

[11] www.smallpeicetrust.org.uk/

[12] www.etrust.org.uk/edt-programmes

[13] www.industrialcadets.org.uk/

[14] www.etrust.org.uk/ees

[15] competition.thebigbangfair.co.uk/

[16] www.crestawards.org/

[17] www.careersandenterprise.co.uk/schools-colleges/gatsby-benchmarks/gatsby-benchmark-2

[18] education.skype.com/

[19] meet.google.com/

[20] www.skillsbuilder.org/framework

[21] www.stem.org.uk/resources/elibrary/resource/34732/testing-textiles

[22] icould.com/stories/david-p/

[23] tools.careersandenterprise.co.uk/login

[24] www.bioindustry.org/uploads/assets/uploaded/75cb56d3-a39b-45ba-80c6e818482a1fe6.pdf

[25] www.bioindustry.org/uploads/assets/uploaded/8547ca85-8b4e-425e-a796d89c4db290da.pdf

[26] www.etrust.org.uk/

[27] www.industrialcadets.org.uk/experience

[28] www.871candwep.co.uk/helping-business/the-pledge-partnership/

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

Our mission is to improve lives through education and ensure that every young person across the UK can access the world-leading STEM education they deserve. Inspirational teaching is vital and supporting teachers, alongside students, is fundamental to our approach. We provide teachers with professional development, educational resources, access to STEM Ambassadors and support for STEM Clubs.

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