

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 1 A stable careers programme

For schools

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

For colleges

Every college should have an embedded programme of careers education and guidance that is known and understood by learners, parents, teachers, employers and other agencies.

What this means for STEM

✓ Top tips

- 1 Make use of your in-house STEM expertise! Work collaboratively with your science, computing, D&T, engineering and mathematics faculties, and use their knowledge and inspiration to support your careers strategy.
- 2 Communicate the importance of STEM skills, STEM careers and awareness of local STEM industry with your Leadership Team, colleagues and governors by delivering STEM-specific content in your [careers training](#)¹.
- 3 Include STEM-focused careers activity and [information](#)⁴ on your website, informing students, engaging parents and potentially attracting new industry support.

Resources

- 1 [STEM Learning STEM Careers resources](#)⁴
- 2 [STEM-specific careers training](#)¹ with the STEM Careers Toolkit: training resource
- 3 Find out about your local [Careers & Enterprise Company Network](#)⁵
- 4 Get in touch with your local [STEM Ambassador Hub](#)⁶
- 5 Evaluate your careers activity using the [evaluation tools provided by the Careers & Enterprise Company](#)⁷ and [STEM Learning's career evaluation resources](#)⁸
- 6 Find your [Local Enterprise Partnership](#)⁹
- 7 Support your STEM colleagues to better understand your careers strategy with [free online training from STEM Learning](#)¹⁰
- 8 Find out about [STEM-themed awareness events](#)¹¹ that happen throughout the year
- 9 Find out about [Gatsby Benchmark 1](#)¹²



Develop STEM within your careers strategy

STEM career learning should be woven into your careers strategy and have support from your Leadership Team, governance and, where possible, local employers.

Evaluate your current provision:

- ✓ Use the ideas in this toolkit to evaluate your current STEM careers provision and develop strategies for future STEM careers activity, mapped to each [Gatsby Careers Benchmark](#)².
- ✓ Join your local [Careers & Enterprise Company Network](#)³ and use [evaluation tools](#)⁷ to understand your current career learning provision and how it can be developed.
- ✓ [Contact your local STEM Ambassador Hub](#)⁶ and find out about STEM-specific events, volunteers and programmes that your school or college can engage in.

Develop STEM provision within your careers strategy:

- ✔ Establish leadership buy-in for STEM-specific career learning. Having high-level STEM advocates will support future work, especially if additional commitment for funding and staffing is necessary.
- ✔ Include STEM-specific careers information in your careers training for colleagues.
- ✔ Include STEM career learning opportunities for all students throughout the year, covering a range of STEM subjects and careers. These opportunities could be linked to themed weeks and days¹¹ delivered as part of the curriculum, enrichment, assemblies, targeted student interventions or part of PSHE or tutor time.
- ✔ List STEM-specific activities in your published careers strategy and provide experience of a range of STEM careers across sectors such as digital, logistics, engineering, healthcare, manufacturing, construction and biosciences.
- ✔ Include extra-curricular STEM activities¹³ and competitions¹⁴ in your published careers strategy and work with your STEM faculties to keep an up-to-date list of these events included in your annual plan.
- ✔ Communicate the importance of STEM skills and STEM career learning to parents through events, newsletters, social media and your website.



Collaborate with your in-house expertise: science, computing, D&T, engineering and mathematics departments

Before you introduce a range of STEM career learning opportunities, work with your colleagues to establish where STEM career learning is already happening in both curriculum and extra-curricular provision.

Evaluate existing STEM career learning and, where possible, incorporate this into your careers strategy:

- ✔ Support your colleagues to better understand where STEM fits within your careers strategy by providing internal training or participating in free online training from STEM Learning¹.
- ✔ Speak to your curriculum leaders and attend curriculum meetings to find out what STEM career learning is already taking place. Look for examples of good practice in lessons, clubs, competitions and societies.
- ✔ Establish a careers representative for each STEM subject or across departments (ie STEM coordinator) who can work with you to take a strategic view on how career learning takes place across departments.
- ✔ Ensure that there are STEM career learning opportunities in lessons and in extra-curricular activities (see Benchmarks 4 and 5).
- ✔ Consider sustainability and avoid overloading colleagues. STEM subjects can support a wide range of career learning activities; where possible look to complement existing activity (ie adapting schemes of learning).
- ✔ Support your colleagues to increase their understanding of STEM employers and STEM further study routes (ie A levels, T levels, apprenticeships, degree routes, etc) by sharing careers-linked curriculum resources and involving them in encounters with employers, further education and higher education.

- ✔ Explore how STEM career learning can be developed across the curriculum. For example:
 - art – raise awareness of global issues with art projects
 - English – creative writing and writing for purpose about, for example, STEM in the news, STEM jobs
 - RE – social justice debates about how technology can improve lives and the ethics of technological advancements
 - history – exploring the impact of science and technology on society
 - PE – researching the design of technical sports clothing and equipment
 - geography – understanding the technology and engineering infrastructure required to support urban growth
- ✔ Consider how best to record STEM career learning:
 - gather evidence of career learning in curriculum planning and department development plans
 - record and celebrate your students' meaningful encounters with STEM employers, further education and higher education. If recording at department level, refer to these records in your careers strategy
 - encourage colleagues to keep an attendance record for STEM-related extra-curricular activities. These records can be used with Careers & Enterprise Company evaluation tools to profile which students are engaging in extra-curricular activities and support targeting underrepresented groups in future activities

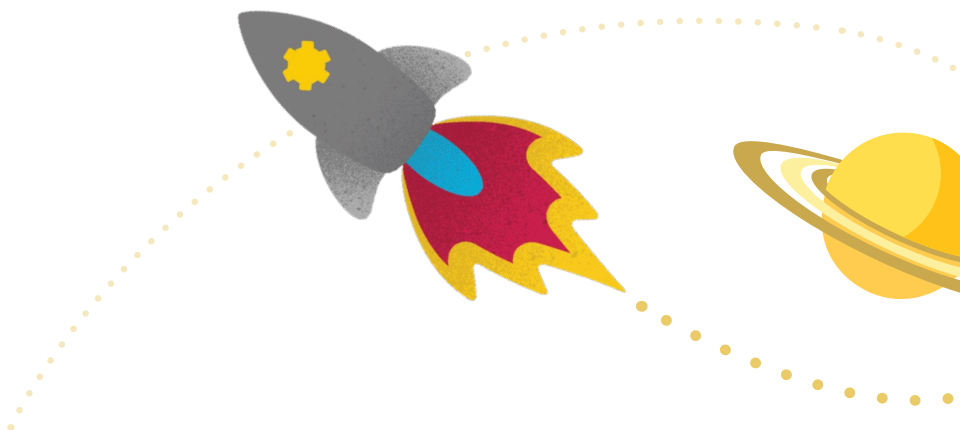


Develop a STEM careers network and capture feedback

Create a STEM careers network to support you as you build STEM into your careers strategy. Provide opportunities for this network to evaluate your careers work and use them to communicate STEM careers information.

Take advice from employers about the current and future STEM labour market:

- ✔ Try to encourage STEM colleagues to attend STEM-specific network meetings, both online and face to face, increasing their professional network.



Provide STEM careers information to colleagues, parents and students:

- ✔ Share STEM-specific careers resources and information with your colleagues, including posters¹⁵, videos¹⁶ and curriculum-linked resources⁴.
- ✔ Encourage colleagues across curriculum subjects, PSHE and pastoral time to engage in STEM-themed awareness events¹¹ (ie British Science Week¹⁷, Ada Lovelace Day¹⁸, Pi Day¹⁹).
- ✔ Publish details of your STEM careers activities in your careers programme and provide advice for parents²⁰ on where to find STEM careers information on your website.
- ✔ Ensure that your Careers Adviser has STEM-specific information to use during personal guidance time (see Benchmark 8 for more information).
- ✔ Keep STEM careers on the agenda through updates to colleagues, parents, leadership and governors.

Seek feedback:

- ✔ Use evaluation tools such as STEM Learning's careers activity evaluation resources⁸ and evaluation tools provided by the Careers & Enterprise Company⁷ to evaluate your STEM careers activities. Try to gather a range of evaluation information from colleagues, students, learners, parents, employers and volunteers.
- ✔ Seek feedback on the STEM content within your careers strategy from your local Careers & Enterprise Company Network³, local employers and governors. Does your strategy align with the plan for developing STEM skills in your region?



AN EXAMPLE OF ...

Embedded STEM careers learning in post-16 education

Grimsby Institute of Further and Higher Education²¹ has developed a department approach to STEM careers learning, offering a curriculum that meets the needs of the local regions that the provision serves and ensures that learners are well prepared to progress to employment, apprenticeships or higher education.

Senior leaders are responsive to local needs, developing a STEM curriculum that:

- incorporates detailed and accurate labour market intelligence
- utilises the local knowledge of colleagues and links with partners to inform curriculum decisions and to identify skills gaps
- uses online training to further develop STEM experiences
- embeds the development of employability skills

- allows for a full day of student work-related activities, every week
- encourages participation in competitions to demonstrate high-level STEM skills and abilities
- provides opportunity for learners to receive feedback from employers on skill development and work-readiness

Teachers develop their own industrial expertise and create excellent links with employers and external agencies to help learners develop their employability skills. As a result, learners see them as knowledgeable and credible, and recognise their good understanding of the requirements of the industry or vocational area.

The college's careers provision works in partnership with STEM faculties, providing:

- each faculty with a Skills and Employability Trainer allocated to them to work with employers and students on employability skills, including providing work experience placements where available and appropriate
- HE application support, via the Grimsby Aspire programme
- employability skills passports, via the Humber LEP



AN EXAMPLE OF ...

Working with the Careers & Enterprise Company Network

Mike Bowen works for Jacobs within the Highways team of their Transportation business. He volunteers his time as an Enterprise Adviser, supporting Carmel College in Darlington. As an Enterprise Adviser, Mike works with staff and students at the college to support their careers programme.

"Throughout my career, STEM and STEAM engagement has always been a significant passion of mine. I have been fortunate enough to have been given an opportunity from someone, which kick-started my career into the industry. Since then, I've always wanted to ensure that I could provide that opportunity and understanding of the opportunities that exist on to others.

Being an Enterpriser Adviser enabled me to take my involvement in STEM and STEAM engagement one step further. It also fits perfectly with Jacobs' value to live inclusion, and invest in our people and culture. The opportunity to work directly and enhance engagement between a school or college and a business fitted perfectly with our company ethos."

Register your interest⁵ in your local Careers & Enterprise Company Network and learn more about the support that Enterprise Advisors can provide.

References

- ¹ www.stem.org.uk/rxgajd
- ² www.careersandenterprise.co.uk/schools-colleges/gatsby-benchmarks
- ³ www.careersandenterprise.co.uk
- ⁴ www.stem.org.uk/stem-careers
- ⁵ www.careersandenterprise.co.uk/about-us/our-network
- ⁶ www.stem.org.uk/stem-ambassadors/local-stem-ambassador-hubs
- ⁷ tools.careersandenterprise.co.uk/login
- ⁸ www.stem.org.uk/lxg7uo
- ⁹ www.lepnetwork.net/about-leps/location-map/
- ¹⁰ www.futurelearn.com/courses/linking-stem-curriculum-learning-to-careers
- ¹¹ www.stem.org.uk/lxfq39
- ¹² www.careersandenterprise.co.uk/schools-colleges/gatsby-benchmarks/gatsby-benchmark-1
- ¹³ www.stem.org.uk/stem-clubs
- ¹⁴ www.stem.org.uk/enrichment/competitions-challenges
- ¹⁵ www.stem.org.uk/lxfq32
- ¹⁶ www.stem.org.uk/lxfq35
- ¹⁷ www.britishscienceweek.org/
- ¹⁸ www.findingada.com/
- ¹⁹ www.piday.org/
- ²⁰ www.stem.org.uk/lxfq3j
- ²¹ www.grimsby.ac.uk/



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.

www.stem.org.uk