

10 ways to find your STEM career: teacher guidance

Make career learning visible in the classroom. Help your students to understand how their experiences in and out of lessons will support them during their STEM career journey.

This guidance accompanies the 10 ways to find your STEM career poster. It has been written for teachers, providing further information and ideas to help students develop the ten statements captured in the poster.

Note: throughout this guidance we will be linking to the Gatsby Careers
Benchmarks. For further information on what each Benchmark includes, please visit the Careers & Enterprise website.



Search online... find careers in STEM that interest you

Gatsby Careers Benchmark 2: Learning from career and labour market information Gatsby Careers Benchmark 3: Addressing the needs of each student / learner

- encourage students to consider what interests them in their STEM lessons.
 Are there particular subjects that they enjoy studying? Are there certain skills that they have enjoyed learning?
- try to help students see interest and enjoyment in a subject as an indicator of what types of career they might wish to include in their research.
- use a wide range of job examples in your lessons, supporting students to see a breadth of career opportunities.
- signpost different careers that use the skills and knowledge learned in your lessons. This will help students to increase their awareness of the careers linked to your subject.
- show students how to use the internet to explore careers websites that link to your subject. This might include sites like <u>start</u>, <u>National Careers Service</u> or <u>Prospects</u> as well as the career sections of relevant STEM employers.
- provide opportunity in homework and class research tasks for students to research STEM careers that they are interested in.



- encourage students to see people like them working in a STEM career by using inclusive role models in lesson content, displays and resources.
- avoid any references to STEM stereotypes that exclude (le you have to be clever to work in Science, computer scientists are all geeks, engineering is for boys).

Recommend resources:

Visit the <u>STEM Learning careers page</u> for curriculum linked STEM careers resources, posters, and information.

Careers websites for students to explore, linked to:

- Construction https://www.goconstruct.org/
- Food and drink industry https://tastycareers.org.uk/
- Science https://www.cogentskills.com/careers/
- Maths https://www.mathscareers.org.uk/
- Engineering https://www.tomorrowsengineers.org.uk/

Be part of a team... join a STEM club

Gatsby Careers Benchmark 4: Linking curriculum learning to careers

- set up a <u>STEM Club</u> to help your students explore STEM careers in a more informal setting.
- provide a variety of different STEM Club activities for students to give them a broad range of STEM experiences. Take a look at <u>STEM Learning's STEM</u> <u>Club resources</u> for ideas.
- help students to develop their leadership skills by asking them to help you run a STEM Club for other students. Take a look at the <u>STEM Clubs Handbook</u> for further guidance.
- promote the development of employability skills through STEM Clubs. Use the <u>Top 10 employability skills</u> poster to help students identify which skills they are developing.

Recommend resources:

Find out about the resources, training and guidance available for your STEM Club.

Download the Top 10 employability skills poster.



Learn new skills... take up a STEM hobby

Gatsby Careers Benchmark 3: Addressing the needs of each student / learner

- signpost internet sites and community groups that students can join to develop an interest for your subject, outside of lessons. (le coding, making, gardening, robotics, etc...)
- provide extension activities in homework that might inspire students to take up a STEM related hobby.
- try and find out about students hobbies that link to your subject. Are there
 activities that students are taking part in outside of lessons that could be
 shared in lessons and used as part of learning?
- share your own STEM related hobbies with students and discuss with them
 the skills and knowledge that your hobby helped you to learn.

Recommend resources:

Explore how student experiences outside of the classroom can contribute to their Science Capital.

Get ahead... research future STEM careers

Gatsby Careers Benchmark 2: Learning from career and labour market information

- when providing careers examples to students, try to consider what jobs and skills we might need in the future. Help students find out what careers are indemand and explore what new jobs we might need in the future.
- help students to understand the transferability of STEM skills (le maths, digital skills) across a wider range of careers, better preparing them for a changing job market.
- request a <u>STEM Ambassadors</u> to help you provide students with information about the local demand for future skills and careers.

Recommend resources:

Find UK labour market information from the Office of National Statistics.

Explore labour market information with the Careerometer widget.



Get inspired... visit STEM places of interest

Gatsby Careers Benchmark 4: Linking curriculum learning to careers

- organise STEM related trips to give your students the opportunity to learn about STEM in a non-education setting.
- consider which students will benefit most from STEM related trips. Are there
 student cohorts that need additional support to see the STEM opportunities
 available to them? Encourage class discussions about places of STEM
 interest that students are aware of, including what the place is, how it links to
 STEM and who might work there.
- highlight local STEM themed events that take place during school holidays.

Recommend resources:

Explore how student experiences outside of the classroom can contribute to their Science Capital.

Find out about the National Big Bang Fair and local The Big Bang Near Me.

Challenge yourself... take part in STEM competitions

Gatsby Careers Benchmark 4: Linking curriculum learning to careers

- provide opportunity for students to take part in STEM themed competitions either as individuals or within teams.
- promote the development of employability skills through STEM competitions.
 Use the <u>Top 10 employability skills</u> poster to help students identify which skills they are developing.
- find out about local STEM competitions by signing up for your local <u>STEM</u>
 Ambassador Hub newsletter.
- use competitions as an opportunity to develop the leadership skills of more experienced students by asking them to support their peers.
- if possible, try to encourage your students to research and choose which competition they would like to take part in, tailoring the activity to their own interests.

Recommend resources:

Download the Top 10 employability skills poster.

Register for email updates from your local STEM Ambassador Hub.

Find out more about STEM competitions and challenges.

Examples of national STEM competitions:

 <u>Ultimate STEM Challenge</u> Ages 9 – 14, BP's cross-curricular schools' competition



- The Bright Ideas Challenge Ages 11 14, Shell's cross-curricular schools' competition
- <u>CanSat</u> Ages 14+, Gain practical experience working on a small-scale space project
- MiSAC Poster competition Ages 11 16, Focusing your student's interest in microbiology
- FIRST LEGO League Ages 4 16, Robotics themed STEM challenge
- Maths Careers poster competition Ages 11 18, Create a poster on the annual theme linked to maths
- FIRST Tech Challenge Ages 12 18, Robotics themed STEM challenge
- The Big Bang Competition Ages 11 18, Showcase your student's STEM achievements with the Big Bang Fair
- <u>UK Youth Rocketry Challenge</u> Ages 11 18, design, build and launch a model rocket
- <u>TeenTech Awards</u> Ages 11 19, Apply science and technology to solve a real world problem
- F1 in Schools Ages 9 19, Formula 1 themed STEM competition
- VEX Robotics Championships Ages 7 19+, Robotics themed STEM challenge
- Greenpower Challenge Ages 9 19+, design and build an electric car

See it for yourself... visit STEM workplaces

Gatsby Careers Benchmark 6: Experiences of workplaces

- organise a trip to a local STEM employer. Ask your Careers Leader for help with finding a host for your trip.
- provide your Careers Leader with an attendance list and a summary of the activity for any trips, they may need this information for their records.
- consider which staff should attend the visit. Are there members of staff who might benefit from visiting a STEM employer?
- ask your employer host to provide an overview of the company and wider industry. Where possible, try to arrange for your students to meet employees from a variety of roles and responsibility levels.
- take advantage of technology and provide remote experiences of a workplace through a remote visit. This might involve an online meeting with a STEM Ambassador and a video tour of a site.
- find out about STEM related volunteering opportunities and share with your students, for example, encourage future medics to volunteer in care homes.

Recommend resources:

Find out more about <u>STEM themed awareness events.</u>



Support your students to access volunteering opportunities.

Read guidance on hosting young people in the workplace from the Health and Safety Executive (HSE).

Ask questions... get careers information from STEM Ambassadors

Gatsby Careers Benchmark 5: Encounters with employers and employees

- visit the <u>STEM Ambassadors website</u> and find out about some of the activities
 that STEM Ambassadors can provide for schools and colleges. Careers talks,
 STEM activities and mentoring are all great opportunities for young people to
 meet STEM Ambassadors and ask questions about their work, life, skills and
 qualifications.
- request a <u>STEM Ambassador</u> to work with your students. This might be through a face to face activity or by providing remote support online.
- request a <u>STEM Ambassador</u> to work with your colleagues. Working with someone from industry can help you to develop careers content for your lessons and update your knowledge of career routes and labour market information.
- request a <u>STEM Ambassador</u> to support with parent events. Open evenings and parent sessions are another route for careers information to reach students outside of the classroom.

Recommend resources:

Find out more about the STEM Ambassador programme.

Record your achievements... Showcase your STEM skills to future employers

Gatsby Careers Benchmark 3: Addressing the needs of each student / learner

- provide opportunity for students to develop their STEM skills through in-lesson activities and extra-curricular opportunities. This might involve practical exercises, team work or individual research projects.
- support students to keep a record of their STEM experiences, including clubs, competitions and workplace visits. Support and encourage them to record pictures of projects, evidence of competition entry and examples of how these experiences helped to develop employability skills as well as STEM skills. Use the <u>Top 10 employability skills</u> poster to help students identify which skills they are developing.
- consider using STEM awards like CREST to accredit your STEM activities.



• signpost students to your careers team for support with their CV, applications and interview technique.

Recommend resources:

Download the Top 10 employability skills poster.

Find out more about CREST Awards, from the British Science Association.

Plan your STEM future... research apprenticeships, colleges and universities

Gatsby Careers Benchmark 7: Encounters with further and higher education

- provide careers information in your classroom, using displays, flyers and posters to show students a variety of career routes that link to your subject.
- working with your Careers Leader, make links to local apprentice providers, college departments and university departments. Explore the outreach support that they have available and try to link lesson content to some of the opportunities that are available to students.
- request a <u>STEM Ambassador</u> with experience of apprenticeships to work with your students. This might be through a face to face activity or by providing remote support online.
- show students how to use the internet to explore different further and higher education websites that link to your subject. This might include sites like <u>Prospects</u>, <u>UCAS</u> and <u>Apprenticeships</u>, as well as the career sections of relevant STEM employers.
- encourage students to speak to the careers support available to them, for example a Careers Adviser or mentor.

Recommend resources:

Visit the <u>STEM Learning careers page</u> for curriculum linked STEM careers resources, posters and information.

Find out more about Apprenticeship opportunities at the <u>Apprentice Hub</u> and <u>Not</u> <u>Going to Uni</u>.

Find out more about higher education study routes with **Prospects** and **UCAS**.