

STEM ALL AROUND US

Teacher's sheet

How often do students ask 'Why are we doing this?' This activity illustrates the strong links between all four STEM subjects and helps highlight how much overlap there is in many jobs. It will add a real-world context to lessons and build career aspirations in an interactive session.

Before

It is important that you have clear objectives for this activity. What do you want your class to get out of this experience? STEM Ambassadors working in a variety of exciting fields can demonstrate how the skills learned in STEM lessons transfer to real jobs. Let the STEM Centre team know your requirements as far in advance of your proposed date as possible. Use the checklist to prepare for the day.

During

STEM Ambassadors can give a short presentation about their job and the STEM aspects of it, drawing out the school-based learning they use every day. They can then complete a simple practical activity based on their job role, industry or profession, highlighting to students the different skills and subject areas they have used. Remember that STEM Ambassadors are generally not trained teachers and need the support of at least one teacher to ensure management of the event and pupil behaviour.

After

Consider some follow-up activities in class or a return visit by one of the STEM Ambassadors to take part in another activity. Tell us how the activity went by filling in an evaluation form or sending us an email.

Enhancement activities

Look at the Hidden Science Map website www.hiddensciencemap.org to show the STEM all around us.

CHECKLIST

Please ensure that you take the following steps when arranging your visit from a STEM Ambassador:

- ☐ Contact us to request the visit at least six weeks before the event
- ☐ Correspond directly with the STEM Ambassador(s) to clarify arrangements and requirements
- ☐ Inform and gain approval from senior staff for the visit
- ☐ Ensure that at least one member of staff is available to facilitate the activity (depending on the number of students involved)
- ☐ Book the room and set up (if necessary)
- ☐ Inform school reception that visitors will be arriving and ensure they know where to direct them
- ☐ Register with STEMNetworking to blog about your activity

NOTES

Age range: KS3–KS4

Duration: One hour/lesson or half day

Capacity: Min one class, max – dependent on space and Ambassadors available

Themes: STEM, Careers, PSHE

Preparation time: ⌚ ⌚

Resources required:

Space to hold event



STEM ALL AROUND US

Ambassador's sheet

How often did you wonder at school why you were studying this subject? Subjects studied can often seem independent of each other when you are at school. This activity will show how all subject knowledge is interlinked and used in the world of work.

Before

Think about how much STEM is used within your job. What skills do you use every day? Think about what you learned at school and how this has been built upon through your career. If you could go back in time what would you pay more attention to? Prepare a simple practical activity to complete with the students, illustrating your job role, industry or profession; highlight to students the different skills and subject areas they have used. Let the STEM Centre team know about your activity as far in advance as possible and register it on the STEMNET database. Use the checklist to prepare for the day.

During

Start the session with a ten-minute talk/presentation about you and your job and the STEM aspects of it, drawing out the school-based learning you use every day. Complete your practical activity. Remember to leave time at the end to get the students to highlight the different subject areas and skills they used. Get them to write these on post-its and place under headings on the wall. The activity will be supported by at least one teacher who is responsible for room and behaviour management.

After

Review how it went, including teacher feedback in your assessment, and amend activity as necessary. You will have an activity that can be taken to other schools. Tell us how it went by completing an evaluation form or emailing us. Consider organising a return visit to the school to take part in another activity.

CHECKLIST

- ☐ Correspond with the teacher directly to clarify arrangements and requirements
- ☐ Take enough materials to complete the activity with the students
- ☐ Check the school address and plan how to get there
- ☐ Have your STEM Ambassador pin badge, ID card and DBS form ready to take with you

AMBASSADOR TIPS AND IDEAS

- Keep your activity simple
- Ideas for simple activities
www.stevespanglerscience.com/experiments
www.raeng.org.uk/education/eenp/engineering_resources/activity_resources.htm
- Ask colleagues who are also STEM Ambassadors to come with you
- Get in touch with the STEM Centre if you are stuck for ideas




NOTES

Age range: 11–18

Duration: One hour/lesson or longer if several Ambassadors involved

Capacity: Min 30 students, max – dependent on space

Schools: One

Preparation time:   

You will need: Your presentation/talk, your activity and the materials to complete it