

'STEM all around us'

Activity 5

Teacher

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? How much Maths is involved in any job? How do the skills learned in STEM lessons transfer to other occupations? Handling and analysing data are used in most jobs. Let the STEM Centre team know your requirements as far in advance of your proposed date as possible. Use the check list 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 everyday. 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 1 teacher to ensure management of the event and pupil behaviour.

After

Consider some follow up activities in class or a return visit by one 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.

NOTES:

Age Range: KS3-KS5

Duration: 1 hour/lesson or longer

Capacity: Min 1 class, max - dependant on space and Ambassadors available

Themes: STEM, Careers, PSHE

Resources: Space to hold event

Preparation time: ☹☹

Checklist:

- ✓ STEM Ambassadors requested at least 6 weeks before the event
- ✓ Correspond with STEM Ambassadors directly to clarify arrangements and requirements
- ✓ Risk assessment for any activity completed
- ✓ Reception informed that visitors will be arriving and where they should go
- ✓ Senior staff informed and approval given
- ✓ At least 1 member of staff available to facilitate the activity (depending on number of students involved)
- ✓ Room booked/confirmed and set up
- ✓ Registered with STEMNetworking, to blog about your activity

Enhancement

Use the Hidden Science Map www.hiddensciencemap.org/ to show the STEM all around us.



'STEM all around us'

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 in school. This activity will show how all subject knowledge is valuable and used in the world of work.

Before

Think about how much STEM is used within your job, what skills do you use everyday? Think about what you learned at school and how has this 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; highlighting 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 5/10 minute talk/presentation about you and your job and the STEM aspects of it, drawing out the school based learning you use everyday. 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 on post-its and place under headings on the wall. The activity will be supported by at least 1 teacher who will be responsible for room and behaviour management.

After

Review how it went, include teacher feedback and amend activity as necessary. You now 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 or different year group.

Activity 5

Ambassador

NOTES:

Age Range: 11-18

Duration: 1 hour or more

Capacity: 1 class

Schools: 1

Preparation time: ⌚⌚⌚

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

Checklist:

- ✓ Correspond with the teacher directly to clarify arrangements and requirements
- ✓ Information to the teacher to complete the Risk Assessment (if necessary)
- ✓ Enough materials to complete the activity with the students
- ✓ Registered with STEMNetworking to blog about your activity
- ✓ Checked the school address and planned how to get there
- ✓ STEM Ambassador pin badge, ID card and CRB form ready to take with you

Ambassador tips and ideas

Keep your activity simple here are some ideas

<http://www.stevespanglerscience.com/experiments>

<http://www.epsrc.ac.uk/newsevents/experiments/Pages/default.aspx>

http://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

