

DISCUSS SCIENCE IN OUR LIVES

Teacher's sheet

Scientific advancement can cause controversy and debate. Sometimes there are no easy answers. Give your students a chance to develop their communication skills and an awareness of ethical issues within an informal group. A STEM Ambassador will be your guest speaker and hopefully the conversation will flow.

Before

This session should be an informal means of meeting working scientists where students and speakers can explore contemporary issues in science and technology. They are discussion-based not presentation-led so ideally try the library or sixth form centre or an after-school club or lunchtime meeting. It is important that you have clear objectives for the activity. What do you want the group to gain from the experience? Do you envisage this as an ongoing project running through the year? Do you have specific topics or subjects to be discussed? 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 are professionals working within, or with an interest in, the fields of STEM; they are not generally teachers. Therefore it is important that the activity is facilitated by at least one teacher and that the classroom management issues are undertaken by that member of staff. Be prepared to prompt discussion.

After

Consider some follow-up activities in class or a return visit by one of the STEM Ambassadors to take part in another activity. To take this idea forward, you could organise regular sessions with guest speakers. You could even make the sessions student led. Tell us how the activity went by filling in an evaluation form or sending us an email.

Enhancement activities

Use the resources on the www.juniorcafesci.org.uk website to work with students to run your sessions and then invite other schools to take part.

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–KS5

Duration: One hour

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

Themes: Science in Society, Ethics, PSHE, Key Skills, cross curricular

Preparation time:  

Resources required: Informal space, chairs, refreshments

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Ambassador's sheet

Debating the hot topics of the day and the ethics of scientific advancement is important within the science and technology communities. Give young people a chance to develop and discuss their views by being a guest speaker at a Discuss Science session. Help develop the scientific literacy of the younger generation.

Before

Sessions should ideally be an informal means of discussing the current issues in science and technology so you will not require any audio-visual equipment or presentation. Do you have a specific topic or issue that you believe would be engaging and relevant? Think about the knowledge level of your audience, as you might need to 'set the scene'. Let the STEM Centre team know about your requirements as far in advance as possible. Use the checklist to prepare for the day.

During

Begin by introducing yourself and talking about your job/background/career. Give some background information for the discussion and provide the context. Lead onto the topic for discussion by posing a question to the group. A question that provokes reaction without offence works well. Hopefully you won't need to say much more as the discussion begins! There will be at least one teacher for 'classroom' management issues.

After

Review how it went, including teacher feedback in your assessment, and amend the activity as necessary. You will have an activity that can be taken into other schools. Consider taking part in regular sessions or supporting the teacher and students in taking their ideas forward with other speakers. Tell us how it went by completing an evaluation form or emailing us.

CHECKLIST

- Correspond with the teacher directly to clarify arrangements and requirements
- 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
- Register with STEMNetworking to blog about your activity

AMBASSADOR TIPS AND IDEAS

- Put your talk into context and ensure it is relevant for young people
- Prepare some discussion prompts for the group or activities to express opinions
- Look at the resources on www.juniorcafesci.org.uk for ideas

NOTES

Age range: 11–18

Duration: One hour lesson

Capacity: Min 30 students,

max – dependent on space

Schools: One

Preparation time: 

You will need: Yourself and a smile!