

Welcome to the October newsletter for STEM Ambassadors. Welcome to new Ambassadors who have recently joined us whether it be for Go4SET, EES, Bridges to Schools, company education programmes and the like, or you have decided personally that you have an interest in promoting STEM to the next generation and want to be part of the STEM Ambassador programme.

Schools have now completed term 1 of this academic year and teachers are keen to get events and activities organised for term 2 and beyond. We are getting requests every day from schools so please make sure you check the "Help needed" section on our website, www.scienceconnects.org.uk, for up to date information. The list overleaf outlines only the requests we have from schools that are currently unfilled and there are many more activities happening that are not visible. If you have a project or an idea of what you would like to offer a school, get in touch with us and I am sure we can find a very willing school to help you develop your idea further – or if you have a particular school you would like to work with let us know and we can make the introductions for you. Teachers are developing their plans for delivering the new Curriculum for Excellence experiences and outcomes (which they need to start implementing in 2010) and are very receptive to offers of assistance, talks and ideas.

New literature from STEMNET

STEMNET, the national organiser of STEM Ambassadors, has produced a lot of new materials to promote the Ambassador Programme as well as careers in STEM. "A Guide for Employers" is aimed at companies to encourage organisations to get involved in the STEM Ambassador Programme. It offers information on the Programme, what Ambassadors can do, benefits to both employers and employees. If you have registered yourself as an Ambassador but think your company or organisation would like to become involved in STEM Ambassadors then please let us know and we can send copies of this brochure to you or the relevant contact in your company.

STEMNET has also produced posters and brochures for pupils on roles of engineers; scientists etc in the workplace so if you would like copies of these for schools you are visiting please contact us.

The STEMNET website, www.stemnet.org.uk is updated frequently with case studies; resources and useful information so please make sure you visit it regularly. Also have a look at the Teachers section on our website to see what resources are available to you as well as teachers.



REQUESTS for HELP

The following requests have been made by schools and organisations. **If you can help please email us at ambassadors@physics.gla.ac.uk or phone on 0141 330 6396** and we can liaise with the appropriate school on your behalf.

SCHOOL / EVENT	DATE	REQUEST
Gourock Primary School	As soon as possible	Hep with new Young Engineers and Science Club
Ralston Primary, Paisley	As soon as possible	Help with any of the main science themes planet earth; forces, electricity and waves; biological systems; materials
Glasgow Academy, Atholl, Milngavie	As soon as possible	Help with "How things move" workshop on creating a fairground
Glasgow Academy, Glasgow	Wednesdays 1:15-1:45pm	Help with Chemistry Club
Killermont Primary, Bearsden	Oct 09 onwards	Help with topics from P1 to P7 –see detail overleaf
King's Park Secondary, Glasgow	29 th Oct or 4 th Nov 3:15-4:15pm	Speaker for Junior Café Scientifique either topic of "Can Science and Religion Co-exist" or "Is Planetary Colonisation feasible, let alone ethical"
Williamwood High School, East Renfrewshire	10 th Nov 7-9pm	Help with Careers Evening
F1 in Schools, Glasgow Science Centre	11th Nov 9am-3:30pm	Judges with engineering (ideally motor/auto sport) skills required for Scottish Final of F1 in schools
Baljaffrey Primary, Bearsden	Week beginning 16 th November	Help with Enterprise Week. Topics for P1 to P7 –see detail overleaf
Hutchesons' Grammar School, Glasgow	Late Nov, Early Dec 09	Help with Advanced Higher Biology students
Springburn Academy, Glasgow	November/Dec 09	Talk at Careers Event for S2 pupils. Talk to Senior pupils about University life
Institute of Physics Lab in a Lorry - Eastbank Academy, Glasgow	3 rd and 4 th Nov 2009	Helping with Physics experiments on board lorry. 9:00am – 3:30pm
Christie Park Primary, Alexandria	Tuesdays 3-4pm starting 26 January 2010	Help with Young Engineers and Science Club
Clober Primary, Milngavie	January 2010 or later	Help with topics from P1 to P7 –see detail overleaf
Glasgow Academy, Glasgow	January 2010	Help with Bronze and Silver Crest Awards starting Jan 10.
Hutcheson's Grammar School, Glasgow	May 2010	Looking for advice/inspiration for a Biology/Maths Day from anyone who has worked with bees.

Gourock Primary, Inverclyde

Gourock Primary has started a new young Engineers and Science Club and would appreciate any help at all that an Ambassador can give.

If you would like to help, even once a month, please get in touch with us.



Ralston Primary, Paisley

This primary school is looking for Ambassadors who can visit the school to help with any of the topics and subjects the classes are covering – whether it be on “learning about the body”, “electricity”, “light” or indeed anything STEM related. If you are interested in visiting please get in touch with us and we can identify with the teachers which area you are able to help with.

Glasgow Academy Chemistry Club

This request was advertised after the last newsletter was sent out so we have had a couple of Ambassadors volunteering for it already. The teacher could always do with more help however so if you want to get involved let us know!

The Chemistry Club is held every Wednesday from 1.15pm until 1.45pm, with set up at about 12.15. During the first week of the club, they had sixty pupils come to this and so the activities had to take place in two labs. A Chemistry specialism is not required, just lots of enthusiasm.

The school will also be taking part in Bronze and Silver CREST award projects in January 2010 so any help with this will be appreciated.

King's Park Secondary, Glasgow – Junior Café Scientifique



The Junior Café Sci programme (widely known as Café Sci) developed out of the successful Café Scientifique project; a movement which allows members of the public and scientists to meet informally, in public places, to discuss contemporary issues in science and technology. Ambassadors may well have attended Café Scientifique meetings held in Glasgow over the last few years.

Junior Café Sci offers a unique opportunity for school pupils to meet working scientists in an informal, relaxed, ‘café’ atmosphere and together explore contemporary issues in science and technology. Cafés take place in school but not in classrooms, usually at lunch time or after school and last anywhere between 40 minutes and an hour. A guest scientist speaks for 10-15 minutes, followed by conversation, questions and discussion with the attending pupils. The format allows participants to discuss their views and concerns and debate scientific issues relevant to everyday life.

The Junior Café Sci project is starting in Glasgow between now and January and will be promoted to more schools in other areas after the launch event in February. Ambassadors will be pivotal in delivering topics to pupils and will be actively involved in this project in the future.

Currently, **King's Park Secondary in Glasgow is one of the first to hold their café** and the pupils one of two topics – depending on which speaker they can get. The topics will be either “Science and Religion can co-exist” or whether “Planetary colonisation is feasible, let alone

ethical". Dates for this café will be with 29th Oct or 4th Nov, depending on availability of speaker. It is likely to run between 3:15 and 4:15pm

If you are interested in this event, or in future Café Sci school topics please let us know and we can send you further information.

Williamwood High School, East Renfrewshire – Careers Evening

We already have a number of STEM Ambassadors volunteering to attend a **Careers Evening at Williamwood High School on Tuesday 10th November 2009**, from 7 to 9pm. Ambassadors have been involved in this event in previous years and found it to be a worthwhile event to attend. The evening is for pupils and parents to be more informed on the career opportunities available to them. If you, or your company, would like to attend please let us know and we will forward your details to the school.

F1 in schools – Scottish Final

F1 in Schools is rapidly becoming the main educational programme that raises awareness of Formula One among students and school children in every region, in every country, on every continent. Spanning age ranges of 9 to 19, its main objective is to help change perceptions of engineering, science and technology by creating a fun and exciting learning environment for young people to develop an informed view about careers in engineering, Formula One, science, marketing and technology.



F1 in Schools is currently in the 2009/2010 Championship Season and will be hosting regional heats in order to select teams to go through to the national finals, from which the winner will proceed to compete in the World Championships 2010.

The Scottish Final will be held on Wednesday 11th November, from 9am-3:30pm at the Glasgow Science Centre.

At the regional heats, a number of teams will bring their engineered Formula 1 cars to race, along with their portfolio of evidence and prepared presentation for the judges to review and score. All judging details will be sent to the Ambassadors nearer the time of the heat and there will be a judges briefing meeting on the morning of the event.

F1 in Schools requires STEM Ambassadors, preferably with a background in engineering, to judge entries at the Scottish Regional Final. This will include judging the portfolios, presentations and pit displays.

If you are interested in being a Judge at this final please contact us as soon as possible and we will forward your name to the organiser.

Baljaffrey Primary, Bearsden

Baljaffrey Primary is very interest in the Ambassador Programme and has not used the services

of Ambassadors before.

They are holding Enterprise Week during the week of 16th November, covering the following topics.

- P1 - Body parts and keeping safe (road safety)
- P2 - Day and night, sun, moon and stars
- P2/3 - Spinning earth, common materials (cotton, fabric, plastics), heating, cooling and dissolving
- P3 - Seasons and weather, water reservoir
- P3/4 - Birds and invertebrates
- P4 - Solids, liquids and gases
- P5 - Solar system, rainforest
- P5/6 - Under our feet, soil formation, and early earth gases
- P6 - Living things: habitats, changes to the environment and improving the environment
- P6/7 - Burning materials, evaporation and filtration, burning fossil fuels.
- P7 - Electrical energy, energy resources, energy to the home

If you can help with any of the topics above please let us know as soon as possible.

Hutchesons' Grammar School, Glasgow

We have received the following two requests from the Biology Department at Hutchesons' Grammar on the south side of Glasgow.

The department would like an Ambassador to help explain the PCR technique/DNA fingerprinting to Advanced Higher students (~ 2/3 hours). This would be sometime in **late November / early December 2009**.

The school is also having a Biology/Mathematics day about bees. They are looking for some advice/ inspiration from anyone who has worked with bees at university in the biological or mathematical field. This would be in **May 2010** so time away!

If you would like to help with either of the requests (or both) please let us know and we will put you in touch with the teacher.

Springburn Academy, Glasgow – Careers Talks

After last month's newsletter, we have quite a few Ambassadors volunteering to talk to pupils at Springburn Academy. They could use a couple more, so if you are interested in talking to S2 pupils about careers in and studying "the sciences", in all walks of life get in touch with us.

These talks will not be until later in the school year but the teacher would like to find out if Ambassadors are interested in coming to the school.

Lab in a Lorry – Institute of Physics

The popular Lab in A Lorry has a very busy timetable, visiting schools all over Scotland. We need volunteers every time the lab visits a school to enable the visits to go ahead.

The Lab in a Lorry will be in Aberdeenshire mostly in November, but will be at

Eastbank Academy, Glasgow on 3rd and 4th November

If you can help with this visit please get in touch with us:

What is Lab in a Lorry?

Lab in a Lorry is an interactive mobile laboratory which gives young people (11-14 year olds) the opportunity to explore science through open-ended experiments. Volunteers guide the students through the experiments (oil and viscous liquids, sound and resonance, light scattering and colours, climate change, optoelectronics) and makes sure everyone gets to be involved.

What would I have to do?

You would be asked to oversee an experiment for the day. On the morning of an event, you receive training on the Lab and the organisers send you all the background material in advance. Volunteers are asked to commit to a minimum of one full school day – you get a free LIAL t-shirt and other freebies, come along for three days you'll receive your very own toy Lab in a Lorry!

Christie Park Primary, Alexandria – Young Engineers and Science Club

Christie Park Primary plan to start up their Young Engineers and Science Club again after a successful stint last year. The teacher would like to run the club after school on a Tuesday, from 3pm-4pm, starting on 26th January for 4 to 6 weeks. She would love to have the assistance of a STEM Ambassador to come along and help her at the club.



The club is interested in taking part in next year's National Science and Engineering Week (12-21 March 2010), of which the theme is "Earth" and will be working on projects related to this during the 6 weeks.

Please contact us if you would like to become involved in the club and help out.

Clober Primary, Milngavie

Clober Primary is very interest in the Ambassador Programme and has not used the services of Ambassadors before. The teachers have been busy identifying areas where Ambassadors can help their classes and have compiled the following list of requests:

If you can provide talks or workshops on the following topics from January 2010 onwards, please let us know

- P1 - Understanding Earth and Space - Planets
- P2 - Understanding Earth and Space - Stars and Constellations
- P3 - Forces - Understanding Living Things and Processes of Life - the effect that a push or pull can have on the direction, speed and shape of an object
- P4 - Gases, Solids and Liquids
- P5 - Solar System - Earth, Sun and Planets. Dealing with temperature, position and atmosphere.
- P6 - Understanding Energy - Electrical and Sound
- P7 - Understanding Energy - Gravity and Weight

Killermont Primary, Bearsden

Killermont Primary still has some Ambassador requests outstanding. If you can hep with any of the following topics please let us know:

P5 Activity relating to the Solar System Oct 09
P2-3 Weather - general information Nov/Dec 09
P6-7 Activities relating to Earth in Space April 2010
P2 Activities relating to senses and how they can keep us safe Feb/Mar 2010

Other information of interest to Ambassadors...

Nuffield School Bursary Scheme 2010

Are you interested in supporting senior pupils from Glasgow City Council schools in a research or development project?

The Nuffield Bursary scheme is aimed at 5th year school or college students who are interested in the sciences, technology, engineering and/or mathematics. The aim is to allow the students to carry out a 4-6 week research or development project in universities, colleges, industry, research or conservation organisations during the summer vacation. Unlike work experience schemes, students carry out projects that are well-defined from the start, have an outcome that is achievable within the time available and which will make a contribution to the work of the host organisation.

The projects can be in any area of science, technology, engineering or maths and need not be lab-based or pure research. They can be development, health & safety issues etc. For example, Rolls Royce gave a couple of projects this year, one was a chemistry-based project on "*Comparison Between Ion Chromatography and Ion Selective Electrode for the Determination of Fluoride and Nitrate Ions in Chemical Etch Solutions*" and the other was more engineering-based "*Implementation Design and Manufacture Pryor Marking Fixturation*".

It is a really good opportunity for companies/organisations/university departments to make young people at a crucial stage in their career, aware of the opportunities available to them. It is also a good opportunity for CPD for STEM Ambassadors.

If you are interested in being involved please contact us for more information.



Innovate Scotland 2009

Innovate Scotland is an event organised by Highlands & Islands Enterprise and the Technology Strategy Board in partnership with the Scottish Government, Scottish Enterprise and the Scottish Funding Council.



Conference & Exhibition - Aviemore Highland Resort
28-29 October 2009 (lunchtime to lunchtime)



Innovate Scotland will be held at the Aviemore Highland Resort over the 28-29

October 2009 (from lunchtime to lunchtime).

NOTE THAT THIS IS TOMORROW!

The event will address aspects of technology innovation, with special focus on the commercial exploitation of a low CARBON economy, ENERGY, the DIGITAL economy and LIFE SCIENCES of the future.

The carbon, life sciences, digital and energy themes, will be reflected in the exhibition, conference and seminar programme, where you will be able to learn from, and meet with, business, government and academic peers who are all focused on using innovation to stimulate growth.

The conference is free to ambassadors, please visit www.innovatescotland.co.uk to register and enter the promotional code STEM09 to claim your complimentary ticket.

Dark Skies Project

Are you interested in inspiring children and adults with some great astro activities this winter? The Dark Sky Scotland partnership is getting ready to run a programme of 30 public astronomy events throughout Scotland.



They are offering a series of two training workshops for everyone who is interested in joining the Dark Sky Scotland Team. Over the past three years, the team has included students, amateur astronomer, teachers, researchers and science communicators - who all share an enthusiasm for communicating with the public about astronomy.

The 30 DSS events will take place in rural and urban areas throughout Scotland and will be for families or community groups. They will be mostly evening events, with some daytime events at weekends. To prepare the team there are running two workshops:

Workshop 1. Induction Workshop

6.00-9.15pm, 20 October *** ** This date has now passed, but if you are still interested in taking part please contact Dave Chalton as below

This is for you if you have not been involved in the DSS team previously. It will give you an overview of what they do, with a special focus on naked eye stargazing, the Starlab planetarium, comet-making and all the logistical aspects of helping to run dark sky events.

Workshop 2. Follow-up Workshop - to be confirmed

This event is optional and is open to both new and existing members of the team. It will take a closer look at some of the activities – the exact programme will drawn up when they have gauged the interest and priorities from the first workshop.

For further details please contact: Dave Chalton, dave.chalton@stfc.ac.uk, 0131 668 8343
www.darksksyScotland.org.uk

Ingenious – RAEng Grant scheme for creative public engagement

Ingenious is a grants scheme that funds thought-provoking activities for engineers to share their expertise and enthusiasm for engineering with public audiences of all ages.

If you are an engineer interested in running your own public engagement project, or have an imaginative idea that will help engineers communicate what they do, why they do it, and how it impacts on our society – the RAEng want to hear from you.

To find out more and apply for a grant visit www.raeng.org.uk/ingenious, which also contains new case studies of previous projects and mini-films to hear what grant holders and engineers have to say about their work and why they wanted to communicate their passion for engineering.

There are two types of grant:

* Public Engagement Grants challenge public engagement practitioners and engineers to communicate in new ways and provide engineers with practical experience of public engagement and or training to improve their skills.

* Public Engagement Fellowships allow individual engineers to explore the societal, ethical or cultural impact of their field of work, broaden and strengthen their existing public engagement skills and knowledge, and raise their profile by reaching new audiences.

The RAEng fund projects large and small with grants available from £3,000 to £30,000.

Applications are welcome from engineers and science/engineering communication organisations alike.

**Closing date for applications:
19 November 2009**



Ingenious



UK Resource Centre for Women

The UKRC has many events and opportunities for women in science, engineering and technology.

The UKRC is pleased to announce that the first issue of the new online journal: The International Journal of Gender, Science and Technology (IJGST) is now available. This journal is the product of a partnership between the UKRC and the Open University. You can get free access to this journal at the website: <http://genderandset.open.ac.uk/index.php/genderandset>

Student Consultative Group Members (6 Positions)

Part time approx 1-2 hours per week during semester time £300 per annum. Fixed Term until June 2010



Interconnect is looking for members of the Interconnect Student Consultative Group. As members of this new group you will have responsibility for advising on the development of the Interconnect Network (everything from events and marketing to our online presence and strategy); seeking out student opinion to help with the development process and being advocates for the Network. Your main areas of work will include: Participating in online discussions on the development of the Interconnect Network; Providing the Interconnect Co-ordinator with feedback on development ideas when requested; Seeking out student opinion on the development of Interconnect as required; Promoting Interconnect locally to colleagues and friends; If you are currently studying science, engineering, technology or the built environment at college or university and are motivated, enthusiastic and believe in the aims of Interconnect, then they would love to hear from you. For more information go to <http://www.interconnect.org.uk/news/stories/student-consultative-committee>

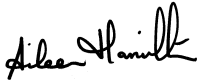
Closing Date: 29th October 2009

Induction Training

If you have not already undertaken your induction training, the next session will be run on **Tuesday 10th November at 2:30pm** in the University of Glasgow. This is an additional session to cope with the high demand we have had for new Ambassadors training. If you would like to register for this induction please email or call us and we will reserve a place for you. The training will last around 1.5 hours and will enable you to complete your disclosure form also. The next training after this will be Tuesday 1st December 2009 at 3pm.

Thank you once again for all your efforts and please take a good look at the requests on offer and see where you can help out. Please remember to record your activity at www.stemnet.org.uk!!

Thanks
Regards



Science Connects Operations Manager