

Welcome to the May/June newsletter for Science and Engineering Ambassadors. A warm welcome to our new Ambassadors who have joined the programme since the last newsletter.

As you will remember from the last newsletter the Science and Engineering Ambassador Programme is now officially renamed as the STEM Ambassador Programme. There is a new logo as well as new name and you will see this appearing in press and articles in the coming months. STEM represents all subjects covered by the Ambassador Programme (science, technology, engineering and maths) and reflects the disciplines we represent with Ambassadors.



We have only 4 weeks left before the end of the school term but there are still quite a few requests for help for various events. Please consult the list overleaf and see if you can volunteer to help with any of the activities listed. Due shortness of time before the end of term please contact Gail as soon as possible (email seas@physics.gla.ac.uk) if you can help out so we can get visits organised.

Thank you for your tremendous support over the last academic year. We cannot deliver the Programme without you so every Ambassador's input is invaluable. We will be planning over the summer months for the new school year starting in August. If there are any schools you would like to link with from August onwards please let us know and we can initiate contact on your behalf before the schools go off for the summer.

Thank you for Ambassador and Teacher Celebration Event

Thank you to all who attended the Ambassador and Teacher Celebration Event last month in the Glasgow Science Centre. There was a great turnout and we have received excellent feedback from those who attended. This event offered the opportunity to meet major STEM providers under one roof and to receive a wide scope of information to both teachers and ambassadors. Many of you made contact with teachers on the night and have started to forge relationships already. Thank you to all ambassadors who exhibited or offered hands on activities, your contribution was very much appreciated and certainly useful to the Ambassadors.



REQUESTS for HELP

The following requests have been made by schools and organisations. **If you can help please email us at seas@physics.gla.ac.uk or phone on 0141 330 6396** and we can liaise with the appropriate school on your behalf. The ones in RED are requests are the ones we have had since last month! Please see overleaf for more information on each of the requests listed in the table.

SCHOOL / EVENT	DATE	REQUEST
Glasgow Academy – Atholl	As soon as possible	Visit from Civil Engineer to talk to nursery children
Killermont Primary, Bearsden	Various dates	All different kinds of Ambassadors required, see details below.
Boclair Academy and primaries, Bearsden	As soon as possible	Help with Science Club project
Smithycroft Secondary and primaries, Glasgow	As soon as possible	Help with Science Club project
Christie Park Primary, Alexandria	As soon as possible	Help with Young Engineers Club
St Leonard's Primary, East Kilbride	As soon as possible	Help with "The Titanic" Project
Milngavie Primary, Milngavie	As soon as possible	Help with any of the main science themes – living things, earth and space, energy and forces.
Strathblane Primary, Stirlingshire	As soon as possible	Help with setting up new Science Club
Ladyton Primary, Alexandria	Anytime	Help with Thinking Skills Group for Gifted Boys
Institute of Physics Lab in a Lorry – see schools below		
Wellington School, Ayr	29 th May 09	Helping with Physics experiments on board lorry. 9:00am – 3:30pm
Hillpark School, Glasgow	17-18 June 09	Helping with Physics experiments on board lorry. 9:00am – 3:30pm
Celebration of Engineering, Crowne Plaza, Glasgow	19 June 09	Helping with Physics experiments on board lorry. 9:30am – 2:30pm
Hollybrook School	Anytime	Help with science club
Albert Primary, Glasgow	9th June 09	Help with careers activities for P5,6,7
The Glasgow Academy, Glasgow	8 th , 16 th , 22 nd June	Help with P7 Volcanoes, S1 Microbes and Medicine, S2 Forensics
Scottish KNEX Final, Dundee	17 th June 09	Invited as a guest, or a judge
Go4SET West of Scotland	Dec 09-Mar 2010	Companies wanted as mentors for next year

Glasgow Academy – Atholl (Milngavie)

Atholl Preparatory School, based in Milngavie, is keen to have a civil engineer visit their nursery class (3-4 year olds). They are looking for someone who could take along a tool or two, hard hat, overalls etc and give a very basic intro to civil engineering. Young engineers get younger and younger!!

If you would like to visit the school and talk to the class about civil engineering at a very basic level please get in touch with Gail.

Killermont Primary School , Bearsden

Killermont Primary in East Dunbartonshire is very interested in the Ambassador Programme and the teachers are very keen to experience different topics that Ambassadors can cover. They have requested the following help in a variety of topics.

The one on the **Weather is very much desired** so if you can chat to P1s and P2s about the weather please let us know ASAP!

Topic	Nature of Support	Class
The weather	How we measure, predict	P1/2
Solubility	Experiments	P5/6
Sound and electricity	Practical tests and experiments	P6/7
Magnets	Explain forces, experiments	P3/4

If you can help with any of the above requests please contact Gail and she will put you in touch with the relevant teacher.

Science Club Project – Boclair Academy cluster, Bearsden

Boclair Academy and its cluster primaries, **Killermont, Westerton, Torrance and Colquhoun Park** have all signed up to be included in the Science Club project.

We would like Ambassadors to support each of these primaries in this new Science Cluster Club.

Ambassadors can be involved by

- Help schools during the 6 weeks with the experiments and projects they undertake as part of the pilot (experiments are provided)
- Attend a Science Fair at the Secondary school, which showcases what the clubs have done.

If you would like to help please contact me. **The Science Club project has started** so time is tight!

If we can have each primary and the secondary have a minimum of 1 visit from an ambassador during this period, it will help the schools enormously. We are still looking for support for Smithycroft Secondary and its primaries for the Science Club project so if you can help at any of these please get in touch with us. **Smithycroft's Celebration Event / Science Fair is on 18th June and Boclair's is on 17th June**, so if you can help out on any of these days please let us know.

Christie Park Primary, Alexandria

Christie Park Primary has used the services of Ambassadors in the past and greatly valued their input to the Young Engineers Club at the school. The teacher is keen to get the club running again and would welcome assistance from ambassadors to help with a few sessions during this term and next academic year. If you are able to visit, even a couple of times, it would be a great help to the school. Please contact Gail if you can offer to help.

St Leonard's Primary, East Kilbride

St Leonard's Primary is currently studying the topic of "the Titanic". The class teacher would welcome input from an Ambassador to add to this topic – covering anything remotely connected to it. This could be discussing the design of the Titanic compared to ships these days, health and safety issues, shipbuilding in general etc. If you can offer any additional support to this topic please contact Gail and she will put you in touch with the teacher.

Milngavie Primary, East Dunbartonshire

Milngavie Primary is keen to have Ambassadors to visit the school to widen pupils' scientific knowledge, in any of the P1-P7 classes. They work through three main themes throughout the year; living things, earth and space and energy & forces. Within these broad headings the children cover topics such as body parts, reproduction in plants, electricity, new alternative energy and space exploration and many more.

If you are interested in visiting the school, or having an initial discussion with the science related teacher at Milngavie about the sorts of things you could help with, please contact Gail and she will put you in touch with the teacher.

Strathblane Primary, Stirlingshire

The parent council and science related teacher at Strathblane Primary are very keen to start up a Science Club in the school, but need assistance to get it off the ground. Although Strathblane is not in our West of Scotland area (due to it being in Stirlingshire) I know a few of our Ambassadors live in Strathblane and may be keen to help out. The school would like to start up the science club and then progress to a Young Engineer and Science Club next year. If you can help out at all – either by helping them start the club, or offer assistance with experiments please let Gail know.

Ladyton School, Alexandria, West Dunbartonshire

Ladyton Primary school in Alexandria has set up a Club called The Thinking Skills Group. This is for a group of gifted boys. They would like any help in terms of science so that they can do science related activities with the group. Please let Gail know if you would like to volunteer to help.

Lab in a Lorry – Institute of Physics

Lab in a Lorry is a mobile laboratory that gives young people, aged 11 – 14, the chance to explore science through hands-on experiments. The programme is guided by volunteers who want to share their passion for science and their curiosity about the world we live in. On board the lorry, pupils are guided through real experiments designed to let them explore and learn for themselves how real science works.



Examples of experiments include challenging pupils to use sound to bend but not break wine glasses...or using water to extract oil from rock. The Lorry has three experimental zones; each group will spend 15 - 30 minutes working on one experiment.

We have a school THIS week – tomorrow (29th) at Wellington School in Ayr. The organiser does have the minimum number of volunteers but a couple more would be great. If you want to help with Wellington then please contact our office and just turn up at the school at 8:30am tomorrow morning.

The Lorry will also be at Hillpark Secondary on 17-18th June, as well as the **SCDI Celebration of Engineering Event** at the Crowne Plaza Hotel, Glasgow on 19th June. If you would like to help with the lorry on any of these days, please contact Gail on seas@physics.gla.ac.uk.

A full briefing on the experiments will be given to SEAS before the day starts. For more information please see www.labinalorry.org.uk

Albert Primary, Glasgow

Albert Primary, Barclay St (G21) is having a Careers Day on **9th June** for children in the upper primary - Primary 5,6 and 7, ages approximately 9-12. This is approximately 75 children.

If there are lots of different activities, it has been proposed by their Deputy Head teacher that they might invite another local school to join in the afternoon. This would double the numbers participating. Their school is due to merge and the event could be used as a way of the getting children together from both schools.

The teacher would like to run the afternoon on an appointment basis where up to 10 children can make an appointment to be involved in any activity. If each activity lasts about 15 minutes this would allow the children to make about 6 appointments allowing for movement between each activity.

If you would like to help run a career related activity, provide an activity or just talk to pupils about your career, please get in touch with Gail.

Hollybrook School, Glasgow

Hollybrook School (G42 area of Glasgow) is a special needs school for secondary pupils - learning difficulties and some behaviour difficulties. Their pupils really enjoy practical science and maths and the teachers are interested in having a science lunch time club – as well as having some careers input to the careers programme.

If you are interested in helping them out in any capacity please get in touch with us.

The Glasgow Academy, Colebrook St

One of our Ambassadors, Rebecca Sowden, is now a teacher at Glasgow Academy and is very actively involved in all sorts of activities at the school (some of you might have taken part in her activities at the Ambassador Celebration Evening).

Rebecca is running 3 events at the school in June and would be delighted if any ambassadors would like to help with her events. The Forensics Day is the one that she would most like help with due to logistics of moving people about!

The days run from 8:30am to 4:30pm but please feel free to come for part of the day if you cannot manage the whole day.

Monday 8th June - P7 Volcano Survival Day

A volcano has erupted and the P7 teams will be set a series of survival challenges (making a mask to deal with the ash, finding a way to slow the lava flow, helping a burnt friend, building a shelter, finding food, water and a way to cook these, building a communication tower to try and get help and providing advice for others). The teams will be given survival points and the day will end with a TV crew coming in to interview the winning team and find out how and why all the others perished.

Tuesday 16th June - S1 Microbes and Medicines

The S1s will have been working and producing posters on bacteria, viruses and disease, which will be judged as part of this event. In the morning they'll be introduced to some patients and bacteria and have to decide which one is making each patient ill and which antibiotic to use to treat each patient. This will also involve a drama or role-play. One of the patients has flu and so can't be treated with antibiotics and so in the afternoon viral infections and a possible fly pandemic will be considered. The teams will be drugs companies trying to develop a cure and they'll then have to market this.

Monday 22nd June - S2 Forensics Day

This will start with the news that the Deputy Rector has been murdered. The pupils will then work in twenty teams of about five and spend the morning alternating between ten "crime scenes" around the school, where they will gather evidence and then take this back to the lab to analyse and put their case together. There will be twenty suspects with motives and in the afternoon the pupils will have to attend court and each team will defend a suspect, regardless of the scientific evidence.

If you would like to be involved in any of the above events, please contact Gail and she will put you in touch with Rebecca.

K'NEX Challenge - Scottish Final - Dundee

The K'NEX Challenge is now in the final stages and the Area Finals are almost complete. A HUGE thank you to all Ambassadors who have helped out along the way – from classroom challenges to Area Finals. Around 10,000 pupils in the West of Scotland take part in the Challenge and we could not deliver it without the help of Ambassadors.

For the first time in a few years, the Scottish Final is moving from Glasgow to Dundee. This is to give other areas the opportunity to host the Final and to give the North schools less travelling for a change! Techfest-Setpoint in Aberdeen is organising this year's event and will be using many Ambassadors from the North East as judges.

If you are interested in attending the Scottish Final (as a guest or a judge) and are able to get to Dundee, you are more than welcome to attend. Please let me know and I can send details to you with venue, timings etc.

Teams from our area which are competing in Dundee are:

Gourock Primary
Broomhill Primary
Neilston Primary
Torrance Primary
Williamsburgh Primary
Maxwellton Primary
Clarkston Primary
Fenwick Primary
Nether Robertlands
Woodlands Primary (Ayrshire)
Gatehouse of Fleet Primary



Good luck to them and hoe we get another West Coast winner!

Go4SET – Companies required!

Go4SET

The aim of Go4SET, an Engineering Development Trust (EDT) initiative, is to stimulate the interest of young people in Science, Engineering and Technology (SET).

The scheme links 12-14 year old pupils (S2) with companies and Universities to offer a **10 week SET experience**. This is achieved by providing a real and live SET Project, which will raise the pupils' awareness and highlight the exciting future career opportunities in SET.

The scheme has a competition format and all members of successful teams will receive Go4SET certificates.

The Go4SET Team is now planning for next year and would like companies to volunteer to act as mentors for the scheme. It runs from **December 09 to March 2010** and commitment from the company would be:

- Attendance at the scheme launch and celebration and assessment days
- Company visit (half or full day)
- It would be desirable that the Company Mentor has weekly contact with the team; preferably by personal visit, or alternatively by telephone, fax, email.

The theme for 2009/2010 will be 'Waste Management'

If you would like more information or wish to apply to act as a mentor for a local school, then please contact me at a.hamilton@physics.gla.ac.uk and I will forward your details to the organisers.



Case Studies wanted!

Skills Development Scotland (formerly Careers Scotland) is presently developing a new website which supports the Scottish Governments Science Strategy called "The Path is SET (Science, Engineering and Technology).

The main aim of this website is to highlight the importance of science to school pupils and demonstrate the wide range of jobs available to them if they continue to study these subjects before and after Standard Grades. As a starting point they have chosen four areas to develop that may interest young people; **Healthcare & Medical Discoveries, Sport and Fashion, Product, Design & Environment.**

They are looking for wide range of careers within these sectors and would be interested in using a combination of School leaver/Modern Apprenticeship/ Technician/Graduate as video case studies on their new website.

If you would like to be involved with these case studies, your input would consist of discussing your role and how you achieved this e.g. from school, college, university etc.

If you would like any further information or wish to volunteer for this, please let me know and I will pass your details on to the contact from SDS.

UK Resource Centre for Women in SET

The UK Resource Centre for Women in Science, engineering and technology is organising a networking, "Connect" event on 16th June in Edinburgh.



Connect

Connecting organisations and networks for women in SET

'Building blocks for a vibrant women's network'

Join us for an evening of discussion and networking, with drinks reception.

Tuesday 16th June 2009
5.30pm – 8.30pm
The Royal Society of Edinburgh
22-24 George St, Edinburgh,
EH2 2PQ



Featuring:

- Speed networking
- Interactive presentation
Anne Mackay-Reid, Chair
The Association of Women in Property,
Central Scotland Branch
- Drinks reception



Who should attend?

Organisations, networks and individuals interested in supporting women in science, engineering and technology. This includes groups within industry, further & higher education, professional bodies and charitable organisations.

Places for this event are limited, to book please contact UKRC on 01274 436485, or info@ukrc4setwomen.org

For more information visit:
www.ukrc4setwomen.org

or call
01274 436485

Glasgow University Science Festival

There are 3 lectures remaining in the Glasgow University Science Festival Public Lecture Series 2009. These are FREE and open to all.

Thurs 28th May Science is Fun - Professor Anne Glover, Chief Scientific Adviser, 7pm, Boyd Orr Lecture Theatre.

Professor Anne Glover of Aberdeen University is seconded to the role of Scotland's Chief Scientific Advisor, to provide independent advice to Ministers, take the lead on co-ordinating science policy across government and work closely with the science community.



Thurs 4th June Life beyond the abyss: The pressures of life 5 miles under the sea- Dr Alan Jamieson, Aberdeen University, 7pm, Boyd Orr Lecture Theatre.

The deepest part of the world's ocean, known as the hadal zone, comprises deep trenches that plunge from 6000 metres to 11,000m in the Pacific Ocean. These extreme depths create a number of challenges to both biologists and engineers resulting in a knowledge gap of the life inhabiting these depths. A joint project between the Universities of Aberdeen and Tokyo is currently underway exploring what lives at these depths.

Thurs 11th June Three degrees of Climate Change - Professor Sue Roaf, Heriot Watt University, , 7pm, Boyd Orr Lecture Theatre.

Professor Roaf will stress the importance of building ecologically in order to avoid ruining the earth with buildings that are profligate consumers of energy and producers of more than half of all greenhouse gases. Examples of her experiences in designing and building her own 'eco houses' are used to demonstrate principles and technologies in practice. Professor Roaf's current research interests include issues of passive building performance, efficient technology, building integrated renewable energy generators and human behaviour and subtle controls to create low energy and low carbon buildings; natural ventilation of buildings.

TV Stars wanted!

Are you a science or engineering expert?
Can you surf, skate, dive or do anything else cool?
Are you up for a challenge and would put yourself on the line for science?

Mind Bang TV is making an exciting new TV science show packed full of awesome experiments and gnarly stunts and are looking for some punk scientists to join them for the ride.

If you're keen, film a 60 second clip of you doing something adventurous whilst describing the science behind it. Upload your showreel to YouTube and send the link to mindbangtv@googlemail.com (Don't forget to include your contact details!)

No TV experience necessary and they are not after bafta winning showreels!

If you're up for a laugh and know your physics, chemistry, biology or engineering get in touch.


Induction Training

If you have not already undertaken your induction training, the next session will be run on **Tuesday 2nd June at 3:00pm** in the University of Glasgow. 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 11th August 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.

2008/09 has been a fantastic year for the Ambassador Programme and we have plans for more recruitment, training and opportunities for Ambassadors next year. Watch this space!

Regards



Science Connects Operations Manager