

Welcome to the September Science and Engineering Ambassador (SEA) newsletter from the newly formed "Science Connects" team. As you will now be aware, we are pleased to have agreed new arrangements with STEMNET, for the period 2008 - 2011, to be the STEMPOINT contract holder for both brokerage of Enhancement and Enrichment (E&E) and SEAS to all schools and colleges for the West of Scotland.

We are now ready to enhance the established SEAS program in the West of Scotland. As you will see in this newsletter, we have a long list of schools and events that need YOUR help! Please take time to read through the list and see if you are able to offer your help to any of the schools. Teachers greatly appreciate your time and effort and it can make such a difference to the pupils' understanding and enthusiasm for Science, Technology, Engineering & Maths subjects.

2 major new changes to the SEAS program are online database access for Ambassadors and a new Ambassador co-ordinator!

Online Access

Ambassadors can now access their account online in the new STEMNET SEAS database. You should have received your username and password by now, but if you have not please contact Gail at seas@physics.gla.ac.uk. Once you have received your password, please go online at www.stemnet.org.uk/ambassadors_seas/existing_seas.cfm and change your password, as well as answering the data protection question. Remember to press "Update" to ensure your record is updated! You will be able to update your details, record activity etc.

Note that you need to have a valid disclosure and attended induction training to be able to access your records on-line.

You will be contacted soon to arrange renewal of your disclosure if necessary. We are having renewal sessions on 3rd and 6th October when you can come and renew so put the date in your diary!

New Ambassador Co-ordinator

As of 1st August, Gail Penny will be the new co-ordinator for the SEAS Programme in the West of Scotland. Gail has been working with Ambassadors for the last 18 months and will now be responsible for collating requests, matching Ambassadors to schools, training and administration.

We now have a dedicated email address for seas – seas@physics.gla.ac.uk so if you have any queries about the SEAS Programme, wish to request a school, volunteer for an activity etc please use this email address in the future.



REQUESTS for HELP

The following requests have been made by schools and organisations. We have a very healthy list of requests to kick off the academic year and it would be great if we can help every school which requires an Ambassador. **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.

Please see overleaf for more information on each of the requests listed in the table.

School / Event	Date	Request
St Philomena's Primary, Glasgow	As soon as possible	Help with Young Engineers Club
St Mungo's Academy, Bridgeton, Glasgow	As soon as possible	Help with Advanced Higher Chemistry projects
Bellahouston Academy, Glasgow	As soon as possible on Mondays or Wednesdays	Help with after school Science Club.
Christie Park Primary, Alexandria	From October-December	Help with Young Engineers Club
Mossneuk Primary, East Kilbride	From October 08- March 09	Help with Young Engineers Club
St Brigid's Primary, Glasgow	Between now and October Week (started 13th October)	Talk on Electricity and Magnetism to pupils
Calderglen Secondary, East Kilbride	After 20th October	Help with KNEX Challenges in Primary Schools associated with Calderglen
Holy Cross High School, Hamilton	After 20th October	Help with KNEX Challenges in Primary Schools associated with Holy Cross
Glasgow Gaelic School, Ashley St, Glasgow	3rd November	Help with microbiology workshop for P7, S1 and S2 pupils
Harestanes Primary, Kirkintilloch	From October-December	Help with "Inventors Project"
Harestanes Primary, Kirkintilloch	From January-March 2009	Help with Young Engineers Club
Williamwood High School, East Renfrewshire	11th November 7pm-9pm	Companies required for exhibition at Careers Fair
North Lanarkshire Schools	First 2 weeks in November	Help with IOP Lab in Lorry tours
Glasgow Science Centre	18th-21st November	Chemists required to help with "Green Chemistry Week"
Hutchesons' Grammar, Glasgow	Friday afternoon in November/December	Demonstrate Gel electrophoresis or Eliza Technique to Advanced Higher Biology
Jordanhill School, Glasgow	October onwards	Help with Physics club for S1-S3 pupils
Jordanhill School, Glasgow	January 2009	Help with Energy Resources Project for S2
Various schools in Scotland	January 2009	Civil Engineers required to give talks at schools for launch of WestPoint Bridge Competition

Glasgow Gaelic School

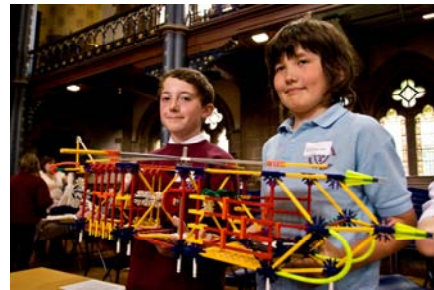
One of our existing Ambassadors is helping to run a **Microbiology** workshop for P7, S1, S2 pupils in the Gaelic school in Glasgow, as part of National Pathology Week. Any Gaelic speaking Ambassador would be extra useful for this event, but otherwise anyone who could help out would be appreciated. This event will take place on 3rd November.

St Brigid's Primary, Glasgow

St Brigid's primary in Toryglen, Glasgow is looking for an Ambassador to give a talk on Electricity and Magnetism, between now and the October Week (which starts on 13th October). If you can help please let us know as soon as possible to get it arranged.

Primary schools in Calderglen & Holy Cross Clusters

We have been running the K'NEX Challenge for over 8 years now and schools are getting quicker off the mark in asking for help! Both Calderglen Secondary in East Kilbride and Holy Cross High School in Hamilton are looking for Ambassadors to help with **K'NEX** workshops and judging challenges in the associated primary schools. These activities will happen after the October week so if you can let us know as soon possible if you are able to help, we can get dates organised with the teachers. You do not need experience of K'NEX to help out, just enthusiasm!



2008 Scottish Winners –
Heathery Knowe Primary, East Kilbride

Bellahouston Academy, Glasgow

Bellahouston Academy in Glasgow would like an Ambassador to help with running an after school **Science Club**. There is no formal schedule or content of the Science club as yet. It was successfully run for S1 last year by a probationer teacher, and has not been taken up by anyone after they left. If you are interested in helping with the club, you can pick the subject matter - anything you like - a field of speciality or current affairs for example.

If you are interested in this but unsure of what you can offer, Science Connects can help you with ideas and resources to get you started.

The club can run on either a Monday or a Wednesday after school (3pm) – day to suit the Ambassador.

Hutchesons' Grammar, Glasgow

Hutchesons' Grammar in the south side of Glasgow is looking for an Ambassador who could do a demonstration of Gel electrophoresis or the Eliza technique to sixth year **Advanced Higher Biologists**. They have two classes of pupils and their classes run on a Friday afternoon. Best timing for them would be first two weeks in November/December but are flexible to suit the Ambassador. If you can offer any assistance in this area please contact us.

Harestanes Primary, Kirkintilloch



Harestanes Primary has two requests!
From October to December 2008, the pupils will be working on an **'Inventors Project'** and the Science and Technology teacher would like an Ambassador to help in any way towards this. Examples could be talking to the pupils about inventions, helping develop their ideas, help them research patents, build models etc. If you can assist at all towards this project you will be appreciated!

The teacher also wishes to run an after school **Young Engineers' Club** for six weeks from 20th Jan – 3rd March (excluding half term holiday). Timing would be from 3 -4pm. It will be run with P6 and P7 pupils and there will be limit of 10 children to the club. If you can help with the club during this period it would again be appreciated.

St Philomena's Primary, Glasgow



St Philomena's Primary successfully ran a **Young Engineers' Club** for 3 years, until the beginning of the academic session in 2007. Last year they were unable to run the Club due to lack of support but are keen to start it up again and enthuse the pupils in engineering related subjects. They really need a supportive Ambassador to encourage the pupils and to keep the club going. If you can help out, even only every few weeks instead of every week it would be a great help to them.

Christie Park Primary, Alexandria



Christie Park Primary in Alexandria would like to run a **Young Engineers' Club** in term 3 which will be from 20th October to middle of December. They would like an Ambassador to assist with the Club and help the pupils with their various projects. Any assistance will be appreciated.

Mossneuk Primary, East Kilbride



Mossneuk Primary in East Kilbride would like to run a **Young Engineers' Club** in terms 3/4 which will be from 20th October to end of March 09. They would like an Ambassador to assist with the Club and help the pupils with their various projects. Any assistance will be appreciated.

Jordanhill School, Glasgow

Jordanhill School would like help with a **Physics type club** for S1-S3 students. They don't currently offer extra-curricular clubs in Physics and hope that the use of an Ambassador would generate interest with the students.

In addition, as part of the S2 course, they will be doing an **Energy Resources** project in January 09. An Ambassador is requested to give a talk on current technology in this area.

St Mungo's Academy, Glasgow

St Mungo's Academy, in Bridgeton, Glasgow, has some 6th year pupils who are about to do their Advanced Higher **Chemistry** projects. Limited equipment and lab space is a problem in the school and they are looking for help with the projects and/or equipment.

The investigations they hope to carry out are:

1. Comparing VitC levels of different branded orange juices
2. Investigation of fat contents in various burgers
3. Investigation of tannins and sulphur dioxide in red wine
4. Extraction and comparison of caffeine content in energy drinks
5. Analysis and fat content in various types of sausages
6. Quality of water -Dalmarnock -Common wealth games village site

If you can provide any help with these projects please get in touch with us.

Williamwood High School, East Renfrewshire

Williamwood High School is holding a **Careers Fair** for S1 through to S6 pupils on 11th November 2008 from 7pm to 9pm. The purpose of the Careers Fair is to introduce pupils as early as possible to potential careers before they either have to make their subject or University course decisions.

It would be very useful for the school if an ambassador can attend the Careers Fair and represent his/her company. If you work for a multidiscipline engineering company and would be interested in promoting careers at this event (by manning a stand on behalf of your company) please let us know as soon as possible.

Lab in Lorry

The very successful Institute of Physics Lab in a Lorry is on the road again. Lab in a Lorry is a mobile lab that gives young people 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.

Between 3rd-15th November the Lorry will be visiting North Lanarkshire schools. If you are interested in helping out please let us know and we can let you know schools and dates nearer the time. It lasts for a school day (9am-3:30pm) and training is given before the day starts so you do not need to feel apprehensive if it is your first time taking part.

The Lab in Lorry team has just had a very successful 2 week tour of Argyll & Bute and the Ambassadors who volunteered to help had a fantastic time (see photo attached of them at the Bowmore Distillery!)



For more information non Lab in a Lorry please see www.labinalorry.org.uk

Civil Engineers wanted!

The ICE (Institution of Civil Engineers) is running their successful WestPoint bridge competition again this year. The competition is open to S1, S2 & S3 students throughout Scotland, and involves designing a bridge using free software which can be downloaded from the internet. Taking part in this competition will give students an insight into engineering design processes and team working as well as an understanding of how truss bridges work. They will gain an understanding of concepts such as compression, tension and material properties. This competition would make an ideal project for a science club, but is also appropriate to be used as a teaching aid for science, technology, engineering and maths subjects.

At the launch of the competition (January 2009) it would be an advantage for a practicing civil engineer to visit participating schools and give students a presentation about engineering, covering some basic engineering concepts and introducing the competition to students. Visits to schools will take place in early January 2009.

We do not know which schools are taking part yet so we are creating a "pool" of Ambassadors that have expressed interest in helping and can be used as required during the launch period. If you are interested in being involved please contact us and we will add your name to the "pool". If you are already involved with a school and think they may be interested in taking part in the competition, please contact us and we can give you more information.

Chemists wanted!



Green Chemistry Week for secondary pupils is scheduled for 18th-21st November and will run at the Glasgow Science Centre.

If you are interested in contributing to the week' activities please read on! Your help could take the shape of a lecture/presentation in the Science Show Theatre, providing a stand manned or unmanned, performing demonstrations out on the floors or anything else you can think of!

The provisional programme is as follows:

Tues 18th - Higher level Biofuels Environmental Chemistry workshop

Wed 19th - 2 x 1.5 hour workshop on chemical solutions to harnessing solar power for S1-S2

Thursday 20th - 2 x 1.5 hour workshop on chemical solutions to harnessing solar power for S1-S2 & twilight CPD for all secondary science teachers on green applications of catalysts

Friday 21st - Higher level Biofuels Environmental Chemistry workshop

The Science Show currently scheduled for the week is Elemental- all about elements, properties of materials and chemical reactions.

If you are interested in helping out in any capacity please get in touch with us and we can pass your details on to the organisers.

The new STEM Directories

Some of you may have a copy of the "Shape the Future" Directory, which has been produced over the last couple of years by the Royal Academy of Engineering to bring together information on various projects and schemes available to schools in the UK.

The newly produced STEM Directories are a follow up from this and are part of the National STEM Programme to provide a rare and unique opportunity for the science, technology, engineering and mathematics communities to come together to meet a common objective.

3 STEM Directories have been created in direct response to teachers' needs. They comprise a collection of schemes and activities provided by organisations from across the UK that aim to enhance and enrich the curriculum. These schemes are usually based around events or experiences that cannot be delivered with standard school contacts and resources. Each activity is linked to the curriculum so that the impact of the experiences and outcomes can be sustained.

Science Connects will shortly be receiving printed copies of the STEM Directories for schools, but if you wish a copy for yourself for reference please contact us at seas@physics.gla.ac.uk and we will arrange for a copy to be sent to you. Alternatively, the directories can be viewed online at www.stemdirectories.org.uk

I recommend that all Ambassadors have a look at all 3 directories available online to see the breadth of schemes and activities that are available to schools.



Induction Training

If you have not already undertaken your induction training, the next session will be run on **Tuesday 30th September 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 November at 3pm.

That's all for now folks! Our new website www.stemscotland.com will be live soon and replace www.setpointscotlandseas.org.uk, but in the meantime please keep checking the current one for information on activities and events that need your help. Please also remember to record your activity - either do it online yourself on your own personal record, or emails us at seas@physics.gla.ac.uk and we will do it for you.

Thanks for all your efforts and help and here's to a successful year!

Regards

Science Connects Operations Manager