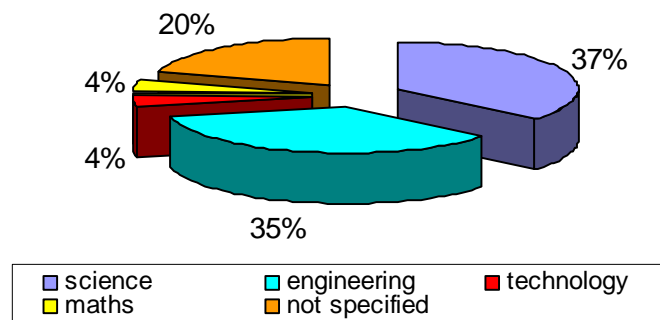


Welcome to the May newsletter for STEM Ambassadors in the West of Scotland. You will recently have received a newsletter from STEMNET which goes to all Ambassadors in the UK and gives you news on what is happening about the Ambassadors Programme in general. Our West of Scotland newsletter is particular to our area and includes requests from local schools, so please do take time to read both for local and UK information.

We have now recruited our **1000th STEM Ambassador** in the West of Scotland!! This is a major milestone and we are delighted that we now have 1000 Ambassadors to offer schools in the 12 local education authorities we cover. In the UK there are 20,000 Ambassadors in total so we have a high percentage of the total number. If all 1000 ambassadors are active, this equates to a lot of school pupils having a STEM experience! Thank you to all the ambassadors who recently updated their database record to help us understand our disciplines and qualifications of Ambassadors. Interestingly, for the first time Science has overtaken Engineering in terms of Discipline for Ambassadors. For the 20% who have not yet updated their record, please log in using your username and password at [www.stemnet.org.uk](http://www.stemnet.org.uk) to do so!

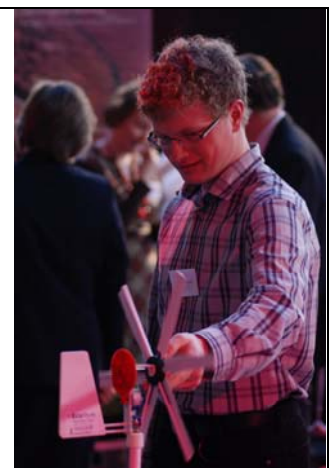
#### Major Discipline of STEM Ambassadors



#### Annual Celebration Event for Ambassadors and Teachers

Thank you to all Ambassadors and teachers who braved the atrocious weather at the end of March to attend our Celebration Event. The weather could not really have been any worse and we appreciate the effort Ambassadors made to get there.

The event was busy with lots of organisations such as the Hydrogen Office and Forth Valley College attending for the first time. This event gets bigger every year and offers more opportunities for Ambassadors and Teachers to find out what is available for schools in terms of STEM Programmes. If you are interested in your organisation taking part next year, please get in touch with us.



## 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](mailto:ambassadors@physics.gla.ac.uk) or phone on 0141 330 6396** and we can liaise with the school on your behalf. The list is getting shorter as schools are busy with exams and heading towards end of term events. If we can manage to fulfil all these requests on time it would be fantastic!

SCHOOL / EVENT	DATE	REQUEST
Ardgowan Primary, Greenock	As soon as possible	Looking for help with making bird boxes
Colquhoun Park Primary, Bearsden	As soon as possible	Help with P6 and P7 project on Climate Change – wind/solar models etc
Craigholme School, Glasgow	As soon as possible	Looking for an Ambassador to give a talk or workshop related to “contrasting environments”
Crookfur Primary, Newton Mearns	As soon as possible	Help with P5 class covering the topic of Flight
Knightswood Primary, Glasgow	As soon as possible	Help with Robotics Workshops using kits provided
Oxgang Primary, Kirkintilloch	As soon as possible	Help for activities or talks on various topics, namely: energy related to animals; living things; mini beasts or plants.
Bishopbriggs Academy and associated primaries	As soon as possible	Help with Science Club Project
Burnside Primary, Rutherglen	At end of May, also between 7th -25th of June.	Ambassadors to offer practical help with Thinking Science lessons
Kirkintilloch High School	2 <sup>nd</sup> or 3 <sup>rd</sup> June	Help with Business Dynamics event involving communication skills and problem solving
Baljaffray Primary, Bearsden	7th - Friday 11 <sup>th</sup> June	Hosting Science Week. Looking for speakers and workshops any time during this week.
Lenzie Academy	10th or 11th June	Help with Business Dynamics event involving communication skills and problem solving
Bocclair Academy	15 <sup>th</sup> June	Help with Business Dynamics event involving communication skills and problem solving
Blackfriars Primary, Glasgow	17 <sup>th</sup> June afternoon	Talk on engineering careers and/or interactive activity
Strathclyde University Chemistry Summer School	21 <sup>st</sup> July afternoon	Ambassadors to take part in Careers/Industry Afternoon. Any science background but medicinal chemists would be most appropriate
All Schools	Challenge Deadline 14 <sup>th</sup> June	Encourage schools to take part in Stem Challenge 3 – Anti Doping, sponsored by GlaxoSmithKline

### **Ardgowan Primary, Greenock**

The Young Engineers and Science Club at Ardgowan Primary in Greenock is interested in making bird boxes. They are looking for help with designs and general help in building the boxes. Project has started already so help is required as soon as possible.

### **Colquhoun Park Primary**

Colquhoun Park Primary is looking for STEM Ambassador(s) to work alongside P6 and P7 this term on the subject of Climate Change. They will be making wind, wave and solar models, etc and any help or talk on the subject would be appreciated.

### **Craigholme School, Glasgow**

The school has a class which is studying contrasting environments – one being a tropical rainforest for example. They are looking for an Ambassador to give a talk or workshop on anything related to this topic.

### **Crookfur Primary, Newton Mearns**

Crookfur Primary is embarking on the topic of Flight and would like an Ambassador to help in any way with this. They are fairly flexible about times for visiting. The class is Primary Five and most children are 9-10 years old. There are 50 children in total, two classes of about 25. This request is outstanding from last term so a quick response from an ambassador would be appreciated.

### **Knightswood Primary, Glasgow**

The Primary 6 classes at Knightswood Primary are taking part in the Robokid Project. The teacher would like an Ambassador to talk to the children about robotics and/or support the classes in the build process. Afternoon visits would best suit the classes. Visit [ww.robokid.org.uk](http://ww.robokid.org.uk) for more information on the kits.

### **Oxgang Primary, Kirkintilloch**

Oxgang Primary would be delighted to have some STEM Ambassadors to help with a few of their class topics this term:

P2 – Energy – related to animals and living things. P3 – Living Things, P4 – Minibeasts, P5 – Plants

If you can help in any way with any of the above topics please get in touch with us as soon as possible.

### **Bishopbriggs Academy Science Club Cluster Project**

Bishopbriggs Academy and associated primaries (Woodhill, Auchinairn, Balmuildy, Meadowburn and Wester Cleddans) are taking part in the Science Club Cluster Project this term. Each school is running a science club and is looking for help with the experiments they are undertaking. If you can help any of the schools, even only for one visit, please let us know.

## Burnside Primary, Rutherglen

The P7 class at Burnside Primary is working with a programme called Thinking Science which is a set of 32 activities developed to promote high levels of thinking among pupils ( 8 lessons are done in P7, remaining in S1). They would like Ambassadors to help with some of the lessons, particularly in terms of carrying out experiments which the children are unable to do due to Health and Safety issues or time limitations. The school is short of some materials and props and would welcome the opportunity for the Ambassadors to bring equipment with them.

Lesson 2 - Two variables - height & weight (qualitative relationships where one goes up the other goes down)

Lesson 3 - What sort of relationship? - (quantitative ways of analysing relationships between variables). Plotting the data on graphs. Example of experiment: oil thickness versus temperature. Measure temperature of oil as it cools down versus time it takes to travel through a funnel. The school would require a funnel to be brought for this experiment.

Lesson 5 - Rollerball (working on controlling variables) - requires a track on which balls can roll (one steep end and one flat end). Scales to show heights from which ball is released and distance the target ball travels.

Level 6 – Classification. Including living and non living things, chemicals, store cupboard

Lesson 7 - More complex classification e.g. classifying birds or some other animal. The Ambassador would need to bring along some cards or examples of other things that can be classified in different ways.

If you are interested in being involved in any of the projects in Thinking Science please get in touch with us. **We have a copy of the lesson plans in relation to the projects and you are welcome to have a copy of these to see how you can help with the experimentation etc.**

## Blackfriars Primary, Glasgow

Blackfriars Primary is looking for Ambassadors to take part in a Careers afternoon on 17 June. Anything goes but they would be most interested in a general talk on engineering careers, or alternatively, some sort of interactive activity. This has been requested by the Determined to Succeed team at Glasgow City Council on behalf of the school.

## Strathclyde University S@S Accelerate Chemistry Summer School

One of our STEM Ambassadors is involved in planning for the S@S Accelerate Strathclyde Chemistry Summer School for S5 pupils. During this week, the pupils will make Paracetamol and learn how to debate. The event will culminate in a Dragon's Den style presentation and a debate. Part of the programme is a Careers/Industry afternoon for the pupils, their parents and any interested academics. STEM Ambassadors with a Science background are welcome to this afternoon, but in particular, they are looking for Medicinal Chemists to tie in with the Paracetamol synthesis.

The event will be taking place at the Jordanhill Campus on Wednesday the 21st of July between 13.45 and 15.15 and it will be an informal wine reception type event. Lunch is provided!  
If you would like to volunteer please let us know.

## STEM Challenges – Take to your schools and get involved!



The STEM Challenges are ten activities that have been inspired by London 2012 and are offered to all schools in the UK. Each Challenge is designed to cater for a range of abilities in the 11-14 age group and focus on a different aspect of the preparations or the event itself. The STEM Challenges are being managed by in association with the London Organising Committee of the Olympic and Paralympic Games and are funded by DCSF.

Once a term, a challenge is introduced to participating (registered) schools. Schools register by visiting [www.stemchallenges.net/school-register.html](http://www.stemchallenges.net/school-register.html). Once announced, teams are set tasks, some closed, some open-ended and some requiring lots of creative thought. There is a mixture of hands-on testing, experimental work and research associated with each challenge.

**The third challenge, sponsored by GlaxoSmithKline, is now underway** and we would like to encourage you to offer this challenge to local schools, or the school you are working with.



### Challenge 3: Anti-doping

We're challenging pupils to prove that they have the skills to perform some of the anti-doping laboratory techniques. From laboratory accreditation and quantitative analysis to security and ensuring the chain of custody of samples, this challenge really does give you an insight into what an anti-doping laboratory does!

The prize is an exclusive, expenses-paid behind the scenes tour of a well-known science venue, as well as lots of runners up prizes, including STEM Club equipment.

**Team registration deadline: 14 June 2010.** For more information on STEM Challenges, as well as STEM Ambassador guidelines please visit [www.stemchallenges.net](http://www.stemchallenges.net). The best information can be found on by clicking on "Find out more" within the Challenge 3.

## Maths Activities

Are you interested in taking Maths activities into schools? One of our Ambassadors, who held Maths related workshops at the recent Stem Ambassador Celebration Event, has activities that you can be trained in and take to schools. The FunMaths Roadshow is a collection of 350 mathematical activities suitable for use with school pupils, college students, and university undergraduates, overall between the ages of 5 and 20. The first 100 were developed to celebrate the centenary of the Liverpool Mathematical Society in 1999, and the further 250 have been developed subsequently.



Our ambassador is willing to train other ambassadors in the use of these activities and we are planning to hold a session towards the end of June for interested ambassadors.

If you would like to attend a training session on these Maths activities please contact Gail at [ambassadors@physics.gla.ac.uk](mailto:ambassadors@physics.gla.ac.uk) and we will organise a date once there is sufficient interest.

## Other information of interest to Ambassadors...

### Science Sunday – 13<sup>th</sup> June 2010, 10am- 4pm

Join the Glasgow Science Festival team for heaps of workshops, shows, displays and hands-on science in and around the University of Glasgow campus on Science Sunday. This great day out is part of the Glasgow Science Festival which runs from 20<sup>th</sup> May to 14<sup>th</sup> June.

Have a go at soldering, stretch your brain in engineering challenges, wander round the Hall of Illusions and fire rockets across the lawns. Meet the Birds of Prey, Sparks in Space puppet, Medical Mannequins and amazing gymnastics robot. Take part in workshops from CSI Forensics, the Clyde River Foundation and Froglife. Chat with scientists and engineers and find out about research at the University of Glasgow in 'People Behind the Breakthroughs'.

Get ready to be amazed! Activities are all FREE, No Booking Required



### Science Presenters wanted for new Channel 4 Series

'Are you an experienced medical or science professional who is passionate about your job? Do you have the communication skills and energy to bring this enthusiasm to the screen? Channel 4 and Diverse Production are looking for the next generation of science presenting talent for a new series about the human body. In particular we would like to hear from professionals in the fields of physiology, anatomy, neurology, biology and sports science.'

For more information please send a brief CV, including photo and contact details to [harri.watson@diverse.tv](mailto:harri.watson@diverse.tv).

All applications must be submitted by **COB on Tuesday 18<sup>th</sup> May 2010**.

If you have any questions, please contact Harri Watson by email or telephone on 020 3189 3248.

### 2 Pupils get the chance to travel to NASA, California

NESTA is running a competition by for A-Level/AH science students. Please pass this email onto any interested teachers or students that you have contact with as soon as possible since timescales are tight on this one. Entries need to be registered by **24 May 2010**.

NESTA is giving two students the chance to win the trip of a lifetime, joining NASA to look for life at the edge of space. They are offering the opportunity to take part in a research trip to NASA, Ames Research Center in Mountain View, California and the Black Rock Desert in Nevada, USA. The students will work with a NASA astrobiology team and will have the opportunity to join the team as they launch a robot 40 km into the stratosphere on a powerful rocket. The trip will be take place during July 2010.

Details of the competition challenge can be found on NESTAs website at: [http://www.nesta.org.uk/areas\\_of\\_work/public\\_services\\_lab/education/nasa](http://www.nesta.org.uk/areas_of_work/public_services_lab/education/nasa)

## Big Bang, Dundee

The Big Bang Scotland event is being held at the University of Abertay, Dundee on Monday 7th June. The Big Bang Scotland is one of 12 Big Bang Fairs taking place across the UK and will mark the first time that these celebrations have travelled north of the border.



In addition to the CREST and Young Engineers for Britain projects, STEM clubs are invited to attend to showcase the work they have carried out in their club. Each club will be provided with a table and display board. There will be a prize for the best STEM club poster – a trophy and £50 for the Club. Pupils will have an opportunity to participate in a show, see a wide variety of hands-on activities and take part in workshops throughout the day.

If you are working with a STEM club in a school please encourage them to attend and showcase their work. For more information and an application form, please contact Frances Chapman, [f.c.chapman@abdn.ac.uk](mailto:f.c.chapman@abdn.ac.uk)

## STEM Clubs Network

If you are helping in a school with an after-school or lunchtime club related to any sort of STEM activity, eg Young Engineers and Science Club, Astronomy Club, Maths Club, Food Technology Club etc you will be interested to know that STEMNET has set up a STEM Clubs Network. The STEM Clubs Network offers a wealth of information to teachers and Ambassadors who are involved in Clubs and gives you guides on starting and running a club, ideas, resources information, challenge information etc online. There is no cost involved, all you have to do ask the teacher who is working with the club to register the club on the Stem Club Network website. STEMNET wants to enable every school or college in the country to have a STEM Club and is hence providing a sharing of information platform to every club in the country, regardless of where it originates from or is organised by.



Please let any school you are involved with know about this resource and encourage them to register. More information about STEM Clubs can be found on the website: [www.stemclubs.net](http://www.stemclubs.net).

## Induction Training

If you have not already undertaken your induction training, the next session will be run on **Tuesday 25<sup>th</sup> May 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 2 hours and will enable you to complete your disclosure form also. The next training after this will be Tuesday 22<sup>nd</sup> June 2010 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](http://www.stemnet.org.uk)!!

Regards

