



## Useful resources

### Royal Society Partnership Grants

Do you have a great idea for bringing science to life in schools?

Grants of up to £3,000 available

The Royal Society Partnership Grants scheme provides grants of up to £3,000 for science projects run at a primary or secondary school or college in partnership with a professional scientist or engineer.

Since 2000, the scheme has awarded over £1.1 million to 660 schools and has ignited enthusiasm for science among young people across the UK.

There are two application rounds per year. The next round is open from **3 September** until **2 November 2012**

For more information and to apply please visit: <http://royalsociety.org/education/partnership/>

If your school would like to find a local professional partner for this scheme please contact: [STEM@uhi.ac.uk](mailto:STEM@uhi.ac.uk)

See [www.stemnorthofscotland.com/buzz](http://www.stemnorthofscotland.com/buzz) for more details

### Teach IT

#### Computing resources for teachers

Online resources

Teach-IT is an innovative teaching and learning resource full of inspiring cross-curricular learning activities designed to make teaching engaging and learning fun.

Since its launch Teach-IT has helped over 25,000 educators across the UK to:

- Introduce pupils to the latest web-hosted technologies
- Enhance their own / their classes' teaching / learning
- Improve their own digital competence and confidence
- Foster students' skills such as creativity and enterprise

Teach-IT introduces a wide variety of exciting technologies such as Google Earth, Games Based Learning and the latest free Web tools to help teachers to understand why they are so appealing to young people. Teachers are shown step-by-step how to use and apply ICT to bring the curriculum to life.

For more information and to view sample resources visit: [www.do-be.co.uk/teach-it/](http://www.do-be.co.uk/teach-it/)

See [www.stemnorthofscotland.com](http://www.stemnorthofscotland.com) for more details

### Geoscience Education Academy

#### Free training for teachers

19-24 October 2012

The Geoscience Education Academy will take place from the evening of Friday 19 October until the morning of Wednesday 24 October 2012, at the Geological Society, Burlington House, London.

The Geoscience Education Academy offers UK teachers a great opportunity to understand how to teach geoscience if it is not their principal subject, but must do so as part of the curriculum with behind the scenes visits to NHM and BP included in the programme.

**The GEA is completely free to attend with all travel/ accommodation included and reimbursed.**

For a copy of this year's programme and for further information on how to register please contact Joanna Mears, Education & Training Officer at: [joanna.mears@geolsoc.org.uk](mailto:joanna.mears@geolsoc.org.uk)

See [www.stemnorthofscotland.com/buzz](http://www.stemnorthofscotland.com/buzz) for more details

### Scottish Earth Science Education Forum

#### Teaching materials, courses and CPD

Online resources

The Scottish Earth Science Education Forum (SESEF) is an educational organisation that combines a passion for Earth Science with the belief that every young person deserves to have a positive learning experience and an opportunity to reach their full potential during their time in school.

SESEF use 'Our Planet' as a context to deliver the most engaging and inspiring professional development courses for primary and secondary teachers and their pupils. They sustain courses through the continual development of curriculum linked classroom resources in science, social subjects, literacy, numeracy, citizenship, sustainability, health and well being, expressive arts and ICT.

For more information on resources, events and CPD opportunities visit: [www.sesef.co.uk/](http://www.sesef.co.uk/)

See [www.stemnorthofscotland.com](http://www.stemnorthofscotland.com) for more details

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of STEM North of  
Scotland

# STEMtalk

STEM NORTH OF SCOTLAND Argyll & Bute Highland Moray Orkney Shetland Western Isles

## Upcoming events

21 November  
2012

### STEMNET awards

#### The House of Lords

Following the success of the STEMNET Awards in 2011, STEMNET has gained sponsorship of the Science and Technology Facilities Council (STFC) to provide all award winners with an expenses-paid prize trip to CERN.

The prize will involve a tour of CERN's leading research facilities, providing an excellent way to reward some of the most inspirational people involved in STEMNET's programmes!

Award nominations will open in early September 2012, for the following categories:

- Most Dedicated STEM Ambassador
- Most Dedicated Employer
- Most Dedicated Teacher
- Most Dedicated STEM Club
- Most Inspirational Technician

We will be in touch to advise when the nominations open online but in the meantime get your thinking caps on!

**LifeScan Scotland Ltd** were the "Most dedicated Employer" in 2010: could H&I rank again this year?



## What did you do this summer?

Ross Mackay from Thurso High School (pictured) spent his summer working on a science bursary project at the Environmental Research Institute.



The Nuffield Foundation awards bursaries to S5 school pupils interested in pursuing a career in STEM, allowing them to carry out a project at an industrial, academic or research institution.

The scheme gives pupils the opportunity to try out STEM in practice. They not only gain hands on experience in scientific procedures but also learn valuable management, interpersonal and communication skills, all of which will help provide them with the confidence to pursue their chosen careers.

The scheme helps improve key skills including communication, report-writing and presentation. It also provides students with excellent skills and experiences to include on their CV and personal statements.

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Projects last 4-6 weeks during the summer break and the students receive a bursary of £80 per week. Students carry out experiments, analyse the results and are required to submit a scientific report at the end of their placement. This can also qualify them for a gold Crest Award.

Students then have the opportunity to attend a celebration event, where all the students from throughout Scotland are invited to display their work in poster form, as in a scientific conference.

The celebration event offers the pupils the chance not only to present their project work, but also to meet and discuss it with other bursary students, supervisors, teachers and invited guests.

This year a number of pupils took part from schools across our region: **Anderson High School, Dingwall Academy, Elgin High School, Forres Academy, Kinlochbervie High School, Kirkwall Grammar School, Lochgillhead High School and Thurso High School.**

For more information please contact:

[franceschapman21@gmail.com](mailto:franceschapman21@gmail.com)

[www.nuffieldfoundation.org/scb](http://www.nuffieldfoundation.org/scb)

## Notes for the diary

The **British Science Festival** takes place in Aberdeen **4-9 September 2012**. See BSA website for details and to book tickets: [www.britishsociety.org](http://www.britishsociety.org)

**Orkney International Science Festival** takes place on **6-12 September 2012**. [www.oisf.org](http://www.oisf.org)

**Thurso Soap-Box Grand Prix** runs at ETEC, North Highland College on **8 September 2012**. See local advertising for details.

**"Commitment, Value, Excellence... Engineered"**. A lecture to inspire young people about a career in Professional Engineering. Adelaide Place Church, Bath Street, Glasgow, **18 September 2012**. For details contact: [iesis@btconnect.com](mailto:iesis@btconnect.com)

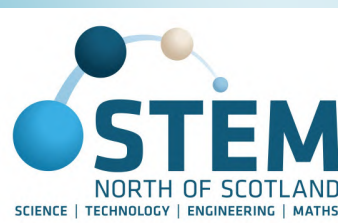
**World space week** runs **4-10 October 2012**, this year on the theme of "Space for Human Safety and Security". <http://www.worldspaceweek.org>

## Send Us your NEWS

If you have a project that you have completed and you would like to shout about it please send us your article and pictures and we will put it in STEMtalk.

It can be anything from winning a competition to doing a project that the students enjoyed. The newsletter comes out each term and if you send in articles we will try to publish them in future newsletters. We would love to hear what you have all been doing out there!

Contact the STEMNET team at [STEM@uhi.ac.uk](mailto:STEM@uhi.ac.uk)



## Celebration of Engineering &amp; Science 2012

Highlands and Islands schools triumphed at the Young Engineers and Science Clubs celebration event at the Glasgow Science Centre on 8 June 2012.

Winners included: **Alness Academy** (Junior Saltire S1/3 winner), **Grantown Grammar** (Junior Saltire S4/6 winner) and **Ullapool High School** (Junior Saltire S4/6 winner). Brian Dziennik of **Kingussie High School** also scooped the LRET Club Leader Award and **Hopeman Primary** from Moray collected two awards (STEM Challenge Primary winner and Hydrocarbons in Action winner).

**Congratulations to everyone who took part! Who will rise to the challenge this year?**

For more information on Young Engineers and Science Clubs contact: [Melanie.Riddell@SCDI.org.uk](mailto:Melanie.Riddell@SCDI.org.uk)  
[www.yecscotland.co.uk/](http://www.yecscotland.co.uk/)



Alness Academy's winning team jump for joy!

## Competition open!

The **National Science and Engineering Competition** are now accepting online entries to the 2012/2013 competition.

The competition aims to recognise and reward young people's achievements in all areas of Science, Technology, Engineering and Mathematics (STEM). It is open to 11-18 year olds in the UK and provides young people with the opportunity to build their skills and confidence in project-based work.

Schools can enter a team or individual project into the Science/Maths or Engineering/Technology streams. Projects can already have been created for school or another scheme/competition or you can make a new project to enter the competition.

For further information and to enter: [www.thebigbangfair.co.uk/nsec.cfm](http://www.thebigbangfair.co.uk/nsec.cfm)  
See [www.stemnorthofscotland.com/buzz](http://www.stemnorthofscotland.com/buzz) for more details



The best projects are invited to showcase their work and represent their region at the National Finals! The National Finals take place at The Big Bang Fair from 14 – 15 March 2013 at ExCel London. All finalists are invited to showcase their projects to our judges and over 60,000 visitors.

Finalists will compete for over 30 prizes and international experiences worth over £50,000, including the titles of 'UK Young Scientist of the Year' and 'UK Young Engineer of the Year'. The Winners will be announced at the exciting National Awards Ceremony.

Applications for online entry close on **Wednesday 31st October 2012.**

## Environmental debate

The Big Green Challenge is a debating competition encouraging young people to find out more about the advantages and disadvantages of the growing sector of renewable energy.



The competition is open to all pupils from S1-S3 in Highlands and Islands, with teams of three competing in a series of local rounds to make it to the final rounds at the Scottish Parliament in Edinburgh, held on 22 June this year. A total of 25 teams from 17 schools entered the competition.

The finalists were from: Lomond School, Charleston Academy, Plockton High School, Alness Academy, Lossiemouth High School, Kirkwall Grammar School, Shawbost Community School and Aith Junior High School. Congratulations to **Kirkwall Grammar School** who came out on top, winning the grand final debate "This house believes that renewable energy can help us beat the economic downturn". The winning team, Rhiannon Walters, Thorfinn Moffatt and Branwen Bourn, were supported all the way by their teachers, Rachel Stockan and Dr Simon Hall. The team have won a trip to the Eden project in Cornwall.

[www.thebiggreenchallenge.co.uk](http://www.thebiggreenchallenge.co.uk)



## Forensic science: who dunnit?

STEM ambassadors from LifeScan and UHI delivered a forensic science workshop for S2 pupils at Charleston Academy, Inverness on 6 June. The workshop, illustrating crime scene investigation and forensic analytical techniques, provided an introduction to the 10 week forensic short course running at the school.



Collection of evidence

Pupils attended a short presentation and took part in practical sessions. They were faced with a mock crime scene and tasked with collecting and document evidence for analysis. Topics of investigation in the lab, included chromatography, footprints, microscopy and blood analysis. From the clues provided and data analysed, pupils could deduce who, from the list of possible suspects, committed the crime!

**STEM ambassadors are a free resource!** For further information on local STEM ambassadors please visit the STEM North of Scotland website at [www.stemnorthofscotland.com/ambassadors/](http://www.stemnorthofscotland.com/ambassadors/) Also search for and request an ambassador through STEMNetworking at [www.networking.stemnet.org.uk](http://www.networking.stemnet.org.uk).

Pamela Hamilton, technician at Charleston Academy, commented "It was beneficial for the pupils to interact with both scientists and people with other backgrounds". She also provided some useful tips for other schools on how to plan activities with STEM ambassadors: "Keep communication channels open. Have a pre-activity meeting on site to look at workspace and discuss timings".

## Do you want to work with a STEM Ambassador, but you're not sure how?

Here are some ways Ambassadors can work with schools:

**Speed careers events:** pupils can spend time with Ambassadors from different STEM areas, providing the chance to speak to them about their jobs and career pathways in an informal atmosphere.

**Project management:** STEM ambassadors can advise senior pupils on time management for investigative projects.

**Young Engineers and Science Clubs:** Ambassadors can support activities with school clubs on a regular of occasional basis.

**Mentoring:** Ambassadors can work with senior pupils as mentors for projects or careers advice. This could be in person or by phone, email or videoconference.

**Site visits:** Ambassadors can facilitate visits to their place of work for pupils, classes or STEM clubs.

**Classroom observation:** would you like to invite an Ambassador into your classroom to get a better idea of how they could help you?

## Lab rides again!

Lab in a Lorry is a free resource from the Institute of Physics: an interactive mobile science lab which gives young people (11-14 year old) the opportunity to explore science through open ended experiments. The lab is supported by local STEM ambassadors, who help guide the pupils through the experiments.



The lab finally made it to Shetland this summer after a planned visit last year was scuppered by bad weather! To find out about their visit please search for Rebecca Kennedy's blog on the Lab in a Lorry facebook page.

The lab is on tour again in **the autumn term**, including more visits to the Highlands and Islands:

11-12 September:  
Gordonstoun School, Elgin

13 September:  
Grantown Grammar School

30 October –1 November:  
Charleston Academy, Inverness

6-7 November:  
Lomond School, Helensburgh

For more information and to find out about inviting Lab in a Lorry to visit your school contact James Bamford [james.bamford@iop.org](mailto:james.bamford@iop.org)  
[www.labinalorry.org.uk/](http://www.labinalorry.org.uk/)

## Contact the STEMNET team

Schools advisory service



Kathleen McDougall  
University of the Highlands and Islands,  
Executive Office, Ness Walk,  
Inverness, IV3 5SQ

STEM ambassador co-ordinator



Janice Wallace  
Highlands and Islands Enterprise,  
Cowan House, Inverness Retail & Business Park,  
Inverness, IV2 7GF

Email: [STEM@uhi.ac.uk](mailto:STEM@uhi.ac.uk)  
Tel: +44 (0) 1463 279 351

Email: [ambassadors@hient.co.uk](mailto:ambassadors@hient.co.uk)  
Tel: +44 (0) 1463 234 171