

STEM NEWS –September/October 2015

(Science, Technology, Engineering and Maths.)

Dear Teachers,

Welcome to STEM Cumbria's latest newsletter, packed with opportunities and exciting STEM events that aim to raise student's awareness of the rich choice of fulfilling and well paid STEM careers.



It was amazing to meet some of you at The Westmorland County Show this Sept. It was fabulous to see how engaged the children were with our activities and myself and the whole team had a great day.

Please contact me on amanda@stemcumbria.co.uk for booking and getting one of our inspirational co-ordinators into your school. For all of you asking, A robot arm is available to purchase on amazon for approx. £30

**STEM Ambassadors.
Available to all subject to availability.**

Visit www.stemnet.org.uk for STEM Ambassador information



In Cumbria we are fortunate to have just over 900 STEM Ambassadors registered who are a free resource, depending on availability, accessible by all schools to help in delivering STEM subjects in schools and to offer hands on careers advice and to share their experiences where possible. Our

Ambassadors all work and represent industry and companies such as Sellafield, BAE Systems, TFP, Croppers, Innovia, Glaxo Smith Kline.

STEMNET
Science, Technology, Engineering
and Mathematics Network



STEMNET

STEMNET creates opportunities to inspire young people in Science, Technology, Engineering and Mathematics (STEM). This enables young people to develop their creativity, problem-solving and employability skills, widens their choices and supports the UK's future competitiveness.

STEMNET helps encourage young people to be well informed about STEM, fully in debate, and make decisions about STEM related issues.

STEMNET has received funding from the Department of Trade and Industry since 1996 and now continues to enjoy support from the Department for Business, Innovation, and Skills and the



Department for Education. As a national organisation, it works hard to ensure that no region of the country is disadvantaged, by comparison with any other, with respect to STEM opportunities.

British Science Week

13th March-22nd March 2016

British Science Week (BSW) is a ten-day celebration of science, technology, engineering and maths - featuring fascinating, entertaining and engaging events and activities across the UK for people of all ages.

BSW provides a platform to stimulate and support teachers, STEM professionals, science communicators and the general public to produce and participate in STEM events and activities.

Anyone can organise an event or activity, and the British Science Association helps organisers plan by providing free activity and support resources. We welcome and support any type of organiser, from schools to community groups, from parents to large organisations. The resulting programme of events is a hugely varied and eclectic mix.

British Science Week 2016 will take place 13 - 22 March.

[To discover more on how you can get involved with British Science Week, including registering your event or finding an event near you please visit our microsite - www.britishscienceweek.org](http://www.britishscienceweek.org)

Workshops available

KS1/2

At STEM Cumbria we offer a selection of workshops suitable for KS1/2.

Robotics.

We offer planned programmes of activity that will support the delivery of control technology education by providing robotics outreach activities to primary and secondary students in Cumbria, using a state of the art 'VEX Robotics IQ' platform and LEGO NXT kits.



The 'Bright Sparks' Electricity Workshop is supported by Electricity North West Ltd & STEM Cumbria Ltd.

This programme supports/delivers the Key Stage 2 curriculum electricity topic and also provides an in class opportunity for the class teachers to improve and develop their knowledge and confidence to teach the Key Stage2 electricity topic.

The day is divided into 4 sections one based on the electrical circuits section of the curriculum, one based on extension challenges based on the basic circuits, a work related role play showcasing engineering and technician jobs in the electricity industry and a final section based on electrical safety with the showing of a DVD "Dangerous Close Up" high lightly the dangers from the public electricity system.

The day is delivered by an experienced member of the STEM Cumbria Ltd team Fran Ward.

The programme has been running very successfully in Cumbria for over 11 years now, with over 22,000 pupils benefitting from the experience.

Bee Bots Control technology for KS1

Award winning programmable floor robot, the Bee-Bot's simple and child friendly layout is a perfect starting point for teaching control, directional language and programming to young children.

For a booking form contact amanda@stemcumbria.co.uk

Computing C.P.D for KS1 and 2 teachers

Alongside our workshops we have also run a number of very well received twilight C.P.D sessions for teachers, based on requirements for the new curriculum . For more information contact Amanda.

Fab Lab Cockermouth Primary School Workshops KS2

We would like to share our experience, expertise and our facilities and invite you to partake in a workshop in Fab Lab Cockermouth... Our Fab Lab is a fully-kitted workshop with 3D printers, a lase cutter, CNC milling machines, a vinyl cutter and more. Our aim is to give everyone access to the latest technology, inspiring the next generation of designers, makers and inventors of the future. The aim of the session will be to construct and explore a project linked to the National Curriculum and STEM subjects: Trebuchets, electric buggies, gliders, am operated toy, robot for rounding up sheep or Peruvian hand looms (further information on the sheet attached).

We will be offering these workshops on a Wednesday at Fab Lab Cockermouth; morning sessions from 9.30am –12pm or afternoon sessions from 12.30pm – 3pm. We can host 10 to 18 students per session, for Y4/Y5/Y6 students. If you would like to split your class and come for 2 sessions that can be arranged, or if you would like to combine your classes to maximise the number of students involved this can also be arranged.

Please let me know your preferred date and we will confirm and finalise Arrangements,

Many Thanks,

Zoe Crossan

Co-Manager Fab Lab Cockermouth

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Address: Unit 4, Derwent Mills Commercial Park, Cockermouth, Cumbria CA13 0HT That's all folks! Please let us know if you get involved with any of these projects,

Enter your CREST project for Discovery Friday showcase at the Big Bang Fair



In March 2015 students aged 11-14 presented their creative science and technology projects at The Big Bang Fair as part of the Discovery Friday showcase. From community gardens to a War Horse and a number of fun, programmable robots the students showed the massive variety of things you can get up to in a science club.

Your school can be part of the celebrations in 2016 – **we are looking for 50 projects** to come to the Birmingham NEC on Friday 18 March to present their work in a fun and engaging way. Bursaries for travel/staff costs are available if necessary.

Nominations for the showcase will go live at the **start of November**, so you have two months to get started on a project!

Projects must be completed by 11-14 year olds, have a science, technology, engineering or maths (STEM) theme and have been completed in about a day (or 10 hours of time). You can nominate anything, but if you are looking for ideas or some help you can use the [CREST Discovery Award resources](#)

To find out more, visit our [website](#)

Best wishes

Amanda Contact us for advice and guidance on
amanda@stemcumbria.co.uk.