

## STEM NEWS –March 2016

(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.

Please contact me on [amanda@stemcumbria.co.uk](mailto:amanda@stemcumbria.co.uk) for booking and getting one of our inspirational co-ordinators into your school.

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

A STEM ambassador comment from a recent event;

STEM Ambassadorial event held at Kirby Stephen Grammar School on 3<sup>rd</sup> February.

“I found that all of the staff I met were extremely approachable, helpful and eager to please, even though I arrived about an hour and a half early

During the sessions I was involved in students displayed varying levels of engagement ranging from, what I would describe as, good to very impressive with several of them exhibiting a maturity beyond their years.

The event has allowed me to gain a sense of understanding of what young people require from their education, and I hope they have taken from me a sense that STEM subjects can be the foundations to support further options for work and life development.”

**Brian Boyd** (MCQI CQP)

**Senior Engineer, Engineering Product Assurance Management**  
**BAE Systems Maritime - Submarines**

Visit [www.stemnet.org.uk](http://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

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.



We are incredibly pleased to be able to finally announce that we have an amazing new home for **Big Bang North West 2016**.

We are moving to the awesome, brand new venue that is **The Exhibition Centre Liverpool** on the city's iconic waterfront!

Register your initial interest in bringing a group along now! Over the coming months we'll be giving you regular updates about what to expect on the **5th July** & how to confirm a booking.

JULY 2016

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REGISTER  
YOUR  
INTEREST NOW

# The Your Life campaign.

KS4

The campaign is an industry-led and Government-supported campaign, which aims to show the dynamic career opportunities unlocked by studying science and Maths, and thereby drive uptake of Maths and Physics at A-Level or equivalent.

The campaign is doing this through driving curiosity around the dynamic STEM career options available through direct, sustainable engagement with young people.

- Your Life has created the Best School Trip programme, working with many leading businesses across the UK, including our own corporate sponsors, who are opening up their workplaces to students and teachers to offer a memorable experience and insight into their workplace and people. Best School Trips are free to both schools and businesses.

[yourlife.org.uk/best-school-trip/](http://yourlife.org.uk/best-school-trip/)

- The Your Life Formula 100 competition is searching for the UK's most creative and innovative young minds, by challenging young people to tell us 'what they would invent and why'. There are curriculum linked lesson plans and resources to help teachers demonstrate how STEM is an integral part of innovation and invention and how STEM subjects will be central to the jobs of the future.

[yourlife.org.uk/formula100/registration/](http://yourlife.org.uk/formula100/registration/)

- Your Life is also challenging the barriers to studying these subjects through the development of inspiring and thought-provoking content which resonates with young people across the channels they engage with, including a dedicated Your Life You Tube channel. The videos on the channel could be easily integrated into lessons and workshops to demonstrate the importance of STEM skills.

[youtube.com/YourLifeTeam/](http://youtube.com/YourLifeTeam/)



## First Lego League Competition Feb 2016.

Cumbria's First 'First Lego League Competition' took place on the 4th February 2016 - please read STEM Ambassador and teacher comments below but Congratulations to Ennerdale's Engineers for winning the event and booking their place in the finals on 21st February 2016 - see News Pages at [www.stemcumbria.co.uk](http://www.stemcumbria.co.uk) :

Thanks for today and well done to you and the team. It was brilliantly executed! Luke Richardson - Costain

I really enjoyed the day, it was great to see the work the young engineers had done and impressive to see such a high standard of teamwork and sportsmanship. Well done to and your team for organising such a successful event. I'm not a STEM ambassador, but after yesterday I am definitely thinking about it! Anna Brown - Jacobs

Thanks to you guys for organising it, it seemed to go down great with the kids and was a pleasure to help with. The First Lego League is such a good event, it's an amazing challenge for the kids to take part in, and really rewarding to be involved in. The whole core values aspect to it really seemed to have grabbed the kids attention and you could see how it had shaped their approach to the whole project; team work, sportsmanship and problem solving shone throughout the whole day. Chris Wear - REACT Engineering

Thanks for last week. It exceeded my expectations as an event and I am more determined than ever to see how I can help Tony to expand it in Cumbria for next year. Excellent! Pete Woolaghan - REACT Engineering

Just a quick note to say how much I enjoyed the day, I was so impressed with all the work and enthusiasm of the pupils of all of the schools that attended the day. They had all worked so hard with the testing and development of their robots and with the presentation of their project work. There was so much energy in the room, usually it gets a bit slow in the afternoon, with pupils losing focus, but as the competition was in the afternoon it really kept the pupils and the Judges engaged and on their toes. Watching the individual teams work together to resolve problems during the each of the runs, tweaking start positions or decisions making to complete the task was great to see. Good sportsmanship – One team member called over to the opposing team just before the countdown to say “good luck”, I thought that was I real credit to the team. Truly an inspirational day, it's great that Cumbrian schools can get involved in such a well-rounded engineering and life skills event. See you at the next one! Robin Bell - Assystems Ltd

**Teacher Comment from Craig Cowper Victoria Junior School** - We all had a fantastic day, thank you - we were particularly thrilled to win the Core Values trophy. Thank you for organising such a terrific event and for the photos. We'll definitely be entering next year's competition!

## **British Science Week 11-20 March 2016**

### **Demo Day 2016**

Takes place on 17 March. Teachers can pledge to be part of this at [www.britishscienceweek.org/plan-your-activities/demo-day/](http://www.britishscienceweek.org/plan-your-activities/demo-day/) The webpages include resources, video clips and new ideas for demos, including the [Demo Insights](#) publication.

### **British Science Week poster competition 2016 theme announced! Space for Science: Science in Spaces –**

Young people across the UK are invited to enter the British Science Week annual poster competition, run by the British Science Association. Young people should do some investigation into their ideas about the theme and present them as a poster. For ideas, have a look at the young people's guidance notes (below) or this year's British Science Week [activity packs](#) which follow the same theme.

[BSW poster competition – educator notes](#)

[BSW poster competition – young people's guidance notes](#)

## News from the Royal Society of Biology

14-16yr olds.

### Biology Challenge

The Royal Society of Biology's [Biology Challenge](#) competition will take place online in schools from **Monday 7 to Tuesday 22 March 2016**, inclusive. It is open to all students who were born between 1 September 2000 and 31 August 2002. Students/schools need to be registered by a member of staff at the school. If you know any 13-15 year olds whose schools have not entered previously please do ask their teacher to visit the [Biology Challenge](#) webpage for more information.

### Gopher Science Lab Grants now available KS2/3

[Gopher Science Lab](#) supports students' transition from primary to secondary school with peer to peer learning across age groups. Secondary students learn how to deliver the range of Gopher Science Lab hands-on science activities to primary pupils. During this process the secondary students develop their skills in communication, innovation and increase their self-confidence. Later the primary pupils who attended a Gopher Science Lab day are encouraged to deliver their own training to pupils in their class or from younger year groups. This gives all participating students ownership of their learning and helps them gain confidence. [Grants are now available](#) to enable UK schools to run a Gopher Science Lab day followed by sharing their experience via a teacher led twilight training session for other teachers. The deadline to apply is **31 March 2016**.

### Polymer Study Tours

Free Teacher C.P.D KS3/4

Free intensive four day residential CPD courses for practising and trainee secondary school Science and D&T teachers designed to improve knowledge and understanding of polymers. The Polymer Study Tours were initiated by the Worshipful Company of Horners in 1987 and are based at the Universities of Edinburgh Napier, London Metropolitan and Manchester

<http://www.iom3.org/polymer-study-tours>

Best wishes

Amanda

Contact us for advice and guidance on  
[amanda@stemcumbria.co.uk](mailto:amanda@stemcumbria.co.uk).