



## STEM NEWS –September 2014

(Science, Technology, Engineering and Maths.)

Dear Teachers,

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

### Westmorland County Show 2014

What a great time we had last week at the county show, it was lovely to see so many primary schools out and about and also your fabulous displays in the learning for life tent. Hi to Dent, Vicarage Park, Castle Park, Heron Hill, Old Hutton, Dean Gibson, St Marks, Appletree, Storth, Beetham, Allithwaite and Lindale...it was great to watch you work out the controls of the robot arms and to see some great programming of the Bee Bots. The Vex robots proved very popular too and Wilma, Myself and the team really enjoyed getting to meet you all. Here are some pictures of our day.



### National Science and Engineering week 13<sup>th</sup>-20<sup>th</sup> March 2015

Cross Curriculum

Each autumn the NSEW team runs information sessions as a way to provide event organisers with information, answer questions and exchange experiences, advice and ideas. We want these sessions to be helpful and interesting for teachers new to NSEW, which why we would appreciate your help.

- Do you have ideas of content or activities that you think can be of interest?
- Would you like to get more involved and contribute to an information session?



- Would you be keen to share your passion and run your own session, with our support?

The team would like to hear your suggestions for information session content and format - just send an email to [nsew@britishscienceassociation.org](mailto:nsew@britishscienceassociation.org) or call us at 020 7019 4937.

## STEM Ambassadors.

Available to all

Visit [www.stemnet.org.uk](http://www.stemnet.org.uk) for STEM Ambassador information



In Cumbria we are fortunate to have just over 600 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.

## FREE ASTROPHYSICS RESOURCES

KS2-5

The Astrophysics Research Institute at Liverpool John Moore's University have just launched their outreach website detailing a number of astronomy-related workshops and talks which they can provide to schools within

the North West and north Wales for free. Details can be found at [www.astro.ljmu.ac.uk/Outreach](http://www.astro.ljmu.ac.uk/Outreach) with activities covering Key Stage 2 to 5  
- for further details please see the website or email [astro@ljmu.ac.uk](mailto:astro@ljmu.ac.uk).



From the team that brought you upd8 comes ENGAGE, bringing real, up-to-date science into classrooms across Europe.

This week, get students talking and thinking with:

- 'What does the Fox say': a music video with half a billion YouTube views is the hook to get students applying knowledge about sound, and exploring how scientists are understanding animals.
- 'Grow your own body': as people live longer the demand for new organs to replace failed ones increases. One possible solution is to build new organs in a dish.
- 'Three Parents': brings the hot topic of this just legalised IVF technique into the classroom, as a context for learning ethics and genetics.

[Sign up on the website](#), to download the resources.

## Earth Science Week 2014 13<sup>th</sup> – 19<sup>th</sup> October KS3

The Geological Society is organising Earth Science Week in October, which will cut across all STEM subjects. Events are happening across the country and online, and schools are encouraged to get involved. The Geological Society also has some resources they can lend. More information is in the attached flyer.



Earth Science Week  
2014 schools flyer.pdf

## GenerationXX – Women in engineering poster

The Women's Engineering Society (WES) have put together the attached poster, which encourages young women to consider engineering.



GenerationXX lo res  
final.pdf

## Careers in Optics

KS3/4

Careers in Optics have put together some text which might be useful for describing their workshops to schools:

### **“Open your students’ eyes to the amazing world of vision**

New Dimension workshops were created by leading organisations in the eye healthcare sector to encourage talented, scientifically-minded students to consider a career in optometry. But a New Dimension workshop is so much more than a career talk!

Our volunteers (mainly young optometrists) will take your students on an exciting, interactive journey through the workings of the eye, eye health care, and the incredible world of illusion and perception. And, of course, they'll also find out what it's like to be an optometrist and the range of career opportunities open to them. Each one hour workshop has been carefully mapped to the Key Stage 3/Key Stage 4 curricula, both in terms of the biology of the eye and in the PLTS requirements for science at this level.

To find out more, and book your workshop, please contact:

[teachers@newdimensioninoptics.org](mailto:teachers@newdimensioninoptics.org) or visit [www.newdimensioninoptics.org](http://www.newdimensioninoptics.org)"

## **Design the Future from your Classroom**

**KS3/4**

*The next generation of designers, innovators, and creators are your students today. Help them realise their potential with free access to professional 3D design software and creativity apps. Use Autodesk tools and learning resources mapped to your curriculum to help fuel a lifelong love of learning, problem-solving, collaboration, and creative thinking - essential skills for 21st century careers. Register to access free software for your school today:*

[www.autodesk.com/designthefuture](http://www.autodesk.com/designthefuture)

## **Everything Dinosaur**

**KS2/3**



fossils and genetics.

Being dinosaur and fossil specialists we have become all too aware of the lack of reliable and updated resources available to teachers when it comes to exploring such topic areas within the science elements of the new English curriculum such as evolution, extinction, climate change,

We at Everything Dinosaur have set up a dedicated website: [Dinosaur and Fossil Resources for Schools](http://www.everythingdinosaur.com)

It's a commercial site, it gives educators the opportunity to learn more about a potential school visit and links into our main website which offers for sale a huge range of prehistoric animal themed resources.

The site also contains lots of helpful articles, lesson plans, activity and experiment suggestions, free downloadable resources and links to our vast array of supporting material. We have now amassed over 3,000 articles, 500 different types of learning aids along with nearly 300 fact sheets.

This website has been up for about 3 weeks now; it is our intention to add many more download and other resources. It contains a number of sections, being broken down into EYFS/Reception, Key Stage 1/2 and Key Stage 3/4 to help teachers navigate their way around

Contact us for advice and guidance on

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Our small team in the office consists of Tony Gill, Director, Wilma Buckley, Office Manager, Dani Haydock our STEM Ambassador Co-ordinator and Amanda Eastwood, Administrator.  
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Regards  
Amanda