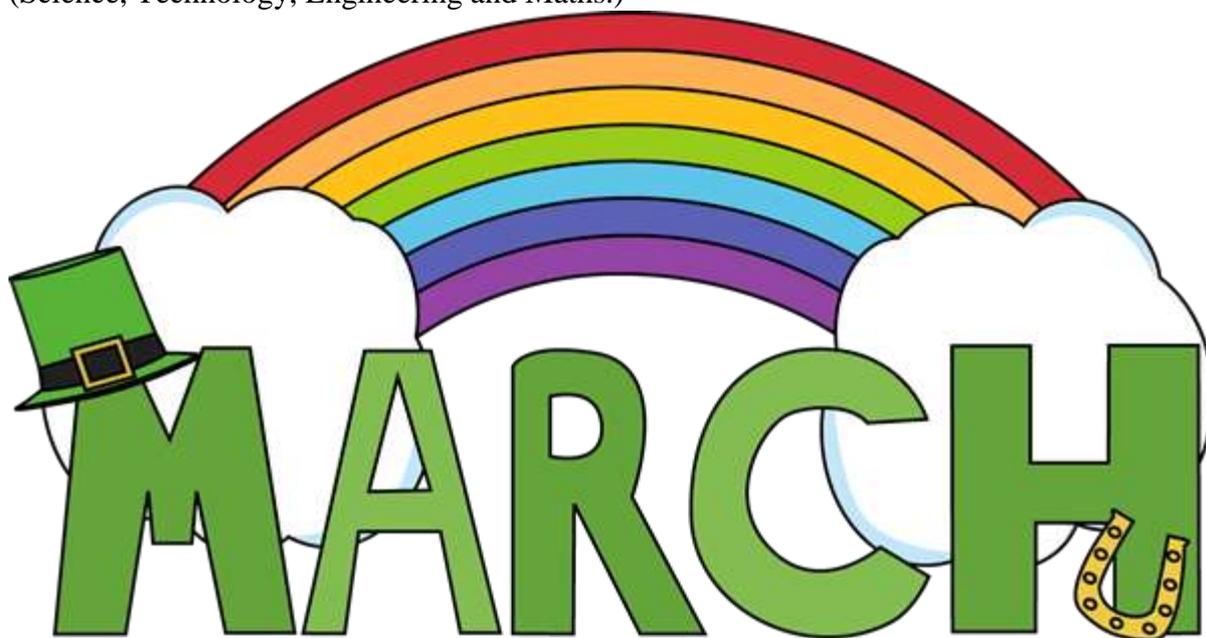


STEM NEWS –March 2015

(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.

CREST Star

Hands on science investigations for Primary Schools 5-11yr olds.

“CREST creates enthusiasm, independent learning and a greater interest in STEM”

Secondary school teacher 2014.

Register for our [online membership scheme](http://www.britishecienceassociation.org/creststar)

www.britishecienceassociation.org/creststar.

CREST Star investigators are now available as a new online membership scheme. Registration costs just £40 with an annual renewal fee of £20 payable after the first 12 months.

About CREST Star

CREST Star is a UK-wide award scheme enabling children, usually aged 5 - 11, to solve science, technology, engineering, and maths (STEM) problems through practical investigation.

Launched in 2007 CREST Star is used in over 3000 primary and special educational needs schools across the UK as well as several international schools overseas.

CREST Star is supported by URENCO:

STEM Ambassadors.

Available to all

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

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.



**National Women in Engineering Day
23 June 2015**

National Women in Engineering Day (NWED) was set up by the Women's Engineering Society (WES) in 2014 to encourage more girls to consider engineering as a career. Promoting engineering amongst girls will not only create more diversity, where less than 10% of the engineering workforce is women, but it will also help address the looming skills gap in this sector. Last year, over 250 schools

and 100 organisations were involved in NWED, and this year we want to follow on from that success and get more schools involved, in order to establish NWED as a bigger and better day. Anyone can get involved and help encourage girls and women into engineering careers: whether you host an engineering-based event for young people, recruit a female engineer to speak at a local school, or simply tweet about NWED, we can all unite to break down gender barriers and increase diversity and equality in the engineering sector.

For more information, visit <http://www.nwed.org.uk> and request a resource pack

Nancy Rothwell Award



KS2/3/4

The Nancy Rothwell Award celebrates specimen drawing in schools and highlights the benefits of art and science. Draw shells from the beach, fossils in museums, organs in your body, plants and animals. Run by the Society of Biology in partnership with the Royal Veterinary College, entries are invited in the following age categories 7-11, 12-14 and 15-18. Last year's wonderful winning drawings are on the Society of Biology website for inspiration. Submit your entries by **Friday 4th September**, contact karenpatel@societyofbiology.org for further details and see the flyer attached.

Get an Astronaut to run your class's experiments in Space **KS2/3**

British ESA Astronaut, Tim Peake, invites you and your class to take part in an out of this world competition to design and programme experiments and applications to be run on the International Space Station as part of Tim's mission later this year.

www.astro-pi.org For KS2/3



News from the National STEM Centre **KS3**



Science Self-Evaluation Tool

Based on the four point Ofsted grading scale, the Self-Evaluation Tool has been designed to support secondary science departments by identifying strengths and areas for development, with links to helpful resources and courses.

[Read more >>](#)



Make maths magical

Steve Lyon, National STEM Centre Mathematics Specialist, discusses his fondness for mental arithmetic, why it's been in the news and comes up with some great ideas for a lesson to enthuse students about the wonder of number and the magic of mathematics.

[Read more >>](#)

Engage with the latest scientific discoveries

The Cutting Edge Science online group will provide an active space for schools, teachers and technicians to engage with the latest scientific research along with access to innovative teaching and learning resources for the KS4 and KS5 science curriculum. Making Cutting Edge Science both engaging and relevant for the modern student.

[Read more >>](#)

The problem of girls and science

With the gender gap in science making headlines this week, Yvonne Baker, reflects on the obstacles getting in the way of girls succeeding and what can be done to remove them.

[Read more >>](#)

Polymer packages: the ultimate lunchbox!

The scientists at [Horners](#) are really fed up of eating squished sandwiches that leak in their bags. They love finding new ways to use polymers, and want you to design the [ultimate lunch box](#), using polymers, to protect their lunch (and their bags!) on the way to work.

Research what people use to wrap up their lunches (the '[protecting polymers](#)' CREST Star activity is a great place to start). What materials? How heavy /bulky/strong/flexible? Can they be reused/recycled? Design and share your ultimate lunch box, write about/draw/make/video your idea and [send it to us](#). **Deadline is 17th April 2015**

Prizes include: [£25 Curious Minds student voucher](#); science goody bag worth at least £15; [£50 TIMSTAR voucher](#) for the school; CREST Star school membership and teacher/parent memberships of the British Science Association.

That's all folks! Please let us know if you get involved with any of these projects,

Best wishes

Amanda

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