

NOVEMBER 2020



SETPOINT Hertfordshire is now trading as STEMPOINT East



# SECONDARY NEWSLETTER

**STEMPOINT East is an educational charity inspiring young people about STEM (Science, Technology, Engineering and Mathematics) in the East of England**

**Welcome to our latest newsletter!** If you didn't have time to join us for STEM Inspiration Week, you can still access the recordings for the sessions on page 2 - these are a great resource to share with students who may have to work from home too. There are also opportunities to book a STEM expert free-of-charge to give a talk in your school – see page 3. Finally, we'd like to hear YOUR views on how external companies can help bring real-life context to the curriculum and highlight STEM careers. Please join us for a very special session on Tuesday 24th November at 4pm to tell us your views and help guide our strategy to support you.

There are lots of opportunities for students out there, so read on for more information...



We would like to invite you to attend a short information session for teachers about the exciting Nuffield Research Placement scheme for 2021. These will be held, via Zoom, **every Wednesday afternoon at 4pm from 11th November.**

These sessions are targeted at teachers, Careers Leads and SLT and please do forward this email to any of your colleagues who might like to attend, including those in the Maths, Computing and Psychology/Sociology departments.

To register your interest in one of these sessions, please click the following link: <https://forms.gle/mdwY5jsx6282BrpR6>

We would also like to offer a virtual assembly visit at a time that would suit you and your Year 12 students. This would consist of a 10 minute presentation with the opportunity for students to ask questions. To request a virtual visit from one of our team, please click here: <https://forms.gle/y48dLFnZ8GgHGCEY7>

**The application system for Nuffield Research Placements 2021 opens soon and we hope that you will encourage your students to apply.**

Please note: This scheme is aimed at students who come from low income families, or don't have a family history of going to university. We want more students from these backgrounds to apply, and can offer them financial support to do so.

We will, in due course, be sending further information about the scheme to all schools in our region but in the meantime we look forward to hearing from you regarding our information sessions. Please do get in touch if you have any questions.

## SECONDARY TEACHER CONSULTATION SESSION:

**Join us on Tuesday 24th November at 4pm**

for an opportunity to share your experiences of school life this year and help shape how external organisations and STEM Ambassadors reach out to your pupils during current restrictions

- Discuss ways in which external STEM experts can help your students back into learning
- Get ideas for linking the curriculum to the world of work
- Find out how to access up-to-date STEM careers information
- Discover opportunities for your students
- Find out about CPD opportunities for you

**Have YOUR say in shaping STEM support for your school**

**Register via the link below:**  
<https://forms.gle/ExpdOjx9gNuxiMrAA>  
**For more information contact:**  
[h.bailey@stempointeast.org.uk](mailto:h.bailey@stempointeast.org.uk)





All of the sessions which were recorded are now available to view online.

Please follow the links below each description or [click here](#) to view the main STEMPOINT East page:



**ASTRAZENECA**

Turning Science into Medicine  
A reflection of science advancement in the pharmaceutical industry and how skills and careers continue to evolve.  
<https://youtu.be/nb4BAtelCHw>

**BRITVIC**

Farm to Fork: making a drink  
Find out how a drink is made from growing the fruit on farms to selling in a supermarket and we will include videos of some of the different steps. In the presentation we dive deeper into how we develop new drinks.  
<https://youtu.be/BLPoQK1KZT4>

**ROTHAMSTED RESEARCH**

Opening Doors with Biology  
In this session you will meet Tessa Reid and Chris Stephens, two PhD students from Rothamsted Research. They will share with you their journey into biological research and some of the amazing opportunities that this STEM career has opened up for them; from lab work, to field work to testing centres during the COVID-19 pandemic.  
<https://youtu.be/2bdsnXT9zs4>

**WELLCOME SANGER INSTITUTE**

Life in a Mosquito Lab  
Ever wondered how scientists study malaria? Find out how we breed and study mosquitos - the carriers of the malaria parasite with our video tour (pre-recorded) of a working mosquito lab at the Wellcome Sanger Institute.  
[https://youtu.be/O6Tr82MTF\\_0](https://youtu.be/O6Tr82MTF_0)

**NHS**

We are Nursing Associates  
Presentation on healthcare and apprentices; if students are interested in a role in healthcare, how do they do this? Which routes are available and what are the qualifications that I could achieve leading on to career progression within healthcare either within the NHS or an independent healthcare provider. Interactive session with live poll on what attendees know of the NHS and healthcare, how they can become a member of a healthcare team in various settings, e.g. in a hospital, learning disability, mental health, community or emergency care setting, among other roles.

**BT**

From Arts & Literature to Network Engineering!  
Art and Literature have nothing to do with STEM subjects, right? Wrong! This session will explain how a love of arts can lead to a career in Network Engineering, linking skills gained from humanities study to the technology sector, and may make you re-assess what an engineer can be.  
[https://youtu.be/i\\_itRypdU\\_o](https://youtu.be/i_itRypdU_o)

**GLAXOSMITHKLINE**

Manufacturing engineering 'The 'making' of everything'  
This session is an introduction to manufacturing engineering and examples in the healthcare industry. The practical activity is a real engineering example to help teach basic engineering skills involved in manufacturing activities.  
<https://youtu.be/7nFV79Hsw40>

**NATIONAL MUSEUM OF COMPUTING**

Computing on the Go!  
A look at the Smart phone - what they do, how they work and the tools that were used in the past to carry out those tasks.  
<https://youtu.be/OjflswAJxks>

**CRANFIELD WATER SCIENCE INSTITUTE**

Fatberg science- defeating beasts beneath.  
What to do when there is no single solution to ongoing threat? This talk will explore the social, economic and environmental factors associated with sewer fatbergs formation and removal. It will unveil how technical skills can no longer suffice on their own when urgent transformational change is required, and creative thinking and effective communication can make a difference between success and failure.  
<https://youtu.be/lj04ehik9VM>

**3 POINTS DIGITAL**

You don't need to be a geek to build the next TikTok!  
I'm going to show that no matter your passion, no matter what you'd love to do for a career, you can satisfy the inner geek. Want to be a beautician, but in your spare time you live on social media and play Fortnite? Combine your passions and make money!  
<https://youtu.be/Ld1NbpWYJU0>

**MBDA**

The Future of Defence  
Join us to learn more about what lies in the future of Defence and how MBDA are tackling the engineering challenges of the future.

**TESCO**

An introduction to the world of Retail Maintenance  
Providing an overall view of the world of maintenance and engineering and how we support and enable one of the leading supermarkets to serve Britain's shoppers every day.  
<https://youtu.be/uW2HHVDwtOM>

**AIRBUS**

Spacecraft Engineering for Beginners  
Let Glenn take you on a journey into space, starting in Stevenage! He'll provide an overview of the work done at Airbus on spacecraft design, build and test and what is required to be an engineer.  
<https://youtu.be/fl0rG3JMY2Q>

**BAKER HUGHES**

The Role of Engineering in Building the Future  
What is an engineer? What do Engineers do? The role of Engineers in taking concepts, ideas and technology into the systems, infrastructure and products we use every day.  
<https://youtu.be/QVCOPsOgDgM>

**RAF**

Engineering in the Royal Air Force - No Ordinary Job  
A presentation on the engineering opportunities offered by the RAF including apprenticeships and university sponsorship.  
<https://youtu.be/ZeDN10RgJRk>

**HERTFORDSHIRE COUNTY COUNCIL**

Engineering is all around you - we'll be providing insight into our day-to-day work with HCC/WSP and where an engineering path can lead.  
<https://youtu.be/FwUklpldTlc>

**FRIEL GOOD MARKETING**

How STEM is used in Marketing  
Ever feel like you're being followed around the internet? Do you ever wonder why the adverts that are served to you on social media are always relevant to what you've been searching for recently? In this webinar, Friel Marketing delves into the psychology, technology, engineering and data behind the wonderful world of marketing.  
<https://youtu.be/S5el7uvBTJs>

**JEMIMA WILLCOX PHOTOGRAPHY**

Brainwaves, Cheeky Selfies and Self Employment  
Jemima Willcox owns The Willcox Collective, a creative visual agency on a quest to deliver the best in visual content to tech companies and specialising in portrait photography. Jemima will show you how she created the Cheeky Selfie series, superimposing the sitters cheek cells into their portraits and how she created a sitter's brainwaves into visuals and then music! This presentation highlights how you can combine being creative with a career in STEM, along with useful insights of what it's really like to be your own boss and run a business.  
<https://youtu.be/7Cb0FH3U7Cg>

**MRS MUMMYPENNY**

How a Maths Graduate Became a Leading UK Personal Finance Expert  
How can teenagers become more financially savvy and use maths for a future career? Find out with Mrs Mumpenny!  
[https://youtu.be/Oqf\\_Fr8haU4](https://youtu.be/Oqf_Fr8haU4)

**UNILEVER RESEARCH & DEVELOPMENT**

Risk in the Consumer Goods Industry  
We will look at the concept of risk. How much risk do we allow before something becomes unsafe? We will explore this using a fun dice game. I will explain how I use risk in my job, investigating the safety of consumer goods products.  
<https://youtu.be/0q955bhOp9Q>

**NATIONAL MUSEUM OF COMPUTING**

Using Maths to Keep Secrets  
This session looks at the link between maths and encryption. Students find out how maths was used in codebreaking and try it out for themselves.  
<https://youtu.be/vEmBEgSjLk>

**ROTHAMSTED RESEARCH**

Statistics, Science & Food Security  
Rothamsted Research has been conducting Agricultural Research for over 175 years with Maths and Statistics playing a critical part in the journey to greater food security. In this session you will meet Helen Metcalfe, who took a winding route into her STEM career and now uses maths to model how weeds fit into an agricultural landscape, and Kirsty Hassall, whose love of maths now sees her adding value to a huge variety of biological problems, from identifying insects through sound to improving farm and field management.  
<https://youtu.be/3mg4xzk5nuQ>

**CONCERTUS DESIGN & PROPERTY CONSULTANT**

Careers in Construction - What does a Quantity Surveyor do...?  
Meet Natalie Finnigan. Natalie will be giving a brief overview about her route in construction from Admin Assistant to Principal Quantity Surveyor; What a quantity surveyor does and the skills needed (some maths - a lot of team work and negotiation!)  
<https://youtu.be/C0PyQ52KRjo>





**STEM Ambassadors are an important and exciting FREE resource for teachers and others engaging with young people inside and out of the classroom.**

STEMPOINT East have access to over 3,500 STEM Ambassadors, many of whom can offer operational schools STEM support and careers talks online, observing social distancing regulations.

We are the STEM Ambassador Hub for the East of England, including Bedfordshire, Luton, Cambridgeshire, Peterborough, Hertfordshire, Norfolk and Suffolk.

STEM Ambassadors come from a wide variety of STEM backgrounds and can help you bring curriculum learning to life by showing links to work and real-world issues.

Many STEM Ambassadors are available for blended learning sessions – you could ask one to join you during a physics class, for example, or when you’re talking to pupils about almost any STEM topic.

They can give some background information about themselves to older students and include details of their own career



**Do you teach students aged 15 to 18 in Stevenage or surrounding areas?**

Help them find out what job opportunities are available locally

**Generation Stevenage is the safe online event designed to help them make the most of their future.**

Meet the world-class employers on your doorstep championing careers in Science, Technology, Engineering, Maths and Healthcare.



**Want to find out what opportunities are available locally?**

Generation Stevenage is the safe online event designed to help you make the most of your future. Meet the world-class employers on your doorstep.

Join us on Tuesday 01 December, 6-7.35pm, to find out:

- What it is like to work for Stevenage's key sector industries
- How you can apply for local jobs and apprenticeships
- What skills you need to succeed
- What to do next

Register online at [www.hopinto.co.uk/generation-stevenage](http://www.hopinto.co.uk/generation-stevenage)



Meet the Sector Champions  
Science  
Technology  
Engineering  
Maths  
Healthcare



5-14 March  
British  
Science  
Week  
2021



## CREST

Many of the activities are CREST accredited, so if you enjoyed using them, why not think about running a CREST Award? CREST Awards give students real-life experience of being a scientist while getting introduced to STEM project work. They are nationally accredited and are a fun, yet educational way to get your children involved in STEM subjects.

## The theme for the British Science Week 2021 activity packs and poster competition is 'Innovating for the future'!

We are very excited about these packs, which have been created in partnership with UK Research and Innovation (UKRI). The full activity packs contain lots of activities on this theme, and will be released in January 2021 for you to download from this page. Until then, our taster versions of the packs with tips to help you organise events and activities for British Science Week are now available.

<https://www.britishsienceweek.org/plan-your-activities/activity-packs/>

## Kick start your Science Week plans today!

This scheme offers grants for schools in challenging circumstances to organise their own events as part of British Science Week. There are four options available: Kick Start Youth grant: A grant of £150 for your school to run an activity organised by students aged 10-19. [Click here to find out more.....](#)



## Inspire your students to think and behave like scientists and engineers...

Through creative, engaging and rewarding projects and activities, with tangible links to everyday life, students experience enquiry-led learning and – in addition to increasing their interest in science – develop skills such as teamwork, communication and problem solving.

Find out more and register for a FREE account at:  
[www.crestawards.org](http://www.crestawards.org)

## \*STOP PRESS\*

A unique opportunity to run a free CREST Discovery Day at your school!  
Contact [h.bailey@stempointeast.org.uk](mailto:h.bailey@stempointeast.org.uk) for more details about taking part



**Soapbox Science is an exciting event where you can hear from 12 fantastic female scientists about the work they do. It is open to anyone and everyone and our speakers are sure to amaze you with their latest discoveries and answer all the science questions you have been burning to ask.**



The event, which normally takes place in the Milton Keynes shopping centre, will take place on line this year. If you want to get a taster for what you can expect from the event you can check out the short videos prepared by each of our speakers on our Youtube channel and get your questions in early. You can then join us for our live events to hear more from our fantastic line-up of speakers and get all your questions answered!



**Join us live on Thursday 5th November at 2pm by [clicking this link](#) and on Saturday 7th November at 2pm by [clicking this link](#). We really hope to see you there!**



soapbox  
science

