



## STEM Ambassadors show students 'Chemistry at Work'

On the 1 and 2 July, 360 students from 21 local secondary schools took part in RSC Chemistry at Work event hosted at the Canterbury Campus. KMSTEM, based at Christ Church University, organised the event on behalf of the Royal Society of Chemistry with the aim of showing students how chemistry studied at school is used in the everyday world.

The programme involved more than 50 STEM Ambassadors from local industries with diverse presentations from 'Which is the Sweetest Strawberry?' to 'Chemistry With a Bang!'

Four departments from Canterbury Christ Church University also supported the event running workshops on: 'Powering Life – The Light Absorbers', 'Can you make toothpaste that stays on your toothbrush AND cleans your teeth?', 'How the cardiovascular system adapts to make athletes super human' and 'Forensic Science' – complete with crime scene investigations.

*"Students thoroughly enjoyed the day and came back with a renewed enthusiasm and motivation for chemistry"*  
- Teacher

One female student commented:  
*"All the practical /interactive things were very interesting, it was awesome!"*

A big thank you to all of the STEM Ambassadors and organisations who supported this event!

The next Chemistry at Work date is already planned. Book early to avoid disappointment.

## Kent & Medway STEM website launched

The Kent & Medway STEM website has always been a well used resource for teachers with more than 7,000 unique visits in July 2014. However the newer improved version enables all the features well-loved and used by teachers and ambassadors to be available on tablets and smart phones.

All the sections have been updated to make finding information easier, whether it is to find out about the closing date for grant applications, reading about past events, finding out about national competition winners or celebrating the expertise and knowledge of the ambassadors within our area.

Please visit [www.kentandmedwaystem.org.uk](http://www.kentandmedwaystem.org.uk) to see this impressive addition to the KM STEM provision.

## New STEM Academic Calendar

This year Kent & Medway STEM has put together a calendar featuring important dates in the STEM calendar including free teacher CPD twilight sessions, STEM Ambassador/Teacher Network Events, Free Lectures, competition deadlines, festival dates as well as grant application closing days.

Receive a FREE copy with any KM STEM event - simply email to book:

[kentandmedwaystem@canterbury.ac.uk](mailto:kentandmedwaystem@canterbury.ac.uk)

OCTOBER 2014						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

## EVENTS FOR STUDENTS

### What's My Line? – Chemistry Careers

**Tuesday 14 October 4-6pm, FREE  
Discovery Park, Ramsgate Road, Sandwich**

This event is based on the old TV quiz show "What's my Line" and involves the students questioning STEM Ambassadors about their careers and their current role in an attempt to guess their job title. STEM Ambassadors bring three props or tools of their trade to prompt a short discussion about their job role with 3-5 students at a time.

This event is run as a competition. Students in groups try to guess the occupation of the ambassadors who award between 1 and 3 marks for each team according to how close they come to guessing their role. At the end of the session the Stem Ambassadors reveal their job roles to all of the students and the winning team are awarded a small prize.

Book by email:

[kentandmedwaystem@canterbury.ac.uk](mailto:kentandmedwaystem@canterbury.ac.uk)

### FREE ChemNet KS5 Tour & Chemistry Talk at Fuji Film,

**Thursday 16 October 2014, 1.30pm - 4.30pm, KS5, FREE | Fuji Film, Pysons Road, Broadstairs**

Inky business: meeting the world leaders in digital printing

A chance for students to find out about the research, development and manufacturing expertise involved in producing world leading printing inks.

[www.kentandmedwaystem.org.uk/index.php/news/news-article/375](http://www.kentandmedwaystem.org.uk/index.php/news/news-article/375)

**Free Consultancy:** The KM STEM team can visit you in school free of charge to support and develop a STEM plan for you. Find out about the free resources available including STEM Ambassadors, and how to organise STEM enrichment and engagement activities. To book a free consultation simply email [kentandmedwaystem@canterbury.ac.uk](mailto:kentandmedwaystem@canterbury.ac.uk)

## Medical Physics & Radiography Lecture

**Thursday 13 November 2-3:30pm, FREE**  
**Rowan Williams Court, 30 Pembroke Court,**  
**Chatham Maritime, ME4 4UF**

This event is aimed at A-level students to give them an insight in to careers in medical physics. The key speaker will be Dr. Aruna Jago-Brown, Senior Lecturer, Canterbury Christ Church University, whose specialist field is Nuclear Medicine and Medical Physics.

Book by email:

[kentandmedwaystem@canterbury.ac.uk](mailto:kentandmedwaystem@canterbury.ac.uk)

## IET Christmas Family Lecture: Colours Tripping the Light Fantastic

**Thursday 4 December 6-8pm, FREE**  
**Canterbury Christ Church University, North**  
**Holmes Road, Canterbury, CT1 1QU**

You'll never trust your eyes again after you've seen colour scientist Ben Craven use his favourite colour experiments to explore the world of colour vision. Find out how to make a black thing look white, how two lights can be the same but different at the same time...and why we are all colour blind.

Dr Ben Craven is a Colour Scientist, working at Glasgow School of Art and as a freelance science communicator. Latest news from LUCID – our cosmic ray detector in space from Becky Parker, Director of the Langton Star Centre at Simon Langton Grammar School

Book FREE tickets:

[www.kentandmedwaystem.org.uk/index.php/news/news-article/406/](http://www.kentandmedwaystem.org.uk/index.php/news/news-article/406/)

## STEM Ambassador and Teacher Network Events

This year our first Network event will be at Down House, Darwin's former home. South East Water will host a meeting at Bewl water. These events are a chance to network with other STEM Ambassadors and STEM Teachers, discover more about Kent & Medway STEM, find a STEM Ambassador for your activity, learn new ideas, tips and information, improve your self-confidence and meet new friends or gain a support system. Refreshments provided. Where appropriate tours of the venue will be given.

**Tuesday 30 September 4-5:30pm, FREE**  
**Home of Charles Darwin, (Down House),**  
**Luxted Rd, Downe, Kent BR6 7JT**  
[www.tinyurl.com/STEM30Sept](http://www.tinyurl.com/STEM30Sept)

**Tuesday 7 October 4-5:30pm, FREE**  
**Discovery Park House, Ramsgate Road,**  
**Sandwich CT13 9ND**  
[www.tinyurl.com/STEM7Oct](http://www.tinyurl.com/STEM7Oct)

**Wednesday 15 October 4-5:30pm, FREE**  
**Bewl Water Country Park, Bewlbridge Lane,**  
**Lamberhurst, Kent TN3 8JH**  
[www.tinyurl.com/STEM15Oct](http://www.tinyurl.com/STEM15Oct)

## ASE Science Extravaganza

**Wednesday 8 October 5:30-8pm, FREE**  
**Michael Berry Lecture Theatre, Old Sessions**  
**House, Canterbury Christ Church University,**  
**North Holmes Road, CT1 1QU**

5:30 - 6pm Drinks & Nibbles  
6pm - 8pm Science Show Details TBC

[www.tinyurl.com/ScienceExtra](http://www.tinyurl.com/ScienceExtra)

## ASE Teach Meet

**Tuesday 25 November 4-5.30pm, FREE**  
**Rowan Williams Court, 30 Pembroke Court,**  
**Chatham Maritime, ME4 4UF**

Come and hear about the latest in science education, Refreshments provided.

[www.tinyurl.com/ASEteachmeet](http://www.tinyurl.com/ASEteachmeet)

## FREE Public Autumn/Spring Physics Lectures at University of Kent

**Rutherford Lecture Theatre 1, The University**  
**of Kent, Canterbury, CT2 7NZ, 7:30pm, FREE**  
The University of Kent, Kent Physics Centre Annual Lectures for Autumn/Spring 2014-15 are available to book now. All meetings will be held on Tuesday evenings.

[www.kentandmedwaystem.org.uk/index.php/news/news-article/377](http://www.kentandmedwaystem.org.uk/index.php/news/news-article/377)

## EVENTS FOR TEACHERS

### FREE CPD - Super Sucker- Make a Vacuum Cleaner

**Thursday 9 October 4-5:30pm, FREE**  
**Rowan Williams Court, 30 Pembroke Court,**  
**Chatham Maritime, ME4 4UF**

This workshop will help you introduce the field of electrical engineering to students. The activity will show you how to teach students about engineering design processes; solving problems with technology; planning solutions; how to make simple circuits and this activity could form a great focus for a STEM club.

All equipment for the session is supplied, and you get to take away your vacuum cleaner. Refreshments provided

[www.tinyurl.com/STEMvacuum](http://www.tinyurl.com/STEMvacuum)



## The Google Teacher Academy (GTA)

Tuesday 28 – Wednesday 29 October, FREE (Application/selection process)  
London, TBC

A two-day professional development experience designed to help primary and secondary educators from around the globe get the most from innovative technologies.

[www.tinyurl.com/TeachAca](http://www.tinyurl.com/TeachAca)

## FREE Talk Science teachers' courses at Science Museum London 2014-15

Monday 1 December 2014, Thursday 5 February 2015 or Thursday 2 July 2015  
Science Museum, Exhibition Rd, London

A one-day course for KS3 & 4 teachers providing tools and techniques for running effective and engaging class discussions about topical science. FREE - Booking Essential

[www.kentandmedwaystem.org.uk/index.php/news/news-article/389/](http://www.kentandmedwaystem.org.uk/index.php/news/news-article/389/)

## FREE RESOURCES & SCHEMES

### The Science behind Breaking Bad

Written by Dr Jonathan Hare of the University of Sussex, these articles delve into the Science behind the hit TV show, with topics like 'acid bath body disposal' and 'thermite break-ins' - a great way to present Chemistry in an engaging way to your students!

[www.rsc.org/Education/EiC/TheMole/breaking-bad-chemistry-science.asp](http://www.rsc.org/Education/EiC/TheMole/breaking-bad-chemistry-science.asp)

### The Global Experiment 2014: The art of crystallisation

Collaborate with thousands of students from around the world by taking part in this experiment. Follow the instructions to grow your own crystals, analyse the results and post your local data. By taking part the RSC want you to help answer the question: What are the best conditions for growing the biggest crystals?

[www.tinyurl.com/podov9c](http://www.tinyurl.com/podov9c)

## The Little Book of Programming Challenges - Free Download

The twenty seven challenges are designed to challenge and inspire students whilst helping them on their journey to becoming a 'computational thinker'. The ideas contained in the booklet will also provide useful teacher stimulation when planning lessons.

[www.tinyurl.com/ProgChal](http://www.tinyurl.com/ProgChal)

## My 2050 Schools Toolkit

This toolkit is a set of activities that can be used in the classroom to engage students in debates about climate change and energy. The main section of the resource is a lesson based around an online simulation developed by DECC called My 2050.

[www.tinyurl.com/2050tool](http://www.tinyurl.com/2050tool)

## Brain: The Inside Story

A free interactive online resource on the brain and nervous system aligned to A2-level biology exam specifications, including: brain structure, brain functions, homeostasis, synapses, the nervous system and brain chemicals

[www.tinyurl.com/BrainInside](http://www.tinyurl.com/BrainInside)

## Royal Society of Chemistry's The Mole

The Mole is the Royal Society of Chemistry's magazine for students and anyone inspired to dig deeper into chemistry.

[www.rsc.org/eic/mole](http://www.rsc.org/eic/mole)

## Power for the World

An outreach activity delivered by Engineers without Borders, schools can request a team of engineering students to deliver a workshop in school, or download resources from the website to use in class. Suitable for pupils aged 7-14 resources aid finding out about energy, differences in energy access around the world, and designing and building your own wind turbine.

<http://practicalaction.org/power-for-the-world>

Visit our website for more resources including competitions and grants information:

[www.kentandmedwaystem.org.uk](http://www.kentandmedwaystem.org.uk)

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