

## Do you know about Kent & Medway STEM?

**Canterbury Christ Church University** is your Kent and Medway STEMPPOINT contract holder with STEMNET providing:

- a brokerage service working with schools and colleges in the Kent and Medway region, helping young people and their teachers access a range of STEM enhancement and enrichment opportunities including STEM Clubs and links with STEM Ambassadors;
- coordination for the region of the STEM Ambassadors Programme, which enables anyone with **science, technology, engineering and maths (STEM)** skills to inspire young people and demonstrate the possibilities of STEM subjects and careers. STEM Ambassadors are people working within science, technology, engineering and maths careers, who have **volunteered to work in schools**. They each hold a current CRB certificate and have attended an induction session discussing how to approach volunteering in schools. They are generally not trained teachers, **but people who can bring the real world to life for your class**.

For tailored advice and to request an Ambassador-led activity, please email [stempoint@canterbury.ac.uk](mailto:stempoint@canterbury.ac.uk)

STEM Directories provide enough information for teachers to pinpoint quickly which activities and events provided by organisations across the UK will enrich their school curriculum. You can find out more about the STEM Directories by visiting [www.stemdirectories.org.uk](http://www.stemdirectories.org.uk)

## STEM Clubs Network

Whether your STEM club has been established for years, or you are only just thinking of starting a STEM club, the STEM Clubs Network is for you.

Managed by STEMNET, it enables you to explore ways of making your STEM club something really special! Through the network, club leaders get the chance to collaborate with other STEM club leaders via the web, CPD and other specifically tailored events.

A wealth of STEM club-related ideas and resources can be accessed, without cost, online at [www.stemclubs.net](http://www.stemclubs.net)

To affiliate to the STEM Clubs Network simply send an email to [join@stemclubs.net](mailto:join@stemclubs.net) stating your name (title, first name and surname), school name and school address. We'll do the rest.

## STEM Conference 10 June 2011

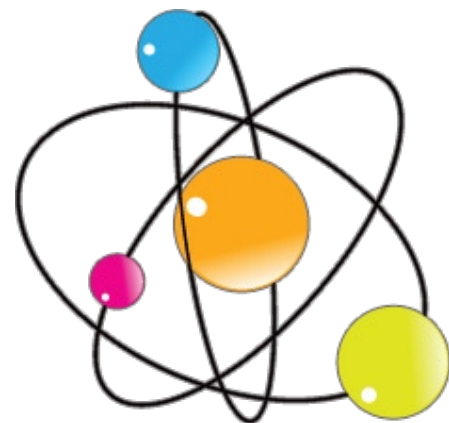
Canterbury Christ Church University

Primary and Secondary workshops including...

- Earth Science Teachers
- Fun Physics
- Science Outside the Classroom
- The Invention Creator
- The Science of Teamwork
- Mathematics workshops for both primary and secondary
- The Scientist Journal
- Astrodome
- Whiz Kids
- ...and much more!

All participants will receive 5 books that support the teaching of nature of science.

Please visit [www.kentandmedwaystem.org.uk/conference](http://www.kentandmedwaystem.org.uk/conference) to enrol. There are early booking reductions, as well as reductions for multiple attendance from one school. Each school will also get a "goodie bag" to support STEM in the classroom.



# STIXX Machine

Kent and Medway STEM has recently purchased 2 STIXX Machines to be used by Kent and Medway schools free of charge. The STIXX Machine is a simple, environmentally friendly machine that can be used to demonstrate the manufacturing process and produce very strong tubes made from newspaper.



These tubes can be used to construct bridges, shelters, wind turbines, go-karts, furniture, etc as well as being a tool for pupils' own designs. This would be ideal for teachers hoping to run a practical project in Design and Technology or Engineering for Key Stage 2 to 4. Training was organised at the beginning of January for teachers and STEM

Ambassadors who were interested in using the machine and we are planning another session on the **17th of May 4:30 to 6:30 at Canterbury.**

If you would like to book a place on the training session or are interested in obtaining the STIXX machines for your school, please email [stempoint@canterbury.ac.uk](mailto:stempoint@canterbury.ac.uk)

## STEM Challenges



Inspired by London 2012, STEM Challenges provide a contextual and cross-curricular approach to studying the STEM subjects at KS3. The challenges will take teams up to four weeks to complete in a typical club setting. There are big prizes to be won. For more information about the latest challenge and to register your students, visit [www.stemchallenges.net](http://www.stemchallenges.net)

Congratulations to Clarendon House Grammar School, The Rochester Grammar School and Dartford Technology College who took part on Challenge 5.

### STEM Challenge 6

**The Cisco Website Challenge -Deadline for teams to be registered by 20th April 2011**

Rachel Morris competes in hand cycling road events and has won gold medals at the World Championships and 2008 Beijing Games, making her one of Britain's top Paralympians. The sixth STEM Challenge is open to all pupils **aged 11 – 14 years**, sponsored by Cisco, asks teams to design an official Rachel Morris website to increase her public profile. Students must consider how their design would allow people to find out more about her sporting achievements and her disability, Reflex Sympathetic Dystrophy (RSD). To register your team visit [www.stemchallenges.net](http://www.stemchallenges.net)

## Crystal Growing Competition 2011

**The Competition Closes by 27 June 2011**

The Kent Local Section of the Royal Society of Chemistry is running a Crystal Growing Competition due to start in the Summer term this year. The aim of the competition is to produce one massive and well shaped crystal. A cash prize will be awarded for the crystal which shows the best combination of size, shape and clarity. Please could all schools or clubs interested in taking part email Dr A Hardy, [drhardyteacher@hotmail.com](mailto:drhardyteacher@hotmail.com) (using the subject line: *RSC Kent Section Crystal Competition 2011*). You will then be sent full competition rules, entry instructions and the identity of the chemical to use.

**RSC** | Advancing the Chemical Sciences

## Young Scientists Online Journal

Have you seen examples of STEM work in schools which deserves to be published?

- Are there projects or coursework out there which will otherwise lie forgotten on a shelf or USB memory stick?
- Would you like to encourage a student (or group) to consider publishing it in a science journal for others to read and for posterity?

**...being a published author looks great on their CV!**

Young Scientists Journal is an online science journal, written by young scientists for young scientists (aged 12-20).



More than that, the journal is run entirely by teenagers, including a team of students at

The King's School, Canterbury, where the journal was founded, but including editors from all over the world. It is the only peer review science journal for this age group, the perfect journal for aspiring scientists to publish research.

Many of the authors have conducted scientific research for coursework, competitions, holiday placements or projects. We are also keen to receive shorter, review articles, and also other material such as news items, competitions, videos or cartoons. It is easy to submit a contribution by uploading it online at [www.ysjournal.com](http://www.ysjournal.com) and we can accept submissions in a variety of different forms, including pictures, videos and presentations.

If you know a student who would be interesting in getting more involved, and helping to run the journal, we are actively recruiting students at the moment to our Young Scientists team, editing articles, managing the website, graphic designing, helping with publicity.

Send an email to Christina Astin, [cma@kings-school.co.uk](mailto:cma@kings-school.co.uk)

# EU-SOL Tomato Seeds. Free Genetics Resource for EU Secondary Schools



**The EU-Sol Tomato Seeds resource is a free, interactive genetics project for all secondary schools across the EU.**

The aim is to reinforce theoretical learning of Mendelian genetics: students can

grow naturally occurring tomato seedlings in which genetic inheritance rules for the dominant/recessive characteristics can be detected.

The resource provides students with an opportunity to take part in a practical and enjoyable activity which develops clearer understanding of the methodology behind research science. Seedlings can be grown in **just 4-7 days** and students can learn monohybrid and dihybrid inheritance through spotting key traits in the young tomato plants.

Students can also share their results with schools from across the EU using the online database. The online supporting materials are available in **six languages** and can be downloaded from the EU-Sol tomato seeds website. To request a seed pack, access the online resources and find out more information, visit

[www.eu-soltomatoseeds.com](http://www.eu-soltomatoseeds.com)

*(NB: there are a limited number of the EU-Sol Tomato Seeds Packs, the resources will be distributed on a first come, first served basis)*



## The Primary Secondary and Advanced Leaders Award for STEM

This project aims to give students between the ages of 5-19 the opportunity to be leaders for STEM subjects in the school and meet and interview professional from a range of STEM backgrounds.

The Award is tracked to the BTEC STEM Leadership Qualification.

See [www.leadersaward.com](http://www.leadersaward.com) for more details.

## SciCast Competition

**Submission deadline 27 April**

SciCast is a free competition for short films about practical science. More than 400 films have been submitted from schools, youth groups, research labs and families, all available as a resource for teachers via the project website.

To get started, with the full rules for the competition, tips on the film-making process and lots of previous entrants and winners to inspire you, visit the website:

[www.planet-scicast.com](http://www.planet-scicast.com)

## Win a fantastic opportunity to meet and interview Wing Commander Andy Green – Closing Date: 30th May 2011

Introducing Wing Commander Andy Green, the man who is aiming to break the world land speed record by driving the BLOODHOUND SSC car to 1000 mph! He already holds the current world land speed record of just over 763 mph and was the first person ever to break the sound barrier on land.

**This is your chance to bring Andy Green into your school and interview him as part of the Leaders and Reporters Award for STEM. What questions would you ask?**

Give your students an insight into the BLOODHOUND SSC Project whilst they learn about science, technology, engineering and mathematics

### How to enter:

1. Schools must register with the Leaders Award at [www.leadersaward.com](http://www.leadersaward.com)
2. A joint letter from students about why Andy Green should come into their school
3. A covering letter from the Head teacher/teacher
4. All letters to be sent electronically to [editor@leadersaward.com](mailto:editor@leadersaward.com)

**Andy will review the letters and visit the schools with the most persuasive argument.**

**SEPNET** is a consortium of seven partner universities working together to advance and sustain Physics as a strategically important subject for the UK economy and its science base in the South East Region of England.



One of the key initiatives is an outreach programme of support and information to schools and students to increase the number of Physics students. Find out more at [www.sepnet.ac.uk](http://www.sepnet.ac.uk) or contact Charlotte Thorley, Director of Outreach: [charlotte.thorley@sepnet.ac.uk](mailto:charlotte.thorley@sepnet.ac.uk)

The Kent SEPnet Astrodome is one of Kent's most advanced mobile planetariums, enabling groups of all ages to learn about astronomy and space science in a fully immersive digital environment. We currently offer three talks which can be customized to cover a wide range of learning outcomes: The Night Sky, The Exploration of Mars and Two Small Pieces of Glass – The Amazing Telescope.

The dome can hold up to 30 students at a time and requires a power socket and an indoor floor space of 6m x 6m and 3m high. It is ideally suited in a school hall/sports hall.

For further details please visit [www.kent.ac.uk/physical-sciences/outreach-els/astrodome](http://www.kent.ac.uk/physical-sciences/outreach-els/astrodome) or if you are interested in the Kent SEPnet Astrodome visiting your school, please contact [science@kent.ac.uk](mailto:science@kent.ac.uk)



From helping you to set up a STEM Club, with STEM-in-a-Box, to getting one of their educational experts to deliver an inspirational STEM Day to your pupils, to attending STEM Teacher Training Days, Smallpiece have what you need to enhance the delivery of STEM in your school.

For more information visit [www.smallpiecetrust.org.uk](http://www.smallpiecetrust.org.uk)

#### PREPARE TO CELEBRATE 50 YEARS OF MANNED SPACE FLIGHT

The YuriGagarin50 website is celebrating the upcoming 50th anniversary of the first human space flight and aims to encourage activities around the anniversary on 12 April 2011.

Find out how you can get involved: [yurigagarin50.org](http://yurigagarin50.org)

#### DESIGN AND TECHNOLOGY

For online materials and support, featuring up to date news and articles visit [www.naidt.org.uk](http://www.naidt.org.uk)

#### FUTURE MORPH STEM CAREERS

The Future Morph STEM careers website has produced a poster to help raise awareness of the many and varied employment opportunities available from studying science and mathematics. The poster includes a blank template on the reverse which can be used as a group activity for pupils to create their own version of the poster. To view the poster and request copies visit

[www.futuremorph.org/teachers/teachers\\_-\\_homepage.cfm](http://www.futuremorph.org/teachers/teachers_-_homepage.cfm)

#### SPACELINK

The Spacelink team have been working with the Centre for Science Education at Sheffield Hallam University to create a set of PDF-based classroom learning resources for KS3 and KS4:

[www.spacelink.org/classroom-learning-resources](http://www.spacelink.org/classroom-learning-resources)

## New award for Teachers, Lecturers, NQTs and Trainees: Does Maths Count?

Applications should be received by **31 May 2011**



A new award is now available, in association with the National Centre for Excellence in the Teaching of Maths (NCETM), for teachers who interview professionals who use maths as part of their working life.

The aim of the award is to highlight the importance of maths in other curriculum subjects and its relevance in careers. Cash prizes will be awarded! More details are available at [www.leadersaward.com](http://www.leadersaward.com)

## Websites for Maths Activities

- [nrich.maths.org/public](http://nrich.maths.org/public)
- [www.mathstore.ac.uk](http://www.mathstore.ac.uk)
- Making maths fun!: [bublz.co.uk](http://bublz.co.uk)

Further maths networks: [www.fmnetwork.org.uk](http://www.fmnetwork.org.uk)  
Maths in a box sent to every secondary school: [www.ima.org.uk/hestem](http://www.ima.org.uk/hestem)

## Funding from the Royal Institution for Maths

The Royal Institution E&E grants scheme will make 60 grants of up to £500 available to teachers of mathematics to choose activities from the STEM Directories and to raise the profile and enjoyment of maths in schools.

For more information visit [www.rigb.org](http://www.rigb.org)