

ISSUE TWO

APRIL 2010

Spring

STAFFORDSHIRE STEM CENTRE
STEM CUMINGS

11-19 STEM Showcase Get Ahead with STEM

Tuesday 18 May 2010

Staffordshire County Showground

Between 12noon and 6.00pm ~ Free Event

Target Audience: Senior leadership team, curriculum managers, STEM subject leaders and diploma leads.

Each of the STEM subjects will be represented by partner organisations in the largest event of its kind in the Midlands.

Opportunities to view, discuss and sample a wide range of Science, Technology, Engineering & Mathematics resources will be available. These will include national initiatives, regional schemes and potential partner organisations which can assist you in transforming your curriculum offer and to discuss and review your STEM requirements.

Please contact Staffordshire STEM Centre for further details

IET Days on Bloodhound

15 and 16 July 2010

Staffordshire University, Stafford

Free of Charge

15 July 2010 ~ up to 144 key stage 3/4 students

Three Bloodhound Interactive Engineering Shows are to be arranged in the F14 Lecture Theatre which will accommodate up to 144 students on each session. One to be held during the morning, one during the afternoon and one during the evening. Each show will last 45-50 minutes and will look at the engineering challenges behind the car's design and operation.

16 July 2010 ~ 20 key stage 3/4 students

10am til 3pm to include lunch and refreshments

The second day of the Bloodhound experience will provide 20 students with the opportunity to use solid fuel rockets to power their design for a Bloodhound car. The students will be selected from competition entries to the Bloodhound Challenge which will be launched at Easter 2010.



Bloodhound Super Sonic Car ~ "Jet over Rocket"

STEM Ambassadors ~ Here to Help You



**STEM
AMBASSADORS**
ILLUMINATING
FUTURES

STEM Ambassadors are an invaluable and FREE resource for teachers and schools

They offer their time voluntarily to enthuse and inspire students within schools about STEM subjects. They can do this through a variety of activities such as clubs, careers talks, helping with school events, lessons, competitions and much more!

All STEM Ambassadors: * Have a STEM background—they are usually professionals and experts in their field
* Are volunteers and therefore FREE * Have been checked by the CRB * Have had a basic induction on how to approach the classroom.

Benefits to Teachers include: * Access to skilled resources to support staff in the classroom * Gaining extra support for extra-curricular clubs * Developing a varied teaching and learning style * Networking with local companies and gaining further opportunities.

Benefits to Students: * Better motivation, more confidence and enthusiasm regarding STEM subjects * Opportunities to improve key skills and increase understanding in STEM * A better understanding of the opportunities that a career in STEM can offer.

What can STEM Ambassadors do? * Assisting with STEM Clubs * Helping add a work related learning perspective to curriculum topics * Providing an insight into career opportunities arising from STEM qualifications * Facilitating workplace visits where appropriate * Working as mentors * Attending careers fairs * Judging competitions.

This is by no means an exhaustive list—We aim to work with you to best support your students needs!

Please contact Kevin Ford at the Staffordshire STEM Centre to organise for an Ambassador to visit your school

IME Industrial Visits for key stage 3 and 4

Free of Charge ~ Group size of approximately 15 Students

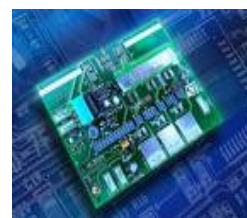
Convenient date tba with school and company of choice

The project arranges visits for students on engineering, manufacturing and related courses to exemplar companies in Engineering and Manufacturing throughout Staffordshire and the West Midlands. A series of case studies have also been written as part of the project. The aim of which is to give teachers a resource to use in preparation for, or as follow up material for a visit to a selected host. Further information is available at www.ime-wm.co.uk or contact Carol Clemson at the Staffordshire STEM Centre on 01785 353348.

First Lego League ~ Body Forward!

Tuesday 23 November 2010 ~ Regional Tournament

Stafford Rangers Football Ground, Stafford



Can FIRST LEGO League Teams Improve our quality of life? Through the 2010 Body Forward Challenge, 9 to 16 year olds will explore the cutting-edge world of Biomedical Engineering to discover innovative ways to repair injuries, overcome genetic predispositions and maximize the body's potential, with the intended purpose of leading happier and healthier lives. To express an interest in registering please email info@firsthandtechnology.org.uk

CREST Awards for 11 to 19 year olds

CREST is Britain's largest national award scheme for project work in the STEM subjects. It gives young people aged 11 to 19 opportunities to explore real world projects in an exciting way. CREST links closely to the curriculum and is a great way to make STEM creative and engaging—both in and out of the class.

For students, CREST awards are a tangible recognition of success. They can be included in personal records of achievement, and used to enhance applications to universities, colleges and potential employers.

CREST awards are extremely flexible—they can link into work experience placements, after school clubs or several linked schemes. Some projects might be done in one day, others over several months. Students can investigate or design and make, research a subject or design a science communication project.

There are three levels of CREST awards:

Bronze—10 hours of project work. Typically completed by 11 to 14 year olds (£4.00 per student)

Silver—30 hours of project work. Typically completed by 14 to 16 year olds. (£8.00 per student)

Gold—70 plus hours of project work. Typically completed by 16+ year olds. (£15.00 per student)



For further information, please contact Lynn Jennings (Science) or Jennifer Wilson (Maths or D&T) at the STEM Centre ~ Telephone 01785 353348

The above prices can be partly subsidised by ourselves depending on student numbers

Medical Technology Loan Boxes

£30 per half term

Following on from our existing Medical Technology CD of curriculum resources, there is a dedicated website full of resources that provide real contexts for curriculum activity focusing on developments in medical technology. A small team of teachers have developed a number of new activities and existing materials have all been updated to take account of development in schools colleges and the medical technology industry. In addition to the website there is a loan box of over a £1,000 worth of equipment and materials that allow activities to mimic equipment and procedures from the industry.—**Website address: www.medicaltechnology.org.uk**

To book a loan box, please contact the Staffordshire STEM Centre on 01785 353348

Post 16 Masterclass—Motor Sports Technology

Spring, Summer and Autumn Terms ~ dates to be arranged

Staffordshire University, Stafford ~ Free of charge

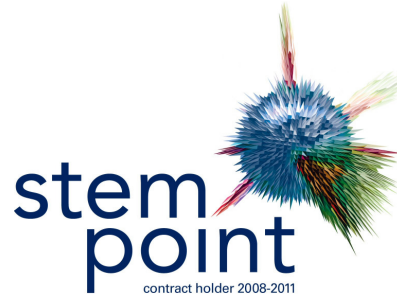
9.30am til 3.30pm including lunch and refreshments

15 Post 16 students

Students will experience a day in the university environment and gain practical of setting up a racing car for a competitive event and also experience computer aided designing of the racing car aerodynamics. The days are aimed at post 16 students who have a genuine interest in Automotive Engineering and will provide them with a unique insight into this exciting career pathway. **A range of other STEM Masterclasses are also available through the Aim Higher booking system. Please contact Carol Clemson ~ 01785 353348**



We're on the Web!
www.staffsstem.co.uk



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Staffordshire STEM Centre operates as your Regional Stempoint. We can put you in contact with National, Regional and Local initiatives around the STEM agenda. We provide a point of information, advice and guidance as well as providing STEM curriculum enrichment for pupils, students, teachers, lecturers and industry. We support students from 5 to 19 years in STEM courses and activities. Currently Staffordshire STEM Centre is managing over 40 projects in Staffordshire and Stoke on Trent. All schools, both state, independent and special (where appropriate) are invited to take part in these activities. We can provide free active industrial support for your school through the STEM Ambassador Scheme which can have an impact on both developing the curriculum and student experience

Staffordshire STEM Centre is a not for profit organisation providing enrichment and enhancement of the STEM (Science, Technology, Engineering and Maths) curriculum. We design and deliver an evolving range of innovative activities for schools and colleges that are curriculum focussed. These activities reflect changes in society and the future skills agenda. In supporting STEM across the 5 to 19 year age range we work closely with industrial partners. We also support and broker a wide range of national schemes developed to meet the needs and interests of young people.

If you would like any information to support your school in developing the STEM curriculum please contact our office

Booking Information and Further details:

For further information and booking details for any of the articles mentioned in this newsletter, please contact Carol Clemson or Helen Fraser at the Staffordshire STEM Centre (details as above) who will be happy to assist.

Pre booking is essential and we recommend that you book early to avoid disappointment.

Any cancellations will be charged at the standard penalty rate as advised in the written confirmation which will be forwarded to you after your booking has been processed.

Promoting Science, Technology, Engineering and Maths throughout Staffordshire and Stoke on Trent