

# LEP Showcases the Engineering Diploma



Leval Haughton-James, 17, says,

*"I have been working with the LEP for nearly a year as a TriSET student and now have to decide how to progress my career. One of my options is to take the level 3 Diploma in Engineering and this is an attractive option. Afterwards I will be able to go on to university if I want to, or get a good job in engineering industry straight away. I would definitely have taken the Diploma at the other levels too if it had been available when I was still at school."*

**The LEP teamed up with the Engineering Diploma this month for a day of challenges, experiments and engineering excitement.**

Held in the palatial rooms at the Royal Academy of Engineering, teams of students from LEP schools took part in the Engineering Diploma expo, which involved four hands-on workshops and

opened with a talk by Science and Engineering Ambassador, John Rushton from multi-specialist engineering consultancy, Peter Brett Associates.

Students from St Saviour's and St Olave's School, Walworth School, The London Nautical School, Lambeth Academy and Stockwell Park School then undertook to build a bridge in a disaster

zone scenario and to design a scaled-down extension to the Jubilee tube line, dealing with all the engineering problems such a project throws up. Two further workshops had the participants coming up with ideas about how 'lean manufacturing' can save time money and resources, and how engineers can help to preserve the environment.

The Engineering Diploma launches in Lambeth and Southwark in September at three levels, offering a wider educational choice for students aged 14-19.

For more information about the Diploma in Engineering, please visit [www.raeng.org.uk/diploma](http://www.raeng.org.uk/diploma)



# My work experience with the London Engineering Project

As part of my CoPE compulsory course at the City of London Academy sixth form I had to find a work placement for 2 weeks. Having already done work experience in Year 11 with the LEP, and enjoyed it, I chose once again to ask for a placement with them. I would use this opportunity to decide whether or not I could have a future in engineering, and if so, in which sector.

While there, I attended various LEP meetings including an LEP News editorial meeting, where I was given my task to come up with an article based on my time with them and an action plan meeting, where decisions were made regarding motivating schools to take part and be fully engaged in all that the LEP had to offer e.g. clubs and STEM days.

I also sorted out the LEP careers folders which involved ordering the latest versions of the engineering magazines, making sure URLs hadn't expired and finding new engineering quotes.

In my second week, I was given the task of making a PowerPoint presentation based on *engineers and the environment* and incorporating various activities into it. These included 'How Well Do You Know Your Engineers?' where you have to link the type of engineer with the various solutions for environmental problems and 'What's Your Solution?' where you have to come up with solutions to various environmental problems and show how engineers could help with this process.

I've discovered that engineering is a much larger subject than I had originally thought, and electrical engineering is very much to my liking; to the extent that it has now become an option for study at university.

Working with the LEP again was very educational and enjoyable at the same time, and I would recommend this work placement to anyone who wants gain more knowledge into this broad subject and what it has to offer and also wants work experience with a 'hands on' approach.

Jonny Freitas, City of London Academy Sixth Form

## Trolley cars return to Lambeth

**The spring at Walnut Tree Walk Primary School began with Year 6 children having a tram-tastic day. Children worked in groups of five or six putting together a working tram system.**

In order to do this, the children had to start off by carrying out a set of investigations based around electricity. The knowledge gained from the investigations was then used to engineer the tram system.

Once the building of the tram had finished, the children had to create a poster presentation explaining their design to the other members of the class.

The day was a great success and the children were eager to find out when the project would be bought into the class again.



One teacher said,

*"What has been fantastic about this workshop is that it has taught the children dedication, enthusiasm, imagination and most of all teamwork, and it has given them the tools to enhance their presentation skills."*

## All Aboard

Five LEP schools, Mulberry School for Girls; Little Ilford School; St Saviour's and St Olave's School for Girls; St Martin-in-the-Fields School for Girls and Bow Boys School, were given the unique opportunity to visit the Royal Navy ship HMS Exeter at the London Boat Show which took place in the ExCel Centre in January.

Lieutenant George Adams led an exclusive guided tour of the ship for the students. Some of the areas they visited were not open to the public, so it was a once-in-a-lifetime experience. The tour included accessing the bridge, the after-engine room, the operations room and seeing the working areas of the ship. The students were informed that the ship is powered by two Rolls Royce Olympus engines - the same kind as Concorde.



All of the groups of students enjoyed the experience and made the most of their time by asking lots of questions including questions about the array of naval careers available to both men and women.

Hasib Hikmat from Bow Boys School had the following to say about the day,

*"The visit to the Exeter managed to exceed my hopes in terms of capturing the interest of the class. My conversations with the students showed a real change in attitudes with many of them developing broader horizons in terms of careers as a result."*

Lieutenant Adams is hoping to organise more visits over the coming months, so watch this space!

# Bridging the Gap

The IStructE's (Institution of Structural Engineers) second Schools Challenge took place at East Wintergarden, Canary Wharf in December. 14 teams of students from schools across London, including 4 LEP schools, competed in the project to design and build a pedestrian bridge using only paper.

The teams, who had to design and build a working model of a lightweight pedestrian footbridge to cross a river using paper tubes, also had to ensure that their models could withstand a weight of 4kg. Young structural engineers were on hand to act as consultants to the teams during the activity.

The event is designed to promote awareness of structural engineering to students aged between 14 and 16 years and the part that it plays in the modern environment, and the students who took part were encouraged to consider engineering as a challenging and rewarding career.

The winning teams came from Mulberry School for Girls in Tower Hamlets and Little Ilford School in Newham.

If you wish to take part in The Schools Challenge 2008 please contact [ahmed@thelep.org.uk](mailto:ahmed@thelep.org.uk)



Hannah Seton, IStructE

*"Interactive educational workshops like the IStructE Schools Challenge are vital in attracting young people into engineering, and for demonstrating what an exciting, rewarding and challenging career choice it can be. It's great to see the students working together to produce such exciting and innovative designs. IStructE is committed to running more workshops around the UK in the future and hopes they will continue to be a success."*

## Club Leaders - did you know?

**We know setting up clubs is not easy; and two LEP partners recognise this. Both Young Engineers and the BA offer support to teachers via their respective websites and CPD resources.**

Teachers can save their precious time by logging onto [www.the-ba.net/creststar](http://www.the-ba.net/creststar) and clicking the CPD Unit in the **Latest news** box for information about CREST ★ Investigators, and Young Engineers club leaders and club members can access a wealth of information on [www.youngeng.org](http://www.youngeng.org)

The BA teamed up with the AstraZeneca Science Teaching Trust to create the CPD Unit to maximise the potential of the all-new CREST ★ Investigators scheme and give teachers what they really want - someone to do their paperwork for them.

Teachers can download a fun poster, a typical session plan, risk assessment form and a possible programme for the term to speed up the organisation process of the clubs. There is also an abundance of information giving hints and tips about how science clubs can run and examples of clubs in action.

Young Engineers Club leaders can find the Young Engineers Club Handbook, a good reference document for helping to

set up a club, on the Young Engineers website. Here, they can also gain access to an Activity Bank to download over 50 different activities/lesson plans, which cover all types of engineering at all key stages and are all linked into the curriculum. Other information available on the website includes how to enter national competitions, support available for club leaders, a club leader forum and case studies of other clubs in the Young Engineers Club network.

### Science clubs

A Continuing Professional Development Unit

To view this CPDU as intended you need a PC running Windows XP SP2 or later and have a copy of Microsoft Office 2003. Microsoft Powerpoint 2003 or Powerpoint 11 installed.

This CPDU is also available online at [www.aztechscience.co.uk](http://www.aztechscience.co.uk) where it can be viewed using a web browser on both PCs and Macs.

★ Start the CPDU



#### The unit will allow you to:

- ★ find out what a science club is and the benefits of running a science club
- ★ Share the experiences of the other science club leaders in their science clubs
- ★ go through the process involved in a typical science club session
- ★ discover more about CREST ★ Investigators packs and how to use them

# If you want to know more about engineering...read on!

And sign up to get your very own expert to answer your questions via [www.livejournals.org.uk](http://www.livejournals.org.uk)

Live Journals is our dedicated site for LEP students to engage with real life engineers from all backgrounds and different areas of engineering, science and technology. Our Live Journals mentors are professionals working in engineering or currently studying engineering at university.

Live Journals is also the first place you should go for help in deciding what the right career is for you, if you want more information about which A levels to study, about the degree courses available, or if you want to explore the world of engineering and the types of jobs that are out there.

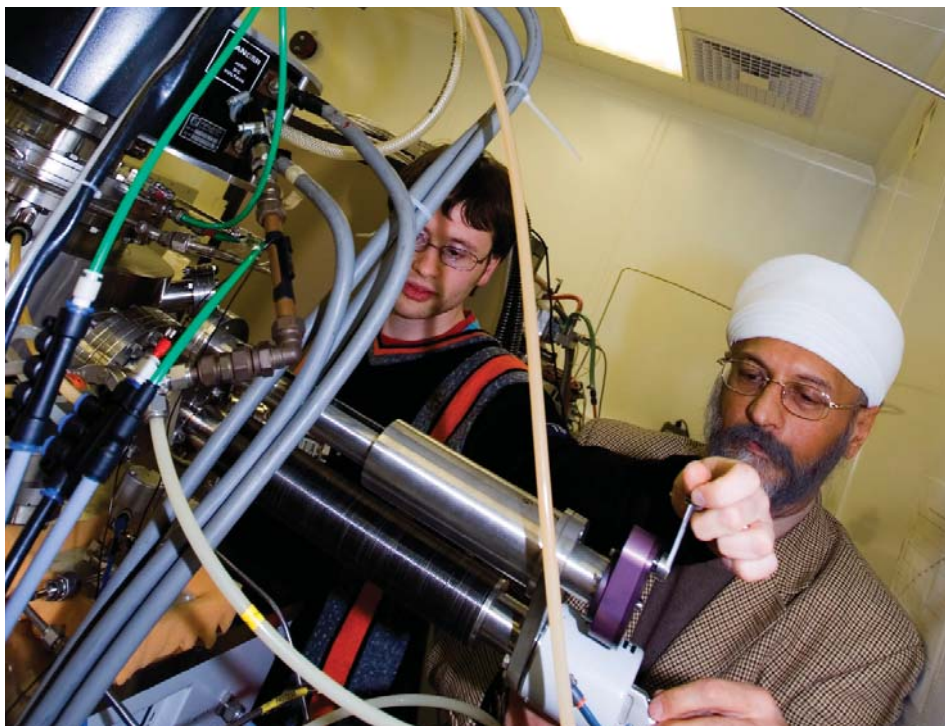
The site is packed with helpful, up-to-date information and stories about the amazing work engineers and scientists are doing right now, and you can email your own personal mentor with your questions.

20 students enrolled at our residential course at Harper Adams University in January and are now online talking to their engineering mentors.

To get involved in Live Journals you can sign up for a 'secure login' enabling you to link with your engineering mentor who will support you using the safe secure website. You don't even have to sign up to look at the information about careers in engineering, just go to [www.livejournals.org.uk/library](http://www.livejournals.org.uk/library)

If you would like the chance to get your very own mentor, sign up online or contact our colleague Libi Hutchin at The Brightside Trust by email [libi.hutchin@thebrightsidetrust.org](mailto:libi.hutchin@thebrightsidetrust.org) or call her on 020 7785 3887

**livejournals**



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