

# ASTME

Commonwealth Association of Science, Technology and Mathematics Educators

## e-Newsletter - Commonwealth Year of Science and Technology 2010

Number 3

<http://www.castme.org>

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### Editorial

CASTME influence is continuing to increase the awareness of its members across the Commonwealth of the importance of effective teaching and learning at all levels in Science, Technology and Mathematics Education. At this time of year, with Christmas being celebrated by many, perhaps now is the time to take stock of what we do when we learn alongside what is taught. Action learning and independent learning (see the CASTME Scholarship article) are often seen as an economic panacea in the fields of science and engineering education. However, both young children and older students need the personal touch. Don't we all!

At times of economic challenge it is all too easy to fall into the trap of thinking that non-classroom or non-laboratory based education is the way ahead. At postgraduate level, science and engineering knowledge and understanding can very well be delivered through work-based learning, but only if it is thoroughly supervised in a really effective manner..

To be really effective and to help young and old citizens to learn meaningfully and effectively throughout their lives, education can never be cheap.

### Commonwealth Women and Education

*Mary Drury explains her own vision*

*'Me an engineer? That's what grown-ups do!'*

I was born in England in the late 60s into a comfortable university educated family with an English teacher mother and chemist father. I was the youngest of three and, I think for reasons of nature rather than nurture, was very slow to develop – this was in stark contrast to my elder brother who was considered to be exceptionally bright.....



For more see:

<http://commonwealthwomensvoices.wordpress.com/2010/12/05/mary-drury/>

### The ASE/CASTME Alexander Prize

Awards are made to women teaching science technology or mathematics in difficult circumstances. Nominations or applications should explain the circumstances as well as the achievements of the nominee/applicant.

For more information, rules and an entry form, email:

### The CASTME Scholarship

*One Scholar from Mauritius explains:*

My CASTME scholarship takes care of everything: from plane tickets, visa fee, accommodation and tuition fees to being provided with a reasonable monthly stipend. The scholarship is based on merit and I am very lucky for being a scholar since this is a gateway to gain knowledge in the well-established University of Westminster, in the very heart of London.

I am based at the New Cavendish campus which is the one for the Electronics and Computer Science Department. It has a very large library with up-to-date resources: books, e-books and journals. These can be accessed online whether from the university or at home which is very practical: books can even be renewed online! The library also provides facility for individual learning and rooms for group discussions.

My MSc programme is in Mobile, Wireless and Broadband communications. It deals with communication principles and the latest technologies that are being used in the telecommunication sector or that will be used in the future. The programme is quite different from many others since it involves much independent learning. I have only 5 days of class per module after which I get a set of assignment. This mode of teaching and learning is quite different from what we have in Mauritius. There are also oral exams which I like because the experience will be helpful for me when I'll be having interviews or am working.

As far as Mauritius is concerned with the knowledge I am receiving here I hope I will be successful in making my country proceed towards making telecommunications one of the pillars of the Mauritian economy and contribute towards making the island a telecom hub.

*Miss Rubeena Doomun and Miss Rajkumaree Oogur* are this year's Scholars – second account in the next edition.

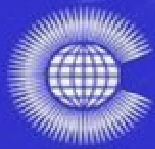
### CASTME AWARDS

Awards are made to teachers or groups of teachers who have developed innovative projects in science, technology or mathematics education, which address the social relevance of these subjects.

For more information, rules and an entry form, email:

[Chris.McLaren@winchester.ac.uk](mailto:Chris.McLaren@winchester.ac.uk)





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### Science Stirs Young Minds

By Kath Nugent – Head Teacher, recently retired,  
Pines Community School Bracknell

Top experts from the UK's leading science institutions, industries and universities answered a call, to help a small primary and nursery school: one which has well above the average number of children with special needs and learning difficulties. They were to provide rich and relevant scientific and technological challenges for the school.

The school gained support from the Institution of Engineering and Technology to fund a week-long series of Science, Technology, Engineering and Mathematics (STEM) activities. As a result:

- The University of Kent brought their Astrodome to the school. Experts from The National Physics Laboratory made water rockets with nursery children.
- An engineer from the Royal Academy of Engineering challenged the children to make floating bridges.
- The Honda "Bloodhound SSC" Team challenged the children to make balloon powered cars.
- The Power-play Skills Zone brought along the latest NXT programming technology.
- Welding experts enabled children to design and build bridges by welding chocolate bars.

Also among those running workshops were Kew gardens, the University of London and Eton College. Companies including British Airways and Syngenta also sent along representatives to be interviewed by the older children.

One of the highlights of the week was an innovation workshop, organised for 50 pupils at the Bracknell headquarters

of the diversified technology company, 3M. The children heard how nature has provided solutions to technological problems and how ideas are turned into products. 3M STEM Ambassadors worked with the children as they explored the Innovation Centre and in conclusion the children were challenged to suggest solutions to some of the problems they face at home or at school and to think of ideas to help and improve the environment. They created a Board of Ideas and Dreams on a wall in the Innovation Centre. Their inventive and imaginative ideas greatly impressed the STEM Ambassadors.

The week of STEM activities was supported by Lady Tunnicliffe, a governor at the school and member of CASTME. It was held as a memorial to Lady Tunnicliffe's son, Alan, a former pupil at the school.

Lucy Yeomans, of the East Berkshire Education Business Partnership, helped to organise the week's events. Lucy said "We brought the world of science, technology, engineering and maths to primary and nursery children and opened their eyes to the opportunities that are there for them.

As far as we know, it has never been done on this scale for a primary school before and it wouldn't have been possible without the enthusiasm shown for the project by all those who kindly volunteered their expert knowledge"

The year 2010 is A Celebration of Science, Technology and Society across the Commonwealth. The importance of science and technology issues to society cannot be underestimated and one of the challenges we face in addressing them is by finding ways to engage young minds at the earliest opportunity.

### Three Future Commonwealth Events in Science, Technology and Mathematics Education



6th SCIENCE CENTRE  
WORLD CONGRESS  
4 - 8 SEPTEMBER 2011  
CAPE TOWN, SOUTH AFRICA  
*Science Across Cultures*

[www.6scwc.org](http://www.6scwc.org)



**IOSTE**

International Organization for Science  
and Technology Education

**Mini-symposium, Reading, UK**

**20-21 June 2011 (welcome reception on 19th)**

**Contemporary Issues in Science and Technology Education**

Organiser: Dr John Oversby: <http://ioste-nwe.wikispaces.com/>



*The Future  
of  
Science  
Education*

22-24 July  
2011

Science Singapore: <http://sites.google.com/site/scisg2011/>

**Editor's Note:** The next edition of this newsletter will be published in April. Please send requested articles to Jonathan Ling at: [j.g.ling@btinternet.com](mailto:j.g.ling@btinternet.com) by Monday 28<sup>th</sup> March 2011.

CASTME website: <http://www.castme.org>