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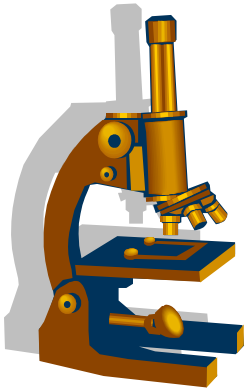
TechLINK

Newsletter
Spring 2012

For Science Technicians



A Happy New Year to you all. As usual at this time of year I am off to the ASE Annual Conference – it is my Christmas present to myself! I have a five and half hour rail journey to Liverpool so this is a good time to start writing the first 2012 Techlink.

An early start from Norwich station, the possibility of some deer sightings around Thetford and maybe some birds of prey around Lakenheath Fen. No such luck, it is still dark. Dawn came up over the flat, flooded marsh around Welney but only a few swans were feeding. Not as many as I was expecting but at least it is something to look at – I am bored already, only another four hours to go! My semi retirement and walking the Rottweiler is turning me into a bit of a twitcher. I have recently seen a grey backed shrike, a short eared owl, a buzzard and last weekend two peregrines on Buckenham Marshes. My journey is now taking me through the undulating scenery beyond Peterborough and maybe a chance sighting of a red kite? No, only magpies and a cormorant (not a fisherman's friend!) The Peak District made a pleasant change of scenery but no interesting birds only a few fallen trees. At least the train arrived on time.

IN THE ZONE

FREE science investigation kits for all UK schools. *The Wellcome Trust is posting free kits brimming with scientific equipment, teaching resources and experiments to all UK schools and colleges in February and March 2012. Inspired by the London 2012 Games and mapped to the science and PE curricula, In the Zone kits contain activities and investigations to help teach the science behind sport for students aged 4–19. Download your Curriculum Planning Guide to see how easily '**In the Zone**' can fit your teaching plans.*

Photo and text provided by 'The Guardian'

At the ASE Conference I attended the session on this with Greg Foot (TV presenter Science Junkie), Sir Steve Redgrave (ex Olympic athlete), a 10 year old boy and a 15 year old girl demonstrating some of the science. Expert scientific commentary was provided by Professor Hugh Montgomery. It was a good fun session and interesting to see a young BBC presenter sweating on the rowing machine when trying to compete against Steve who seemed to be just relaxing on his. It seems that his large lungs are genetic and training improves the oxygen intake. It is the large amount of oxygen that is needed to feed the muscles when competing at a world class level.
In the kit there is a graduated plastic bag which is used to measure the amount of air exhaled, Steve filled one of these plus a bit more in a second one. I managed about a quarter of just one! Kits are available for both Primary and Secondary so look out for them in February/March and decide whether they are to be used in the science department or sports science! www.inthezone@wellcome.ac.uk ; www.getinthezone.org.uk

Contact details: John Mallott, NIEAS, Norwich Professional Development Centre john.mallott@btinternet.com

Solar Activity

Another session I attended was on solar activity by Dr Lucie Green who is the female equivalent to Professor Brian Cox. She is really enthusiastic about her subject and had some exciting video clips and interesting facts. Solar activity is a bit quiet at the moment but there is reason to be a bit concerned about next year as the data suggests that increased activity could cause some damage to the National Grid, computers and satellite communications. Suggested websites for more information are:
www.spaceweather.com www.ucl.ac.uk/mssl/
www.sunearthplan.net/7/32/IHL-resources

Salters National Award for Science Technicians.

All you need is 5 or more years experience and to be very good at your job. Closing date is March 2012. Download an application form from www.saltersinstitute.co.uk and leave it around for your Head of Science or Headteacher to fill in!

Risk Assessments.

Unfortunately we have had two science related incidents in Norfolk recently and listening to my radio in my car I heard of another in an Academy in Milton Keynes. These have involved experiments not normally on the curriculum but none the less they are impressive and do enthuse the pupils, as long as they are carried out correctly. However, not all teachers feel they are worth the risks involved. When experiments are carried out that are not covered by the normal CLEAPSS Hazcards a special risk assessment must be carried out and recorded. CLEAPSS already have a list of these 'Supplementary Risk Assessments' (SRA's) to assist teachers and technicians. These SRA's are being added to as and when new experiments come to light. They describe in specific detail how to carry out the experiment safely and if followed there should be no problems. In the event of an accident and a subsequent investigation it would be difficult to protect those involved from criticism if these correct procedures have not been followed.
Go to the CLEAPSS website, click on Secondary and you will find them on the left hand side menu. Print off any you think you might need. If you cannot find the one you want do NOT do the experiment until you have contacted CLEAPSS to see first of all whether they consider it wise to do it and then, only after receiving a risk assessment, should you continue. The experiments include 'The Whoosh Bottle', 'Methane Bubbles', 'Preparation of Nitrogen Tri-iodide' and 'The Screaming Jelly Baby', to name but a few. Take a look at the CLEAPSS list – it keeps getting

'Words of Caution from the HSE's website…'

There have been nine workplace deaths this year and 371 major injuries in Norfolk compared to no deaths and 401 major injuries in 2009/10. A further 1,253 workers suffered an injury or ill health which required them to take at least three days off work in 2010/11, compared to 1,322 in 2009/10.

SYC (Secure Your Chemicals)

The Home Office has produced a small leaflet discussing the security of chemicals stored in schools. It asks question like "Can you tell if anything has gone missing?" "How good are your physical security measures?" and "Have you had any incidents which resulted from a failure in the security of chemicals?" I am confident that most schools in Norfolk have an up-to-date chemical stock list and a secure chemical store. Areas where I can foresee problems are unlocked preparation rooms with chemicals on open shelves and chemicals like hydrogen peroxide being stored in fridges which are not secure. If the Home Office is concerned I think we should take this seriously and be aware of our responsibility for public safety.