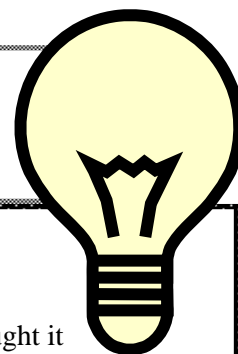


Scientopianews

Edition 15

July 2010

Wyvern's Science Newsletter "Somewhere,
something incredible is waiting to be known."



Farewell



In 1981 (yes that's twenty one years ago!) Miss Roberts arrived to do a day's supply at Wyvern. She then came back for a second day—we assume she was asked—and has hardly missed a day since. She has seen many changes—she wouldn't have been sitting at her computer in 1981—but whatever she has taught and whoever she has taught she has always shown real commitment and dedication.

She will be missed by the school and particularly the Science Faculty for her wealth of ideas and sense of humour. She may be retiring, but her contribution to science at Wyvern will live on.



Mrs Boulton may only have been at Wyvern a mere seven years, but she has been an excellent science technician and will be sorely missed. She has brought a sense of calm and order to the job which has been highly valued by staff and students alike. She has helped to develop learning in science through practical work and used her expertise in a thoughtful and sensitive way.



We should also acknowledge the contribution of Mr Nelson, who is part of the North Somerset Aim Higher team. For the past few years he has worked hard in mentoring GCSE students in science, running our successful science club and initiating projects that have inspired a range of students. His commitment and enthusiasm have really been appreciated. His formal role with us is ending, but we still hope to see him working with us in some capacity next year.

Welcome to the July edition of our Wyvern Science Newsletter. We thought it might be the 15th and last edition, but the postponed transition to Hans Price Academy might well give us the chance to produce a 16th newsletter! Anyway hopefully you will find plenty in here to interest you and to celebrate as we look at what's gone on at Wyvern since April. For once our super scientists are some of the staff as we are losing some valued members of the Science Faculty. We wish them well!

Dates for the Diary:

Tuesday September 23rd 2010:

3-15 pm – a **Café Science** event : "Angels and Demons". This is the title of a book by the well known author Dan Brown, turned into a film last year. The plot involves a secret society trying to destroy the Vatican in Rome using the power of anti-matter. Nick Brook will be coming from Bristol University to shed light on the subject of anti-matter and discuss the science behind the book. Do come along, we'll be meeting in the Wyvern conference room.

Thursday 7th October 2010:

Wyvern will be hosting the **Big Bug Experience** for the day. Year 7 will attend shows featuring bugs such as tarantulas, scorpions and giant cockroaches, and have a chance to learn about the science of them. It is a community event so children from Bournville Primary school will also be attending. Parents and younger siblings are welcome to attend an open session at the end of the day (3 pm) .

Year 7 Success!

On July 9th two groups of Year 7 students, who attend Wyvern's Science Club, went to the south west regional CREST awards at Bath University – Big Bang South West. CREST is Britain's largest national award scheme for project work in Science, Technology, and Maths. This event was organised by the British Science Association and winners would go forward to represent the south west at the National Big Bang, to be held in London in 2011,

More than 350 children aged between 11 and 19 took part in the event, presenting more than 140 projects. Engineers and scientists from industry judged the presentations, with the students competing for trophies and prize money totaling £1,500.

The Wyvern students had worked hard in science club to investigate a topic and then put together a presentation on it. Participating were:

The "Shine" team who investigated cleaners: **Leanne Sutch, Megan Heathcote, Zoe Lovell-Bone, and Esmee Fear**

The "How can you improve your reactions team?": **Kiera Driscoll, Lauren Kazalas and Carol-Anne Calder**



The Shine team



The Reactions team

Here's what some of the **students** said:

"The event that we attended was enjoyable and educational. At the start of the day we did a series of puzzles and brain teasers. We felt nervous, happy and excited at the same time.

We had worked very hard towards our results, having picked a subject to investigate. We then gave a presentation on what we had found out. There were several judges asking us questions on our experiments. After being judged we watched a science show that looked at how gravity effects circus skills and juggling.

At the end of the day they handed out the awards. One of our two groups, "Shine", was awarded a runners up prize. Unfortunately neither of the groups won a bronze crest award, but we were incredibly proud of our work."

Written by Zoe Lovell-Bone, Lauren Kazalas, Megan Heathcote, Kiera Driscoll

Here's what the **judges** said about the two teams:

"Cleaners": Great teamwork, high quality experiment, reliable results due to good planning and a precise method.

"How can you improve your reactions?": Confident, very good understanding, very impressed!

So a big well done to both teams and a particular thanks to Mr Nelson for his hard work with the students in science club and for accompanying them to Bath University.



The Shine team receive their runners up award



Lauren talking to the judges with Kiera clearly bored by it!

Congratulations to the following students in Year 10 who have had the first two units of their OCR Science National course now passed by the external examiner. Most have also completed the third unit and so will obtain the OCR National Award (equivalent to two GCSE A*-C grades). They will now take 3 more units next year to enable them to complete the OCR National Certificate.

PAULINA ALEKSANDROWICZ
MARIA DARTSIMELIA
JORDAN HEATH
TIFFANIE JONES
JORDY KIRK
BEN MOSS-BEZZINA
TINA O'CONNOR
DONNA SHIELDS
KIRSTIE TURNER
TOM WILLIAMS

SARAH BARTLETT
GEORGE GIBBS
ANNA HERUDEK
MICHAL KAMINSKI
ERMIRA MASHA
AARON NEWMAN
VANESSA PHILLIPS
HOLLY SMITH
APRIL WARNER
HARRISON WILLS

ALICIA BETTS
SOPHIE GOWER
MARTYN HILL
LAURA KING
BRIONY METCALFE
FRANKIE NEWMAN
KAYLUM RIDDELL
SHANNEN TAYLOR
EMILY WHEELER
RIMANTE ZAGRECKAITE

A spot of crime!

As reported in our last issue, five Year 9 students were recently selected to take part in a forensic science event at Weston College. Here's their account.

In the first week of the course, we were put into groups. We had to pick out a suspect and read our scenario. This involved a teacher who had got murdered and we had to find out who did it!

Week 2: we had to split into two groups within our main group; one group had to look at hair samples of each suspect and examine the scene of crime (SOC) to see who may have done it. The other group had to do a flame test, a test where a substance is put into a Bunsen flame. This formed part of our evidence towards working out who did it.

Week 3: another murder happened! We had to put on SOCO white suits and investigate the scene of crime. We also had to draw a sketch of the scene, which formed part of the evidence.

Week 4: we had evidence from different scenarios and had to classify it. We also took part in a quiz about the scene of crime.

Week 5: we had a CSI officer come in who taught us how to collect finger prints and showed us the ain print types. We also had to wear SOCO white suits so that we didn't contaminate the evidence that showed who left finger prints at the scene. This gave us enough evidence to form an idea of who had committed the crime.

Week 6: we took part in a mock court in which we presented all our evidence that we had gathered throughout the week. Mr G (Jake's suspect!) committed the crime.

We all enjoyed the experience and would like to do it again.

Jake Masters, Kim Gaffney,
Jason Schofield, Summer
Devereux and Hiswill
Focho.

Hiswill, Kim,
Jason, Jake and
Summer in the
dock with their
suspect



Spot the difference

In the last issue we previewed the arrival of our new lab for use by students—that's S3 to those of you in the know. It's now being used regularly to carry out both practical and IT activities, and is likely to have even greater use next year as there are more science classes. It used to look a bit like S2, so clearly big changes have been made. That said our existing six labs provide a good, spacious environment to promote learning in science.



The new lab— S3



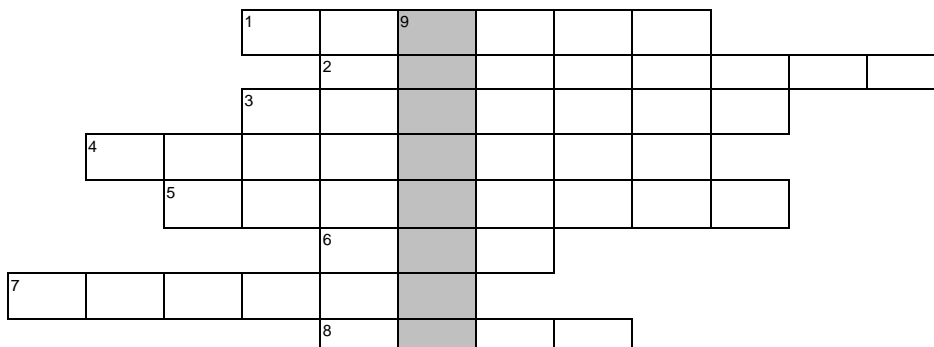
One of the "old labs" - S2

Do you know your chemical elements?

All students continue to be fascinated by the periodic table of the 118 elements. Copies can be found on all the laboratory walls, as well as in the students' planners. A great interactive version can be found at www.webelements.com. How well do you know them? Well see if you can complete this fun quiz!

First complete the grid by identifying the eight elements using the clues below.

1. A metal used in alloys with copper to make "silver" coins.
2. A metal used in making stainless steel, that stops it rusting.
3. A non-metallic element used to make computer chips and other electronic devices.
4. When combined with nitrogen, this element forms a compound widely used in fertiliser manufacture.
5. When this element is liquefied it can be used as a refrigerant for frozen foods.
6. When mixed with lead this element forms solder.
7. When mixed with acetylene gas this element gives flame temperatures up to 3000 °C.
8. Poisonous metal that was used in plumbing.



You will know if you have completed this correctly because in 9 down you will have formed an element that is used in many disinfectants and is also an ingredient of PVC.

(Quiz courtesy of Royal Society of Chemistry InfoChem July 2010)

Cell Models

We often make models of things in science when they are too big or too small to see. Miss Roberts' Year 7 group have been making models of cells and a particular well done to these students for the effort that they put in.

Oliver Marshall, Stella Star, Jess Day, Nicole Cochrane, and Layla Essamadi

Here are a couple of photos of their models, can you guess what types of cells they are? (not easy in black and white!)



They're red!



There are some green blobs in here!

National Week of Sport—a problem set by Adidas

To contribute to this recent week several groups in science focused on trying to solve a problem that top rowers and sailors face, namely blistered hands.



Ouch!



that might prevent blistering.

Students had to use a rowing machine and model the rowing action to find out where hands were most likely to blister. They then produced initial designs for a glove

Having done this, scientific tests were carried out on materials to examine their resistance to water, stretching and abrasion, and measure their grip and elasticity. Final decisions were then made about the glove. Particularly good work was carried out by these students in 8W1: **JJ Wall, Sian Liffen, Leon Benfield-Hele and Zofia Herudek.**