



Science Newsletter – Term 2 Academic Year 2008-2009.

Contents

2009 IRISH SENIOR SCIENCE OLYMPIAD.
FORWARD THINKING NORTHERN IRELAND.
SALMON IN THE CLASSROOM.
SCIENCE ACROSS THE WORLD.
NORTHERN IRELAND HEAT OF THE SCHOOLS' ANALYST
COMPETITION.
SCHOOL OF CHEMISTRY AND CHEMICAL ENGINEERING CAREERS
EVENT.
NATIONAL SCIENCE AND ENGINEERING WEEK 6TH MARCH 2009 TO
15TH MARCH 2009
STEM MODULE.
SMALLPIECE RESIDENTIAL.
ARENA OF DEBATE.
EASTER REVISION SCHOOL.
NORTHWEST SCHOOLS FESTIVAL OF SCIENCE.

2009 The Irish Senior Science Olympiad (IrSSO)

Oilimpiad Eolaíochta Sinsearach na hÉireann 2009



Over 350 Irish secondary school students, from all over Ireland were challenged in Biology, Chemistry, Computer Programming and Physics at the Irish Science Olympiad (ISO) at Dublin City University (DCU) on Saturday 31st January 2009. Damien Harkin and Conor Meenan, participated in the Physics section and Gareth Mc Crudden in the Chemistry section. Gareth won a bronze medal at the event and has now been invited to represent Ireland at the 41st International Chemistry Olympiad, UK 2009, and Cambridge on 18th July 2009. Students were accompanied by Dr M Ferris. Congratulations to all students.

'Forward Thinking Northern Ireland'

This project is funded by the Wellcome Trust and is presented by Ms L Dunlop of The University of Ulster.

The project aims to assist the effective engagement of pupils with science and the possible consequences it has for our society.

This project lasted six weeks and pupils from Mrs Gill's Year 8 science class participated during their double Science lesson each Thursday. The project commenced on Thurs 5th February 2009.

Salmon in the Classroom 2009

Loughs Agency

This project was organised by Mrs M Reynolds and held in conjunction with the Lough's Agency in Prehen.

Her Year 10 class took responsibility for the nurturing of 100 Salmon 'eyed ova', looking after them in class until ready to be released back into the Foyle. The fish were released into a tributary of the River Foyle, near Eglington on Wednesday 25th March 2009.

Participation in the project led to links with Geography through river system analysis and ICT through chatting on the 'blog'. The project was featured on BBC breathing places website across UK.



Science Across the World.

Science Across the World offers students in thousands of primary and secondary schools all over the world the opportunity to exchange information, opinions and ideas on a variety of science topics.

Mrs Gill's Year 10 pupils took part in this activity throughout this term, producing projects on 'Healthy Living'. These were shared with schools from Ireland, United Kingdom, Spain and Russia.

Northern Ireland Heat of The Schools' Analyst Competition



The RSC organises and supports a broad range of activities to enhance the public's awareness and promote a positive image of the chemical sciences. The Schools' Analyst Competition is a national competition run by the Analytical Division for first year sixth form students studying AS level Chemistry.

Teams are required to undertake various practical analytical determinations based on problems relevant to industrial or social needs. These are judged for skill, understanding and accuracy and are intended to promote team work and safety in the laboratory

On the 28th March 2009 the Lumen Christi College team of Garreth Mc Crudden, Naoise Smyth & Kevin Irvine won the NI heat of the RSC Analyst Competition. The event took place at Stranmillis College, Belfast.

Students were accompanied by Dr M Ferris. Well done to all concerned! They now go forward to represent the region in the national competition in Plymouth, Devon on the 29th & 30th June 2009.



Team members; pictured with their teacher Dr M.Ferris.

Team report by Garreth Mc Crudden;

The UK Schools' Analyst Competition

On 28 March 2009, I travelled to Stanmillis College in Belfast along with two other senior pupils Naoise Smyth and Kevin Irvine to represent Lumen Christi College in the Northern Ireland Heat of the Royal Society of Chemistry's Schools' Analyst Competition.

We were asked to complete three tasks over a five hour period. The first challenge was to determine the concentration of copper (II) ions in a solution of river water using a colorimeter. In the second challenge, we were asked to determine the coordination number of a metallic EDTA complex and the third task composed of an acid-base titration.

Our performance was assessed based on the accuracy of our titration results and the calibration curve we had drawn from our analysis of the river water. There were also some theoretical questions based on the various techniques we had used.

Lumen Christi College was the winning team at the Northern Ireland Heat and we will travel to Plymouth on 29 June 2009 to take part in the UK Final.

Competing against winning teams from the various regions of the UK,

Video coverage of the activities can be accessed at;

<http://stran.ac.uk/informationabout/research/currentprojects/analyst/video>



School of Chemistry and Chemical Engineering Careers Event.

Lumen Christi College hosted this careers event on Wednesday 18th

February. A Level students from other schools in the area also attended.

A presentation entitled 'Careers in Chemistry.' was aimed at all sixth year Chemistry students and included some practical demonstrations.

National Science and Engineering Week 6th March 2009 to 15th March 2009



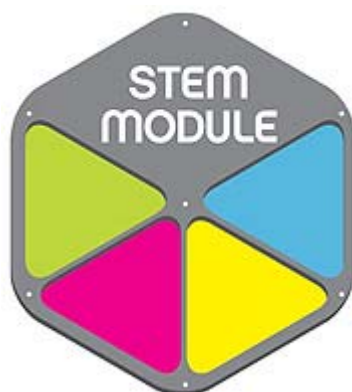
National Science and Engineering Week (NSEW) is a ten day programme of science, engineering and technology events and activities across the UK aimed at people of all ages.

The Lumen Christi program of events included quizzes, STEM activities, other external provider workshops and in-house year group projects.

KS3 pupils took part in various activities to celebrate Darwin's birthday year, such as 'How unique are you?' and the 'Darwin in space competition'.

A big thank you to Dr A Boyd of The University of Ulster for his lecture on 'The Bionic Human' and Mr A Mc Fadden for his rocketry workshops.

All activities were posted on the BA Science website.



STEM Module

Mr S Molloy attended the first seminar on this project on 10th March 2009 @NEEB.

The Department of Education has commissioned money for the building of a bus that will cater for all the STEM subjects and the target is to get the bus on the road for the incoming school year. Ideas put forward for the bus include:

1. Deliver on key curriculum areas
2. Meet specialist school targets
3. To enhance pupil experiences in STEM

A budget will be set aside year on year to cater for the bus and resources required.



Smallpeice Residential

The Smallpeice Trust is an independent educational charity that promotes a career in engineering to young people, through school-based and residential educational courses.

Five Year 11 students attended one of their Engineering Residentials, in Harper Adams University, Shropshire from 14th –17th April 2009. Students involved were Rachel Mc Carron, Eamon Mc Nutt, Jack Mc Ateer, Dearbhla Doherty and Kate Kerlin. They were involved in The Materials Technology Project, which gave them the chance to discover the rich and varied world of materials science. This was a cross curricular project and students were accompanied by Mr S Molloy, Head of Technology and Design.

Arena for Debate April 2009

Congratulations to three Year 13 students for their success in reaching 'The Arena of Debate' finals in The Royal Albert Hall on 2nd April 2009. Students involved were D Frawley, E Nangle and Emanuela Wroth.

Students were accompanied by Mrs M Gill

This project was an extension to Y Touring Presentation activity which the students had attended earlier in the year. Schools that received the production were asked to create two short digital films, one for and one against the stem cell research debate in response to the performance in their school.

Selections of these films were then shown at the *Arena of Debate* when the Royal Albert Hall was transformed into a debating chamber for young people from all over the country. The overall aim of this project was to engage young people in an informed debate and to explore the social, moral, scientific and political questions raised by stem cell research.

The Arena of Debate – Review by Daniel Frawley

'We were thrilled to have our film chosen for the event and looked forward to our trip to London. The Arena debated the motion for and against stem cell research. Schools from all over the UK were represented. This debate was intriguing and very different to other debates that I have participated in. This was largely due to the increased interaction between the participants. The use of remote voting devices enabled our own personal views to be expressed and showed any changes in opinions from the start of the debate to the end. Regular opportunity to ask questions to the experts, allowed the debate to diverge and expand. The audience was divided into two groups, those for and against the motion. I was unfortunate to be placed in the 'against group' as I held very strong pro the motion views. Despite my own personal beliefs I enjoyed hearing the arguments against the motion and had to admire some of the reasoned argument. The chosen films were shown at regular intervals and we were also presented with the drama 'Nobody Lives Forever'. I enjoyed the debate and was able to express my opinions and add to the discussion. The

debate ended with a resounding result for those in favour of stem cell research.

This was a really great day. I participated in the debate, met new people and enjoyed listening to the learned arguments of panel of experts. This strengthen my on views on stem cell research by giving me new knowledge and information'

Easter Revision School

An Easter revision program was prepared for GCSE and A Level students as follows;

Date.	Subject.	Teacher
15 th April 2009.	Chemistry.(DA Science)	G Mc Crory.
	Biology. .(DA Science)	A King.
	AS Organic Chemistry	M.Ferris.
	A2 Physical Chemistry	M.Joyce.
16 th April 2009.	Physics(TA)	M.Gillan.
	Physics (DA)	M.Smyth.
	AS Physical and Inorganic Chemistry Sessions.	M.Joyce
	A2 Organic Chemistry	M.Ferris
17 th April 2009	AS Physics Mod 2.	M.Smyth.

Our Easter revision courses were composed primarily of home students, but with a significant number of students from schools in the local area. Materials provided in all cases were relevant to the CCEA syllabus. The program enabled focused attention on difficult areas and support to be given, tailored to the needs of the students. This tailored approach to revision is seen as key in helping candidates achieve their best results.

Our style is to ensure that the learning environment is as relaxed, informal and friendly as possible.

200+ students attended the program.

The Northwest Schools Festival of Science

This event will take place in The Millennium Forum, Derry on the 21st May 2009.

The idea behind the festival is to promote and recognise achievement in science and to provide a platform for local pupils to showcase their work in science related topics.

It is open to Primary 7 pupils from local Primary Schools as well as Year 10 students from Secondary schools in the area.

This event is organised jointly by Lumen Christi College and St Mary's College, Derry.

Regular meetings took place throughout this term between Mrs M Gill and colleagues, Mr M Logue and Mr D.Goddard, from St Mary's College.