



Science Newsletter –Term 1. Academic Year 2009-2010

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First Certificate in Engineering

Classes have started at The Northwest Regional College on Tuesday and Wednesday evenings after school for this one-year program. This is also a joint project with Foyle & Londonderry College. Numbers participating this year have increased, with 19 students from Lumen Christi College and 13 students from Foyle & Londonderry College attending. Mr E Owens is responsible for the organisation of this project.

CCEA STEM Schools' Programme -Making Learning Connections

CCEA is running a project which is designed to support and promote the learning and teaching of STEM subjects in schools with a main focus on the transition stages between KS2/KS3 and KS3/KS4. The main purposes of this project are to:

- gain an understanding about how to make STEM more attractive to pupils of both genders in the target age groups;
- To identify some of the main challenges schools face at these transition stages; and to produce guidance and resources which will support schools in developing STEM work. Resources will include production of and a video case study of each of the partnership schools and a collaborative unit of STEM work with associated examples of skills' assessment.

Five teachers who have responsibility for Science (Mrs M.Gill & Miss G mc Crory), Technology (Mr S Molloy), Mathematics (Mr M Kerlin) and ICT (Mr P mc Daid) attended an event at W5 for the launch of this project, on 24th September 2009. This was an introductory event to provide teachers with information about the planned nature of the STEM schools' project and to meet partner schools.

Its purpose was to provide opportunities for teachers to develop working partnerships with teachers from other schools and to encourage collaborative working between teachers from STEM specialist areas within their own schools.

Teachers had the opportunity to participate in three workshop activities

- (A) Studio On training – using Comic Life software – purpose to raise awareness of how ICT can be used by pupils to record present and evaluate work.
- (B) W5 training – purpose to demonstrate team working and problem solving approaches within learning and teaching
- (C) CCEA – purpose to discuss/plan project themes.

Follow up; Mrs Martina Gillen has had a number of meetings with CCEA representatives. Our partner school will be The Model Primary School and Lumen Christi College teachers from Science, Mathematics, Technology and ICT Departments will be involved. The project will commence in January 2010.



UNIVERSITY of
ULSTER

Chemistry Week at the University of Ulster

Class 9C has been attended The School of Biomedical Sciences at the University of Ulster on Wed 11th Nov 2009. The event included food-related exhibitions and a demonstration lecture by Teaching Fellow, Dr Paul Hagan, on the chemistry of food. Students were accompanied by Mrs A Mooney.



The Real World Science Conference

This event, sponsored by Seagate Technology was hosted for the fourth time by Lumen Christi College on 19th November 2009. This was a collaborative project between us and St Mary's College

The aim of the conference was to encourage pupils to consider taking subjects in the field of science, technology, engineering and maths.

The conference provided 20 interactive workshops for Year 10 students, covering a diverse range of careers including; forensics, civil engineering, rocket science, pharmacy and paramedics.

The event was attended by students from 20 schools in northwest region. It was a very successful event and feedback from attendees was very positive.

The event will be hosted in St Mary's College next year and collaboration between the two schools as regards the organisation of the event will continue.

A big thank you to workshop coordinators, pupils and teachers, June Coates and P mc Elhinney of Seagate, D Goddard and M Logue of St Mary's College and finally sixth form mentors from both colleges.

First LEGO League in Northern Ireland

Lumen Christi pupils, accompanied by Mr Molloy took part in this activity in The Odyssey on 24 November 2009.

Pupils from 15 secondary schools in Northern Ireland competed in the Northern Ireland heat.

The annual competition invited budding scientists to design, build and programme a willing robot that must perform a series of challenging tasks. Pupils also had to complete a research project and presentation on the 'Smart Move' theme which focused on everyday transportation.

The Lego League this year was brought to Northern Ireland by a partnership of the Institute of Engineering Technology (IET), Queen's University Widening Participation Unit, SAP Research (SAP) and W5 at the Odyssey.

Lumen Christi College was sponsored this year by The University of Ulster, School of Computing and Intelligent Systems.

Mr Molloy's group won 'The Against All Odds Award'.

The Northern Ireland Housing Executive



Links have been established with NIHE through Mr P Duddy. The college has agreed to participate in a two stage project.

Stage 1. This was undertaken by Mrs S Mc Menamin and Miss L Diffley of the Geography Department. Year 10 pupils developed a project on Climate Change, producing resources and PowerPoint presentations on this topic.

This was then delivered to Primary Seven students in local primary schools during the week Monday 23rd –Friday 27th November 2009. The project was a huge success with very positive feedback from Mr Duddy and primary school teachers. A big thank you to the staff in the Geography Department and to all students involved for all their hard work and dedication.

Primary Schools Involved; St Anne's, St Eithne's and Oakgrove Primary Schools.

Students involved were;

Class 10B; Sophie Bacheta, Dan Coyle, Conor Morris, Orla Kearney, Hollie Harkens and Paul O Donnell

Class 10A; Marie Meenan, Sophie Scoltock, Fiachra Kelly-McElroy, Calum Imrie, Dervla Guckian and Jack Heaney.

Class 10C; William Hunter, Niamh Phelan, James Corry, Philip Cunningham, Sophie Devlin and Rachel Mc Laughlin

Class 10D; Tiarnan Brady, Emmet Quinn, Lorcan Baker, Debra Sharkey, Megan Owens, Conor Deery and Eoghan Murray.

Class 10E; Josh Mc Intyre, Shannon Harrigan, Aoife Rodgers, Kathryn Healy, Niall McDaid and John Martin.

Stage 2; The Science Department will develop an Anti Litter Project and this will again be presented to Primary Seven students in local primary schools. This second stage will commence in February 2010 and will be undertaken by Mrs M.Gill

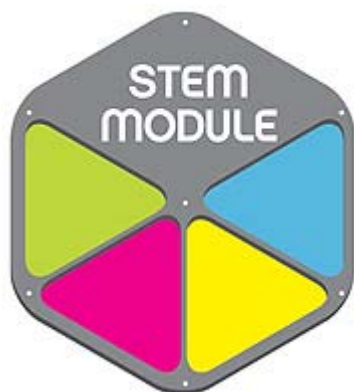
Forward Thinking Northern Ireland

Miss A King is taking over the project this year. Her Year 8 pupils will be involved and again the project will be delivered by L Dunlop of The University of Ulster.

Miss King attended a two day training course on level 1 training in the use of Philosophy for Children from the Society for Advancing Philosophical Enquiry and Reflection in Education (SAPERE). This is funded by the Wellcome Trust. The course took place Thursday 26th and Friday 27th November at University of Ulster Belfast Campus.

The Level 1 course is a practical introduction to Philosophy for Children. The course focused on the theory and practice of developing communities of enquiry and aims to provide teachers with sufficient understanding of Philosophy for Children to start

practicing in their own schools and beyond. The course was tailored especially for teachers involved in the Forward Thinking project and focused on topics such as the ethics of food production, toxic chemicals and the environment, global warming and the Big Bang and human rights.



STEM Module

The STEM Module was launched by Caitríona Ruane, the Education Minister on Wednesday 30th of September 2009 at Stormont Buildings.

STEM, Science, Technology, Engineering and Mathematics is a major Government initiative through the UK. As part of the STEM initiative, a fully equipped educational resource for STEM subjects has been developed to support the promotion of these subjects across the province.

STEM Module is a mobile laboratory and workshop designed to bring high quality learning experiences in STEM subjects to pupils in 17 STEM Specialist schools and associated learning communities. The resource is funded by DE from the Innovation Fund. It is managed by NEELB on behalf of the Education and Library Boards.

Mr M Smyth attended the first STEM Module training day for teachers at Antrim Board Centre on 14th Dec 2009.

Teachers were given the opportunity to spend a half day on the module and got an overview of the facility and the type of courses on offer.

Following this familiarisation day a schedule of dates and courses will be emailed to schools.

Sentinus Engineering In Education Program

Mr J Dunne organised the project this year. The Education Engineering Scheme introduces Year 13 pupils to the world of engineering via a programme of joint projects between the participating school and sponsoring industrial companies. Our industrial link was with Derry City Council and our Link Engineer was Mr Leo Strawbridge. Mr Dunne and students attended a three day residential at Queen's University Belfast from 17th -19th Dec2009.

This allows students access to laboratory facilities in the university in order to further develop their project.

IET FARADAY

The IET Faraday Engineering Challenge Day

Six year nine pupils attended The IET Faraday Engineering Challenge Day on Wednesday 9th December 2009, at St Mary's University College, Belfast. They were accompanied by Mrs. M.Gill.

The idea behind the event was to encourage more young people to become involved in the STEM agenda and to consider Engineering as a possible career.

The school team comprised two students chosen from Science, two from Design and Technology and two chosen from the Mathematics Department.

On arrival the teams were set a challenge. Using their skills they competed against the other invited teams and earned points throughout the day.

Students involved were; Ronan McDaid 9A, Emmett Deane.9A, Una Rodgers 9A, Emma Boyle 9C, Caolan Doherty 9C, Cathal Coyle 9D.

This was a brilliant day! The teachers attending were put into a team and had to carry out the project also. Thankfully we did not lose face. This was one of the best STEM days yet.



The Woodland Trust

The school has registered with the Woodland Trust and has received free trees and hedging throughout the year. These have been planted by both the Geogers Club, run by Miss L Diffley and The Science Club run by Mrs M Gill and Mrs M Reynolds. Karen Healy, Environmental Officer from Creggan Country Park has visited the school on numerous occasions to provide help and guidance.

All of our planting activities were supported by a range of free education resources provided by the Woodland Trust. In addition to resources to support tree planting, we in The Science Club have availed of the Nature Detectives programme which allowed our students opportunities to explore the connections between trees, their wildlife and wider environmental issues such as climate change.



BBC Breathing Places

Lumen Christi College has registered with this organisation, and have participated in various activities, such as the Nest box Challenge, The Make One Wish Activity and yet more tree planting. We look forward to developing further projects with local representative Deirdre Donnelly in the next term.

Collaboration with St Patrick's and St Brigid's College.

Teachers from both colleges participated in a series of classroom observations in both schools. This was very beneficial as teachers develop the confidence and skills to observe lessons and analyse pupils' work to a high standard. A huge thanks to Mr R mc Laughlin, Mrs MC Van zundert and Mr G. Doherty for agreeing so readily to take part in this exercise and for the warm welcome extended to us on our visit to St Patrick's and St Brigid's College.

Stranmillis University College

Staff and twenty students from the college visited on 25th November 2009 and participated in a series of classroom observations. Teachers from the Science and Mathematics Departments were involved.