



Project Number: 2015-1-IT02-KA201-015133

## **E-Learning from Nature and Junior Certificate Science**

**September 27<sup>th</sup>, 2017**

**Limerick, Ireland**

### **Participants 39 total**

Marie Walsh, Limerick Institute of Technology  
Josephine Treacy, Limerick Institute of Technology  
Maria Sheehan, St Caimin's School, Shannon  
Rory Geogheghan, Irish Science Teachers' Association  
Diane Condon, Ard Scoil Ris Limerick  
Patrick Dundon, Castletroy College Limerick  
Mark McMahon, St John Bosco Kildysart Co. Clare  
John Sims, Maria Immaculata School Lisdoonvarna Co. Clare  
Maria Goodwin, Ard Scoil Ris Limerick  
Alison Waters n/a  
Johanna Healy, Laurel Hill Colaiste Limerick  
Margaret Walsh, St John Bosco Kildysart Co. Clare  
Jason Comerford, Glenstal Abbey School Limerick  
Cathal Reid, Glenstal Abbey School Limerick  
Angela Gammell, St Joseph's Spanish Point, Co. Clare  
Marguerite McGuinness, St Joseph's Tulla, Co. Clare  
Patrick Kivlehan, St Anne's School Tipperary Town  
Linda Hannon, Castletroy College  
Cora Farrell, St Anne's School Tipperary Town  
Colette Treacy, St Anne's School Tipperary Town  
Rosina Coleman, Colaiste Chiarain Croom  
Ross O'Donovan, Salesian College Pallaskenry  
Joann Dempsey, Pipers Hill, Laois  
Annie O'Callaghan, Salesian College Pallaskenry  
Brian Clarke, Colaiste Iosaef, Kilmallock  
Pauline Percy, St Flannan's Ennis  
Grainne Noonan, St Flannan's Ennis  
Ann Quinlivan, St Flannan's Ennis  
Breeda Mulcahy, St Mary's College, Charleville, Co. Cork  
Anne O'Dea, Crescent College Comprehensive, Limerick  
Patricia McPhillips, St Caimin's School, Shannon  
Jenny Egan, St Caimin's School, Shannon  
Celine Moloney, St Anne's Killaloe, Co. Clare  
Rita Forrestal, St Joseph's Tulla, Co. Clare  
Paul Doran, St Joseph's CBS Nenagh, Co. Tipperary  
Lorraine McInerney, St Joseph's Tulla, Co. Clare  
Brigid Dundon, St Joseph's CBS Nenagh, Co. Tipperary  
James O'Brien, Our Lady's Secondary School, Templemore, Co. Tipperary  
Teresa Brennan, Our Lady's Secondary School, Templemore, Co. Tipperary

Each participant received electronic copies of handouts, a USB key, pen and a notebook with the project logo, as well as the project brochure.



**Co-funded by the  
Erasmus+ Programme  
of the European Union**

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

## Minutes

### ***Profile of teachers involved***

The teachers involved are all teaching in secondary schools in the mid-west of Ireland, in counties Limerick, Clare, Tipperary and Cork. They are teaching age group 11 – 18 years. The focus age for the event was 11 – 15 years, which is Junior Cycle in Irish secondary schools. The students in that age group are studying a new Junior Cycle Science Curriculum. This focus was chosen as it was felt that if the students are engaged in science at the junior cycle age group they are more likely to study it at senior level. At the very least they will become more aware of the value of science to everyday life.

The course is activity-based in its design and emphasises practical experience of science for each individual student. The importance of the processes of science as well as knowledge and understanding is reflected in the syllabus structure. Through a variety of investigations and experiments, students attain the specified learning outcomes, developing appropriate science process skills and a knowledge of underlying science concepts.

In the junior cycle, the study of science contributes to a broad and balanced educational experience for students. It is concerned with the development of scientific literacy and associated science process skills, together with an appreciation of the impact that science has on our lives and environment. The study of science is fundamental to the development of the confidence required to deal with the opportunities and challenges that such change presents in a wide variety of personal and social contexts. The teachers present at the event are involved in presenting this curriculum to the students and encouraging them to meet the learning outcomes through a variety of methods.

### ***Contents of the focus group:***

The Focus Group began with a presentation of the E-learning from Nature project by Marie Walsh. This included a summary of the schools involved, geographical areas, E-lessons and Teachers' Guide. Some of the teachers who took part on the project were present and they were able to describe their experiences. A sample E-lesson was shown and the Teachers' Guide was also presented.

Josephine Treacy presented the poster summarising the project that she had developed for national conferences in Ireland. This poster had been presented at ENVIRON 2017 conference in Athlone from April 10<sup>th</sup> – 12<sup>th</sup>. It was also presented at Irish Plant Scientists' Association Meeting in Limerick from June 7<sup>th</sup> – 9<sup>th</sup>. In the poster the value of E-learning from Nature for engagement of multiple intelligences was explored.

The second part of the session was called THEO (Teachers Helping Each Other) and involved a number of teachers giving ideas for engaging students in studying the 'Nature of Science'. This involved interactive presentations where the teachers in the audience adopted the role of students. It complemented the research carried out by LIT and IPB on peer-assisted learning.

Patrick Dundon presented several ideas for engaging students in the scientific method. These varied from Physics through Chemistry including a variation on the menthos/coke experiment.

Patricia McPhillips showed an activity using mini packets of M&Ms sweets to make students think about the difference between observation and inference.

Anne O'Dea demonstrated a 'black box activity' where eight different objects are placed in eight sealed boxes and students have to try to identify the contents without seeing them.

Marie Walsh presented the 'Tricky Tracks' activity which underlined the importance of observation in the E-Learning from Nature project.

The E-Learning from Nature project was also mentioned in Maria Sheehan's presentation about 'copters' which is the topic of one of the E-lessons from St Caimins' School, Shannon.

Angela Gammell showed how card sets can be used in teaching about biology topics. These can be used to follow up on the E-lessons to more depth.

Each presentation was made available electronically to the participants.

Following a short break for refreshments, the participants reassembled for a workshop on Earth and Space, presented by Rory Geogheghan but involving participation and more peer learning. The fascination for studying Earth and our place in Space has now become a topic in the Junior Cycle at secondary school in Ireland.

Participants were engaged by over two hours of material on how to approach teaching about Earth and Space. Observation of the natural world and modelling our place in the Universe was demonstrated. The



importance of scale and ways of trying to make it comprehensible to students were described.

Access to interactive software and to websites was also shown.

Useful weblinks include:

Google maps

[www.stellarium.org/](http://www.stellarium.org/) Stellarium is a free open source planetarium for the computer. It shows a realistic sky in 3D, just like what can be seen with the naked eye, binoculars or a telescope.

[www.esero.ie](http://www.esero.ie) European Space Education Resource Office (ESERO) Ireland promotes space as a theme to inspire and engage young people in STEM subjects (science, technology, engineering and mathematics). Space is fascinating to people of all ages, it is all around us and inspires us in many different ways. Space is the ultimate cross-curricular theme cutting across history, geography, science, maths, literature – pretty much consistent with the aims of E-Learning from Nature! ESERO Ireland makes space themed resources accessible to teachers as a tool to engage their pupils. ESERO is an education project of the European Space Agency (ESA), co-funded by ESA and by national partners active in the fields of education and space. <https://www.nasa.gov/offices/education/about/index.html> also has a wealth of educational resources.

### **Conclusion achieved**

This Multiplier event gave an opportunity for people who had been involved in the E-Learning from Nature project to share their experiences with their peers. Hopefully the main outcome will be that teachers who had not previously been aware of the project and its outputs will now utilise the materials and also share them with their peers in their schools.