

Xplora Newsletter Issue 14 January 2009

Welcome to the 14th issue of the Xplora newsletter!

New year brings along plenty of new science education projects and events. Also reports from last year are published, so this newsletter has a lot to offer for anyone interested in science and education!

Would you like to be featured in our newsletter or send us a contribution? <u>johanna.snellman@eun.org</u>

Johanna Snellman Xplora Web Editor

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EVENTS

XPLORA AT A GLANCE

CALL FOR CONTRIBUTIONS FOR THE NEXT NEWSLETTER

To ensure the diversity and actuality of the next Xplora newsletter, we would like to invite you to send us your contributions! We would be grateful for short references with a link to additional information of news, events, awards, best practices etc. relating to maths, science, technology and environment education.

Please send you contributions by the 23 February at johanna.snellman@eun.org

LIBRARY

TAKE A LOOK BEHIND THE SCENES IN THE WORLD OF SCIENCE

What is a scientist's life really like? See behind-the-scenes footage and other material from scientists working across a range of interesting subjects, including physics, chemistry, biology and engineering. The project has received global recognition, including the recent awarding of an International Business Award. The videos are filmed by Brady Haran, a video journalist interested in science, and the project is overseen by the University of Nottingham from the UK.

http://www.test-tube.org.uk

NEW GAMES AND ANIMATIONS IN THE KIDSCORNER ENERGY EDUCATION DATABASE

The KidsCorner Energy Education Database is created by ManagEnergy, an initiative of the European Commission Directorate-General for Energy and Transport. It features an online database of energy education resources from across Europe with attractive games and videos.

http://www.xplora.org/ww/en/pub/xplora/library/software/managenergy.htm

IT EDUCATIONAL RESOURCES PUBLISHED ON THE ESKILLS PORTAL

The eSkills career portal (<u>http://eskills.eun.org</u>) has published a list of IT-related educational resources. Among the resources provided are free tutorials in commonly used software such as word processing and web design, online courses on different computer programs, and easy tools to create animated film or video games. <u>http://eskills.eun.org/web/guest/resources</u>

THE PERIODIC TABLE OF VIDEOS

Tables charting the chemical elements have been around since the 19th century - but this modern version has a short video about each one. Since launching this site (<u>http://www.periodicvideos.com</u>), the videos have been watched more than 3.9 million times. The website and videos are produced by the University of Nottingham in the UK. <u>http://www.periodicvideos.com/</u>

Search for other science resources at: http://www.xplora.org/ww/en/pub/xplora/library/resources.cfm

Visit the Xplora science education library at: http://www.xplora.org/ww/en/pub/xplora/library.htm

PRACTICE

XPERIMANIA ACTIVITIES IN PHYSICS AND CHEMISTRY FOR A WHOLE CLASS

The first entries in this year's Xperimania competition "Check out the property" show a good example of how to benefit of the activities in a class room: in the French Collège La Fontaine several groups of students under the guidance of their teacher, conducted the same experiment on electrical insulation and uploaded the lab reports to the online gallery on <u>www.xperimania.net</u>.

http://www.xplora.org/ww/en/pub/xplora/news/latestnews/xperimania_activities.htm

FUTURENERGIA COMPETITIONS 2008-2009: DESIGN COMPETITION AND ENERGY SCOUTS

Futurenergia (<u>www.futurenergia.org</u>) has launched two new competitions for the school year 2008-2009. The Design competition encourages teams of students to search for information and propose a solution to one of the four given scenarios related to the fields of energy efficiency, climate protection and resource efficiency. The Energy Scouts competition is an opportunity to involve individual students in carrying out a set of tasks that aims to identify positive examples of energy and resource-saving initiatives that occur in their local communities.

http://www.futurenergia.org/ww/en/pub/futurenergia2007/competitions.htm

THINK & BUILD BRIDGES

Two Xplora teachers, Linda Giannini, Nursery school teacher and teacher trainer, and Carlo Nati Art and design drawing teacher and teacher trainer from Italy present one of their favourite teaching projects: Think & build bridges. "Think & build bridges" draws its origins from the project Teaching Science in Europe, which is an interdisciplinary teaching practice combining scientific and non scientific subjects.

http://www.descrittiva.it/calip/0708/teaching science in europe II.htm

ABOUT XPLORA PARTNERS

XPERIMANIA CHAT: (PETRO)CHEMICALS – WHO NEEDS THEM?

Try it out - are you able to live a week or even a day without using or coming into contact with petrochemicals? British science journalist Andy Brice took up the challenge and will share his experience with students on the next Xperimania (<u>www.xperimania.net</u>) chat "(Petro)chemicals – who needs them?" on 20 January 2009 at 11.00 CET.Xperimania chat: How are petrochemicals used in art restoration?

http://www.xplora.org/ww/en/pub/xplora/events/calendar/who needs petrochemicals.htm

FUTURENERGIA CHAT WITH THOMAS SCHMIDT, FORMER OLYMPICS CHAMPION

Thomas Schmidt, a former Olympics Champion at slalom canoe, met ten schools in an online chat with the topic "Plastics, the performance materials". The participating schools got answers to their questions on the contribution of materials to the performances in sport and why plastics are considered the great opportunity as materials of the future. http://www.futurenergia.org/ww/en/pub/futurenergia2007/news/schmidt.htm

GOOD START FOR THE INSPIRE LEARNING OBJECTS

Still two months into the school validation period, the teachers and students participating in Inspire (<u>http://inspire.eun.org</u>) have already started using the Learning Objects in science lessons. By using Digital Learning Resources associated with evaluation forms, Inspire aims to develop and experiment new teaching methods in the field of math, science and technology (MST), and thus boost up the interest in science in Europe. Over 1,250

students from the Inspire countries (Germany, Austria, Land of Valencia (Spain), Italy and Lithuania) have responded, describing their views on science education. At the end of the project the students will be asked the same questions again to see if the use of Digital Learning Resources has had any effect on their levels of interest in the topic. The Learning Objects available on the Inspire website are free for anyone to use. http://inspire.eun.org

SHARE YOUR BEST TIPS FOR SCIENCE EDUCATION ON THE STELLA WEB PORTAL

The STELLA web portal (<u>www.stella-science.eu</u>) has launched new tools for teachers and experts to share their best practices on science education in Europe. By joining the STELLA forums and submitting initiatives to the STELLA catalogue you can share your experiences and exchange ideas on new teaching methods and educational approaches. <u>http://www.xplora.org/ww/en/pub/xplora/news/latestnews/stella.htm</u>

XPERIMANIA CHAT: HOW ARE PETROCHEMICALS USED IN ART RESTORATION?

On 5 February, at 14.00 CET, secondary schools from across Europe are invited to participate in an interesting Xperimania chat on "How are petrochemicals used in art restoration?" held in French. If your school is interested in taking part, send an email at <u>xperimania@eun.org</u> with the subject line "Xperimania chat". http://www.xperimania.net/ww/en/pub/xperimania/chats2008.htm

EUROPEAN SCIENCE EDUCATION PROJECTS

THE TENTH ISSUE OF SCIENCE IN SCHOOLS NOW AVAILABLE

"Intelligence is of secondary importance in research" - the new issue of Science in Schools, the European journal to promote inspiring science teaching, is again filled with interesting stories and teaching activities. The new issue available online on <u>www.scienceinschool.org</u> includes articles such as "Nanotechnology in school" and "Practical demonstrations to augment climate change". The articles, list of events and forum in Science in Schools highlight the best in teaching and cutting-edge research across Europe and across the disciplines.

http://www.scienceinschool.org/2008/issue10

JOIN THE NEW MATHS, SCIENCE AND TECHNOLOGY GROUP LAUNCHED FOR ETWINNING

eTwinning and European Schoolnet have launched a new maths, science and technology (MST) group for teachers. The purpose is to meet other MST teachers to set up collaborative projects, carry out research projects in science education and publish the results in educational journals. Moreover the group provides the teachers a venue to discuss and learn about the advantages and disadvantages of the collaboration between MST teachers of different subjects and with different backgrounds in the teachers' professional development. The higher level goal is to get more MST teachers interested in collaborating in EU projects. Would you like to join? Check out: http://www.etwinning.net/mstgroup

COMING SOON: NANOYOU!

Starting in spring 2009, NANOYOU is a new project focused on informing youth about nanotechnologies in EU. NANOYOU aims to encourage young Europeans' participation in dialogues about the ethical, legal and societal aspects of the nanotechnologies. This purpose will be carried out through exhibitions, innovative computer games, online experiments and other activities. The activities are related to three main theme; Medicine,

Environment and Energy, and ICT. For further information contact <u>alexa.joyce@eun.org</u>

UPCOMING SCIENCE PROJECT: IMPROVING TEACHER EDUCATION IN MATHEMATICS AND SCIENCE (ITEMS)

The recent social and technological changes in society and the Europe-wide efforts to attract more young people to scientific career require changes in learning environments and the teaching profession. A new project funded with support from the European Commission within the Lifelong Learning Programme focusing on improving teacher education in mathematics and science (ITEMS) will be launched in spring 2009. ITEMS aims to develop a framework to improve the competencies of science and mathematics teachers, and, consequently, increasing students attainment and interest in theses areas. For further information contact: agueda.gras@eun.org

AWARDS AND NEWS

EUROPEAN SCHOOLNET STAKEHOLDERS AND PARTNERS MEET IN ROME AT EMINENT CONFERENCE

European Schoolnet's annual conference took place in Rome on 4-5 December 2008, offering two days of debates, plenaries and workshops. The event was attended by 240 participants from all over Europe and beyond representing ministries of education, industry partners, teachers and experts. The conference was opened by Giovanni Biondi, Chair of the Steering Committee and Marc Durando, Executive Director of European Schoolnet. Listen to the EMINENT 2008 Podcasts here:

http://blog.eun.org/eminent/2008/12/eminent 2008 podcast do not mi 1.html#more http://blog.eun.org/eminent/2008/12/european schoolnet stakeholder.html#more

SCHOOLS FROM SLOVENIA AND GREECE WINNERS IN THE MST CATEGORIES OF THE 2008 ELEARNING AWARDS

"Digi DT" from Slovenia wan the Intel award for Technology and *"Reduce – Reuse – Recycle*" from Greece wan the SMART Award for Mathematics and Science in the 2008 eLearning Awards announced in the annual EMINENT conference in Rome on 4 December 2008. The eLearning Awards, organised by European Schoolnet since 2001, are the leading competition for schools in Europe to demonstrate how they are using ICT to build a future Europe and citizens of tomorrow.

http://www.xplora.org/ww/en/pub/xplora/news/latestnews/elearning winners.htm

CELEBRATE DATA PROTECTION DAY BY MAKING YOUR OWN VIDEO!

Young Europeans between the ages of 15 and 19 years are invited to take part in the "Surf the internet – think Privacy" competition which was launched this week at <u>www.dataprotectionday.eu</u>. The challenge is to create a 30 to 90 second video to illustrate the theme of data privacy and data protection. As entries start coming in, you can visit the online competition gallery to rate the uploaded entries. The most popular videos will then be judged by a panel of experts.

http://www.xplora.org/ww/en/pub/xplora/events/calendar/data_protection_day.htm

LEARNING RESOURCE EXCHANGE PORTAL FOR SCHOOLS LAUNCHED

The updated Learning Resource Exchange (LRE) portal for schools is now open! The LRE builds on work carried out in the large-scale, CALIBRATE (<u>http://calibrate.eun.org</u>) and MELT (<u>http://info.melt-project.eu</u>) projects supported by the European Commission's funding programmes. The portal includes approximately 40,000 open educational resources and 100,000 assets from many different countries and providers, including 16

Ministries of Education. The LRE has resources on virtually every curriculum subject including those directly produced by or for Ministries of Educations and other public bodies, as well as resources developed by teachers themselves. http://lreforschools.eun.org

QUIZ IT UP: INSAFE LAUNCHES SAFER INTERNET DAY 2009 QUIZ

On 2 December 2008, the Insafe network launched its first global activity for Safer Internet Day 2009, 10 February 2009, namely a quiz available in 22 languages! The Insafe quiz <u>http://insafequiz.eun.org</u> addresses young people between 10 and 15 years of age, and requires them to answer a series of multiple choice questions on the media, internet safety, culture, history and geography followed by a final challenge. The variety of questions asked reflects the internet's value as a tool for learning and finding information! <u>http://www.xplora.org/ww/en/pub/xplora/events/calendar/insafe_quiz.htm</u>

THE INTERNATIONAL YEAR OF ASTRONOMY 2009: SPECIAL ATTENTION TO EDUCATION AND YOUNG PEOPLE

The International Year of Astronomy 2009 (IYA2009) has been launched by the International Astronomical Union (IAU) under the theme "The Universe, yours to discover". IYA2009 will be a global celebration of astronomy and its contribution to society and culture, with strong emphasis on education, public participation, and the involvement of young people, and with events at national, regional, and global levels. http://www.astronomy2009.org

YOUNG EUROPEANS ARE ENTHUSIASTIC ABOUT SCIENCE – BUT STILL RELUCTANT TO PURSUE SCIENTIFIC CAREERS

Science tops the table of young Europeans' interests, but that does not seem to be enough to make them consider a scientific career, indicates a new 'Eurobarometer', published in November 2008. Young people's recommendations how to get young Europeans more involved in research and innovation were given to the EU Commissioner for science and research, Janez Potočnik, and French Minister for Higher Education and Research Valérie Pécresse during the "European City of Science" held in Paris on 14 November 2008.

http://www.xplora.org/ww/en/pub/xplora/news/latestnews/eurobarometer.htm

PLUS NEW WRITERS AWARDS – BRING MATHS TO LIFE

Plus is looking for the science writers of the future, who can make mathematics lively and interesting for a general audience. The competition is open to new writers of any age and from any background who can explain a mathematical topic or application they think the world needs to know about. The winning entries will be read by an international audience of over a hundred thousand in the June 2009 issue of *Plus*, and the winners will receive an iPod, subscriptions to the journal Nature, and signed copies of popular maths books by some of the best science writers today.

http://plus.maths.org/competition/

EVENTS

LEADERSHIP AND TECHNOLOGY WORLD FORUM

12-14 January 2009 London, UK

The theme of this year's "Leadership and Technology World Forum" is "Next Generation Learning" which will encompass the streams of "Leaderschip for the 21st Century, Skills

for the 21st Century and an Education workforce for the 21st Century". This reflexts the diversity of learners now benefiting from innovative use of technology and the opportunities for further pioneering work at all levels of education, skills and learning. The participation in the Learning and Technology World Forum is by invitation only. http://www.latwf.org/

BRITISH EDUCATION AND TRAINING TECHNOLOGY (BETT) SHOW

14-17 January 2009 London, UK

BETT celebrates 25 years as the world's leading educational information and communications technology event in 2009. It is the largest education and technology exhibition of its kind with over 30,000 attendees and 600 exhibitors taking part and brings together the global teaching and learning community for four days of innovations and inspirations.

http://www.bettshow.com/

THE INTERNATIONAL YEAR OF ASTRONOMY: OPENING CEREMONY

15-16 January 2009 Paris, France

The Opening Ceremony of the International Year of Astronomy project is held at the United Nations Educational, Scientific and Cultural Organisation (UNESCO) Headquarters in Paris, 15 and 16 January 2009. Hundreds of attendees are expected, including members of royal families, government ministers, Nobel Prize winners and other eminent scientists.

http://www.astronomy2009.org

CONFERENCE: PLAYFUL SCIENCES 3

28 January 2009 Jemeppe-sur-Sambre, Belgium

Science on Stage Belgium invites secondary-school teachers and trainee teachers to join in a day of playful sciences: presentations, experiments, games, a competition and a bag of experimental material to take home! The introduction is in English; the rest of the events in either French or Dutch (with translation available if necessary). http://www.scienceonstage.be

EUROPEAN MOLECULAR BIOLOGY LABORATORY: TRAINING COURSE: ELLS LEARNINGLAB

28-30 January 2009, Turin, Italy 18-20 March 2009, Heidelberg, Germany 1-3 July 2009, Heidelberg, Germany 15-17 July 2009, Monterotondo, Italy

The European Learning Laboratory for the Life Sciences (ELLS) is an education facility to bring secondary school teachers into the research lab for a unique hands-on encounter with state-of-the-art molecular biology techniques. The three-day courses are designed to enable the participating teachers to explore a range of activities, which they can practice in the lab and then take back to the classroom. http://www.embl.de/ells

EXPOSING IDEAS, QUESTIONING KNOWLEDGE'; RÉSEAU ROMAND SCIENCE ET CITÉ

29-30 January 2009 Neuchâtel, Switzerland

The association Réseau romand Science et Cité will gather around 30 French-speaking science centres and museums and two universities to discuss new developments in science communication. The goal is to discuss new ideologies and policies on science communication, new media and museology theories in the field. The registration ends on 19 January 2009.

http://www.rezoscience.ch

EU SUSTAINABLE ENERGY WEEK (EUSEW)

9-13 February 2009 European-wide

Under the umbrella of the Sustainable Energy Europe Campaign (SEE), the European Commission's Directorate-General for Energy and Transport, the European Institutions and major stakeholders concerned with sustainable energy are together putting on the third edition of the EU Sustainable Energy Week (EUSEW). It will take place in Brussels, Belgium, and in other cities across Europe from Monday 9 to Friday 13 February 2009, although many side events are foreseen during the weeks immediately before and after. http://www.eusew.eu/

PHYSICS IN PERSPECTIVE

15-17 February 2009 London, UK

Aimed at 6th Formers and college students, Physics in Perspective offers in a period of just three days insights to the many different aspects of modern physical science including topics from the cutting edge of physics, up-to-date applications in various technological areas and some 'fun' physics. The speakers are chosen for their ability to make physics come alive, to illustrate its impact on our lives and to explore its potential to shape the future world with engineering and technology.

http://journals-of-

physics.org/activity/education/Events/Events%20for%20Students/Physics%20in%20Persp ective/file 31285.pdf

NATIONAL SCIENCE AND ENGINEERING WEEK

6-15 March 2009 UK

National Science Week is an opportunity for people of all ages to take part in science. engineering and technology activities and to talk directly with scientists and engineers about their concerns and hopes for the future. http://www.the-ba.net/the-ba/Events/NSEW/index.htm

FRONTIERS IN SCIENCE EDUCATION RESEARCH 2009 (FISER'09)

22-24 March 2009 Famagusta, Cyprus

The Conference aims to bring together scholars from all around the world who are involved in various aspects of undergraduate science and mathematics education research, and will cover a wide range of topics such as undergraduate curricula and design, teaching and learning strategies, technology in teaching and learning, faculty development, teacher training and contemporary issues in the field including native language vs. foreign language of instruction and misconceptions in science. FISER'09 will be open to professional science and mathematics education researchers, educators, students and all others who are interested. http://fiser.emu.edu.tr/

CONFERENCE: SHOWPHYSICS2009

31 March – 4 April 2009 Geneva, Switzerland

This annual EPF workshop on show physics is aimed at bringing together groups with show physics experience and people who have the ambition to set up a new physics show. The workshop will contain lectures by experts on science communication from across Europe, as well as plenty of hands-on experimental sessions where the physics shows can exchange ideas, and where the new groups can learn science communication. http://www.physiscope.ch/ShowPhysics2009.html

FESTIVAL SCIENCE ET CITÉ: BASECAMP09

1-10 May 2009 Zürich, Switzerland 22-30 May 2009, Lugano, Switzerland 11-13 June 2009, Chur, Switzerland 27-30 June 2009, Geneva, Switzerland 19-23 August 2009, Neuchâtel, Switzerland 9-13 September 2009 Bern, Switzerland

The third Festival Science et Cité will take place in Switzerland from May to September 2009 in the occasion of the International Year of Planet Earth 2007-2009. The festival is a co-operation with the Science et Cité foundation and the Swiss Academy of Sciences. http://www.basecamp09.ch./

13TH INTERNATIONAL SCIENCE FESTIVAL GÖTEBORG

4-17 May 2009 Göteborg, Sweden

The most intelligent festival in Sweden! Our aim is to be the best and most exciting meeting-place for researchers, schools, and the general public. Different aspects of the festival will be popping up in unexpected places. Each year the festival is charaterized by a central theme. In 2009 we are focusing on civilizations. The activities are open to everyone and almost everything is free of charge. http://www.goteborg.com/vetenskapsfestivalen

VII FERIA DE LA CIENCIA DE SEVILLA

14-16 May 2009 Sevilla, Spain

The Science Fair is basically designed to help teachers, students and scientific communities share scientific experiences, as well as to promote science in our society. Throughout the 3-day Science Fair, participating students from different educational levels present their science projects that were previously prepared at school. The Science Fair is also a place where national private and public institutions present their current research. http://www.cienciacompartida.org/

ECSITE ANNUAL CONFERENCE 2009

4-6 June 2009 Milan, Italy

Science communication professionals from across Europe and the world are welcome to participate in the Ecsite Annual Conference 2009 on 4-6 June 2009 in Milan. The conference will be hosted by the National Museum of Science and Technology "Leonardo da Vinci". Three full days of inspiring sessions, workshops and discussions will await our participants. Whether you work in science centres or museums, in aquariums or natural history museums, in research institutes or universities, this is a unique occasion for your calendar.

http://www.ecsite-conference.net

DEVELOPMENT OF SCIENCE AND TECHNOLOGY EDUCATION IN CENTRAL AND EASTERN EUROPE

14-18 June 2009 Siauliai, Lithuania

The 7th IOSTE Symposium for Central and Eastern Europe will discuss problems of Science and Technology education in the university and both primary and secondary education with international and Central and Eastern Europe experts. The deadline for registration is on 31 March 2009.

http://agora.guru.ru/display.php?conf=ioste_symp_LT-2009

STUDENT SUMMER CAMP: EUROPEAN SPACE CAMP 2009

29 July – 9 August 2009 Andøya Rocket Range, Norway

The European Space Camp is a summer camp in English for high-school students, aged 17-20, interested in space and science, and having a background in physics and mathematics. The participants will spend a week doing technical experiments involved in a rocket campaign, working as real rocket scientists, learning how to exploit knowledge they already possess, and broadening their understanding of applied science. Working in groups, they have to use their creativity and learn to cooperate. The programme includes hands-on activities related to the rocket launch, lectures and social activities. Registration deadline: 15 April 2009 / February 15 for applicants in need for visa. http://www.spacecamp.no/