

## **Xplora Newsletter**

Happy New Year and welcome to the third issue of the Xplora newsletter!

For 2006, Xplora has developed a DVD - Xplora Knoppix - containing software applications and materials for science education. Go further and read more about it!

In March Xplora will organize, together with the Deutsches Museum, Germany a Pencil event related to dynamic geometry and specifically focused on two famous OpenSource programs: GeoGebra and GEONExT. It will be possible to follow the event online via the Xplora portal!

Also in this issue, we are launching a new Xplora section "Highlight", a selection of resources related to education and science, chosen by the Xplora team.

If you would like to be featured in our newsletter, or send us a contribution - just get in touch:

[laura.massoli@eun.org](mailto:laura.massoli@eun.org)

All the best,

Laura Massoli  
Xplora Web Editor

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### **Xplora at a glance**

#### **Xplora – DVD Knoppix: make science accessible for schools**

The Xplora team has developed a live bootable DVD – Xplora Knoppix, based on the Linux Debian distribution and completely contained on a self booting DVD. This Knoppix version is especially mastered for Xplora and contains software applications focused on science education, as well as a number of educational materials from the Xplora repository. As it is open source software it can be given away freely and be copied as well. The Xplora – Knoppix release has a multilingual support – English, French, and German.

Xplora is producing 600 DVDs, which will be distributed freely to schools. Also the ISO image of the DVD will be freely downloadable from the Xplora website and can be used to produce other copies.

For more information: [info-xplora@xplora.org](mailto:info-xplora@xplora.org)

#### **Xplora Sunset Project: an Italian translation available now!**

During the last autumn, Xplora launched a new science project – the sunset project, which aimed at improving basic geography and basic science knowledge about sun rising.

An Italian association Accendiamo La Fantasia (ALF) which is involved in ICT and educational projects for primary and secondary school has kindly provided an Italian translation of the sunset project!

Read more about the sunset project:

[http://www.xplora.org/ww/en/pub/xplora/megalab/xplora\\_school\\_projects\\_2005.htm](http://www.xplora.org/ww/en/pub/xplora/megalab/xplora_school_projects_2005.htm)

Visit the Italian version of the sunset project:

[http://www.alfitalia.it/duexplora/xplora\\_00.asp](http://www.alfitalia.it/duexplora/xplora_00.asp)

More about ALF:

[http://www.xplora.org/ww/en/pub/xplora/content\\_partners.htm](http://www.xplora.org/ww/en/pub/xplora/content_partners.htm)

### **Become a member of Xplora**

Xplora, the European gateway to science education, invites you to join its educational community of more than 1500 members. Members can share science education resources, take part in thematic chats and forums, and create private communities.

You can register here:

<http://www.xplora.org/ww/en/pub/xplora/community/register.cfm>

### **Highlight: a new section on the Xplora portal**

Before Christmas we launched this new section! We present a selection of special resources related to education and science, chosen by the Xplora team for their originality and interesting approach to science.

Visit: <http://www.xplora.org/ww/en/pub/xplora/library/highlights.htm>

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## **Megalab**

### **Hands on experiments: examples from Heureka the Finnish Science Centre**

Xplora offers several science projects and experiments from Heureka, the Finnish Science Centre. You can learn about chemistry laboratory activities, mineral analysis, water analysis and more.

You can download the projects for free and you may use them with your class.

Visit:

[http://www.xplora.org/ww/en/pub/xplora/megalab/hands\\_on\\_experiments.htm](http://www.xplora.org/ww/en/pub/xplora/megalab/hands_on_experiments.htm)

Do you have your own scientific activities or you laboratory experiments? If you like to be featured, contact: [laura.massoli@eun.org](mailto:laura.massoli@eun.org)

### **About Collaborative projects**

Collaborative projects involve several groups of learners, usually classes from different schools, working on a common topic. Many collaborative projects are related to science. To read more about these and to download a list of science collaborative projects:

[http://www.xplora.org/ww/en/pub/xplora/megalab/collaborative\\_projects.htm](http://www.xplora.org/ww/en/pub/xplora/megalab/collaborative_projects.htm)

### **Measuring the Earth's radius using the method of Eratosthenes**

In this collaborative project students learn about the Earth's radius, using Eratosthenes traditional method. They are invited to send electronic postcards to introduce each other.

The activity is aimed mainly at primary and lower secondary schools.

<http://www.inrp.fr/lamapphp/eratos/2005/>

### **The Baltic Sea project: measuring environmental properties**

Schools around the Baltic Sea observe environmental indicators like water quality and air quality. The measurement is done by observation of specific plants and animals. There are local databases, available for download. A special program is needed to access the database, which you can request from the authors. It is suitable for students from 13 to 18 years.

<http://www.bspnews.kiss.pl/>

More practical science ideas at

<http://www.xplora.org/ww/en/pub/xplora/megalab.htm>

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## **Library**

### **Science education resources**

Are you looking for interactive activities, science websites, articles or educational databases for your lessons? Xplora offers you an online resources database for science teaching and learning at:

<http://www.xplora.org/ww/en/pub/xplora/library/resources.cfm>

Recently the following items were added:

-**“Water alert”**: an online adventure and strategy game developed by UNICEF. The object of the game is to ensure that the people in a drought-challenged village, who are facing the threat of a flood, have water that is safe to drink and a clean and healthy school environment.

[http://www.unicef.org/voy/explore/wes/explore\\_1818.html](http://www.unicef.org/voy/explore/wes/explore_1818.html)

-**“Newton’s Castle”**: this website is a stimulating journey into the revelations of Sir Isaac Newton. Learn about his discovery of gravity and optical theories. Learn why cars roll uphill, why dogs chase cars and about Newton's secret library.

<http://www.tqnyc.org/NYC051308/index.htm>

-**“Nature Detectives”**: Climate change is affecting everything from tiny insects to towering trees. In this website, you can learn about nature and investigate how the seasons are changing - become a nature detective

<http://www.naturedetectives.org.uk/>

-**“Metereology”**: the University of Cologne’s website offers the latest surface maps for Europe and other continents, weather observations, charts of hourly observations, satellite images and more. Descriptions are in English and German.

[http://www.meteo.uni-koeln.de/meteo.php?show=En\\_We\\_We](http://www.meteo.uni-koeln.de/meteo.php?show=En_We_We)

### **Planet Science games**

Planet Science, in the UK, brings fun and science together in games, features, competitions, teaching resources and e-newsletters. It's free and fully funded by the UK's National Endowment for Science Technology and the Arts (NESTA). Planet Science is offering, via Xplora, two nice games, one

about swimming in an Olympic pool full of science, another about energy sources.

To play the games visit:

[http://www.xplora.org/ww/en/pub/xplora/library/activities/planet\\_science\\_games.htm](http://www.xplora.org/ww/en/pub/xplora/library/activities/planet_science_games.htm)

### **Geogebra, a free software for maths**

GeoGebra is a dynamic mathematics software that covers geometry, algebra and calculus. It is aimed at secondary schools and it is developed by Markus Hohenwarter at the University of Salzburg. Palmira Ronchi, an Italian maths teacher, tells more.

[http://www.xplora.org/ww/en/pub/xplora/library/software/geogebra\\_a\\_free\\_software\\_for\\_.htm](http://www.xplora.org/ww/en/pub/xplora/library/software/geogebra_a_free_software_for_.htm)

### **European Pupils Magazine in History of Science and Technology - EPM**

EPM is a science-related magazine aimed at 13-19 year old school pupils and anyone generally interested in science. The magazine is published several times a year and is free of charge. Teachers and students from around Europe can contribute in different ways: from submitting articles in the field of history of science and technology to using the published issues of the EPM Magazine for teaching purposes.

To read more and have a look at the online version of the magazine:

<http://www.epmagazine.org>

Visit the Xplora's science education library at:

<http://www.xplora.org/ww/en/pub/xplora/library.htm>

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## **Practice**

### **Favourite resources for science teachers**

Linda Giannini, a nursery school teacher and teacher trainer, expert in multimedia and new technologies introduces some of her favourite projects. On of the most interesting is "La scatola delle esperienze" – The box of experiences - (both in English and Italian), which is an online document explaining children's experiences in nursery school. The main aim is to evaluate and share learning skills, by using one or more collaborative environments, composed of objects physically close or distant.

Read more:

[http://www.xplora.org/ww/en/pub/xplora/practice/favourites/linda\\_giannini.htm](http://www.xplora.org/ww/en/pub/xplora/practice/favourites/linda_giannini.htm)

### **Science Center at school: pupils create science exhibits**

It is a project of the NCWT Foundation, the umbrella organisation of the NEMO Science Center in Amsterdam, Holland. Commissioned by NEMO, in two exhibits, primary school pupils prepare for their own science center at school. The exhibits made by the children are often about physical

phenomena and technical principles. Leo van den Bogaert reports to us about the exhibits preparation.

Read more:

[http://www.xplora.org/ww/en/pub/xplora/practice/examples/science\\_center\\_at\\_school.htm](http://www.xplora.org/ww/en/pub/xplora/practice/examples/science_center_at_school.htm)

### **Scientist Factory: We hatch the scientists of the future!**

The Scientist Factory - "Forskerfabrikken", is an important contribution in Norway to inspire children's interest in science. It is an organisation financed by its members and parents sending their children to science courses.

Since the first course in spring 2002, more than 3000 children have taken our science courses. The target group is children aged 9 to 13 years.

Hanne S. Finstad, founder and director of this non-profit organization tells us something more about this experience.

Read more:

[http://www.xplora.org/ww/en/pub/xplora/practice/examples/scientist\\_factory\\_we\\_hatch\\_t.htm](http://www.xplora.org/ww/en/pub/xplora/practice/examples/scientist_factory_we_hatch_t.htm)

Do you want to let us know about your teaching activities? Would you like to present your favourites? We will feature them on Xplora.

Contact: [laura.massoli@eun.org](mailto:laura.massoli@eun.org)

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## **About Xplora Partners**

### **PENCIL project: Investigating Marine Issues with Climate Change**

PENCIL is a large scale European project to develop and test innovative methods for science teaching via many pilot projects. One of the pilot projects, managed by the National Marine Aquarium, UK, investigates the provision for climate change topics within formal teaching, examines the links between informal and formal science teaching and improves provision for educators to address the difficulties experienced in engaging young people with science.

### **Further information on the pilot project:**

[http://www.xplora.org/ww/en/pub/xplora/nucleus\\_home/pencil/national\\_marine\\_aquarium.htm](http://www.xplora.org/ww/en/pub/xplora/nucleus_home/pencil/national_marine_aquarium.htm)

### **Nucleus project: Volvox**

Nucleus is a European cluster of projects to improve science education in Europe. Volvox, one of these projects, is a European network for Bioscience education. The Volvox network will provide teachers with authoritative briefings, proven laboratory protocols, classroom activities addressing the social impact of bioscience, accounts of the careers of young scientists and numerous other educational resources to help motivate them and their students.

Further information about Volvox:

[http://www.xplora.org/ww/fr/pub/xplora/nucleus\\_home/volvox.htm](http://www.xplora.org/ww/fr/pub/xplora/nucleus_home/volvox.htm)

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## **European science education projects: have a look around**

### **Participatory Communication Activities on E-Learning - PARCEL**

The project aims at complementing the dissemination activities of two Networks of Excellence (NoE) on eLearning – KALEIDOSCOPE & PROLEARN with complementary communication activities. These activities are referred to new target groups, not considered by the two NoE: non-profit organisations and users of eLearning tools and products

Read more:

[http://www.xplora.org/ww/en/pub/xplora/eu\\_projects\\_new/eu\\_projects/parcel\\_\\_participatory\\_communi.htm](http://www.xplora.org/ww/en/pub/xplora/eu_projects_new/eu_projects/parcel__participatory_communi.htm)

### **SkyWatch: Introducing European youth in the world of scientific research through interactive utilization of a global network of robotic telescopes**

The SkyWatch Project is part of the European Science Week, having as scope to inform the public, and especially young people, about the latest advances in astronomy as well as to prompt them to conduct observations of astronomical phenomena.

Read more:

[http://www.xplora.org/ww/en/pub/xplora/eu\\_projects\\_new/eu\\_projects/skywatch\\_\\_introducing\\_european.htm](http://www.xplora.org/ww/en/pub/xplora/eu_projects_new/eu_projects/skywatch__introducing_european.htm)

More about other science education projects:

[http://www.xplora.org/ww/en/pub/xplora/eu\\_projects\\_new/eu\\_projects.htm](http://www.xplora.org/ww/en/pub/xplora/eu_projects_new/eu_projects.htm)

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## **Awards**

### **Imagine: sharing ideas in the life sciences**

Imagine is a school competition inviting life scientists to submit proposals for the application of a specific useful and affordable technology in a developing country. High school students, in groups of 2-5 pupils, set up a business plan for the proposal of their choice.

Read more about the competition:

[http://www.xplora.org/ww/en/pub/xplora/events/awards\\_and\\_prizes/imagine\\_sharing\\_ideas\\_in\\_the\\_.htm](http://www.xplora.org/ww/en/pub/xplora/events/awards_and_prizes/imagine_sharing_ideas_in_the_.htm)

### **Volvo Adventure Award 2006**

Volvo Adventure recognizes and rewards practical environmental action being taken by young people, aged between 10 and 16 years, in their local community. The action is open to young people around the world, working with schools and youth and community groups.

Read more:

[http://www.xplora.org/ww/en/pub/xplora/events/awards\\_and\\_prizes/get\\_creative\\_about\\_the\\_climate.htm](http://www.xplora.org/ww/en/pub/xplora/events/awards_and_prizes/get_creative_about_the_climate.htm)

### **Rolls Royce science prize**

Rolls Royce has launched, for the second year, its science prize, open to all schools and colleges in the UK and Republic of Ireland. Teachers are invited to submit science teaching proposals that address a particular need in their school or college by 24 February 2006.

Read more:

[http://www.xplora.org/ww/en/pub/xplora/events/awards\\_and\\_prizes/boost\\_science\\_skills\\_at\\_school.htm](http://www.xplora.org/ww/en/pub/xplora/events/awards_and_prizes/boost_science_skills_at_school.htm)

More about awards and prizes:

[http://www.xplora.org/ww/en/pub/xplora/practice/awards\\_and\\_prizes.htm](http://www.xplora.org/ww/en/pub/xplora/practice/awards_and_prizes.htm)

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## **Events**

### **Dynamic Geometry – a PENCIL event organised by Xplora**

14 March 2006

Deutsches Museum, Munich, Germany

The event will present the features of dynamic geometry in general and then focus on two famous OpenSource programs, GeoGebra and GEONExT, running on every JAVA enabled computer. The event will be broadcast via streaming video with the support of Apple and participants will be able to follow it and ask questions via the chat room on the Xplora portal ([www.xplora.org](http://www.xplora.org)).

For more information, contact Karl Sarnow: [karl.sarnow@eun.org](mailto:karl.sarnow@eun.org)

## **Climate Change**

From 25 January to 29 March 2006 - Online

Join five live online sessions and quiz experts on selected aspects of the changing climate and its impact. Different topics will be discussed: from “Weather and climate change” to “Implications for food production and the countryside”, from “The role of oceans in changing our climate” to “Transport and climate change”. The chats will be in English.

<http://www.wmnet.org.uk/wmnet/15.cfm?s=15&m=86&p=69,index>

### **Computer Education Society of Ireland Conference (CESI)**

10-11 February 2006

Coláiste de h-Íde, Tallaght – Ireland

The conference is a forum for examination and discussion about all aspects of Information and Communication Technologies. It will present best practice and highlight the latest technology innovations.

<http://www.cesi.ie/conference/index.html>

### **Opening Gates in Teacher Education, 2006**

13-15 February 2006 online

The conference represents the opening of gates to new developments in the field of teacher education and to new ways of thinking about teaching.

<http://vc2006.macam.ac.il/pre/>

### **School and science museum: training course for teachers and museum educators**

6-11 March 2006

Deutsches Museum, Munich, Germany

The course is aimed at primary school teachers and at museum educators. The objective is to develop knowledge and competences relating to science education through the use of museums as an educational resource.

[http://www.xplora.org/ww/en/pub/xplora/events/calendar/school\\_and\\_science\\_museum\\_\\_tra.htm](http://www.xplora.org/ww/en/pub/xplora/events/calendar/school_and_science_museum__tra.htm)

More about science education events:

[http://www.xplora.org/ww/en/pub/xplora/events/calendar\\_of\\_events.cfm](http://www.xplora.org/ww/en/pub/xplora/events/calendar_of_events.cfm)

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

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### **About this newsletter**

Please send all comments, criticisms and contributions to [science-news@eun.org](mailto:science-news@eun.org). For more information about Xplora, please visit <http://www.xplora.org/about.htm>.

The Xplora newsletter is published by European Schoolnet for the PENCIL project, which supports the Xplora science education gateway – full information about PENCIL is available at <http://www.xplora.org/pencil.htm>.

PENCIL is part of the Nucleus framework, funded by the European Commission's DG Research under the Science and Society programme. For full details of Nucleus please visit <http://www.xplora.org/nucleus.htm>.

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