

A COMMUNITY APPROACH FOR A SUSTAINABLE GROWTH OF SCIENCE EDUCATION IN EUROPE

Newsletter N° 6: May 2008

Regularly, we publishe this Newsletter, reporting on the Pollen project, its current and future actions by highlighting partners work. Do not hesitate to send your comments, remarks and suggestions to pamela.lucas@inrp.fr.

Seed cities life

Girona

The Science Fair

(contact: Claudia Alsina at claudia.alsina@paueducation.com)

Around 750 pupils from Pollen schools participated to the first Science Fair of Girona held on April the 17th and 18th at the University of Girona. The first day was open to children from 7 to 11 years old, while the second day was focused on pupils from 3 to 7.

During this fair, the Pollen schools from Girona presented experiences, shared activities done in class with the other schools and had fun while the science workshops organised by the University of Girona student Teachers (for both Preschool and Primary Education). Several workshops were organized on different themes: the sense of taste, fossils, signs of the past, let's feel the colours, are magnets magic?, experimenting with ramps and parachutes, optic illusions, simulation of the history art, how seeds travel ...











Stockholm

Concept Cartoons in Stockholm

(contact: Karin Barman at karin.barman@kva.se)

"How do we as science teachers know that our students understand the science presented in the classroom? In order to fully understand student learning, science teachers need to know the ideas that students bring into the classroom. One way to reveal student misconceptions is to use concept cartoons. Concept Cartoons are a new approach to teaching, learning and assessment in science, created by Brenda Keogh and Stuart Naylor (Manchester Metropolitan University, UK). Concept cartoons are cartoon-style drawings of familiar situations with an element of science. Different cartoon characters put forth alternative viewpoints about the presented situation. Cartoons are especially effective in engaging students in scientific dialogue. Active dialogue facilitates student understanding of scientific concepts and also provides a context for teachers to recognize student progress and learning. Pollen teachers in Stockholm have had the opportunity to learn more about Concept cartoons this spring and NTA-Stockholm strongly wants to recommend European teachers to learn more on it. You can see an example of concept cartoon at: http://www.conceptcartoons.com/science/examples_snowman.html

Leicester

Creating a Colourful Life: Art in the history of Science

(contact: Tina Jarvis at jar@leicester.ac.uk)



A two-hour session was held for Leicester teachers already involved in the Pollen project and who those had expressed an interest in joining next year. The evening provided an opportunity for a nearby university to be involved in the project. Dr Sandie Dann and colleagues of the Creating a Colourful Life project,

based at Loughborough University, provided a set of exciting activities. These included using and discussing the development of natural pigments before painting a huge Egyptian style mural attached to the wall; and producing a natural binder for mixing paint



using vinegar and warm milk. The teachers were also introduced to Thermochromatic pigments that change colour as they are heated. The teachers then decorated a mug in this 'smart paint' and heat from a hairdryer was used to test the colour changes. There was an opportunity to use UV pigments and teachers were introduced to how forgeries of paper money, passports, driving licences and credit cards can be identified using a 'black light' (ultra violet light). The evening was a great success and was a really positive advert for Pollen. Particularly as the experienced Pollen teachers recounted their own personal highlights to the newcomers to the project.

Vác Pollen's teachers visit to the Institute of Ecology and Botany (contact: Szilvia Golyan at golyan.szilvia @avkf.hu)



In May 2008 as part of the intraining, service Pollen teachers and local coordination visited with the Institute of Ecology and Botany of the Hungarian Academy of Sciences in Vácrátót. The institute is the richest botanic garden of Hungary, having more than 12 000 species on a beautiful landscape English Georgian



age style garden. It was founded in the first half of the 19's century.

Vac's Pollen teachers had a 'journey' in pairs, doing exercises and updating their knowledge about animals and plants. They visited the new educational centre in the Botanical Garden, which is called 'Berkenyeház'. This initiative's aim is to demonstrate the connection between humanity and nature, showing more understanding and recognizing the values of living world through several activities.

Tartu

Pollen project in the seed city

(contact: Toomas Tenno at toomas.tenno@ut.ee)

In 2007/2008 Pollen project was successfully continued in the seed city Tartu, where teachers from 13 preschools and Herbert Masing school (children with special needs) were participating at training sessions with



Pollen units "Comparing and Measuring", "Senses" and "Solids and Liquids". Teachers have been very creative in promoting hands-on inquiry method in accordance with pre-school programs and using units in their classrooms. It has been a very fruitful co-operation between teachers who have been adapting inquiry learning units with outdoor activities in many schools.

In Estonia, Pollen project has been disseminated also outside the seed city. Teachers from other districts of Estonia have been interested in teacher training sessions and material kits for introducing the inquiry based method into their everyday programs at pre-schools and elementary science classes.

Amsterdam

Mirror, mirror on the wall

(contact: Ed van den Berg at eberg@science.uva.nl)

A new learning unit about mirrors was developed in Amsterdam. This lesson series was developed by Welmoet Damsma for use in her thesis project for the Masters of Mathematics and Science Education program of the AMSTEL Institute of the University of Amsterdam. The module was tried out in two iterative cycles with Kindergarten and grade 1 & 2 students of elementary school De Nieuwe Kring in Diemen. The module was translated and edited for the POLLEN project by Ed van den Berg who also contributed to the background section.



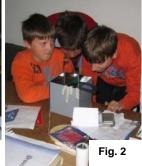
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Observer seed cities Hands-on Optics in Romania

(contact: Dan Sporea at dan.sporea@inflpr.ro)

On April 12-13, 2008 the Center for Science Education and Training at the National Institute for Laser, Plasma and Radiation Physics in Bucharest, the Pollen national coordinator for Romania, organized a training course on "Hands-on Optics" for elementary and middle school teachers (about 60 attendees, Fig. 1) in cooperation with the National Optical Astronomy Observatory (Tucson, Arizona, USA), the Bucharest city School Inspectorate and the "Mihai Bravu" Vocational High School. On the same occasion, an exhibition with students experiments on optics was set (Fig. 2). On May 24, 2008 a regional science fair for school students was organized in cooperation with the Galati county School Inspectorate and "Radu Negru" Vocational High School in the town of Galati. A premiere for these educational events was the contest for very young students (8 – 10 years old) "The little researcher" (Fig. 3).







European Coordination highlights

Ljubljana

Pollen dissemination seminar

Dissemination seminar was held in Ljubljana, Slovenia on May 17th-20th. Delegates from Pollen seed cities and from the three new observer countries met to discuss the best strategies to promote inquiry-based learning of science in primary classes across Europe. Main Pollen issues for 2008 and 2009 were also discussed. The 18th of May, the whole group went to work to Kamnik a city which has joined the project in Slovenia. Wynne Harlen from Bristol University and Johannes Klumpers from the Science & Society program of the European Commission were specially invited to this seminar. More information at:

http://www.pollen-europa.net/?page=gYZ8PdOPtKM%3D&element=4tuuxApJt1U%3D







Science Education World

FP7 calls launched



The European Commission has published on April 21st 2008 a Science in society call under the Capacities' specific programme.

The objectives of the program are to contribute to the Lisbon agenda by increasing the number of young people from all backgrounds entering careers in science, research and technology and, by raising the general level of scientific literacy to increase awareness of the societal impact of science.

This call was has an indicative budget of €4 780 000. The deadline for submitting proposals is July 24 2008 at 17:00:00 (Brussels local time). More information at:

http://cordis.europa.eu/fp7/dc/index.cfm?fuseaction=usersite.FP7DetailsCallPage&CALL ID=117

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