



Sparkling Science >

Science linking with School
School linking with Science

PROJECT OUTLOOK, 21st October 2008

Enerkids

Students research energetic solutions

LEADING INSTITUTION

University of Education Vienna

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SCIENTIFIC CO-OPERATION PARTNERS

University of Leoben

Rohöl-Aufsuchungs AG

University of Kassel, Department Education Science

SCHOOLS INVOLVED

Praxisvolksschule 10, Ettenreichgasse; KSMS 10,
Wendstattgasse 3; VBMS 10, Wendstattgasse 3;
KMS 21, Jochbergengasse 1; HTL 10, Ettenreich-
gasse 54



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Austrian Federal Ministry of
Science and Research

Enerkids

Students research energetic solutions

Crude oil and natural gas – the burning question

In the two-year long research project 'Enerkids – students study energetic solutions', students and teachers from the primary to secondary level out of five Vienna schools cooperate with the scientists and their assistants from the University of Leoben along with the University of Education Vienna in a cross-departmental, cross-gender mentoring model. In a three-stage process, students will research the central aspects of the current and future subject area, 'Energy from the earth' (crude oil, natural gas, geothermal energy), in reality and in literature. From the outcome of this research, age appropriate pictorial pedagogic and pictorial statistic material will be created and ultimately evaluated, modified, and produced as a catalogue as well as experimental material which will be presented.

Results will be used

The findings will be disseminated in initial teacher training and in-service teacher training events and ultimately used in the classroom. The project design takes into consideration gender as well as migration aspects and enables the students to concentrate on their focus' of interest in mentoring teams and workshops. This stimulates the children and youth to think, question, communicate, investigate, and develop, test, modify and present materials. Through this, the joy in the study of natural science and technology, as well as in research in general and the interest in relevant highly qualified occupations should be woken and encouraged.

Factors that enhance and impede the project

In a 'meta analysis', a SWOT Matrix of the cooperation model will be developed for similar school – university co-operations. Additionally, and accompanying the external evaluation of the university Kassel provides feedback regarding the progress, goal-fulfilment, the communication process as well as the economical use of resources, which will ultimately be integrated in the end report.



After the drilling, the workshops begin

8 and 16 years olds in motion

A characteristic of this Sparkling Science Project is that HTL (technical school) students, regardless of age, cooperate with primary school pupils and elementary students. Thus on October 13th, 2008, student from the 'praxis' primary school of the University of Education in Vienna together with students from the technical school (10th district) were on their way to a drilling site from the RAG (crude oil exploration company) in Haag in the 'Hausruckviertel' in order to get information on site to be used for further investigation and documentation. One day later, 13 year olds out of two other project classes were there as well.


Pestering questions

Mr. Tidl, Engineer, who was responsible for the guided tour as well as press relations for the RAG, appeared to be impressed: 'I had to put in a lot of effort to get through the Powerpoint presentation due to the versatility of the students questions. They asked such intensive questions that one can say that they 'pestered me with questions'. The excitement was also high because they were able to touch different equipment at the drilling site. Being able to lift the discarded drilling rod samples was all the rage. Thus a fundamental goal of this project was achieved: the children were encouraged to think along, question, and to challenge and also to look critically at obvious-looking things. This was confirmed by a student of the school 'SMS Wendstattgasse': 'Up until now I thought that crude oil was found in huge caves under the earth's surface. Now I know that it is completely different! And I will inform other students in an adequate way.'

A lot of information – now what?

After the intensive concluding enquiries and interviews, the topic 'Energy from the earth' will be examined carefully in an array of workshops with the Montan University in Leoben and the University of Education in Vienna. In this way, approaches for peers should be created and research questions should be answered. In addition, Mr. Hofstätter (university professor from the Montan University in Leoben) says, 'Every year, billions of Euros are invested in the crude oil sector. Unconventional approaches and alternative thought-provoking impulses are inexhaustible sources for further development and alternative ways of doing things. In this regard I am expecting impulses from the children and young people who worked on the project. In conclusion, many years ago it was the question of a student that initiated the development of the waste-free drilling concept which is now used worldwide.'





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