



Sparkling Science >

Science linking with School
School linking with Science

PROJECT OUTLOOK, 25th October 2008

SCHNAU - Pupils develop learning assignments for biology and chemistry regarding their personal learning style and gender aspects

LEADING INSTITUTION

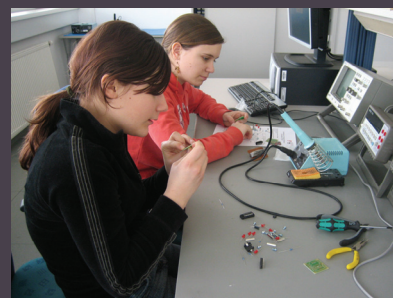
University College of Teacher Training, Klagenfurt,
Centre of Natural Sciences, NAWI-centre
Coordinator: Mag. Sigrid Holub
Contact: peter.holub@ph-kaernten.ac.at

SCIENTIFIC CO-OPERATION PARTNERS

Alpen-Adria-University of Klagenfurt,
Institute of Instructional and School Development (IUS)
University of Vienna,
Austrian Educational Competence
Centre Biology (AECC-BIO)
Karl-Franzens-University of Graz,
Department of Chemistry

SCHOOLS INVOLVED

BG/BRG Mössingerstraße, BRG Viktring,
BG/BRG Lerchenfeldstraße



BM.W.F^a

www.bmwf.gv.at

Austrian Federal Ministry of
Science and Research

SCHNAU

Pupils develop learning assignments for biology and chemistry regarding their personal learning style and gender aspects

Participants

Participating School Classes:

Class 7B Lerchenfeld grammar school

Class 5A and Class 6C from Viktring grammar school

Class 5A and Class 5C from Grammar school Mössingerstraße in Klagenfurt

The attendance and co-ordination will be provided by the Team of Fachdidaktikzentrum für Naturwissenschaften (Centre of Natural Sciences, NAWI-centre) at Pädagogische Hochschule Kärnten (University College of Teacher Training, Klagenfurt):

Project director: Mag. Sigrid Holub

Attendants and teachers: Mag. Judith Horn, Mag. Peter Holub, Mag. Wolfgang Mittergradnegger und Dr. Helga Voglhuber.

The Innovation

The title of this project might sound simple but to the pupils it means a totally new form of learning and researching. During the project high school pupils from six classes in three different grammar schools in Klagenfurt will develop assignments for secondary school pupils in the field of Biology and Chemistry.

The aim is to find out whether girls develop different tasks than boys and whether or how different learning styles affect the form of an assignment.

The topics dealt with during the project are obtained from the curricula (of their original class)?

The difference between project-involved and non-project-involved classes is in the form of dealing with the subject matter. This project emphasizes independent work by the pupils.

The first year of the Project

At the beginning the research will focus on the circumstances under which the pupils learn best. Is it possible to distinguish groups of certain learner types? In the first lessons the teachers and workers from the NAWI-centre will instruct the pupils and help them get started on their project.

The aim will be to expand on rough drafts of the assignments. After that groups will be formed according to learning style and gender and, with their attendants, will develop their own assignments.

The pupils will try to develop learning assignments with difficult contents regarding their personal learning style. At the end of the project year the developed ideas will be used in practice in the classes of secondary school I (10 to 14 year old pupils). The young researchers can take part in the classes and thereby receive immediate feedback on the work they've accomplished.



At the conclusion and as project highlight, a common workshop for all pupils who participated will be held at the University College of Teacher Training, Klagenfurt. All participants will receive certificates to confirm their accomplishments in subject didactic science.

The second year of the project

In the second phase of the project selected pupils will optimize and then publish the assignments under the didactic supervision. The participating pupils and researchers will face a totally new work structure. In small groups up to four persons the youngsters will have the possibility to learn the basics of scientific publication, under the guidance of the NAWI-centre-workers.

As a special acknowledgement, the pupils will receive a service contract and financial compensation. The finished work will be published under the pupils' names and it should encourage them to future scientific activities. The pupils are mostly looking forward to this project but there is also a little doubt whether all pupils are mature enough for the task.

This concern proves that the pupils want to approach this project professionally and that they are aware of the important task ahead. The teachers and researchers, at their own admission, will also be encountering partly new experiences.

Comments on the Project

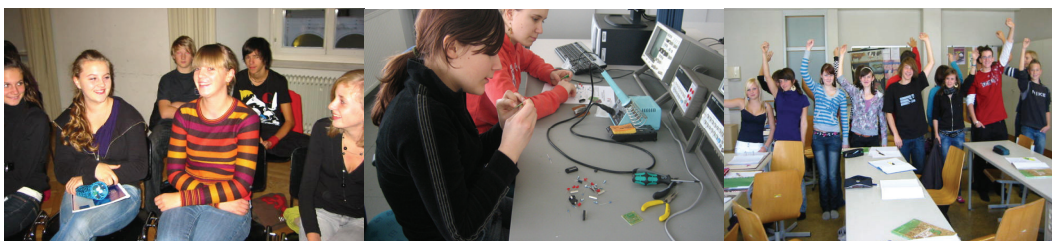
“The active involvement of students in designing learning situations and learning tasks are important steps towards self-directed learning”, *Univ. Prof. Dr. Peter Posch, scientist*. „Pupils developing learning assignments for biology and chemistry means changing the way difficult science themes are taught in classrooms”, *Mag. Peter Holub, NAWI- centre Carinthia*. „The longer we work together as a group, the better we get on and the questions also get better and better”, *Birgit Bergmann, 7B-class*. „The sparkling science projekt “SCHNAU” has high potential. In Austria, we have a lack of tested models to bring individualised learning and teaching stimulating student interest into the science classrooms. With its approach of having students teach (younger) students, the project reaches out to many students. It also addresses the many teachers taking part, who will be able to observe and learn how experiments can be brought into the science classroom, and how to facilitate an engaging science class”, *Dr. Gertraud Benke, Scientist*. „It’s going to be a stony way”, *Mag. Sigrid Holub, Project coordinator*.


Project duration

The project is planned to run for two years. The duration of the first phase of the project for the whole classes: school year 2008/09 The second phase of the project for individual pupils: school year 2009/10

Website

You can find the project's website by going to the University College's site www.ph-kaernten.ac.at, and entering the search key: *sparkling science*.





Sparkling Science >
Science linking with School
School linking with Science

BMWF^a

www.bmwf.gv.at

Austrian Federal Ministry of
Science and Research