

8th JUNIOR ECO-EXPERT PROJECT

Tokaj, Hungary 11-16 June 2006

"Water"

Höhere Lehr-Anstalt Umwelt u. Wirtschaft, Yspertal, [A]
SOŠ pro ochranu a tvorbu žiwotniho prostředi, Veselí nad Lužnicí, [CZ]
Ferenc Gimnázium Szakközépiskola és Kollégium, Tokaj, [H]
Zespół Szkół Ponadgimnazjalnych nr 1 im. Władysława Szybińskiego, Cieszyn, [PL]

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The international cooperation

Since 2004 Zespół Szkół Ponadgimnazjalnych nr 1 in Cieszyn has been cooperating with schools environment protection in Tokaj, Hungary, in Ysper, Austria, in Veseli, the Czech Republic. Workshops, which are organized every year, are called Junior Eco – Expert Project. Students learn about pollution of their environment while they are analysing samples of water, earth and air in their countries. The young people have also opportunity to get to know culture, traditions and languages of countries involved in the project. An important aim of the exchanges is also to improve students' ICT skills and their English skills.

This year's workshops have taken place in the secondary school of environment protection in Tokaj, Hungary. The town Tokaj is located at the bottom of the mountain Łysa Góra, where the river Bodrog joins the river Tisza. This beautiful land, its landscape, vineyards and wildlife are protected. The tradition of cultivation and production of wine Tokaj was the reason why this region of vine was registered in the world heritage list of UNESCO.



Figure 1: Cisa River



Figure 2: Tokaj City

The description of the Project

80 students (20 students from each school) participated in the project. The students were devided into 8 groups which examinated the quality of water in the river Tisza, Bodrog and some local ponds. The purity of the water was signified on the base of Biological Indicator research of the water purity (representative of the flora and the fauna). Using the method of chemical analise we were able to define the level of the basics makroconstituent in the water and also the pH and its hardness.

With the help of atlases and books we were able to denote the species of Ephemerptera, Trichopterae, Diptera, Crustacea, ..., directly in the terrain or in the lab.





A group of chemists was taking care of assigning the temperature, pH reagent, hardness, content of ions PO₄, NH₄, NO₃, NO₂, Cl⁻, Na⁺, Ca²⁺, alkalinity. The part of the research was directly examined by the river and the rest in the lab.



One of the groups was working on the meaning of the water for human being, and how to make water capableto drink and how to clean the sewage. They visited institutions connected with the subject matter. The group was also trying to find the reason of floods in Hungary and in other neighbour countries and how

to prevent it. The students were introduced into the activity of $\acute{E}vik\ddot{o}zig$ – The Hungerian Institute of Water Economy.



Program

Day 1

- opening of the project
- gathering the samples from rivers and ponds
- preparing the exhibitions presented by the schools and partnership towns
- visiting the town Tokaj
- integration lessons connected with learning the language and dancing



Day 2

- gathering the water samples
- analysing the samples in the labs
- learning the Hungarian language, dancing Hungarian traditional dances



Day 3

- making analysis in the labs
- sport evening
- preparing the presentations

Day 4

- the official end of the project
- presenting the results of students research
- folk dances and songs
- disco

Day 5

- swimming in the solty pools in Miskolc Tapolca coming back to Cieszyn



Summary

We thank the host of the project – the school in Tokaj for their hospitality and perfectly organized activities.

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