

## **SEMEP IN GREECE DURING 2003-2004**

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### **A. GENERAL**

During the scholastic year 2003-2004, twenty eight schools from almost all over Greece, have been involved in SEMEP project. From these schools, twenty seven were state schools while one of them was a private one.

Among these schools four primary education schools (age range six to twelve), twelve junior high schools (age range thirteen to fifteen), eight senior high schools and four technical and vocational institutions (age range sixteen to eighteen) were included.

Most of the schools have been involved since 2001-2002, following the general decision of our 2002 meeting in Athens, for keeping involved the same schools in the project, while few of them have joined the Greek SEMEP “family” during last scholastic year. I think that it would be better, if SEMEP schools could be changed every scholastic year.

The distribution of these schools in Greece was more or less normal. Three schools participated from the region of Macedonia; two schools participated from the region of Thessaly and one school from the region of Epirus. Eight schools participated from the Prefecture of Attica and two schools from the rest region of Sterea Hellas; four schools participated from the region of Peloponnesus. Finally, three schools participated from Crete and five schools from Aegean Islands. There was no school participation from Thrace neither from Ionian Islands.

Teachers and pupils involved in this year’s programme worked, as usually, in a voluntary basis and implemented the programme as an extra-curriculum procedure, just like all environmental education projects implemented in Greek schools. Based on the worksheet “Water: The essence of life”, they plan and implemented their own activities.

The Ministry of Education and Religious Affairs usually runs national SEMEP teachers meetings - seminars for the preparation and planning of their work, as well as for the evaluation of the program’s course. Educational material are copied and distributed to the teachers.

Printed or hand written leaflets, booklets and CDs with texts, diagrams, pictures and videos from activities etc. have been sent to me so far by: one primary education school, seven junior high schools, five senior high schools and three technical and vocational institutions. The other schools have not integrated their works. I hope that they will continue and finish them during 2004-2005 environmental education activities.

One school, that hadn’t integrated 2002-2003 work on diet, worked with that theme and finally sent to me a power point projection with the pupils’ work, concerning grapevine, a major importance plant in their school surroundings. Another school worked with both themes (“Diet” and “Water: The essence of life”).

SEMEP teachers and pupils enjoyed this year’s theme. From the data collected, I can distinguish that most of the pupils’ work included the “water and sport” theme and I think that it was because of the holding of 2004 Olympic Games in Greece.

Many pupils used internet as a reference for seeking information, but still they are not using it as a means of communication with other pupils. The national webpage is very helpful for pupils and teachers. Its new address is: <http://kpe-vamou.chan.sch.gr/semep/>. Once more, I would like to stress on the importance of the communication among pupils which, unfortunately and despite the availability of e-mail, still remains very low.

From the various documents received from Greek SEMEP schools (most of them are based on the interdisciplinary approach) I will present briefly some activities.

## **B. BRIEF DESCRIPTION OF SOME ACTIVITIES**

i. **Primary education school (Dimotiko) work:** Pupils of the sixth grade class from Antimachia - Kos Dimotiko worked on diet. Guided by their teacher, they visited sites of food production and storage. They discussed the meaning of the word alimentation, and tried to find links of alimentation with technology, history, geography, religion, customs, gymnastics, art etc. They studied food chains and pyramids and dedicated a week to a healthy alimentation. Using mathematics, they calculated the amount of energy that certain mass of various foods can offer to the human body.

The same school was also worked with the theme "Water: The essence of life". Pupils of the third and fourth grade classes were involved. The island, where the school is situated, is dry while the big number of the island visitors increases water consumption. Thus, this theme was piqued pupils' interest about it, and satisfied their needs for awareness about water supply and consumption. Pupils, consulted by their teachers, worked with the water cycle, water supply and drought, focused on their local environment and extended their study in national level. They visited, experimented, interviewed and learnt about the management of water resources, in municipality level. They studied the water in culture and art. They collected information and data, and made their own conclusions. They presented them in their schoolmates and their parents.

### **ii. Some junior high schools (Gymnasia) work**

Pupils involved in the project of the 2<sup>nd</sup> Gymnasium of Aghia Barbara, consulted by their teachers, worked with the distribution of the water on earth, the water supply, the management of the water resources, and the impact of its shortage. They also studied bibliographically the management, supply, and use of water in ancient times and compared them with the contemporary ones. They studied water as landscape "architect" and a means of culture making. Another issue of pupils' investigation was the relation between the water and a healthy alimentation and life. Finally, they studied the Olympic water sports. The environmental group of the school (pupils and teachers) tried to sensitize pupils of the school and local people by interviewing them, with the help of a questionnaire produced by the environmental group for that purpose.

Pupils of the 1st Gymnasium of Preveza collected data about water resources (rivers, lakes, springs, underwater resources) of their local environment and tried to interpret them from ecological, historical, geographical, cultural point of view. They studied the relations between natural environment and human activities. They also tried to understand the way that the water affects climate, flora and fauna, transport and the evolution of small or big cities.

Gymnasium of Astros pupils studied the topics "Water and health" (diseases and prophylaxis, special health situations –pregnancy and lactation), "Water and life", "Water and diet" –a special work concerning the ice cream took place, "Water related law", "Water and civilization" –a collection of local myths and songs was made, "Water and land shaping", "Water management" –energy, floods, corrosion, pollution, "Water and sports".

Gymnasium of Polykastron (Kilkis) project had the title "Water, a precious good for environment and human". Pupils studied books and references concerning natural and bottled water, water ecosystems, water management and pollution. They visited the nature, the municipality authorities and a bottling factory. Finally, they produced a CD - ROM with the title: "Water: A valuable commodity for humans and the environment", in which they tried to include a wide spectrum of water related issues.

Gymnasium of Hydra worked with different kinds of water (potable, mineral, sanative, distilled etc.) and their properties, as well as with water biology, law related with water management and conflicts derived from water shortage.

2<sup>nd</sup> Gymnasium of Sitia pupils, guided by their teachers, after having worked with water related themes (supply, management, tradition etc.) concerning their area, produced the “Water primer”. They decorated pebbles with water themes, played the “Aesthesis game”, and composed “Mandinades” (traditional songs) etc.

Gymnasium of Asopia continued last year work on diet and they worked with a theme of major importance in their area: the grapevine, producing a CD - ROM as their final product.

### **iii. Some senior high schools (Lycea) work**

Pupils of Lyceum of Naxos (a SEMEP school involved continuously from the first year of implementation, 1995-1996) worked with water reserves, availability and shortage, the water cycle as a procedure working with the sun energy, and the water as an architect of landscape. Water and energy, water and life as well as the law state concerning water management were within the interests of the environmental group of the school. Pupils also worked with water in diet and health, and water and sports as a contemporary theme, with national interest.

Lyceum of Katouna worked with the theme “Aghios Barbaros and the sanative waters of Tryphos-Xeromeron baths”. Pupils guided by their teachers studied water from a religious point of view. They also studied the sanative properties of the local baths.

The 4th Lyceum of Kallithea theme was connected with the programme “Worth living towns”, that was developed by the school. Pupils worked with the topics “Water on planet” and “Water in nature”. They visited the Open Museum of Hydrokinisi, where pupils learnt about the use of water power, in previous time for: various purposes in water mills, the production of gunpowder mills, and the working out of leather. They also visited the Environmental Centre of Stylida and were informed about the pollution of Malliakos Bay by measuring water quality indicators of the water; they repeated water quality measurements in their school local environment. They walked along water ways on Pilio Mountain.

Pupils from the Lyceum of Athens College worked with water and diseases as an extension of their biology courses, water and tradition, and water and sports. A special component of their work was the sailboats history, which they presented through a power point presentation.

1<sup>st</sup> Lyceum of Aegaleo pupils were also made a study for ancient ships. Other special components of their work (beyond the usual ones) were: the commerce in ancient Greece, the pirates’ history and geothermy.

### **iv. Some Technical-vocational Institutions (TEE) work**

7<sup>th</sup> TEE of Larissa students of the health and relief sector involved. They made a bibliographical and internet investigation about water related themes, and visited natural ecosystems, and a waste treatment plant. They carried out lab. work and studied different types of water (river, lake, well, and tap water), concerning their pH, turbidity, conductivity, and microorganisms concentration. They finally presented their work, using power point projection, in all the students and teachers of the school and other institutions of their city.

1<sup>st</sup> TEE of Kilkis students located on maps the water resources on the earth surface in our county and discussed environmental problems related to the water management (mainly the pollution from agricultural and industrial activities, as well as from household waste). The majority of the students involved in this program, being farmers’ children, were interested about the projects topics. They finally presented knowledge gained and their conclusions in a meeting, held in the amphitheatre of their school.

1<sup>st</sup> TEE of Sivitanidios school students worked mainly through surfing on the internet and focused mainly in water crisis and conflicts deriving from it.

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