



Gouves Senior High School, 1st Grade

Project on Sustainable Energy Actions

Junior Energy Inspectors in Action...

Since 2012, the 1st Grade curriculum in Greek schools includes the elaboration of a scientific project on a wide variety of scientific fields. The variety of topics to be chosen and the implementation of such projects are posing a great challenge for those involved in education. It is also of great importance the connection of the project's theme with local issues, so that pupils investigate real and practical issues that affect every-day life.

Hersonissos Municipality is a member of the European cities and regions initiative **“Covenant of Mayors”** fighting back at climate change and implementing the European policy 20-20-20 i.e.:

- ✓ Reduction of energy consumption by 20%
- ✓ Increment of renewable energy resources use by 20% &
- ✓ Reduction of carbon dioxide emissions by 20%,
by 2020.

Within the framework of carbon emissions documentation for the SEAP baseline, the Municipality of Hersonissos is recording energy consumption of Municipal Public buildings, including those of schools. This is how the co-operation “School-Municipality” started, and turned out into a pupils’ project entitled: **«Sustainable Energy Actions: Reduction of Energy Consumption & Use of Renewable Energy Resources»**. The need for this project came up due to the information gap that pupils and young people in general, have on the irreversible effects of human activity on climate change. The project is aiming at studying the effects of climate change and in particular the relation of energy consumption with increment of carbon dioxide emissions. In addition, students will scrutinize ways of reducing energy consumption and ways of introducing renewable energy resources.

Pupils will play the role of the **“Energy Inspector”**, by measuring the total surface of the walls and open spaces of their school building, the Town Hall and their library building. Energy consumption will be calculated as carbon dioxide emissions according to standards set out by the

Intergovernmental Panel on Climate Change (IPCC). Pupils will calculate energy consumption at the onset of the project and compare these at the end of the project after they will have followed simple steps in energy saving. Pupils will also visit a photovoltaic energy producing site, a bioclimatic house in the nearby area and will be visited by a Biologist from the Natural History Museum who will address the effects of human energy consuming activity on biodiversity. During the project's implementation, pupils will study with the aid of a voluntary Energy Inspector the Greek legislative framework on energy and the recent rules on building energy efficiency.

The development of interactive learning will boost pupils' sensitization and active participation on environmental issues. In parallel, pupils will come into contact with modern scientific fields such as energy inspection, bioclimatic architecture and renewable energy resources that will contribute towards their professional orientation.

Responsible for project operations management:

Mrs. Fani Anastasiou, M.Sc., Environmental Consultant for the C.o.M. team in Hersonissos Municipality.

Professionals volunteering at the project:

Mr. Tsangarakis Manos, Mechanical Engineer (Aristotelian University of Thessaloniki),
Qualifying Energy Inspector

Mr. Vourakis Giannis, Civil Engineer, member of the Hersonissos Municipal Board

Dr Lymberakis Petros, Biologists, Natural History Museum

Mr. Hatzakis Giorgos, Mechanical Engineer (Technological Educational Institute of Crete),
Author of the book "The Wind Park of the Gods" Lasithi Plateau

Supervising Project Staff:

Dr. Theiakaki Maria

Mr. Pynirtzis Giorgos

Municipality of Hersonisos Covenant of Mayors Team:

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