



Image: Ilkka Koivistoinen

INSPIRING IDEAS

Solar Power Cap

At Kimpinen Upper Secondary school students, with help of their physics teacher, made caps that use solar power to turn the propeller. The cap has a small solar panel, an electric engine and a propeller.

Instructions for the cap are at <http://solis.lappeenranta.fi>.

Assembling the solar cap takes about one hour. Students learn how to make small electrical devices but also about utilising renewables, energy efficiency and cost of different technologies.

Energy issues in the media

Students collected articles about energy production from newspapers and journals during one month. They analysed the image of the benefits and disadvantages of different energy production forms created in media.

This image was compared to texts in schoolbooks which were seen as objective information source. True consumption measures of different energy production forms were also checked.

At the end, students discussed which kind of heating system they would choose for their homes and summer houses.

European Sustainable Energy Education Forum (ESEEF) is a network of organisations and institutions working with sustainable energy and education on primary and secondary school level. The objective of ESEEF is to enhance energy education in Europe by providing easy access to information, places to visit and education material. ESEEF also works as a contact agency for students and teachers looking for partners in other countries.

Together with the International Solar Energy Society (ISES), ESEEF just completed a project to implement energy projects in schools around Europe. The project was partly financed by the European Commission ALTENER programme.

Pitkäjärvi School in Kangasala took part in Energy Awareness Week during which energy issues were studied from different perspectives. Students measured energy consumption of electronic devices and tried to find out the origin of electricity. They also looked into heating, water usage and wastewater and energy efficient lighting.

Traffic safety of the young was improved by discussions on traffic, metering driving speeds and optimising the number of street crosses on the way to school. More detailed description of the Pitkäjärvi School Energy Awareness Week activities is at www.school4energy.net.

EFFECTIVE RESULTS BY ENERGY EDUCATION!

PRACTICAL TEACHING METHODS

Experiments with Renewables

In Vantaa Peltola School physics and chemistry teachers organise environmental courses where they use experimental methods to illustrate renewable energy sources.

To demonstrate biogas teachers built simple biogas power plant using chicken manure and other organic waste. Instructions to demonstrate solar-, water-, wind- and bioenergy are at www.school4energy.net



Image: Pirkko-Liisa Kärnä

"Renewable energy sources are difficult to illustrate comprehensively. Methods combining different subjects and illustrative experiments have improved and enriched teaching."

*Pirkko-Liisa Kärnä,
Physics teacher, Peltola School*



Image: Motiva Oy / Outi Mustonen

"When teaching sustainable development, energy issues are of focal importance. Students have learnt to understand the importance of energy saving in their daily life and to practice their new skills with their families at home. It is important that the information spreads also beyond the school community."

*Ritva Nykänen,
Head Master, Martinkallio School*

"During the year I have learnt to save electricity. We wrote stories of 'The day without electricity' and discussed how it would affect our lives, if there wasn't any electricity. I have also learnt that I'll save energy if I don't leave any leftovers. At home I taught my parents to turn off the computer monitors after using them, and I always remind them to turn off the lights."

*Helmeri Salmi,
4th grade, Martinkallio School*

LEARNING BY DOING!

For more information on the possibilities for implementing an energy project in your school please contact:

Motiva Oy
www.motiva.fi

Irmeli Mikkonen
irmeli.mikkonen@motiva.fi
puh. (09) 8565 3113

Suvi Salmela
suvi.salmela@motiva.fi
puh. (09) 8565 3128



For educational materials and information on international activities, please consult:

www.school4energy.net

**TEACHING
ENERGY WITH A TWIST**

ESEEF

Dannebrogsgade 8 A,
8000 Århus C, Denmark
Phone: +45 86 76 04 44
www.ove.org

