



**11TH GYMNASIO HERAKLION**

# SAVE ENERGY TIPS

Prepared by the ECO TEAM



**Erasmus+**



**Erasmus+ project**  
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Little steps make a big difference.  
Together, we care for our home.  Eco-Schools

# ENERGY EFFICIENCY

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Energy efficiency means you are using less energy to do the same jobs, reducing your home's energy waste and saving money. To effectively increase your energy efficiency involves more than just using less energy - it requires you becoming aware of how energy is used, where it's wasted, and how it can be used more effectively and efficiently in everyday life. Here are some top tips to help your home or business save energy and be more efficient.

# QUICK & EASY ENERGY SAVING TIPS

## HOW TO MAKE YOUR HOME MORE ENERGY EFFICIENT

- Change your light bulbs to LEDs.
  - Wash your clothes in cold water if possible.
  - Air seal your home. Sealing cracks, gaps and leaks and adding insulation can save up to 10% on home heating and cooling costs.
  - Clean or replace all filters in your home regularly. Dirty filters make your system work harder and run longer than necessary.
  - Use your microwave instead of your stove when cooking.
  - Defrost your refrigerator and freezer before ice buildup becomes 1/4-inch thick to ensure your appliances are running efficiently.
  - During warmer months, close blinds, shades and drapes on the sunny side of your home to help keep your home's temperature cooler and reduce the work for you AC. Open shades during cooler months to let the sun warm your home.
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# GREEN RULES ON ENERGY SAVING

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## NOT JUST A HOME, BUT A WAY OF LIFE

- Don't peek in the oven while baking! Every time you peek, the temperature can drop 25 F, making your oven use more energy to bring the temperature back up.
  - Use natural light when possible.
  - Control your fixtures with a photocell or a timer to assure dusk-to-dawn only operation of your outdoor lights.
  - Don't leave your electronics on all day long. Only turn on your computer, monitor, printer and fax machine when you need them.
  - Set your thermostat to 78F in the summer and 68F in the winter - every degree of extra heating or cooling will increase energy usage 6% to 8%. Setting your thermostat to a lower temperature than normal will not cool your home faster.
  - Using your ceiling fan will allow you to raise the thermostat setting about 4°F with no reduction in comfort.
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# SUSTAINABLE WAY OF LIFE

Refrigerators and freezers actually operate most efficiently when full, so keep your refrigerator and freezer as full as possible (using water bottles if nothing else). Be careful about overfilling them as this will reduce airflow and cause the appliance to work harder.

Using dishwashers and clothes washers/dryers at night will keep the house cooler, reduce strain on the power grid during the peak usage hours of 4 PM and 6 PM and reduce the chance of an emergency!

TURN OFF HEATED DRY ON  
YOUR DISHWASHER AND  
AIR DRY INSTEAD.

SET YOUR REFRIGERATOR  
TEMPERATURE TO THE  
MANUFACTURER'S  
RECOMMENDATION TO  
AVOID EXCESSIVE  
COOLING AND WASTING  
ENERGY.

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ENERGY  
experiment

# GLOBAL WARMING

11th GYMNASIO HERAKLION



## ENVIRONMENTAL ACTION

"We learn about energy - We inspect our school"

As part of this activity, the students attended a short presentation (PowerPoint) and discussed about energy. Specifically, the following issues were approached:

- Definition of the concept "energy"
- Forms of energy
- Conversion of one form of energy into another (students also attended experiments on the conversion of chemical energy into luminous energy and dynamics into kinetic energy)
- The energy problem (depletion of natural resources, CO2 emissions and other polluting gases)
- The greenhouse effect and its consequences
- Ways to save energy in everyday life



The students then watched an outdoor experiment to understand how the greenhouse effect works (see attached document).

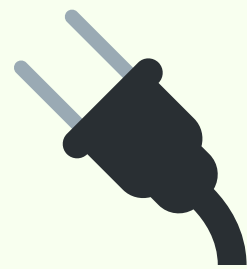
Then, they were divided into 6 groups, received the worksheet corresponding to their group and started the energy inspection of the school building and the yard. The students recorded the devices that consume energy, the temperature in each room as well as energy-intensive practices. They also identified various problems and deficiencies in the building that result from the waste of energy. Finally, they made suggestions for saving energy at school.

The following conclusions emerged from the discussion in the plenary session that followed:

1. Most energy-intensive appliances are used in the computer room, teachers' office and canteen.
2. The most common energy-consuming practices are the use of artificial lighting in places where there is enough natural light, the non-use of energy-saving lamps, keeping electrical appliances on standby and adjusting air conditioners to very low temperatures (18o C).
3. The orientation of the school on the East-West axis and the lack of good thermal insulation on the roof of the building are the main reasons for the increased temperature in the classrooms.

Suggestions for saving energy at school were as follows:

1. Do not leave electrical / electronic appliances in standby mode when not in use.
2. Place stickers in key places that remind you to turn off the lights / devices.
3. Replace old light bulbs with energy-saving light bulbs.
4. Do not use artificial lighting in areas where natural light is sufficient.
5. Install photo-reflective glass on the windows.
6. Make thermal insulation on the roof of the building.
7. Adjust the air conditioners to higher target temperatures.



**SAVE ENERGY**



**USE SOLAR ENERGY**



# WHAT THE COMMUNITY WANTS



Energy conservation plays a significant role of lessening climate change.

It helps the replacement of non-renewable resources with renewable energy.

Energy conservation is often the most inexpensive solution to energy shortages, and it is more environmentally kind alternative to increased energy production.

Since, we have limited quantity of non-renewable energy resources available on earth, it is very important to preserve energy from our current supply or to utilize renewable resources so that it is also available to our future generations.

## ECO-FRIENDLY ACTIONS

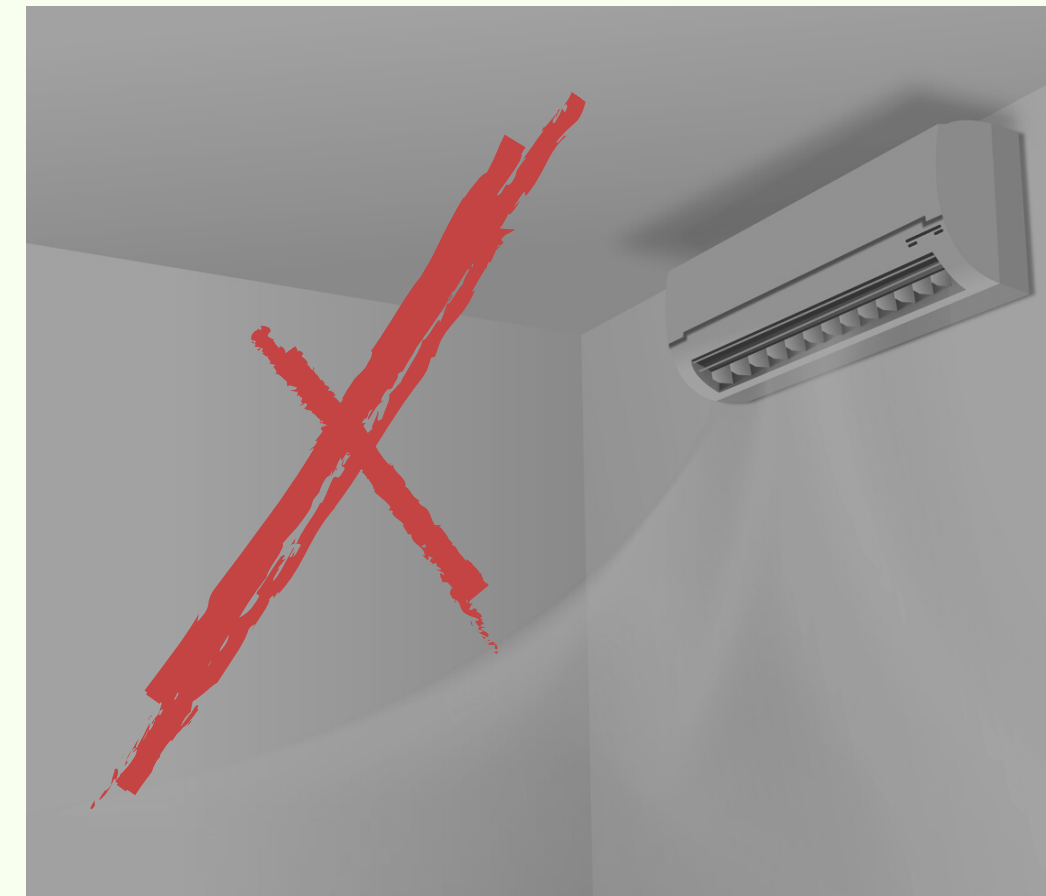
- Replace your windows. If your home has single-pane windows, consider replacing them with more energy efficient windows, or adding solar shades or tinting film.
- Install a programmable thermostat that will automatically adjust the temperature according to your schedule.
- Turn off the lights when they're not in use. Lighting accounts for about 12% of a typical residential utility bill.
- Don't leave your mobile phone plugged in overnight. It only takes a couple of hours to charge.

# ECO FRIENDLY PRINCIPLES








## MORE GREEN TIPS!

- Turn off the oven a few minutes before cooking time runs out. Your food will continue to cook without using the extra electricity.
- Watch your appliance placement. Avoid placing appliances that give off heat, such as lamps or TVs, near a thermostat.
- Dress for the weather. When you're at home, dress in warm clothing in the winter and cooler clothing in the summer to stay comfortable without making your heater and AC work harder.



# ENERGY SAVING TIPS

### Energy Saving Tips

- Turn off lights when not necessary 
- Unplug chargers after charging 
- Always cook with a lid 
- Switch off appliances in stand-by mode 
- Air dry laundry 


### Εδώ είναι το δωμάτιο

LITTLE STEPS MAKE A BIG DIFFERENCE.  
TOGETHER WE CARE FOR OUR HOME.  
Μην μπειτε εκτός αν συμφωνείτε να ακολουθείτε τους παρακάτω κανόνες:

1. Σβήνετε τα φώτα όταν φεύγετε!
2. Ανοίγετε τις κουρτίνες όταν έξω σκοτεινιάζει
3. Μην ανοίγετε τα φώτα όταν έξω έχει ήλιο/φως
4. Μην ανοίγετε τα παράθυρα όταν λειτουργεί η θέρμανση
5. Αν χρησιμοποιήσετε τηλεόραση, υπολογιστή ή στερεοφωνικό, κλείστε τα σωστά όταν τελειώσετε -μην τ αφήνετε αναμμένα ή σε κατάσταση αναμονής
6. Κλείνετε την πόρτα όταν φεύγετε

**ΣΚΕΨΟΥ ΕΝΕΡΓΕΙΑΚΑ**

ΕΝΕΡΓΕΙΑΚΟ ΚΕΝΤΡΟ ΠΕΡΙΦΕΡΕΙΑΣ ΚΡΗΤΗΣ



## δίνω το παράδειγμα στην εξοικονόμηση ενέργειας!

**κουρτίνες/περσίδες**  
ανοικτές το χειμώνα & κλειστές το καλοκαίρι

**φωτισμός**  
κλείσιμο στο τέλος της εργασίας, χρήση φυσικού φωτισμού κατά τη διάρκεια της μέρας

**κλιματισμός**  
όχι υπερβολικές θερμοκρασίες

**θέρμανση**  
όχι υπερβολικές θερμοκρασίες στο κρύο ή τη ζέση


**παράθυρα**  
κλειστά όταν λειτουργεί η θέρμανση ή ο κλιματισμός

**υπολογιστής**  
οθόνι στο saver κλείνουμε όταν φύγουμε

**χρήση**  
τοπικού φωτισμού

ΠΕΡΙΦΕΡΕΙΑ ΚΡΗΤΗΣ ΕΝΕΡΓΕΙΑΚΟ ΚΕΝΤΡΟ

North East South West INTERREG IIIIC energy regio





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