

Energy Savings

The first step to achieving energy savings at your school is to take a tour, looking at how energy is used and where it goes. Think of your school as a whole energy system with interdependent parts – heating, cooling, lighting, refrigeration, cooking and hot water.

How does your school use energy?

Think about the building shell, including:

- the design of the school - materials and orientation (does it face north?)
- protection from prevailing weather (is it sheltered from cold winds or summer glare?)
- insulation.

The fittings and appliances (what you've got):

Your school will contain a range of fittings, white-goods and appliances – such as heaters, air conditioners, blinds, curtains, lights, hot water systems, fridges, kitchen appliances and tools. People are surprised to find how much unnecessary energy is lost every day. For example, hot water cylinders can lose one third of their energy through heat loss. Insulating pipes will help to significantly reduce heat loss. Standby electricity is often wasted electricity. For example, if a computer monitor is left on standby it continues to draw power even though it isn't being used.

Your lifestyle choices (what you do):

You can't do a lot about the existing buildings and fittings. Where you can make a difference is how you use your energy. This is about how both students and teachers manage the classrooms and school - your habits, preferences and choices. Sometimes our energy uses are linked to habits, rather than deliberate choices. For example, to keep a classroom at 23°C in winter uses far more energy than keeping it at a comfortable 20°C. Heaters and air conditioners account for half the electricity costs in a school. One of the biggest energy wasters is leaving outside doors open when the airconditioning or heaters are running. Lights use a quarter of the energy in a school. Leaving heaters and lights on in empty classrooms and setting and forgetting thermostats is also a big energy guzzler. A simple way to reduce energy costs is to adjust thermostats, which are often set too high for heaters, or too low for air conditioners.

How could you reduce energy use in your classroom or school?

Most schools can reduce their energy usage by looking at: heating/cooling, lights, computers and monitors, and printers and copiers.

Energy Wasters School Tour: Super Sleuths



Energy efficiency can be improved with good energy habits. The first stage to saving energy is to walk around the school, hunting for energy savings. Your mission is to ‘snoop’ for wasted energy and bad habits and where changes could be made.

Ask questions as you go. Take a digital laser non-contact thermometer with you and record the temperatures outside and in different rooms as you walk around the school.

Afterwards, rate your findings in order of importance. Like an energy auditor, write up a report and make an action plan. Identify the ‘easy fix’ problems and address these first.

Energy detective walk	Yes	Some	No	Don't Know	Action rating Priority 1-5
Is the school north-facing?					
Does the school have renewable energy (such as photovoltaic solar panels or solar hot water panels)?					
Are windows double glazed or energy-saving glass?					
Are windows well sealed with no gaps or draughts?					
Are outside doors self-closing?					
Are outside doors left open?					
Is the roof insulated?					
Is the heating/air conditioning energy efficient? e.g. heat pumps?					
Does each classroom have its own thermostat?					
Is the airconditioning/heating set to an energy-efficient temperature?					
Are low-energy light bulbs (LEDs) and fluorescent tubes used?					
Are printers, faxes and photocopiers in energy-saving mode when not in use?					
Are lights, heaters and other electrical items turned off after use?					
Are lights and computers turned off at night?					
Is external lighting turned on only at night or on sensors?					
Are fans and air filters regularly cleaned?					
Can you find energy wasted in unoccupied rooms?					
If yes, where and how?					
Are lights off when there is enough daylight?					



Are all windows and doors closed to keep the heat/cool in?					
Is there recycling?					
Are there shady trees and native planting in the schoolgrounds?					
Are there vegetable gardens?					
Other snooty ideas?					

Notes: