

CHAPTER 5: Saving Energy

Aim

The aim of this chapter is for children to design and conduct their own energy audit of the school.

Overview of Chapter

The chapter focuses on energy conservation in school and in the wider community. In lesson 1 the children conduct a survey on the energy use in school and graph their results. They then work with the whole school to promote energy saving within the school.

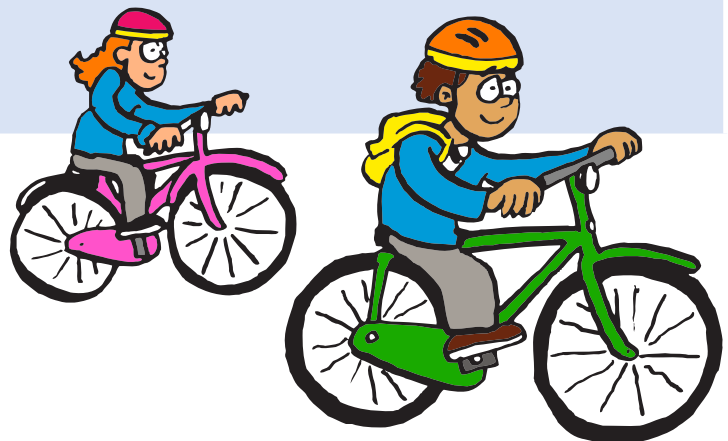
Working Scientifically Skills

In this chapter the children will be applying and developing the following working scientifically skills:

- Observing
- Investigating and experimenting
- Estimating and measuring
- Recording and communicating

Primary Science Curriculum link

Strand unit: Caring for my locality and area



Lesson 1 – Saving Energy in our school

Resources

IWB 8 / PowerPoint 8: Saving energy in our school

PCM 16: School energy audit sheet

A3 poster paper, crayons, markers, colouring pencils (per group)

Activity type: Discussion

Use **IWB 8 activities/PowerPoint 8** to discuss saving energy in the school.

Questions to promote discussion

- 1 How do you travel to school?
- 2 What is the most/least common form of transport used?
- 3 How could we find out?
- 4 How do we use energy in our school?
- 5 How do we waste energy in our school?
- 6 How could we save energy in our school?

Divide the class into groups. Each group is going to conduct an energy audit for a particular area of the school. To do this, the children must first develop an audit sheet. **PCM 16** can be used as a guide. Before the children discuss how they are going to carry out the audit, it might be useful to watch the video clips on **IWB 8/PowerPoint 8**. These will provide the children with ideas for saving energy in the school. These video clips can also be downloaded from:

<http://vimeo.com/51626564> top ten tips for saving energy in school

<http://vimeo.com/51625599> saving energy in your classroom

<http://vimeo.com/51822005> St Clare's school saving energy

After the children have carried out their audit they present their findings to the whole class.

Questions to promote discussion

Lights

- Does the school make the most of natural daylight?
- Do we turn off lights when they are not needed? (*e.g. on a sunny day*).
- Does the school use energy efficient lighting? See the factsheet and video on lighting http://www.energyineducation.ie/Energy_In_Education/Information_for_Schools/Resources_and_links/index.html

Heating and Insulation

- Are there radiators left on unnecessarily?
- Are the windows draught proofed?
- Is the water heater turned off when the school is closed?
- Are the water pipes and the water tank insulated?
- What kind of insulation is used in the school?
- Is the attic insulated?"

Water

- Does the school have a water meter?
- How is water heated?
- Are there any leaking taps?
- Are the taps left running?"

Appliances

- Are electrical appliances turned off when not in use?

After the audit is carried out the children can collate and present their findings for consideration by the Principal and the Board of Management. These findings can then be implemented throughout the school. The **Student Energy log book** and **Energy Detectives wall chart** are available to order from SEAI or to download from www.energyineducation.ie. These can be used to record how many units of energy or kWh are being used by the school.

Older children could work with younger children to make posters to provide tips / guidelines for saving energy throughout the school. The poster could include 5 top tips. These posters could be displayed throughout the school.

Extension

Activity from the book **The Energy file: Energy in School (page 43)**

Go to **Energy in Education** for factsheets and videos on saving energy at school.