



LITTER-ACY



GRADE 9 ACADEMIC SCIENCE ECOKIT

This curriculum linked environmental education EcoKit encourages grade 9 students to examine kilowatt hours, students' energy consumption, and practical conservation strategies.

This project supports the goals of the Lakewide Management Plan for Lake Superior and has recieved funding support from the Government of Ontario. Such support does not indicate endorsement by the Government of Ontario on the contents of this material.

Highlights

- Five 50-minute lesson plans plus a Class Action activity
- Contains teacher resource binder, student worksheet package, all hands-on activity supplies, and energy meters
- Students will learn about how to compare electrical consumption using an energy meter, energy audits of homes
- Easy to order for a 2-week borrowing period
- Free shipping available

Purpose

This program is designed to help students understand how the kilowatt hour is used to measure the energy consumption of appliances, the cost of electrical energy to consumers, and practical energy conservation practices.

Curriculum Links

Grade 9 Academic Science; Physics: The characteristics of electricity

Overall Expectations

E1. Assess some of the costs and benefits associated with the production of the electrical energy from renewable and non-renewable sources, and analyze how electrical efficiencies and savings can be achieved, through both the design of the technological devices and practices in the home.

Specific Expectations

E1.3 Produce a plan of action to reduce electrical energy consumption at home (i.e., using EnerGuide information when purchasing appliances), and outline the roles and responsibilities of various groups (i...e, government, business, family members) in this endeavour

Specific Expectations

E2.1 Use appropriate terminology related to electricity, including, but not limited to: ammeter, amperes, battery, current, fuse, kilowatt hours, load, ohms, potential difference, resistance, switch, voltmeter, and volts

E2.9 Determine the energy consumption of various appliances, and calculate their operating costs (i.e., using the kilowatt hour rate from a utility bill)

Program Overview

Lesson 1: Kilowhat?

1. An introduction to W, kW, kWh, and a look at time-of-use pricing

Lesson 2: Comparing Appliances

1. Using energy meters to compare electrical energy consumption

Lesson 3: Energy Audit

1. Complete an audit of energy consumption in home or school

Lesson 4: EnerGuide Webquest

Note: This lesson requires access to a computer lab

Lesson 5: Class Action

Your choice of relevant class action activities

