

Where Did The Electricity Go?

Grade

9

Topic: Energy
Grade: 9
Course: Science, Applied
Code: SNC1P
Duration: 2 x 75 minutes

Students will have the opportunity to identify problems and research potential solutions regarding the efficiency of energy use.

Curriculum Expectations

- PH3.02: Develop a solution to a practical problem related to the use of electricity in the home, school, or community
- PH3.04: Explain how some household electrical appliances operate
- EC3.03: Identify and propose solutions to problems related to the environmental impact of the consumption of electrical energy and the disposal of used electrical appliances in Canada

Background Information

The most cost-effective and sensible solution to today's energy problems is practising energy conservation. We cannot continue to use energy at the present rate of consumption. We must look for ways to decrease our energy use. We can achieve this by being good consumers, changing habits, and solving practical problems.

Accountability

Students will become aware of the potential problems associated with the use of electrical appliances.

Teacher Notes

1. Students brainstorm about practical problems related to the use of electricity in the home, school or community (e.g., fuses blowing, lights left on, costs, etc.). Record on blackboard.
2. Make sure there are at least 5 problems. If more than 5 problems are identified, choose the 5 most common.
3. Form groups by choosing problems that students would like to work on.
4. In their groups, answer the following questions from their prior knowledge regarding the problem:
 - a. What electrical appliances contribute to this problem?
 - b. Describe how this appliance operates (parts and function, drawings).
 - c. What are alternatives to using these appliances?
 - d. Are the alternatives practical? List the pro and cons.
 - e. How is this appliance disposed of when it needs to be replaced?
 - f. What are possible solutions to this problem?
5. Students are given the following class in the resource centre to conduct research and prepare a report to share with the class the next day.
6. The report describes the problem, lists possible causes and provides reasonable solutions.

Home Extension

Examine the appliances used in their homes and identify potential problems.

Lesson Comments

Book resource centre for research.