



Topic Four: Alternative Ways to Control Air Pollution: Energy Efficiency, Alternative Electricity Generation

SKILLS:

Civic Responsibility
Word Problems
Internet and Library Research
Cost Comparison and Analysis
Alternative Energy Sources

PURPOSE:

Students will gain an understanding of the relationship between responsible energy usage, energy conservation and reduction of air pollution. Students will also become familiar with different ways electricity can be generated.

OBJECTIVE:

Through a discussion about energy efficient technologies (lights, computers, windows, insulation, etc.), an audit of their classroom, and research on the cost benefits of energy efficiency students will be able to recognize ways in which to control pollution and save money simultaneously. Further, students will become familiar with alternative solutions for energy generation (solar power, wind power, hydropower).

FOCUS:

Focus on the link between electricity generation and pollution emissions. Establishing and understanding this connection is vital in recognizing one of the simplest ways, as an individual, to reduce air pollution. Also, enforce the idea that electricity is not “bad” but that burning coal to produce electricity causes air pollution. Emphasize the “clean” technologies which exist to eliminate air pollution.

PROCEDURE:

1. Lead a discussion which links electricity generation and pollution emission. Ask questions such as “Where does air pollution come from?” and “What are different ways to generate electricity?”
2. Discuss with the students different ways that they might decrease the amount of pollution they use at school and at home.
3. Through the Energy Audit determine the amount of electricity and pollution your classroom generates during the school year.
4. After completion of the Audit, discuss ways that you can save electricity (thus reducing pollution) in your classroom. For example, suggest turning off computers, lights, air conditioners, etc. when they are not being used.
5. Do the **Energy Efficiency** research project to determine how much elec-



tricity, money and pollution could be saved by making simple changes in the classroom.

6. Lead a discussion about different ways to generate electricity.