

Monitoring and Mentoring: Elementary/Intermediate Level

Objectives: As a result of this lesson, students will understand the concepts of energy, energy consumption, its economic and environmental effects, and conservation and efficiency. Students will be able to measure the amount and cost of electricity and natural gas, determine insulating properties of materials, and perform other experiments and investigations involving energy.

Elementary and intermediate students are introduced to methods of measuring energy usage, determining costs, and quantifying environmental effects through a series of activities that includes reading electric and natural gas meters, EnergyGuide labels, and electric nameplates. Students conduct surveys of the school building and school energy consumption—gathering, recording and analyzing data, and monitoring energy usage. The kit includes Teacher Guide, class set of Student Guides, and the materials necessary to conduct the activities. This unit is designed for upper elementary and middle school students and will take approximately 10 class periods as well as some out-of-class research.

The Intermediate/Secondary Level Kit: Learning and Conserving uses the same kit components



This kit includes:

- Lamps
- Incandescent Bulb
- Compact Fluorescent Bulb
- Kill A Watt™ Monitor
- Sets of Radiation Cans
- Lab Thermometers
- Insulation Materials
- Student Thermometers
- Indoor/Outdoor Thermometer
- Light Meter
- Flicker Checker
- Waterproof Digital Thermometer
- Digital Hygrometer/Thermometer Pen
- Student Guides
- Building Buddy Guides

*To replenish any materials used, lost or broken during classroom use, check craft, hardware, or hobby stores. For more information or to purchase this kit, visit NEED.org