



The ENERGY Patrol

With the increasing cost of fossil fuels and declining supply of natural resources, it is now more important than ever to make wise energy decisions. This module enlists students to join the “Energy Patrol” as they identify ways to conserve energy at home and in their schools.

Best for kindergarten through sixth grade.

OBJECTIVES

- Understand the environmental and economic impact of energy use
- Identify behaviors that are “energy wasters”
- Identify strategies to conserve energy
- Understand that some items/appliances can accomplish the same task more efficiently than others

METHODS

Specific methods used will vary depending on age group and setting and may include:

- **Smart House Energy Conservation Simulator—**
This interactive model house turns the concept of energy efficiency into a tangible experience as it demonstrates behaviors that waste or conserve energy.
- **Pedal Power Bicycle Generator—**
Students can experience firsthand just how much energy it takes to produce electricity when this bicycle generator is used to power a variety of electric devices.
- **Green Earth Clever Catch Game—**
This fun and interactive ball with energy conservation questions printed on it is used to generate discussion.
- **Watt’s Up? Electricity Consumption Meter—**
Students learn just how much electricity is consumed by everyday devices when they are plugged into this meter.
- **Stop the Energy Leaks!—**
It’s a scavenger hunt in their own classroom when students go on the prowl to identify energy-wasting culprits.

CONTENT STANDARDS ADDRESSED

South Dakota

- 3.L.3.3. Students are able to describe ways humans impact air, water, and habitat quality.
- 3.S.1.1. Students are able to recognize ways to recycle, reuse, and reduce consumption of natural resources.
- 4.S.1.1. Students are able to describe how people continue to invent new ways of doing things, solving problems, and getting work done.
- 4.S.1.2. Students are able to explain how new ideas and inventions often affect people.
- 5.L.3.1. Students are able to describe how natural events and/or human influences may help or harm ecosystems.
- 5.S.2.1. Students are able to explain the interrelationship of populations, resources, and environments.
- 6.N.2.1 Students are able to pose questions that can be explored through scientific investigations.
- 6.S.2.1. Students are able, given a scenario, to identify the problem(s) of human activity on the local, regional, or global environment.
- 6.E.1.2 Students are able to examine the role of water on the Earth.

Minnesota

- 1.1.3.2.1 Know that tools are simple objects that help humans do science and engineering.
- 4.1.3.3.1 Describe a technology that is an intrinsic part of human cultures and how the availability of that technology greatly influences human life.
- 4.1.3.3.2 Describe a situation in which one invention led to other inventions.
- 6.1.2.1.1 Identify a common engineered system and evaluate its impact on the daily life of humans, the local environment and wildlife habitat.
- 6.1.2.1.2 Recognize that there is no perfect design and that new technologies have side effects that may increase some risks and decrease others.
- 4.2.3.2.2 Describe how increasing the temperature of a substance requires the addition of energy.
- 4.2.3.2.3 Demonstrate how the flow of electricity produces heat, light and sound.
- 5.3.4.1.1 Categorize energy resources and material resources into renewable and non-renewable.
- 5.3.4.3.1 Compare the impact of different individual decisions on natural systems (for example, choosing paper or plastic bags impacts landfills as well as ocean life cycles)