

This Week in Energy Conservation

A QUICK LOOK AT THIS WEEK IN ENERGY CONSERVATION

This Week in Energy Conservation is designed as a television show with student-correspondents reporting on a variety of energy conservation topics. This activity will introduce students to ways of saving energy both in the home and on the road.

GRADES: 4-12

PREPARATION: LOW

TIME: 45 MINUTES

GET READY

Prior to class, make copies of the six lead stories (found on pages 20 to 22) that you will be distributing among the student groups. You may also want to gather the supplies students may use in constructing props to accompany their energy stories.

GET SET

Review with the students the structure of an actual news program. Explain the role of an anchor in providing the background information or “lead” to a news story. Ask the students to recall the various ways they have seen news stories covered in the past (i.e., in-studio, on-site, through interviews, or taped recordings). This will help them understand what they will be asked to do during the **This Week in Energy Conservation** show. Divide the class into six groups, and distribute a news lead to each group.

GO

- Explain to the students that each group is now a team of energy reporters. They should read the introduction to their segment of **This Week in Energy Conservation**, making note of the energy facts listed below each lead. Their job will be to develop a story that follows the guidelines of the anchor’s introduction and includes six of the energy facts listed on their sheet of paper. Each story should be limited to two or three minutes and the groups will be allowed 20 minutes to develop and rehearse their stories.
- After each story is presented, the other groups will have one minute to try to list six energy tips from the presentation they just heard. Next, the presenting group reveals their tips. Each group grades themselves using the honor system, getting one point for every tip they remembered correctly. Tally the scores of all the groups watching the presentation, and award this amount to the presenting group. This gives the presenters an incentive to do a thorough job conveying their facts and information to the audience. The team with the highest score after all the presentations is the winner. Either you or a student from each group can serve as the anchor, providing the show’s introduction and the lead-in to each news story.

Optional: This activity can be expanded to include props and costumes for actual public service announcements on school TV stations for Energy Awareness Month or NEED Week.

This Week in Energy Conservation News Story Starters

Hot Water Heating Energy News Team Introduction

Now for tonight's micro-cam report. We have once again miniaturized a member of our Energy News Team staff to give you an inside look at what actually goes on inside your hot water heater. Heating water is the second largest energy job in the home, so, it's important to know what these drops of water are thinking while they're still inside the tank. We find their biggest fear is that their lives may be wasted by carelessness. Here's _____, who always seems to be getting into hot water, with this in-depth report.

- Do not let hot water run needlessly. About 20 percent of all the energy we consume in our homes is used to heat water.
- Use cold instead of hot water when running the garbage disposal, and when rinsing dishes before they go in the dishwasher. Using cold water saves energy.
- Repair leaky faucets promptly. One leaky faucet can leak 6,000 gallons of water each year. That's equal to about 200 baths.
- Wash clothes in warm water and rinse in cold. Operating a washing machine takes very little energy. About 90 percent of the energy goes to heating the water.
- Use low-flow shower heads. These easy-to-install devices save energy and still provide more than adequate shower pressure.
- Lower the water heater's thermostat to 120 degrees. Most hot water heaters are set for 140 degrees or higher. You can save over 10 percent on your energy bill by lowering the temperature.
- Insulate hot water tanks and water pipes. A well-insulated tank can save \$10-20 in energy costs over a 12-month period.

Home Heating Energy News Team Introduction

The theft of home heating energy is a normal occurrence. So why the next story? Because our undercover reporter has been able to infiltrate a gang of home heating energy criminals. For the first time ever, we can bring you the story from the point of view of the criminals. Seeing how they operate might help you, our Energy News Team viewer, prevent them from stealing your energy dollars.

- Keep heating equipment well maintained. To get the most from your heating fuel, keep furnace filters clean and equipment well tuned.
- Add insulation in the attic and walls where needed. Insulation can reduce the load on your heating and cooling equipment by as much as 20 to 30 percent.
- Plant trees to act as a windbreak. Trees act as a natural barrier to cold air in the winter and hot sun in the summer.
- During the winter, lower the thermostat to 68 degrees during the day, and 60 degrees at night. If every home in the U.S. lowered the heating temperature six degrees, we'd save more than 500,000 barrels of oil per day.
- Close off unoccupied rooms, and shut off their heating vents. Shutting heat vents in rooms that are not used every day saves fuel.
- Caulk and weather-strip doors, windows, and other areas in the home where drafts might occur. Proper caulking and weather-stripping can cut fuel costs by as much as 10 percent.
- Keep draperies and shades open in sunny windows, and closed at night. Energy from the sun provides natural warmth. Close drapes in summer when you want the house cooler.

This Week in Energy Conservation News Story Starters

Cooking Energy News Team Introduction

Do you hate to cook? If slaving over a hot stove isn't your idea of a good time, tonight's Energy Gourmet segment is for you. Imagine telling your family, "We're having microwaved pizza for dinner tonight because I'm trying to save energy." The Energy Gourmet has a few simple tips that will save you energy and money. Who knows, you may even save enough money to eat out more often.

- Never boil water in a pan that is not covered. Water will boil faster and use less energy in a covered pan.
- Whenever possible, use a toaster oven or microwave instead of a regular oven. These smaller appliances take less time to cook food so you save energy.
- When baking, keep the oven door closed rather than opening it to look inside. An open door lets valuable heat escape; maintain the heat by keeping the door shut.
- Clean range pans regularly. A clean range pan reflects more heat than a dirty one.
- Only preheat the oven for five minutes or not at all. It's also a good energy practice to cook several dishes in the oven at once to make maximum use of this concentrated heat source.
- Use the right size pan for each burner. A small pan on a large burner wastes energy because the air surrounding the pan will be heated, too.

Lighting Energy News Team Introduction

And now for the segment of the show that enables you, the viewer, to help put a dangerous energy criminal behind bars. It's time for America's Most Wanted Energy Criminals. The FBI has just put Killer Kilowatt-hour on its most wanted list. He has been terrorizing homes throughout the nation by forcing families to waste energy in lighting their homes. Recently, he forced a family to leave ten 100-watt light bulbs on for an hour. If you recognize him from this next segment, please don't try to apprehend him yourself, just call our toll-free number, 1-800-TURNOFF. Remember, he's very dangerous because he's very bright.

- Make sure lights are turned off in rooms where you don't regularly go, such as the cellar or attic. Consider installing indicator lights to tell you when those unseen lights are on.
- Use outdoor lights only when needed. Consider using an automatic timer that switches off outdoor lighting in the morning.
- Use fluorescent lights whenever possible. A fluorescent light lasts 13 times longer and uses 75 percent less energy than an incandescent bulb.
- Dust bulbs and light fixtures frequently because dirt absorbs light. Clean fixtures give you up to 50 percent more light.
- Reduce light in non-working areas. Lighting needs vary with each task. Adjust your lights accordingly.
- Turn down three-way light bulbs to the lowest setting when watching television. Dimmer light reduces glare on the TV and saves energy.
- Use one large bulb, instead of several small ones, in areas where bright lights are needed. Concentrate lighting in study areas and in stairwells where it's needed for safety.

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Auto Driving Habits Energy News Team Introduction

Our next story may have some of you saying that group therapy sessions have gone too far. This time it's automobiles. Their operators have very bad driving habits, and these habits are driving the cars crazy. We visited one of these sessions to learn what can be done to reduce this conflict between cars and their drivers.

- Do not exceed the speed limit. Driving more than 55 mph uses more gas and oil. Slow down to save fuel.
- Do not overfill the gas tank. To avoid spilling gasoline, consider your tank full when the automatic valve shuts off.
- Eliminate jackrabbit starts and stops. A smooth, even start can save as much as two miles per gallon over quick, jerky starts.
- Be a carpooler, and share a ride. Carpooling can save energy, reduce pollution, and make your car last longer.
- Do not let an automobile idle for more than one minute when waiting for someone. Less gas is used to restart an engine than allowing it to idle.
- Eliminate unnecessary trips, and plan trips carefully. If Americans eliminate only 10 percent of the miles they travel each day, the U.S. could save 600,000 barrels of oil per day.
- Use public transportation. Try to substitute another means of transportation (bus, subway, bicycle, walking) for your automobile at least once a week.

Auto Maintenance Energy News Team Introduction

I've just been handed a bulletin. American automobiles have just called a wildcat strike. They refuse to operate again until their list of demands is met. Their major concern is health care. They feel that their previous owners did not give them the maintenance they deserved. An Energy News Team mobile unit brings us this late breaking story from a used car lot, where used cars are refusing to leave the car lot with their new owners until they are promised better care. That's right folks, these autos are demonstrators.

- Replace conventional tires with radials. Radial tires can improve your car's gas mileage by three to five percent in the city and seven percent on the highway.
- Check tire pressure every two weeks. Properly inflated tires help maintain good gas mileage. Under inflated tires decrease fuel economy by as much as one mile per gallon.
- Keep the oil and air filters clean. Clogged filters waste gasoline.
- Have the car's engine tuned regularly. A well-tuned engine can improve gas mileage as much as 10 percent.
- Remove unnecessary weight from the car. A heavier car uses more gas to reach its destination. The lighter the load, the better the gas mileage will be.
- Select the correct gasoline octane and grade of oil for your car. If you change the oil yourself, take the used oil to a service station for recycling.