



Energy Conservation (Episode #101)

Strand: Stewardship

Teachers Page

Common Core

Language Arts & Literacy in History/
Social Studies, Science and Technical Subjects:

RI.K.1, RI.1.1, RI.2.1, RI.K.2, RI.1.2,
RI.1.2, RI.2.2, RI.K.4, RI.1.4, W.K.2

National Science Standards

Unifying Concepts and Processes

- Evidence, models, and explanation
Science in personal and social perspectives
- Changes in Environments
Content Standard B: Properties of objects and materials



Episode Content Connection

The use of energy by all of us has been on a steady rise for the last year after year. The use of more and more electricity dependent gadgets has caused this increase. However, there are lots of things that we can all do to conserve the amount of energy we use.

The easiest thing you can do to make a huge difference in your energy consumption is to simply just turn things off? That's right! We waste electricity every day. By leaving lights, televisions on and not being watched or even ceiling fans left on in rooms without people. Remember fans cool people not rooms. In order for the power company to make electricity, most have to burn fossil fuels like coal, wood or oil. The more electricity that we use (or waste) the more it has to be produced. This energy production may lead to pollution problems. So conserving energy is very important for the world around us. Like the song says, its east to just "Click and Unplug" and do your part.

After watching an episode have the student(s) reflect on the following questions:

- What does it mean to conserve?





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- What are some of the ways we all can conserve energy?
- Why is it important (or is it) to conserve energy?
- Why is it important to “Click and Unplug?”
- What are 2 things we learned from the “Rae Rae Adventure?”

“Rae Rae Adventure” (location)

Natural Gas Power Plant

Ever wonder why the lights come on when you turn on a switch? Well...in this episode we visit our friend Bob from the Florida Power and Light Corporation at the natural gas powered power plant in Sanford, FL. Bob and Rae Rae explore how the power plant produces clean energy and how this energy ends up in our homes. Join us on what is sure to be an electrifying experience for all our big and little viewers!

“Enviro-Songs”

Click and Unplug!
Power Stations!

“Enviro Do-And Show”

Switch/Outlet Cover

Rae Rae teaches the kids at home how to construct frame overlays that surround both light switch plates and outlet covers that remind people to both click and unplug devices when they are finished using them.

“Critter Connection”

In this episode the nice people at the Central Florida Zoo introduce their friend Kyndall the American Crocodile to the kids at home.





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Terms to Preview

Energy: Any form of useable power. Examples in this episode — solar, wind, electricity, heat.

Power: The use of energy to perform work. In this episode the use of the wind, solar panels (leaves) make electricity for the HouseTree. Rae Rae's visit to an electric power plant demonstrates how burning natural gas is used to make electricity.

Conservation: The careful use of something.

Energy Conservation: The careful use and reduction of non-renewable energy sources.

Power Station: A power station is a place where electricity is generated. Power stations can be powered by many ways. For example a power station can be powered by: natural gas, solar, wind, coal, bio mass (trash) and nuclear fuel.

Compact Florescent Bulbs: A compact florescent bulb is a type of light bulb designed to use less power than a conventional light bulb. Though these light bulbs use less power, they deliver the same amount of light as a traditional bulb. Less power and the same amount of light...everyone wins!

Atom: An Atom is the smallest unit of matter.

Environmental Stewardship: Environmental stewardship is the responsibility that all of us Enviropals! Share. We know that in order to keep this planet nice and green, we must act responsible ways such as: recycling, energy conservation, water conservation re-purposing and many more ways.

Weather Stripping: Weather stripping is specially designed strips, seals and gaskets that are installed around doors and windows to keep the cool air in the summer and the warm air in the winter. Using properly installed weather stripping is a great way to conserve energy.





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Tips To Help Conserve Energy

1. Wait for warm food to cool before putting it into the refrigerator.
2. Check to make sure your refrigerator seals tight. Close the refrigerator door on a piece of paper that is half in half out. If the paper is very easy to pull out, you have a seal problem.
3. Only use a dishwasher when it is completely full.
4. Wash clothes in cold water.
5. As your incandescent light bulbs burn out , replace them with new compact fluorescent bulbs.
6. Turn off the lights when you leave the room.
7. Set your thermostat at 78 degrees in the summer and below 68 degrees in the winter.
8. Unplug appliances that you are not using. Even if you don't turn these appliances on, if they are plugged in they are still using energy.
9. Teachers, you may want to choose an “energy monitor” for your classroom.
10. Try not to place lamps near air conditioning thermostats. The light will cause the thermostat to think that the room is warmer than it is. This will cause the air conditioning to run continuously.

