



Classroom Energy Monitor Checklist

Week of: _____

This Week's Monitor: _____

- *Morning Checklist:*

- Open Curtains or blinds*

- *Recess Checklist:*

- Turn off computer monitor(s)*
- Turn off Classroom lights*



- *Lunch Checklist (or when leaving classroom for more than 15 minutes):*

- Turn off computer monitor(s)*
- Turn off Smartboard or projector*
- Turn off any personal fans or heaters*
- Turn off classroom lights*

- *End of Day Checklist:*

- Turn off computers, monitor(s), and printers*
- Turn off Smartboard or projector*
- Close classroom windows*
- Turn off any personal fans or heaters*
- Switch off any power bars not in use*
- Close curtains or blinds*
- Turn off classroom lights*

Note: Classrooms with plenty of natural light may consider turning off the classroom lights on bright, sunny days for even more energy savings.

Thank you for helping the environment!

Classroom Energy Monitor Program



Purpose:

To provide students with a better understanding of environmental conservation through action.

- *The classroom energy monitor program enlists students to aide in the day to day reduction of energy use. Students help by turning off electrical devices, including lights and computers, when not in the classroom for extended times.*
- *By enlisting different students from week to week it involves all students in positive environmental actions.*

Directions:

Teachers should provide students with a brief lesson on energy conservation.

- *The lesson should explain:*
 - *What is energy?*
 - *What is the difference between renewable and non-renewable energy?*
 - *What are the various forms of energy used in the classroom?*
 - *Heat from furnace/boiler (gas), electricity (coal), heat from sunlight (solar)*
 - *Which of these are non-renewable?*
- *Ask students questions about the need for lights and heat.*
 - *When are they needed?*
 - *When are they not needed?*
 - *How does energy conservation help the environment?*
 - *Are there items that should not be turned off for short times? (computers)*
- *Discuss the need for a process:*
 - *Ask students, why is a checklist helpful?*
 - *Help students understand “consistency” or “routines”.*
 - *Discuss where else students see lights left on.*
 - *Can these checklist actions be applied around the rest of the school?*
 - *How can these same actions be done around their homes?*

Teachers should take all students through the actions on the checklist and demonstrate how each operation is to be performed. Laminate the checklist and either post it, or place it on a clipboard.

- *Teachers assign one student per week to act as the energy monitor for their classroom.*
- *If necessary, assign two students, one to check off each item and one to perform the task.*

Recommended Readings:

Why Should I Save Energy? – by Jen Green & Mike Gordon, Barron's Educational Series, ISBN: 0764131567. This division 1 book discusses what energy is and why it is important to conserve as a resource.

The Down To Earth Guide To Global Warming, by Laurie David and Cambria Gordon, Scholastic, ISBN: 9780439024945. Division 2 book with facts about global warming and its consequences, as well as loads of photos and illustrations and suggestions for how kids can help combat global warming in the school and home.

Energy Notes

Energy is defined as the amount of work that can be performed by a force.

The Seven Most Common Sources of Energy

Fossil Fuels come from the ground and are formed from the decay of marine animals that lived in the seas 150 -300 million years ago. These fuels include natural gas and oil. Coal was formed through the decomposition and fossilization of trees and plants. These are our most common sources of energy in Alberta because of the large deposits found in our province.

Wind power harnesses the movement of the wind to turn a mechanism such as a windmill and generate electricity.

Hydro power, which uses moving water, provides a cheap source of energy. Water passing over a turbine can be used to generate electricity.

Nuclear energy comes from atoms. When the nucleus of an atom is split apart (fission) it releases a great amount of heat and light energy. When released slowly and under control, it can be used to generate power and thus electricity.

Geothermal energy uses the heat of the earth's core to provide heat that is in turn used to generate electricity or provide heating systems for buildings.

Biomass energy comes from the breakdown and decomposing food and other organic compounds that grow. As these items breakdown they generate a gas called methane that is in turn burned to create power and generate heat or electricity.

Solar energy is becoming a cheaper and more easily accessible form of energy. Light from the sun can be converted into electricity and heat and then in turn used to generate electricity.

Energy is broken into two categories, renewable, and non-renewable.

Renewable energy, such as wind, hydro, geothermal and solar, includes energy sources that are present in the environment and cannot be easily used up.

Non-renewable energy, such as fossil fuels, nuclear, and biomass, all require ingredients that are limited in supply. As they are used up they cannot be replaced. Therefore it is important that we conserve our use of these resources and this can be done through limiting our use of energy.