

LESSON 7

PART A:

Objective:

To provide students with an effective process and an opportunity to make positive changes in their community.

Materials:

- Different action ideas found below
- Activities and guide to taking action found at www.resources4rethinking.ca/en/toolbox

Sample Action Ideas:

- Create and execute an action plan to reduce energy consumption of electronics equipment at home, at school, or in a local community building (e.g. library, arena, etc.). Revisit the energy efficiency tips on the handouts from this unit for conservation suggestions.
- Rent a Kill-a-Watt meter and/or a Power Cost meter from your local library and/or utility company to investigate energy efficiency opportunities in your home.

Kill-a-Watt Meters

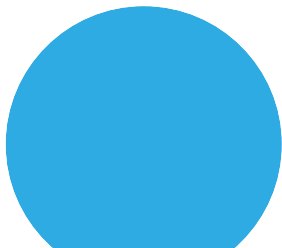
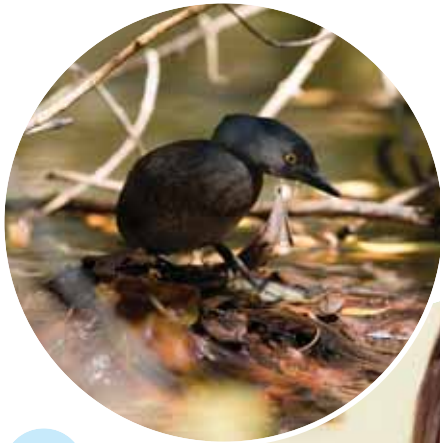
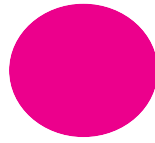
Kill-a-Watt Meters allow citizens to plug in individual appliances and calculate the amount of electricity being used during a specific time period. The meters will help residents make informed decisions about appliances and products used throughout the home. For example, someone could use this device to calculate the cost of running an old, second refrigerator in the basement.

Power Cost Monitors

Power Cost Monitors, which are easily attached to the electricity meter of the home, provide information on energy usage through a portable display device that can be placed anywhere in the home. It can show at a glance how much electricity is currently being used in the house, in both dollars and cents, and in kilowatt hours. As people turn on or off electrical appliances, they will be able to see the adjustment right away on the clock-sized portable display. Tests in Ontario and elsewhere have proven that householders who use real-time feedback can reduce electricity use by as much as five to twenty per cent.

- Determine your school and/or school board's policy regarding choosing electronics companies with which to do business.
- Set up a computer hardware "Pass it on" and recycling program in your school and/or at a family member's place of work. A video that may help students to promote the idea and/or help them design their own promotional materials can be found at www.epa.gov/epaoswer/osw/conserves/plugin/video.htm. Questions students may wish to ask recycling organizations to which they will send hardware to be recycled can be found at www.hp.ca/corporate/recycle/recycle.php
- Identify recycling programs that are available in your community for household products such as paper, newspaper, glass, aluminum, plastic, used appliances, batteries, hazardous waste, etc. What's accepted and not accepted? Encourage people in your community to participate effectively.
- What legislation exists in your province to regulate the recycling of electronics, computer equipment, packaging, etc.? Contact your MP and your MPP for help. Use this site to help you contact your MP: www2.parl.gc.ca/Parlinfo/Compilations/HouseOfCommons/Members/PostalCode.aspx?Menu=HOC
- Determine your family's policy regarding choosing electronics companies with which to do business. Share with your family the criteria you would like to use for choosing an electronics company with which to do business.
- Identify something in your home that your family is considering replacing. Identify a way in which the old item can be repaired instead of replaced. If it can be repaired, provide your family with an analysis of the social and/or environmental and/or financial costs and benefits of repairing the item.
- Create an education campaign to encourage people in your community to consider the entire life cycle of a product when purchasing an item.
- Challenge: Find out about "closed loop" legislation in other countries. (For example, see www.cartakeback.com/en/faqs.asp for information about the car take back program in the United Kingdom.) Write a letter to your local MP and MPP about your thoughts about this type of legislation.





Steps on the Spiraling Path to Taking **Effective** Action

For activities related to this action process, go to www.resources4rethinking.ca/en/toolbox

1. Decide on Goals and Parameters
2. Choose an Issue and an Action
3. Build Motivation
4. Research
5. Make a Plan
6. Define Success
7. Identify Barriers and Supporters
8. Teach/Learn Skills
9. Do it!
10. Celebrate
11. Reflect

SUMMATIVE ASSESSMENT ACTIVITY: MIND MAP

Objective:

Students use a mind map to summarize and demonstrate their learning and their reflections about the unit.

Materials:

- Big pieces of paper (preferably used on one side), markers that do not bleed through the page, sticky tack or masking tape
- Your own mind map to share with the students. For tips, see the book *Beyond Monet* by Barrie Bennett and Carol Rolheiser or www.jcu.edu.au/studying/services/studyskills/mindmap/howto.html.
- For examples, see illustration below or www.creativeeducationfoundation.org/images/mindmap-sm.jpg
- Assessment rubric that you develop based on three examples provided below – copy on overhead and one per student

Procedure

1. Share your model concept map or create one together as a class around a theme that almost everyone can contribute to (e.g. soccer, family, movies, etc.). See illustration below.
2. Give each student a piece of chart paper. Have each student create a circle in the middle of the paper with the words: "The Life Cycle of Electronics".

3. Ask students to write words and/or pictures around the circle that represent different things they learned about the issue and their own reflections on what they've learned. You might encourage them to use pencil at first. If they want to add details about the words or pictures, you might have them do it on scrap paper and tape them in the appropriate spot in case they want to move the ideas around.
4. Once students have had time to work on their ideas, use your model to discuss the idea of illustrating how the different concepts on the map are connected.
5. Encourage the students to think about and illustrate how the different ideas on the map are connected.
6. Have students pair up and explain to each other what their map represents. Encourage them to actively listen to suggestions from their partner. For communication skill tips, visit www.resources4rethinking.ca/en/toolbox
7. Encourage students to revise their maps based on the feedback from their partners.

Rubric: Some helpful concept map rubrics can be found at:

<http://dmc.umn.edu/activities/mindmap/assessment.pdf>

<http://edmall.gsfc.nasa.gov/WebQuest/systmaprub.htm>

<http://www.uwstout.edu/soe/profdev/inspirationrubric.html>

