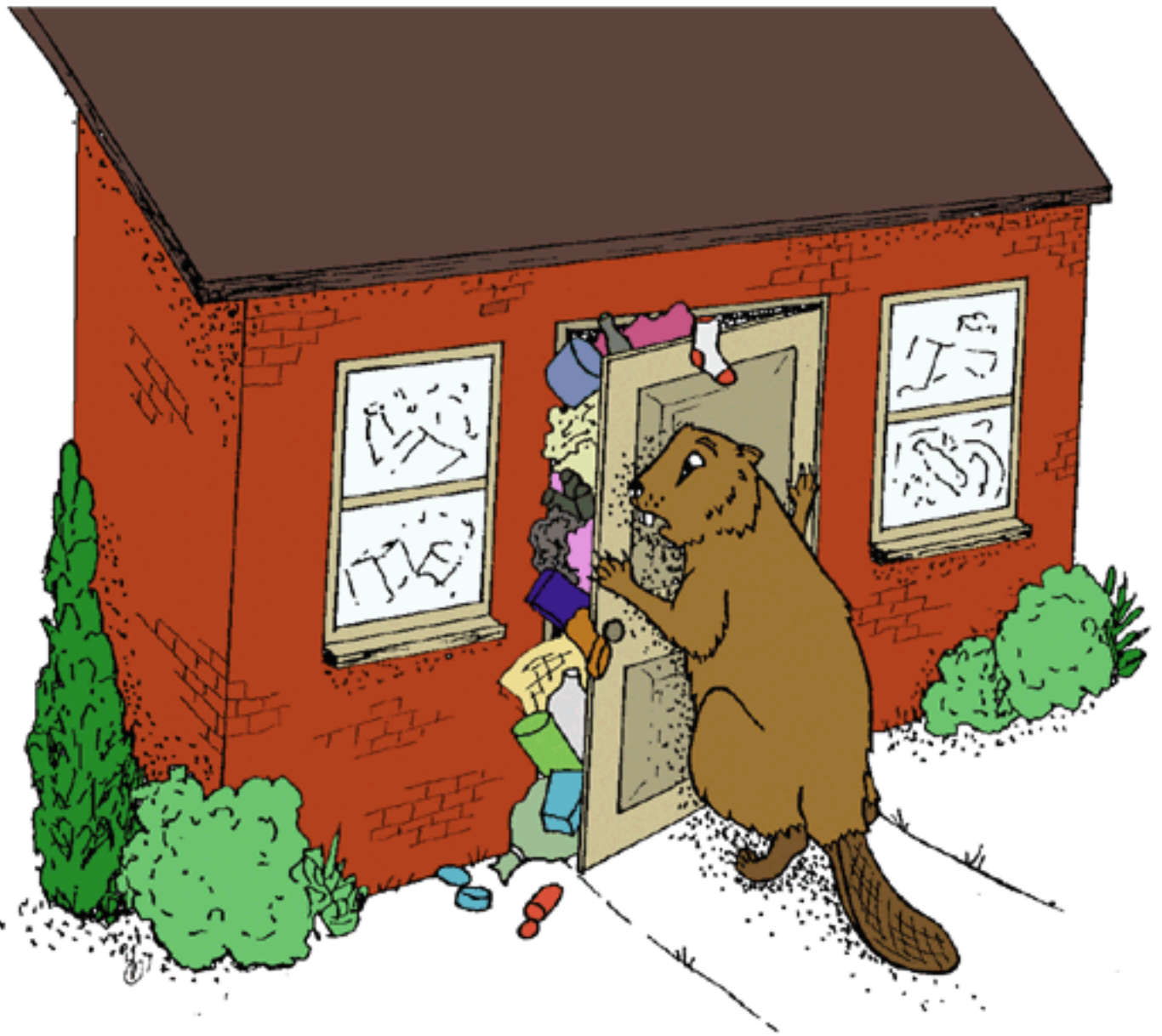


REDUCE



REDUCE

Table of Contents

I	Reduce (Background Information)	B1
	a) General Reduction Tips (Handout)	B3
II	Purchasing Habits (Background Information)	B5
	a) Purchasing Tips To Reduce Waste (Handout)	B7
III	Packaging (Background Information)	B9
IV	Natural Resources and Energy (Background Information)	B11
	a) Water Reduction Tips (Handout)	B15
V	Brewster Facts (Primary Handout)	B17
	a) The Lunch Crunch (Primary Activity 1)	B19
	b) Letter to Parents (Primary Handout)	B21
	c) Garbageless Lunch (Primary Handout)	B22
	d) The Reducing Game (Primary Activity 2)	B23
	e) Road to Reduction (Overhead) (Primary Handout)	B25
	f) The Reducing Game (Pullout) (Primary Handout)	B27
	g) Energy Question Cards (Primary Handout)	B29
	h) Home Question Cards (Primary Handout)	B31
	i) School Question Cards (Primary Handout)	B33
VI	Brewster Facts (Junior Handout)	B35
	a) "Ad" & Subtract (Junior Activity 1)	B37
	b) Be Smart - Buy Right (Junior Activity 2)	B39
	c) Supermarket Survey (Junior Handout)	B41
VII	Brewster Facts (Intermediate Handout)	B43
	a) Disposable Dilemma (Intermediate Activity 1)	B45
	b) Disposable Choices (Intermediate Handout)	B47
	c) A Gum Wrap (Intermediate Activity 2)	B49
VIII	Ecotalk (Background Information)	B51
IX	Glossary (Background Information)	B53
X	Resources (Background Information)	B54
XI	Endnotes (Background Information)	B56
XII	Bibliography (Background Information)	B57

Reduce

Imagine if every object brought into your house was trapped there, unable to escape. The idea sounds great at first; you would know that if something was misplaced it would have to be in the building, somewhere. However, the novelty would soon disappear.

Space inside the home would decrease as empty packaging, old plastic bags, burnt out light bulbs, dead batteries, kitchen waste and all the other articles we use in our daily lives began to pile up. At the same time, more items would arrive to replace those thrown away. These new products would be used then discarded, creating a need to buy even more goods. Because nothing leaves the home, not even waste, this continuous cycle of use, discard and replace would eventually lead to a dwelling full of debris. Eventually the weight and rotting of the waste would destroy the structure and render it uninhabitable.



The Earth is a home to billions of people. We have, especially in this century, devoured products and resources to the point where the resulting waste is now a problem. The world cannot sustain life if we keep producing more and more garbage. There exists a real threat that our global home could end up like the theoretical house, mentioned above. Steps must be taken to slash all forms of consumption. This planet is the only one that will support us. We cannot move. Reduction is the easiest and most effective way to save the Earth and ourselves.

Reduce
by definition is the generation of less waste
through purchasing decisions, changes in personal
habits,
product design or the use of less materials and re-
sources in manufacturing.

Reduce (cont.)

The irony of reducing is people have done it out of necessity for years. The economic conditions during the depression of the 1930's caused people to reduce consumption, due to the high unemployment rate and crop failures. One of the side effects of warfare is the civilian population usually must conserve. These measures may be voluntary, in an attempt to help the war effort, or forced, by enemy strength and activity, but none the less they are essential to long term survival. An entire generation managed to live through World War II on rationed food, fuel and supplies.

Today the option to reduce is largely a luxury of developed countries. It is true that less advanced nations do over consume, but not to the same extent. *Natural resources*, like timber from rain forests, are ravished in order for poorer nations to have some sort of economy. However, the average person living in these locations would not produce 1 kilogram of garbage per day or use approximately 250 litres of water every 24 hours. These are examples of the wasteful, greedy and lazy habits that have evolved from Canada's high standard of living.

Reduction is the only method of decreasing waste before it enters the waste stream. This lessens the amount of material that may cause problems in the future and simultaneously prevents the need to over harvest natural resources. To reduce is really to follow the old adage that "an ounce of prevention is worth a pound of cure".

Each Canadian produces
600 times their weight
in waste in a lifetime!
Reduce before its too late!



General Reduction Tips

- Use a lunch box or a washable lunch bag to carry food to work.
- Keep tires properly inflated. Under inflated tires decrease a vehicle's fuel efficiency.
- The biggest factor in car mileage is weight. Remove any unnecessary items from trunks, back-seats and storage compartments.
- Another method of reducing fuel consumed by our cars is to slow down. A car travelling at 80 kph is 10% more fuel efficient than one moving at 95 kph.
- Borrowing books from friends or the public library saves trees compared to buying new copies.
- Instead of cutting down a tree for Christmas, buy a potted one that can be replanted in the spring.
- Use newspaper, comics or reusable cloth bags to wrap gifts and presents.
- Cloth napkins are better than paper towels or serviettes.
- Mulching or composting yard wastes can reduce up to 20% of the waste generated around a home.
- Each year 13 billion pieces of unsolicited advertisements are delivered to Canadians. The amount of junk mail a consumer receives may be reduced by writing to the Canadian Direct Marketing Association (CDMA) and asking to be taken off of their mailing list. Write:

Attention M.P.S
1 Concord Gate,
Suite 604, Don Mills,
M3C 3N6

The consumer's name, address and postal code must be provided. The process will take two to three months and CDMA will not guarantee that its members will honour the request.

Purchasing Habits

Almost everyone has pushed a shopping cart through aisles of groceries. Week after week, millions of Canadians complete the ritual of filling their cupboards, refrigerators and freezers. Most of us routinely grab the same basic food items without even thinking.

Every few months fashion-conscious individuals buy "this season's hottest look" in an attempt to be socially accepted; this process is better known as "looking cool". Most of these purchases replace dated clothes but end up becoming dated themselves. The result is a closet full of garments that have not exceeded their life span but are no longer worn.

The same is true for automobiles, home audio/video equipment and nearly any product available. Television, radio, print and all other forms of advertising along with social influences constantly push the public to buy more and more. Newer is always better while "used" is a dirty word. Careful re-evaluation of a person's purchasing habits will not only reduce the amount of waste produced, it can cause changes in the manufacturing and packaging of goods, slow the use and polluting of *nonrenewable* or *renewable resources* and even save money. There are many simple ways in which we can reduce our waste.

The first step is to stop thinking about what you want and concentrate on what you need. Ask yourself "is it absolutely necessary". If the answer is a genuine yes then start comparison shopping. Rather than costs, consider the environmental impacts. Which brand, make or model will last the longest? Can it be repaired or does it have a short life span? Has the manufacturer enclosed the item in unnecessary packaging? Can it be recycled and if it can does your recycler process it? Is it grown or produced in an organic or environmentally friendly manner? These are just a few questions that should be addressed before money is spent.

To illustrate, let us investigate ways to reduce while shopping for groceries. Start by making an accurate list of items that you need. Now, plan to make only one trip per week. Organize your excursion so you are not travelling unnecessarily.



Purchasing Habits (cont.)

There is no savings to you or the environment in driving an extra 10 kilometres to save 50 cents. On average, in Canada, nearly 8 million plastic bags are used daily. This number does not include paper bags. This waste is easily prevented by bringing your own shopping bags or boxes.

While you are wandering up and down the rows of food in the store, resist the temptation to purchase items which are designed for convenience. These articles are rarely necessary and often over packaged. For example, pudding cups only save about ten minutes of your time, but whether they are plastic or metal, valuable energy and material are used needlessly. Snack packs, with divided compartments for cheese and crackers, are another example of wasted resources that saves only a minimal amount of time for the consumer. Frozen food is especially bad, as most have a container, a box, and plastic film or foil. In the event that a person should need a staple, such as milk, between planned shopping trips a corner store can provide the necessary item. Walking or bicycling on such occasions will save gasoline and provide exercise.

After food, the second basic necessity is clothing. Before anyone misinterprets what is meant by reducing clothing, consider the amount of shirts, pants, dresses and suits that hang, unused, in closets. Rather than add to an already existing wardrobe why not try to update last year's fashions. The money saved is an added incentive to cut back. Classic styles, of good quality fabric and workmanship, may be more expensive initially, yet their timeless appeal and durability more than justify the investment. Buying the latest fad is unwise as they are soon replaced by an even more contemporary craze. These purchases are the ones that end up being discarded, therefore, why spend hard earned dollars on such items? If new garments are required, try at least to buy items made from natural fibers. By purchasing these and other products from environmentally conscious Canadian businesses, you can help promote Earth-friendly manufacturing methods while supporting our economy.

The most important reason for *green consumerism* is to change product design and manufacturing. Most people do not believe they have the ability to influence either of these two processes. This is not true. Changing from brand X to brand Y, is a chance to send a clear message to retailers and producers letting them know that the public does not support methods that are detrimental to the Earth.



Purchasing Tips To Reduce Waste

1. Buy products in refillable, returnable or recyclable containers.
2. Buy products that will last. Check and evaluate the warranty.
3. Do not buy disposable items.
4. Avoid packaging with two or more different materials, these are not readily recyclable.
5. When shopping use reusable bags and containers.
6. Do not buy excessively packaged items.
7. Buy in bulk or large quantity when possible. (Hazardous chemicals are the exception, buy only what you need to avoid disposal problems.)
8. Purchase products that are manufactured from recycled materials.
9. Write to manufacturers to express concern over packaging or for information about their environmental intentions.
10. If manufacturers continue to over package items leave the excess behind, politely telling the store clerk why you are doing this and suggest that they contact the manufacturer regarding your concerns.



Packaging

Stop and think about the amount of packaging you buy, use and see in a week. To start, look at the weekly groceries. After the food and other purchases arrive in your home, they are automatically emptied out of their packets into cupboards, refrigerators and freezers. The original packaging thereby instantly becomes waste. Examining this garbage would illustrate the needless use of plastic film in wrapping fruit and vegetables, boxboard containers designed solely to catch the consumers eye and an array of one use packaging.

Now consider the packaging consumed during the next six days. Tally up the resources used to make half a dozen lunches: individual cheese slices wrapped in plastic, bars of granola covered in foil lined paper, sandwich bags and yogurt cups. In preparing a well balanced meal how many boxes and "boil in the bag" pouches were tossed into the garbage? If you eat at a fast food restaurant, consider the paper and plastic foam that keeps your food warm. From the time a burger is placed in either type of package to the time it is consumed, the packet's useful life is only 15 minutes. Look at the boxes used to contain the soap and toothpaste we all use daily. Try to count the number of plastic and paper bags you receive to package the packaging you have bought.

Since the 1960's, the amount of packaging in garbage has increased 80% in North America. This type of material is now responsible for 50% of the volume of our municipal solid waste. How did this form of garbage grow to become such a problem? The packaging industry itself lead businesses to believe that certain products were essential. The right tube, tub or other container would reduce theft, breakage, spoilage, tampering and, ironically, waste.

Some of these packages serve to hold items which could not be sold otherwise, such as powders or liquids. Other practical reasons include; safety, preservation, and protection. An example of safety is the need to wrap razor blades. Some fruits must be canned to enjoy them long after the growing season. Medical supplies and pharmaceuticals need protection to keep their sterility and quality intact.

However, most of today's packaging is merely another form of advertising. The graphics and bright colours lure a person into buying a certain item. Even the form of container itself can be used to entice the consumer. Fabric softener and liquid detergents are routinely released in "new and improved" jugs and bottles; the contents have not changed, merely the container. Convenience, that for the most part is a mask for laziness, also feeds the ever increasing demand for "improved" forms of *blister packs* and similar products.



Packaging (cont.)

Packaging adds hidden costs, both monetary and environmental. You, the consumer, absorb these expenses. Energy and resources are required to make containers. Once manufactured, the packages must be transported, first to the wholesaler to fill, then to the retailer to sell and finally to the consumer who buys the packages. At the cash register the buyer pays for this production and transportation. After serving their limited purpose the empty or used plastic trays or similar items need to be collected. Whether it is for recycling or, more likely, disposal, the gathering of these materials costs money. Vehicles, workers, landfill maintenance and the acquisition of new disposal sites are normally paid through tax money. Where does this money come from? The public, the same group who bought the packages and their contents in the first place. From the resources that are used in production, to the energy consumed in their manufacture and up to the space needed for disposal, packaging has a heavy environmental toll. This is a senseless strain on the Earth considering the short time and questionable nature in which these items are used.

Individuals can influence the over use of packaging. First, refuse to buy any product that is wrapped or contained unnecessarily. Tell the store manager or write to the company explaining your actions. Mail any excess packaging back to the parent company or leave it at the place of purchase so either enterprise is responsible for disposal. This action, if done by enough people, is the most concrete method of illustrating to the retailers and manufacturers the headache of dealing with unnecessary trash.

Purchase material, you are sure to use, in the largest size possible. Rather than buying one bottle of shampoo every month get two of the commercial sized jugs. Be sure to use all the shampoo otherwise you are not really reducing packaging. Shop at locations where food can be purchased in large quantities or small amounts, depending upon your needs. A good example is to shop at a bulk food retailer for things that are used often, like cereal and flour. If you only require three oranges, go to a market or fruit stand rather than buy a tray, cellophane and the fruit. No matter what you are shopping for or where you are, bring your own bags or boxes. If the sales person offers a bag of any size or material to carry just a few items, politely decline; there is no reason why a person cannot put one or two smaller purchases in his or her pocket, along with the receipt.

Use your money to let companies that are guilty of excessive packaging know you are unhappy. Switch to a comparable product that is more environmentally friendly. Write to both corporations telling the one you no longer plan to buy their goods and why, then commend the other on their efforts.

Some help, hopefully, from our nation's government is on the way. In the past, the federal government regulated packaging while municipalities were responsible for the collection and disposal of garbage. The new National Packaging Protocol¹ is designed to be more sensitive to all problems, at all levels.

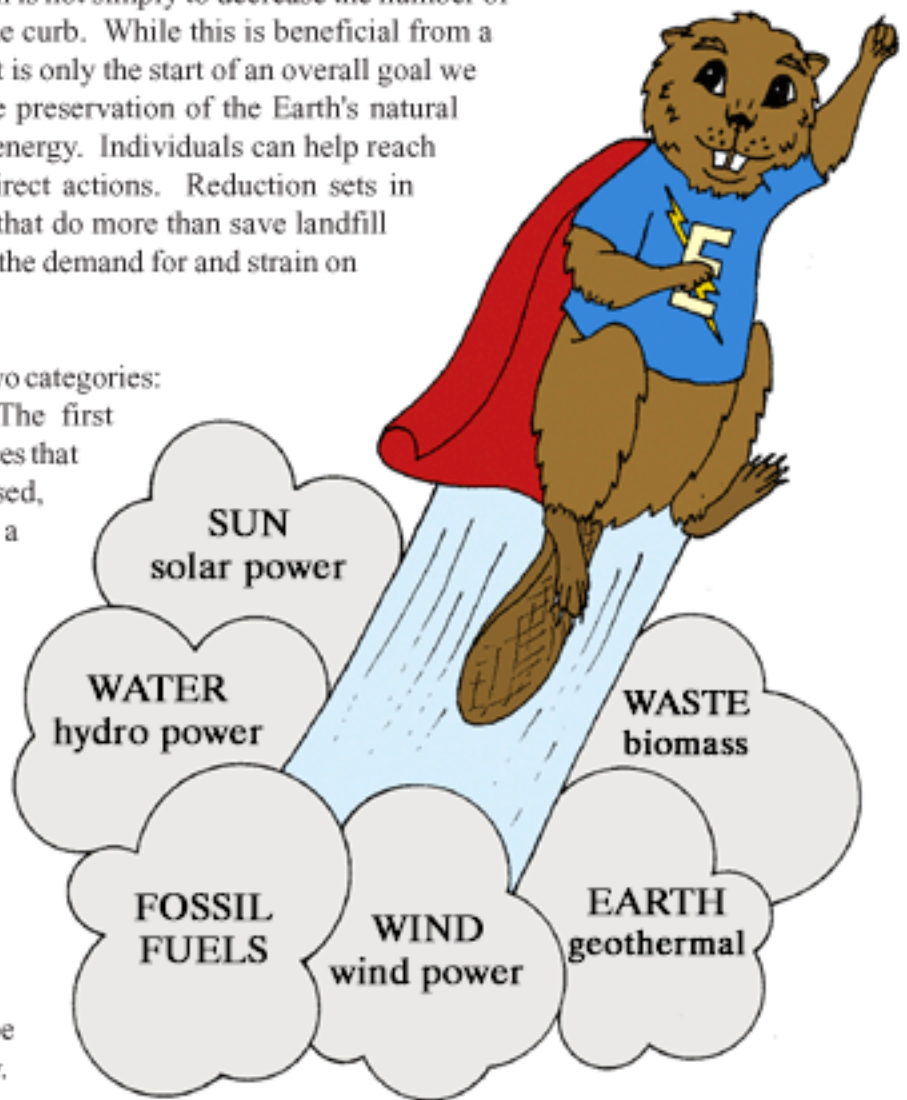
The most powerful tools are the average Canadian's buying dollar and the consumers right to choose. We have the final say in what is or is not bought and accepted. The public dictates markets not business and industry. No one wants to put the packaging industry out of business, but the time has come for us to say enough is enough. If the industry cannot control itself then we must help it to do so. People of all ages have the power and ability to make a difference.

Natural Resources and Energy

The underlying reason for reduction is not simply to decrease the number of garbage bags and cans placed at the curb. While this is beneficial from a waste management point of view, it is only the start of an overall goal we all need to reach. That goal is the preservation of the Earth's natural resources and the conservation of energy. Individuals can help reach this target through direct and indirect actions. Reduction sets in motion a series of chain reactions that do more than save landfill space. These events help decrease the demand for and strain on the planet's greatest treasures.

Natural resources are divided into two categories: renewable and non-renewable. The first classification refers to those resources that can be reused repeatedly or, once used, can be restored or regenerated in a reasonable period of time. Water, soil, forests, vegetation, fish and other animals are renewable resources.

Rocks, minerals, coal, oil, natural gas, metallic ores and phosphates are examples of the non-renewable variety. The natural formation of these resources is so slow, taking thousands to millions of years, that for all human purposes they may be regarded as being finite in quantity.



Energy occurs in many forms. In terms of conservation, we are referring to any use of energy resulting from human activities. This includes energy provided by natural resources, of both types. As Canadians, reducing our energy usage should be a major concern. We consume more energy, per capita, than any other country in the world.

How can one person indirectly preserve and conserve? Remember the garbage left at the curb? Instead of two or more bags, a household reduces the amount of waste that needs to be disposed to one small bag. If enough people did this, trash collection or visits to the landfill would decrease. This means less energy is used in powering the collection vehicles; trucks could be smaller and more fuel efficient or the vehicles could make fewer trips. This would lower the energy needed to refine the gasoline or diesel fuel the vehicles burn. Small trucks would need fewer resources in their production and less trips by bigger trucks should equal less resources used in repairs. As a consequence, even more energy would be saved by decreasing the need to locate and extract more of the resources used to provide the power and materials. Lastly, less energy would

Natural Resources and Energy (cont.)

be required to transport the raw materials from the point of extraction to the place of final use.

The careful purchasing and avoidance of unnecessary packaging, that helped produce only one small bag of trash, would also lead to indirect resource savings. Refusing to buy environmentally unfriendly goods results in the demand for these products decreasing. Businesses only sell items that make a profit. If a product does not sell, retailers will deem it unprofitable and no longer order it. The manufacturer is now forced to either change the product or package to meet the demands of the buying public or risk going out of business. In the case of packaging the producer might lessen the number of times an item is wrapped, switch to a recycled and recyclable container or offer the option of buying the merchandise in bulk. Therefore, trees and other resources used in packaging or manufacturing processes are saved by simply using your freedom of choice.

What our indirect influences do is not always obvious. Reducing the need for virgin resources, caused by overconsumption and not purchasing reused or recycled goods, means less holes in the planet where ores would have been mined. Trees that provide the oxygen we all breathe are left standing, instead of lying in landfills as boxes, bags, and paper. Forests can continue to house animals, stop soil erosion and replenish the Earth's nutrients. Energy sources are retained for future generations. Pollution from manufacturing, the use of energy and other human activities is lessened.

A person's indirect influence is similar to a line of dominoes. Knocking over the first piece does not tip the last domino, but the initial action triggers the second to fall, which leads the third to topple and so on until the final domino drops. The only problem is, someone has to act in a way that will affect the first in line.

Direct results can be seen in the reduction of energy and water usage. Most of the energy the world uses comes from non-renewable resources, especially *fossil fuels*. A smaller degree is generated through the use of renewable resources. Regardless, the consumption of energy is now at a critical point. Traditional sources are becoming increasingly difficult to locate and extract. More importantly, the burning of fossil fuels in automobiles, ships, aircraft, coal fired generators and even home furnaces has polluted the atmosphere. Renewable sources of energy, such as solar, wind, tidal, *biomass*, hydroelectric and geothermal may bring their own environmental hazards. Climate, vegetation and irrigation patterns of the Earth are in jeopardy of being radically altered.

Reducing the demand for energy is the best answer. The first place to start is in the kitchen. The appliances found here on average use 53% of the total electrical energy in a home. Over the life of the six major kitchen appliances (oven, range, microwave oven, refrigerator, freezer and dishwasher), nearly 3,000 dollars can be saved in electricity if the most energy efficient models, available today, are used.

When preparing food use a microwave oven. Not only is it faster, but the oven uses less than half the energy of a normal range. An electric frying pan is better than using the stove top. If a million homes used the electric pan, instead of the stove, for all their frying needs, enough power would be saved to supply all the energy an average community college uses in one year.

Natural Resources and Energy (cont.)

The washer and dryer in a laundry room are responsible for a further 12% of home energy use. Operate the washing machine only when it is full and the clothes are truly dirty, not just wrinkled. Use a clothes line or horse to let nature dry wet items. If a dryer must be used, remove and fold the clothes quickly; this helps reduce ironing. The last laundry tip is to only iron what is necessary. Underwear, towels and bed sheets do not need creases!

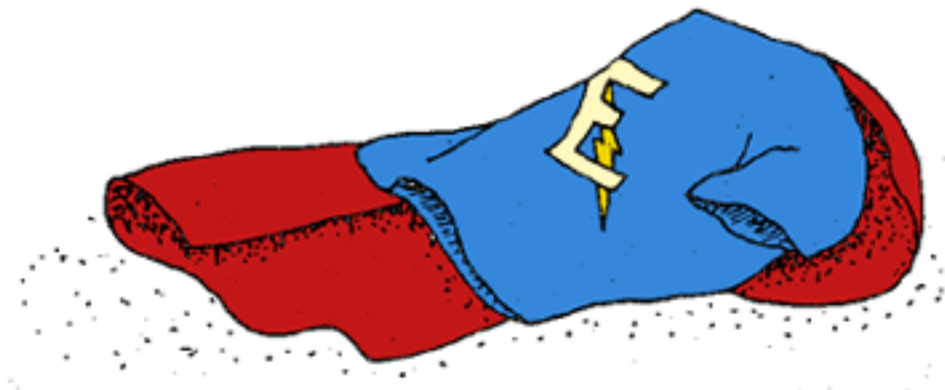
Every room in a home has some form of lighting. So do most work places. Where possible, replace incandescent bulbs with fluorescent substitutes. Fluorescent tubes use 70% less energy as normal bulbs. One 13 watt tube produces 900 lumens where a 60 watt incandescent bulb produces only 860 lumens.

By affecting the kitchen, laundry room and lighting, one can affect almost three quarters of all the electricity in a home. People living in Ontario should make a special effort to conserve as the province uses more energy, per capita, than any other province or territory; the most wasteful of the wasteful is a disgraceful position. Ontario's Ministry of Environment and Energy has several savings manuals available to the public.

The most precious of all resources is water. It covers nearly 70% of the planet's surface. Human beings are two-thirds water. As rain and snow, H₂O nourishes crops, trees and other vegetation plus restores the levels of lakes and streams. Groundwater allows people and animals to drink while helping irrigation and industry. Surface water, too, provides water to drink but is also home to fish and wildlife and generates hydroelectric power.

Only 3% of all water is fresh. Approximately 80% of this is frozen in glaciers and ice caps. What this means is less than 1% of the planet's total water has the potential for human consumption and 5 billion people must share this tiny amount. Some people must travel miles to get fresh water and survive on only 16 litres per day. Others can say this isn't a problem for them. All the clean, clear water they ever need is right at their finger tips. Just turn on the tap and presto! This attitude is the problem.

About 36 million people and 13,400 manufacturing and industrial plants are located on the Great Lakes drainage basin. The five lakes hold 21% of the Earth's fresh water. Pollution from industrial drainage, sewage plants, storm sewers, agricultural run-off, air borne deposits and other sources, flows into the rivers and streams that empty into the lakes. Because only 1% of the entire basin's volume annually drains out the St. Lawrence River, what ever is put into the water largely stays there. So, under three-quarters of 1% of the entire global population threatens one-fifth of all fresh water due to the "there's plenty more where that came from" attitude.



Water Reduction Tips

- reduce the amount of water your toilet uses by using a toilet dam or flushing only when necessary.
 - shut off the tap or fill a cup full of water when brushing your teeth.
 - keep a bottle of water in the refrigerator rather than letting the water run down the drain until it is cold.
 - shower instead of taking a bath.
 - up to one-third of all water consumed in a home is by showering, so use a water-saving shower head.
 - fix dripping taps and leaking pipes
 - plug the sink while washing hands and if a person needs a shave, use the same water to rinse the razor.
-
- turning off the tap while cleaning teeth and plugging the sink while shaving or washing can save up to 36,000 litres of water per year.
 - use the short cycle when washing only full loads of clothes or dishes that are not excessively dirty.
 - plug the sink when cleaning fruits and vegetables.
 - use a bucket and sponge or a hose with a shut-off nozzle when washing your car.
 - brush sidewalks and driveway instead of hosing them down.
 - catch rain water in a barrel and use it to replenish your garden.
 - water your lawn and garden less often - once every three to five days is sufficient.
 - water the grass early in the morning or later in the evening, to prevent evaporation.
 - water plants only as needed.
 - use a sprinkler that does not throw water high into the air where it can be evaporated or carried by wind.
 - all of these procedures reduce energy consumption by decreasing the power needed to treat clear water, process sewage and heat hot water.

REDUCE - HANDOUT

Personal Notes

Brewster Facts



1. Our world is piling up with garbage. Reduce is the first "R". Reduce means making less garbage.



2. Use things because you need them not just because you want them.

3. If you reduce your garbage, the Earth will get better.

The Lunch Crunch

OBJECTIVE: To demonstrate the concept of waste reduction by involving the students in the reduction process.

MATERIALS: plastic shopping bags, masking tape, scales, **HANDOUTS:** Letter to Parents (B21), Garbageless Lunch (B22)

VOCABULARY: waste reduction, convenience, packaging, pollution, preservation, waste, reduce

BACKGROUND:

Nearly half of the waste that we generate is packaging. Some packaging is necessary for safety, preservation or practicality. Medical supplies need protection against tampering, certain foods need some preservation and liquids or powders must be contained somehow. However, most packaging is merely another form of advertising or a substitute for a little time and effort.

Flashy boxes and unique containers are designed to catch the consumer's eye; packaging is used to entice people into buying a product. Individually wrapped cheese slices, pudding cups and drinking boxes illustrate convenience packaging. The public is led to believe convenience packaging will save time.

Because many children eat lunch at school, the ideal way to introduce the concept of waste reduction is through their lunch pails.

PROCEDURE:

One week before this activity is to be conducted, send a letter home with the children. The letter should explain to the parents or guardians that the child will need some adult help in completing an assignment at home. A sample letter that could be photocopied for distribution is provided on the **HANDOUT: Letter to Parents** (B21).

1. Before lunch on the day the activity is to occur, distribute a plastic shopping bag to each student (you may wish for the students to bring their own bags from home). Tell the class they are to place any garbage from their lunch (plastic films, drinking boxes, jars, bottles, food waste, etc.) into their individual bags.
2. After lunch is finished, ask the class to examine their waste. Write down on the blackboard some of the items the students have described.
3. Explain the idea that in order to help the Earth, we need to produce less waste. You may wish to mention how trees are saved and pollution decreases when we produce less waste.
4. Tell the class to tie their shopping bags and have each child's name written on a strip of masking tape. Distribute the tape then have the children stick the tape to their bags.

REDUCE - PRIMARY ACTIVITY 1

The Lunch Crunch (cont.)

PROCEDURE (cont.)

5. Now, inform the class they are going to do an experiment to see if they can reduce their waste. Take a few of the items the students described in Step 2 and suggest alternatives. Ask the class if they can think of alternatives to make their lunch so waste is reduced.
6. Tell the class they are to go home tonight and ask their parents to help them make a "Garbageless Lunch". Give each child a copy of the HANDOUT: **Garbageless Lunch** (B22) to take home.
7. Before the Garbageless Lunch begins, once again give each student a plastic shopping bag. Tell the children they are to put any garbage they may have in the empty bag.
8. When the Garbageless Lunch is over, ask the class to compare today's shopping bags with those from the day before. Ask the children to describe the difference between the bags.
9. Tell them they have just helped the Earth by reducing their waste. Mention how easy it is to reduce our garbage. Gather all the shopping bags up then reuse, recycle and dispose of the waste.

EXTENSION:

1. Collect all the waste generated on the first day in one garbage bag. Weigh the bag. Collect the waste generated from the Garbageless Lunch in a separate garbage bag. Weigh it also. Show the class the two bags and ask them to guess which one weighs more or ask them to guess the weight of each bag.
2. Have a Garbageless Lunch club. Every time a child brings a garbage free lunch to school, he or she is awarded points, etc. After a child reaches a certain number of points he or she is given a prize (plant, tree growing kit, etc.)

EVALUATION:

1. Ask the children if they are going to try everyday to reduce the waste from their lunch.
2. What would the student do to make a waste free lunch?
3. Reduction is good for the environment. Why?

Letter To Parents

Dear Parent or Guardian:

On _____ our class is participating in a waste reduction activity. The focus of the activity is to make the children aware of the waste that they produce and to demonstrate how simple it is to reduce this waste.

Each child will need help from his/her parent/guardian in preparing a Garbageless Lunch. A list of many ways to prepare such a lunch will be coming home with the children next week. I would appreciate your support in helping in this endeavour by providing your child with the assistance needed. If you have any questions or concerns, please contact me at _____.

Yours truly,

Dear Parent or Guardian:

On _____ our class is participating in a waste reduction activity. The focus of the activity is to make the children aware of the waste that they produce and to demonstrate how simple it is to reduce this waste.

Each child will need help from his/her parent/guardian in preparing a Garbageless Lunch. A list of many ways to prepare such a lunch will be coming home with the children next week. I would appreciate your support in helping in this endeavour by providing your child with the assistance needed. If you have any questions or concerns, please contact me at _____.

Yours truly,

Garbageless Lunch

ITEM

GARBAGELESS ALTERNATIVE

- | | |
|--|--|
| <ul style="list-style-type: none">• Plastic Film (plastic wrap, etc.)• Microwaveable Packaging• Plastic Cutlery• Drinking Boxes• Pudding Cups or Fruit Cups• Yogurt Cups• Paper Lunch Bags | <ul style="list-style-type: none">• Reusable plastic containers• Insulated flask or reusable plastic containers• Steel or stainless utensils• Plastic cup with lid• Make pudding, buy fruit in bulk, use a reusable plastic container to send child sized portions to school.• Buy largest container, send yogurt to school in sealed reusable containers.• Replace with reusable fabric lunch bags or lunch pail. |
|--|--|



REDUCE - PRIMARY ACTIVITY 2

The Reducing Game

OBJECTIVE: To introduce methods of reducing waste and energy consumption.

MATERIALS: buttons, beans, bingo chips or something else to use as playing pieces on the game board,
HANDOUTS: **Brewster's Road to Reduction** (Overhead B25), **Brewster's Road to Reduction** (Pullout B27), **Energy Question Cards** (B29), **Home Question Cards** (B31), **School Question Cards** (B33), **Brewster The Beaver** (ix) and **Hughdir T. Rat** (x)

VOCABULARY: energy, natural resources, reduce, waste

BACKGROUND:

The best method of handling waste is simply not to produce it. Canadians produce more garbage than any other nation so we could stand to reduce our waste. Less waste means less materials needed to be reused, recycled, composted or disposed of. Natural resources and money (for garbage collection, recycling programs, landfills, etc.) are also saved when garbage is decreased.

Along with all the garbage we produce, Canadians also use more energy per capita than anyone else. Most of our energy comes from natural resources. Heat, electricity, oil and gasoline are all derived from natural resources. Reducing both waste production and energy consumption is easy; all that is required is a change of habit.

PROCEDURE:

The gameboard for this activity has been produced on paper, HANDOUT: **Brewster's Road to Reduction** (Pullout B27) and as an overhead, HANDOUT: **Brewster's Road to Reduction** (Overhead B25). If the overhead format is not suitable, the paper gameboard can be made more durable by photocopying the page then mounting the copy on a sheet of illustration board, foamboard or similar material.

1. Convey the ideas expressed in the BACKGROUND section of this activity to the class.
2. To enhance the game, you could handout photocopies or produce overheads of the two characters found on the game: Brewster and Hughdir T. Rat. Both characters can be found in the introductory section of this book. (HANDOUTS: **Brewster the Beaver** (ix) and **Hughdir T. Rat** (x))
3. Now tell the students they are going to play a game. Depending upon the class size, you may wish to divide the children into teams or play the game with different groups of students at different times.
4. Photocopy the question/answer cards on double sided sheets, making sure they are properly aligned for cutting out. Arrange the cards into their three categories: Energy, Home and School.

REDUCE - PRIMARY ACTIVITY 2

The Reducing Game (cont.)

PROCEDURE (cont.)

5. Add to the gameboard a playing piece for each student/group participating in the game.
6. To start the game, read the top Energy card to the child/group selected to go first. If a correct answer is given, the child's/group's game piece is moved the number of spaces stated on the card. If an incorrect answer is given, the game piece stays in place. Whether the correct answer is given or not after each turn play passes to the next child/group.
7. After everyone has had one question, all subsequent questions are dictated by the squares each playing piece is on. A child/group on an "E" square is read an Energy card, a "S" square requires a School card and a "H" square warrants a Home question. If child/group lands on one of the five special squares the child/group must follow the instructions stated on the square. The children/groups continue to take turns in the proper order until someone reaches the end of the gameboard (the Sanitary Landfill) first.

EXTENSION:

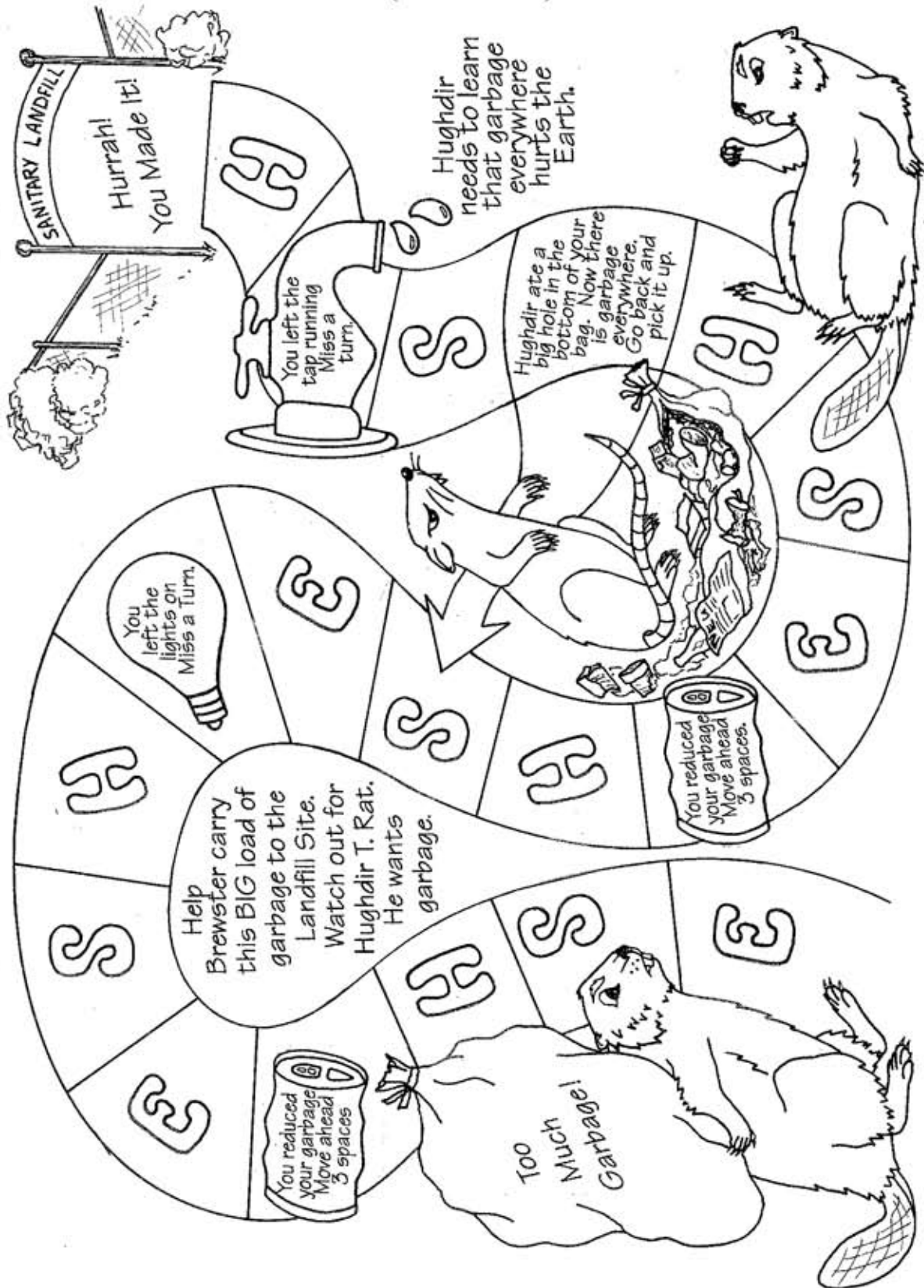
1. Design a reduction contest for the class. For example, a child could be given points each time he/she reduces his/her use of natural resources or energy at home or school. Enough points earns a child a badge stating "I Help The Earth" or another prize (first in line for recess, no homework for one night, etc.).
2. Have the entire class participate in making a banner to promote reduction.
3. Designate one day a week or month as "Reduction Day" where the class tries to make no waste or as little waste as possible during school hours.

EVALUATION:

1. Ask the children to explain why reduction is important.
2. Have each child name one way to reduce the amount of energy or natural resources he/she uses.
3. Is the child going to reduce his/her use of energy or natural resources?

The Road to Reduction

(Overhead)



Energy Question Cards

Q Why wash clothes in cold water?
A Hot water uses more energy than cold. **(1)**

Q Which home appliance uses the most energy? a) an electric toothbrush b) a blender c) a refrigerator
A (c) a refrigerator. **(2)**

Q Which country has used wind power for centuries? a) Holland b) New Guinea c) Tibet
A a) Holland. **(2)**

Q Why is a clothesline better than a dryer? a) the clothesline uses no energy b) you can use the clothesline to skip c) a dryer is heavier than a clothesline
A a) the clothesline uses no energy. **(2)**

Q Where does solar power come from? a) the moon b) the Earth c) the sun
A c) the sun. **(1)**

Q A microwave oven uses less energy than a normal oven. True or False?
A True. Regular ovens use two times more energy than a microwave oven. **(1)**

Q Why should people use the bus, streetcar or subway?
A Public transportation saves energy (gas) and decreases pollution. **(2)**

Q A speeding car uses more energy than a car travelling at the speed limit. True or False?
A True. The faster a car travels, the more energy the car uses. **(3)**

Q A leaky hot water faucet wastes energy. True or False?
A True. **(1)**

Q Should windows be left open when the air conditioning is on? Yes or No?
A No. Because the energy used to cool the air is wasted when a window or door is left open. **(1)**

Q For a short trip to the store you should: a) ask for a ride in the car b) walk or ride your bicycle c) call a limousine
A b) walk or ride your bicycle. **(2)**

Q A person should stand with the refrigerator door open: a) for a long time b) for as short a time as possible
A b) everytime the door is open, energy is needed to cool the air inside again. **(2)**

Q Before leaving a room you should turn on all the lights. True or False?
A False. You should turn the lights OFF! **(1)**

Q If you are cold at home you should: a) turn up the heat b) put on a sweater c) have a cold drink
A b) put on a sweater. **(1)**

Energy Question Cards (cont.)

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Home Question Cards

<p>Q Reduce is the first of the 3 R's. Name one of the other R's.</p> <p>A reuse or recycle. (2)</p>	<p>Q Canadians need to reduce the waste they produce because they make more garbage than any other country. True or False?</p> <p>A True. (1)</p>
<p>Q Using the public library is better than buying new books because: a) new books are heavy b) the library is warmer than the bookstore c) library books can be used by lots of people This saves trees.</p> <p>A c) library books can be used by lots of people. This saves trees. (1)</p>	<p>Q If all the water in the world was placed in 100 swimming pools, how many pools would have water clean enough for people to drink? a) 90 pools b) 50 pools c) 1 pool</p> <p>A c) one pool, less than 1% of all water is fit for human consumption. (2)</p>
<p>Q Instead of cutting down trees for Christmas, what can you do?</p> <p>A a) buy a potted tree and replant the tree in the spring. (1) b) buy an artificial tree. (1) (3) for both answers</p>	<p>Q Which uses less water, a 10 minute shower or a bath?</p> <p>A a 10 minute shower. (1)</p>
<p>Q A person should buy disposable products: a) all the time b) never c) only when alternatives to disposable items are not available</p> <p>A c) only when alternatives to disposable items are not available. (2)</p>	<p>Q Using a hose to clean the driveway or path is better than using a brush. True or False?</p> <p>A False. A brush saves water. (1)</p>
<p>Q Packaging is the paper, plastic, metal and other materials used to wrap or hold products. True or False?</p> <p>A True. (1)</p>	<p>Q Reusable shopping bags are better for the Earth than plastic bags because: a) they will not break as easily as plastic bags, b) they save resources because they last longer, c) both a) & b)</p> <p>A c) both a) & b). (2)</p>
<p>Q How much of our garbage is packaging? a) 1/4 b) 1/3 c) 1/2</p> <p>A c) 1/2. (2)</p>	<p>Q When your jeans wear out you should a) cut them off to use as shorts b) patch them c) either one of the above</p> <p>A c) either one of the above. (2)</p>
<p>Q It takes more packaging to wrap one large tube of toothpaste than it does to wrap several smaller tubes. True or False?</p> <p>A False. In general, bulk or larger sized products require less packaging than several smaller products. (2)</p>	<p>Q If a toy is broken you should: a) throw it away b) fix it</p> <p>A b) fix it. (2)</p>

Home Question Cards (cont.)

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School Question Cards

<p>Q Which is better to have in the school's washroom: a) paper towels b) cloth towels on a roll</p> <p>A b) Cloth towels on a roll are better because paper towels are used once then thrown away. (1)</p>	<p>(3) for both answers</p> <p>Q You can reduce the electricity your classroom uses by turning out the lights when no one is in the room. True or False?</p> <p>A True. (2)</p>
<p>Q Writing on both sides of a sheet of paper is good for the environment because it saves: a) trees b) tomato plants c) bicycles</p> <p>A a) trees. (2)</p>	<p>Q If you eat lunch at school, use a reusable bag or a lunch pail instead of paper bags. By not using paper you can save: a) trees b) horseshoes c) lemons</p> <p>A a) trees. (1)</p>
<p>Q If your school recycles, you are helping to reduce: a) your garbage b) your height c) your paycheck</p> <p>A a) your garbage. (1)</p>	<p>Q Which would be a better pen to buy: a) disposable b) refillable</p> <p>A b) refillable. (1)</p>
<p>Q A worm composter turns food scraps left over from lunch into dirt. True or False?</p> <p>A True. The worms in a worm composter eat food scraps and turn the scraps into dirt. This means less garbage is thrown away. (2)</p>	<p>Q If your pencil breaks, you should: a) throw it away b) sharpen it</p> <p>A b) sharpen it. (1)</p>
<p>Q The large fluorescent light bulbs used in your classroom use less energy than the small bulbs in your lights at home. True or False?</p> <p>A True. Fluorescent bulbs use less energy. (2)</p>	<p>Q If you see litter lying in the school yard you should leave it there. True or False?</p> <p>A False. But be careful; do not hurt yourself on broken metal or glass. (1)</p>
<p>Q By practising the 3 R's, your school can help the Earth get better. True or False?</p> <p>A True. (1)</p>	<p>Q It would be better if everyone who rode a bus to school was dropped off in separate cars. True or False?</p> <p>A False. One bus is better than a lot of cars because a bus uses less energy than a lot of cars. (1)</p>
<p>Q Litter is garbage people throw away anywhere. A person can reduce litter by putting garbage in: a) _____ box, b) _____ can.</p> <p>A a) blue box (1) b) trash/garbage can. (1)</p>	<p>Q Which is better to have with your lunch: a) juice in a drinking box b) juice in a plastic refillable cup</p> <p>A b) juice in a plastic refillable cup. (2)</p>

School Question Cards (cont.)

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Brewster Facts

1. Reduce is the most important "R". It is the best way to help the environment.
2. Reducing waste means we use less landfill space and natural resources.
3. The best place to start reducing is with the things you buy. Buy things that you really need and that will last. Do not spend money on something you have seen on television or because everyone else has one. Be smart. Be different.



4. Use recycled paper. It is good for the environment. Do not buy things that are over packaged. Some packaging is needed for health and safety reasons but most is for advertising or lazy people.
5. We should reduce the amount of energy we use. Riding your bicycle on short trips saves gasoline. Closing windows and doors saves heat. Turning lights off when no one is in a room saves electricity.

REDUCE - JUNIOR ACTIVITY 1

"Ad" & Subtract

OBJECTIVE: To demonstrate how advertising influences purchasing habits and how purchasing habits can influence personal waste production.

MATERIALS: television, paper, pencil or pen, and various catalogues and flyers.

VOCABULARY: advertising, commercials, media

BACKGROUND:

In today's society we are bombarded by advertising. Television, radio, newspapers and other forms of media overwhelm us with a never ending supply of commercials, ads, coupons and flyers. All of these are designed to make us believe we absolutely must have a particular product and that the newest product is always better. Advertising leads people to believe they will be more attractive or more popular because of the car they drive or beverage they consume.

Children are especially vulnerable to advertising. Most children spend Saturday morning in front of the television. Programmes are filled with commercials for toys, cereals, shoes and other items. Advertising influences are counter-productive to reduction; children are taught to buy and consume not to reduce. Teaching children to be smart consumers will not only save them money but help the Earth by decreasing the amount of garbage they produce. This in turn decreases their consumption of natural resources.

PROCEDURE:

1. Ask the children if anyone knows what advertising is. Field a few responses from the class.
2. Explain to the students the ideas expressed in the **BACKGROUND** section of this activity. Be sure to mention that advertising, especially television commercials, is paid for by manufacturers. It is important for the children to understand commercials are not part of the programmes they watch.
3. Now tell the class they are going to do homework while watching television. State that their homework, in fact will be to watch television.
4. Children are to watch two hours of cartoons or similar children's programs on a Saturday morning. They must write down all the products advertised in commercials they see over the two hour period.
5. When the two hours are over, the next step is for each child to find the total cost of all the products on his or her list. Catalogues from companies such as Sears and Consumers Distributing or flyers from local stores can be used to find prices. In some cases a phone call or trip to a supermarket etc. may be necessary to retrieve a price.

REDUCE - JUNIOR ACTIVITY 1

"Ad" & Subtract (cont.)

PROCEDURE (cont.)

6. Students now subtract any items from their original lists that they already have, then remove items from the lists that are unnecessary (i.e. the latest junk food, action figure, etc.).
7. Finally, have the children compare their two totals. Mention the idea of how money is saved when a person buys what he or she really needs versus what he or she is told to buy.

EXTENSION:

1. Write two headings **WHAT WE WANT** and **WHAT WE REALLY NEED**. On the chalkboard under the first heading write down each student's total and add the figures. Repeat this for the second heading. Compare the two new totals. Tell the class or ask them how much they would save by purchasing necessary items only.
2. Ask the class to think of things (i.e. paper, plastics, steel, natural resources) besides money they could save by purchasing only what they need.
3. Tell the children to calculate how long it would take each of them to earn enough money to buy all of the products they saw on television if each child earned \$2.00 per hour for helping around the home.

EVALUATION:

1. Will the children think twice before asking for an item seen through some form of advertising?
2. What are the differences between commercials and programmes?
3. Have each child subtract his or her total calculated in Step 6 of the PROCEDURE from the **WHAT WE WANT** total.

Be Smart - Buy Right

OBJECTIVE: Children will learn how their purchasing habits can reduce their waste.

MATERIALS: HANDOUT: **Supermarket Survey** (B41)

VOCABULARY: reduction, environmentally friendly, consumers

BACKGROUND:

Reduction is simply a matter of choice. By purchasing products that are "environmentally friendly" the amount of waste an individual generates can be significantly reduced.

The elementary school children of today may not spend vast amounts of money but they will soon become tomorrow's adult consumers. Today's students will be future car and home owners. They will be buying groceries and other necessities. If children can be taught to think before they buy, hopefully they will grow to become "Earth friendly" adults.

PROCEDURE:

1. This activity can be conducted either as a field trip or an independent homework assignment. If a field trip is to be conducted, you should contact the manager of a grocery store to arrange permission for the class visit.
2. Begin the activity by asking the children to raise their hands if they have been to a supermarket or grocery store. Ask them to name some of the things they saw (i.e. meat, fruits, vegetables, cookies, laundry soap, cases of pop, etc.).
3. Write 12 of the items the children have suggested on the chalkboard. Have the class copy this list onto the HANDOUT: **Supermarket Survey** (B41), in the ITEM column.
4. Explain to the class how some products in a supermarket are overpackaged. Most packaging becomes waste. Overpackaging can be avoided by purchasing the packaged item in bulk (i.e. cheese slices can be replaced by a block of cheese) or by choosing a brand that has the least amount of packaging. Mention to the students that other products can be replaced. Vinegar and water make an excellent all purpose cleaner. This solution can replace glass cleaner, tub and tile cleaner, etc. around the home.

Be Smart - Buy Right (cont.)

PROCEDURE (cont.)

5. Tell the children they are going to visit a grocery store to complete the rest of the Handout. For each of the 12 items in the first column, the student finds a brand name (i.e. laundry soap could be Tide or Clorox) what it is packaged in and whether or not it is environmentally friendly. Finally, the children decide on alternatives to each product. In the ALTERNATIVES column, students should write whether each item could be replaced or bought in bulk. If neither of these are suitable the student can suggest a brand that has less packaging.

EXTENSION:

1. Total the cost of the twelve items and their alternatives, calculate the difference in order to find the actual cost saving for being Earth friendly.
2. Collect the packaging from the brand name items and their alternatives and compare.
3. Write to the manufacturers suggesting simpler methods of packaging their products.

EVALUATION:

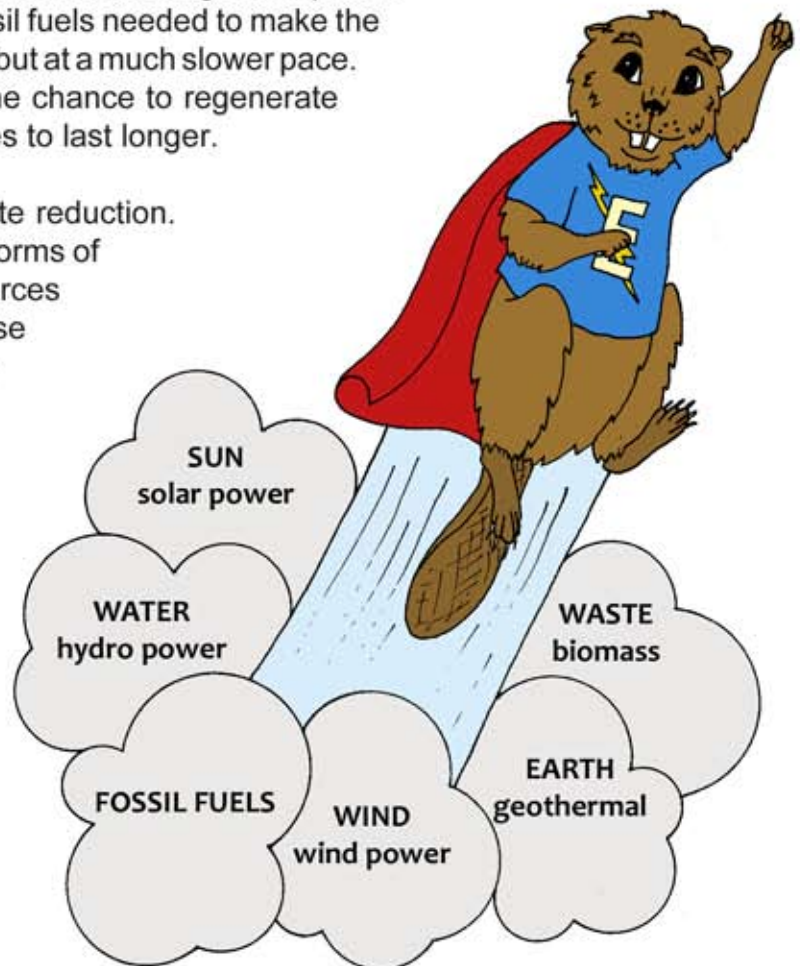
1. Has the activity affected the children's buying habits?
2. How easy is it to avoid excessive packaging?
3. Where could a person shop to avoid unnecessary packaging? (Grow your own foodstuffs, shop at bulk food stores, etc.)

REDUCE - JUNIOR HANDOUT

Personal Notes

Brewster Facts

1. Reducing the waste we produce is the most efficient form of waste management. Reduction not only decreases the amount of waste, it lessens the quantity of materials passing through the other stages of the waste management hierarchy. Reduction is easy. Just stop and ask yourself a few questions.
2. "Do I really need this item?" Much of what we purchase is bought because of impulse, advertising or peer pressure. Be smart, buy only the things you really need and replace older items only when they are truly useless.
3. "Which brand/kind of item should I buy?" Purchase the product that has high quality: quality products last longer. Refuse to buy items that are over packaged. In North America packaging can be responsible for 50% of the garbage generated. One way to avoid excess packaging is to buy a product in "bulk" or in the largest size available.
4. By taking the time to carefully choose what you purchase not only is waste reduced but energy and natural resources are preserved. Less packaging means less paper is needed to make the packaging. Less paper means more trees are left standing. Less plastic wrap and film cuts down on the fossil fuels needed to make the plastic. Resources will still be used but at a much slower pace. This gives renewable resources the chance to regenerate and helps non-renewable resources to last longer.
5. Energy is also saved through waste reduction. Less gasoline, electricity, or other forms of energy are needed to extract resources for manufacturing. Canadians use more energy per capita than any other country. Turning off the television and lights when no one is in a room, using the dishwasher only when it is full and walking or bicycling on short trips are just a few energy saving ideas.
6. Reducing waste is good for the environment because it will fix today's waste problem and stops future problems from happening.



Disposable Dilemma

OBJECTIVE: To illustrate alternatives to disposable products.

MATERIALS: HANDOUT: **Disposable Choices** (B47)

VOCABULARY: disposable, energy consumption, landfill, natural resources, waste

BACKGROUND:

Disposable goods can be traced back to World War II. Troops were given light-weight, pre-packaged meals called "C rations". After the war, the technology used to make the "C rations" was employed to make T.V. dinners, disposable pens and throw-away razors. From the 1950's until today, the number of disposable products has increased dramatically. For every dollar spent on disposables, the taxpayer spends 8 cents more to dispose of them. The worst aspect of throw-away products is the attitude that they encourage; disposables perpetuate the dangerous cycle of buy, use and discard. Products designed to be used only once do not teach people to adjust their lifestyles for the good of the Earth.

PROCEDURE:

1. Present the following scenario to the class: Every single product or item they use is disposable; televisions, desks, automobiles, C.D.'s. Everything is to be used once then thrown away.
2. Ask the class to think of what problems this would create. Some examples are the amount of waste generated would require an extensive collection system (i.e. daily instead of weekly pick-up), landfills would quickly reach their capacity and our natural resources and energy consumption would accelerate.
3. After the class has discussed the problems, tell the students to think of the disposable items they use each day (i.e. pens, lunch bags, razors, paper towels). Over the next 24 or 48 hours each student should use the HANDOUT: **Disposable Choices** (B47), to keep a record of the disposables their household members use.
4. Beside each item on the list have the students fill in a description of the resources used in making the item.
5. Lastly, have the children think of alternatives to the items on their list. The first step is to reduce the number of unnecessary items on the list and then replace the remaining products with reusable or recyclable goods.

Disposable Dilemma (cont.)

EXTENSION:

1. Compare the cost of each disposable item to its alternative. Students should consider the cost of garbage bags, waste collection and landfill space not just retail prices.
2. Have the students find examples of necessary disposable items (i.e. some hospital supplies). Ask them to explain why the items are necessary. Now take an item from their list and explain why it is completely unnecessary (i.e. made solely for convenience).
3. Design a program to reduce disposable items in the school or classroom.

EVALUATION:

1. Have any of the students changed their attitudes or habits in regards to disposable items?
2. Ask the class to explain the ramifications of disposable products.
3. Name the three most common disposable items in the student's home.

REDUCE - INTERMEDIATE HANDOUT

Personal Notes

REDUCE - INTERMEDIATE ACTIVITY 2

A Gum Wrap

OBJECTIVE: To create packaging that is less harmful to the environment.

MATERIALS: samples of packaged gum

VOCABULARY: excessive packaging, resources, biodegradable, recyclable, reusable

BACKGROUND:

There is a monster growing in North America. It has nearly doubled in size since the 1960's. This monster is called packaging. Over the past 30 years the amount of packaging in garbage has increased by 80%, it is now responsible for half of the volume of municipal waste produced in North America.

Originally, packaging was designed to prevent theft, breakage and spoilage of products. Today it is primarily a form of advertising. The public pays for excessive packaging when we purchase an item, through recycling and disposal costs and, in an environmental sense, through the resources used to produce the packaging.

PROCEDURE:

1. Inform the class that they are going to design a better form of packaging. Mention the statistics given in the BACKGROUND section of this activity. Lead discussion amongst the students asking them to think of all the different types of packaging available to them.
2. Each student is to purchase some gum, the type or flavour is not important. The only stipulation is the gum must somehow be packaged (gum from a gumball machine does not qualify for the activity).
3. The gum is to be brought to school unopened. Each student is to examine their gum. The child should consider the different material used for packaging (foil, paper, plastic film, etc.), why the gum is packaged the way it is (manufacturers have to take safety, freshness, advertising, marketing, consumer handling and many other factors into consideration when designing packaging) and whether the gum is excessively packaged or not.
4. Students now design better packaging for their brand of gum. Small sketches or drawings are ideal to convey ideas. The children should consider areas such as whether the packaging is to be recyclable, reusable, or biodegradable. Other considerations could include how much packaging is sufficient, what form of packaging is environmentally sound yet appealing to the consumer and where or how should the packaging's advantages be explained to the consumer (on the package itself, through a display, etc.).
5. Have the children write a short essay explaining the design of their packaging.

REDUCE - INTERMEDIATE ACTIVITY 2

A Gum Wrap (cont.)

EXTENSION:

1. Have the students actually build the packaging they have designed. Models should be several times the actual size of the packaging. Use the models for displays during your school's Earth Day or as entries in the science fair.
2. Have the class either individually or in groups, plan a marketing campaign for their new packaging.

EVALUATION:

1. Is the majority of packaging really necessary? If not, why?
2. Have the students adjusted their purchasing habits because of packaging.
3. What could you do to change excess packaging practices?

REDUCE

Ecotalk

ADVERTISING - is used by companies to get people to buy things. Radio and television commercials are advertising. Newspaper and magazine ads are advertising too.

BIODEGRADABLE - is a word used to describe things that will rot. Biodegradable items rot or breakdown until the items turn back into soil. Composting turns biodegradable waste into soil.

COMMERCIALS - are a form of advertising seen on the television or heard on the radio. Commercials are not free. Companies pay the television and radio stations to play the company's commercial.

CONSUMERS - are people who buy and use things. Anyone who buys anything from cars to candy or uses electricity and water is a consumer.

CONVENIENCE - is a word used to describe something that saves a person work and time. Unfortunately many convenient items are also harmful to the environment.

DISPOSABLE - describes things that are meant to be used once then thrown away. Diapers for example, can be disposable. Some things have to be disposable for safety reasons but most disposables are unnecessary. Disposables do not use natural resources carefully.

ENERGY - is the power used to move vehicles, light lights and heat homes. Gasoline, propane and the sun all provide energy. The food we eat gives us energy to breathe, think, walk and talk.

ENERGY CONSUMPTION - refers to the amount of energy a person or company uses.

ENVIRONMENTALLY FRIENDLY - these words are used to describe something that will not harm the environment. Many companies use the words environmentally friendly to sell products. Be sure to check if an item really is environmentally friendly or not.

EXCESSIVE PACKAGING - when a product has too much wrapping people say it has excessive packaging.

LANDFILL - is a pit or hole in the ground used to hold garbage.

MEDIA - refers to television stations, newspapers, magazines and radio stations.

NATURAL RESOURCES - are things made by the Earth. They include water, soil, rocks, plants, animals and many other items. Some resources can be used more than once. These are called renewable resources. Other resources cannot be used more than once. They are called non-renewable resources. The government now calls both renewable and non-renewable resources, sustainable resources. Resources are important.

REDUCE

Ecotalk

PACKAGING - is the wrapping around a product.

POLLUTION - is caused by people being careless with waste. Pollution makes air, land and water dirty. This hurts people, animals, natural resources and the environment.

PRESERVATION - happens when a person tries to keep or maintain something. Preservation keeps things from rotting, becoming useless or disappearing. Many people are trying to preserve the Earth.

RECYCLABLE - things that can be recycled are called recyclable. Steel, aluminium, plastic and paper are recyclable.

REDUCE - is the first "R". Reduce is easy, all you have to do is to not make any waste or as little waste as possible.

REUSE - is the second "R". Reuse means to use an item more than once instead of throwing it away. For example, plastic ice cream containers can be reused to hold plants.

SOLID WASTE - another term for waste.

WASTE - is the things left over from people's activity. Food scraps, old newspapers, grass clippings and many other things are waste. Most waste can be reduce, reused or recycled. Only a very small portion is truly useless and this is called garbage.

WASTE REDUCTION - happens when a person tries to make less waste. The 3 R's (reduce, reuse, recycle) help people reduce their waste.

REDUCE

Glossary

BLISTER PACKS: non-recyclable, plastic container often moulded to fit a product with a foil or paper backing.

BIOMASS: energy from wood, crop residues, dung or plants. Canada generates 8% of its total energy from biomass.

ENVIRO PACK: a refill, that is smaller and uses less resources to produce, for an item which is sold in a reusable container.

FOSSIL FUELS: fuels from once living matter; for example, coal, petroleum, or natural gas.

GREEN CONSUMERISM: purchasing of products which do not:

- endanger the health of the consumer or others
- cause environmental damage
- cause unnecessary waste through excess packaging or obsolescence
- harm animals or have undergone animal testing.

HYDROLOGIC CYCLE: the endless circulation of water from the atmosphere to the Earth and its return to the atmosphere through condensation, precipitation, evaporation and transpiration.

LUMENS: unit of light measurement equal to one candlepower.

NATURAL RESOURCES: timber, water, minerals, fossil fuels and any other naturally occurring resources that can be used by humans. Because these materials are either fixed in quantity or require a long period of time to regenerate it is critical that they are carefully harvested and nurtured.

NONRENEWABLE RESOURCES: not capable of being naturally restored or replenished.

PLANNED OBSOLESCENCE: the practice of producing goods that have a very short life, so that more goods will have to be purchased and produced; the process perpetuates consumption.

RENEWABLE RESOURCES: capable of being naturally restored or replenished.

REDUCE

Resources

1. Bluewater Recycling Association
P.O. Box 1330
Grand Bend, Ontario
N0M 1T0
Phone: (519) 238-8661
Fax: (519) 238-2330
2. Ministry of Government Services
Publications Ontario
88 Bay Street
Toronto, Ontario
N7A 1N8
Phone: (416) 326-5300
(800) 668-9938
3. Ministry of the Environment and Energy
135 St. Clair Avenue West
Toronto, Ontario
M4V 1P5
Phone: (416) 323-4321
Fax: (416) 323-4643
4. Pollution Probe Foundation
12 Madison Avenue
Toronto, Ontario
M5R 2S1
Phone: (416) 926-1907
Fax: (416) 926-1601
5. Shell Canada Limited
630, 3rd Avenue S.W.
Calgary, Alberta
T2P 4L4
Phone: (800) 661-1600
Fax: (403) 266-2198

Videos

Unless specified all videos listed are available for use through the Bluewater Recycling Association.

Refuse Industry Productions, Garbage in America: Vol I.

Speakers

1. The Bluewater Recycling Association
P.O. Box 1330
Grand Bend, Ontario
N0M 1T0
Phone: (519) 238-8661
(800) 265-9799
Fax: (519) 238-2330
2. The Recycling Council of Ontario
489 College Street, Suite 504
Toronto, Ontario
M6G 1A5
Phone: (416) 960-1025
(800) 263-2849
Fax: (416) 960-8053
3. Global Action Plan (G.A.P.)
R.R.#4, 6080 Durham Road 23
Uxbridge, Ontario
L4P 1K4
Phone: (416) 852-4786
Fax: (416) 852-4786

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Resources (cont.)

Speakers (cont.)

4. Ontario Hydro
Speakers Bureau
700 University Avenue
Toronto, Ontario
M5G 1X6
Phone: (416) 592-2322
(800) 668-8500
5. Loblaws Inc.
22 St. Clair Ave. East, Suite 900
Toronto, Ontario
M4T 2S8
Phone: (416) 922-8500
Fax: (416) 960-6998
6. World Wildlife Fund
90 Eglinton East, Suite 504
Toronto, Ontario
M4P 2Z7
Phone: (416) 489-8800
(800) 26PANDA
Fax: (416) 489-3611
7. Federation of Ontario Naturalists
355 Lesmill Rd.
Don Mills, Ontario
M3B 2W8
Phone: (416) 444-8419
Fax: (416) 444-9866
8. Pollution Probe
12 Madison Avenue
Toronto, Ontario
M5R 2S1
Phone: (416) 926-1907
Fax: (416) 926-1601
9. Ministry of Environment and Energy
135 St. Clair West, Main Floor
Toronto, Ontario
M4V 1P5
Phone: (416) 323-4321
(800) 565-4923
Fax: (416) 323-4565
10. Metropolitan Toronto and Regional
Conservation Authority
Water Resources Branch
5 Shoreham Dr.
Downsview, Ontario
M3N 1S4
Phone: (416) 661-6600
Fax: (416) 661-6898
11. Greenpeace
185 Spadina Avenue, 6th Floor
Toronto, Ontario
M5T 2C5
Phone: (416) 345-8408
Fax: (416) 345-8422

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End Notes

AMO's Policy on Refillable Beverage Containers. Suite 701, 250 Bloor Street, Toronto, Ontario, Canada, M4W 1E6.

To order copies of discussion papers published by the Ministry of the Environment and Energy, call the automated phone line at 1-800-268-3747, and ask for area code 416 and phone number 323-4643.

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Personal Notes