

Our Environmental Footprint-GARBAGE



Learning Environment:
Indoor (classroom or gymnasium)

Prep Time: 15 min. Set up the 3 stations (one for each R) and set up the Waste Relay Race.

Length of Lesson: 1 hr

Key Vocabulary: Reuse, Reduce, Recycle

Staffing: 1 adult

Materials: All materials can be borrowed from the Georgian Bay Biosphere Reserve (705) 774-2851

GRADE	Overall Expectations	Specific Expectations
1	1s1. Assess the role of humans in maintaining a healthy environment.	1s11. Identify personal action that they themselves can take to help maintain a healthy env. for living things.
2	2s1. Assess ways in which humans have an impact upon animals and the places where they live.	2s12. Identify positive and negative impacts that different kinds of human activity have on animals and where they live

This lesson works best if done in a large, open area. It should be set up so that there are 3 "stations"- one for recycling, re-using, and reducing. It is helpful to set up this activity ahead of time, so that during the lesson the students simply walk from one "station" to the next.

TIME	ACTIVITY	MATERIALS NEEDED
10 minutes	Introduction: Humans throw "away" a lot of trash. <i>Away</i> is still on the Earth!	-1 garbage bag, picture of landfill
30 minutes (10 min. per station)	Reduce, Re-use, and Recycle "stations"	-3 bags, each filled with reduce, re-use, and recycle items (see checklist on lid).
15 minutes	Waste Relay Race	-signs to label the bins (<i>green bin, blue bin, and cannot be recycled</i>) -various waste items

Teacher Information: Trash 101

The world is a complex interaction of air, water, land and living things that are all interconnected and interdependent. When we pollute the air, water, and land, we are polluting ourselves.

Too much stuff

One of the most important functions of nature is to take organic waste and break it down to create fertile soil for new plants to grow. Bacteria, fungi, and worms break down or “biodegrade” organic material like dead plants and animals, to create healthy new soil.

But humans are producing **too much garbage**. Much of the waste we produce now is not organic and does not easily break down. Materials that are not found in nature, such as plastics and glass, will never biodegrade. A pop can tossed on the ground will take 300 years to be crushed and worn away by rocks; a glass bottle will take a million years. The waste produced is polluting our planet by leaching into our soil and water through the release of methane gas, a major contributor to climate change.

We need to do more than recycle. Most urban Canadians dutifully put their paper, plastic, bottles, and cans into recycling bins. And that’s great — good recycling programs reduce our need for landfills. But ultimately, **we want to cut down on all our waste, even the kind that can be recycled.**

Reduce! It’s the best thing to do. The most important thing we can do to help nature is reduce the amount of garbage and pollution we produce in the first place. Not only does that mean sending less waste to the landfill, it also means using fewer resources and less energy, because it takes energy to produce and transport packaging and disposable items.

Every day, more people, stores, companies, and cities are finding ways to cut down on disposable plastic bags, but we still create a lot of unnecessary packaging and products. Planned obsolescence — producing goods that won’t last so that people have to buy more — is still reality. We can all **avoid buying products that are over-packaged** or “disposable,” and encourage producers to be more responsible. When something breaks, we can also take greater responsibility by **fixing it** rather than simply throwing it out and buying a new one. When we take the time to let stores, businesses, and governments know that we want less packaging and goods that last, we will make a difference. Our changing attitude about plastic bags is a perfect example.

Adapted from *Eco-Fun* by David Suzuki and Kathy Vanderlinden (Greystone Books, 2001).

Items accepted by the Parry Sound Recycling

* Note: the recycling program does NOT accept plastic bags, Styrofoam packaging, mirrors, light bulbs and toys.



Recycling Centre



Fibre Box

- Envelopes, flyers, paper bags, greeting cards & gift wrapping
- catalogues, magazines, phone books & paperback books
- Newspapers, office paper & computer paper
- Tissue & cereal boxes, detergent & shoe boxes, egg cartons & cardboard tubes
- Milk & juice cartons
- Juice boxes (tetra boxes)
- Broken down corrugated cardboard, no larger than a recycling box, tied with string left next to your recycling box.

Container Box

- Metal food & beverage cans
- Glass bottles & jars
- Aluminum foil & trays
- Empty paint cans (must be scraped, dry & lid removed)
- Rinsed off Styrofoam meat trays, cups, plates, take out containers, egg cartons
- Plastics with numbers 1 - 6
- Bottles - soft drink, water, anti-freeze, milk jugs, detergent, ketchup, mustard, windshield washer, syrup, medicine
- Containers - margarine, ice cream, yogurt, peanut butter, deli sandwich shells, clear plastic cookie trays



The Town of Parry Sound's Waste Management System includes curbside pick up as well as the Transfer Station for disposal of household garbage, recycling, compost and Municipal Hazardous and Special waste.

The Town of Parry Sound contracts curbside collection to BFI CANADA.

Collection occurs every day within the town. You can visit <http://www.townofparrysound.com/pagesmith/37> and click on [Curbside Collection Schedule](#) to find the scheduled day for your street.

Recycling is picked up the same day as household garbage but alternates each week between containers and fibres.

The transfer station is located at the end of MacFarlane Street.

Visit the Town of Parry Sound's website to find more information on our Waste Management System.

A. Garbage Bag Demonstration

1. Begin the lesson by holding up a garbage bag. Ask the students to guess how many garbage bags each Canadian (on average) fills in a year. **(Answer = 30)**. This is A LOT of garbage that goes to the dump! (Family of 4 = 120 garbage bags!)

B. Short Discussion

1. The Earth is our home. It gives us everything we need to live, and everything we make comes from the Earth. Eventually, when we are done with the things we use, we throw them away. Ask the class where they think “away” is.
2. Explain that “away” is still on the Earth. Everything we throw away, the Earth has to be able to take back. Some things the Earth CAN take back, like food leftovers (**show compost picture**). But not all of our garbage can be composted...
3. It’s hard for the Earth to take back things made of paper, plastic, rubber, metal, wood, and glass. Lots of things we throw away are made of these things. These are the things that end up in each Canadian’s 30 garbage bags.
4. Because it’s hard for the Earth to take back all this garbage, it piles up at dumps and landfills, waiting for the Earth to take it back. *It will stay there for a very VERY long time.* (**Show landfill pictures**). Nobody wants their backyard to look like this, but if we keep throwing away 30 garbage bags a year each, then soon *a lot* of places will look like this.
5. Luckily, there are things that each of us can do to make less garbage. Ask the class if they have heard of the 3 R’s: Reuse, Reduce, Recycle.

6. Write on the board:

Reduce: use less

Re-use: use again

Recycle: turn something old into something new

C. Reduce Station

1. Bring the class to an area of the classroom, field, or gym that has been designated as the “reduce station”.
2. Of the three R’s, reduce is **the MOST** important. Reduce means to USE LESS. The best thing we can do is buy fewer things, and throw away fewer things. How can we do this? Try to get students to guess, based on the items at this station.

ITEM	HOW IT SHOWS <i>reducing</i> GARBAGE
Broken pencil	We can FIX things instead of throwing them out.
Clock	We can buy things that LAST A LONG TIME.
Paper	Use BOTH SIDES before throwing it out.
Library card	BORROW books from the library instead of buying our own.
Stub of a candle	Use things (like candles and pencils) until they are tiny stubs instead of buying new ones.

3. Have students try to suggest other ways to reduce the things that we use.

D. Re-use Station

1. Go to the area of the room designated as the “re-use station”. It is better to re-use than to recycle because no energy goes into making something new. Think of your favourite pair of pants. You don’t throw them away after you use them once...you *re-use* them.
2. Play the matching game with the items at this station. Get students to figure out what goes together, and which one would be better for nature (which one is *re-usable?*).

DISPOSABLE OPTION	RE-USABLE OPTION
Plastic water bottle	Re-usable bottle
Sandwich bag	Tupperware container
Juice box	Reusable juice container
Plastic grocery bag	Cloth bag
Paper/plastic plate	Real plate
Tim Horton's coffee cup	Travel mug

3. After they have matched all the items, stress that although items in the “disposable” pile are more harmful to the environment because they are not *designed* to be re-used, we can still re-use them!

E. Recycle Station

1. Go to the area designated as the “Recycle Station”. Recycling means to take old stuff and make new stuff out of it. We can do this in two ways; 1) in our own homes 2) by using the recycling bin.
2. Tell the class that first we will be creative and try to think of ways to recycle in our own homes. Have students look at each of the items provided and figure out ways that we could recycle each. Below are examples of what they could say...

ITEM	POSSIBLE WAY TO RECYCLE
Old CD's	Make coasters for your glasses
Old milk carton	Plant a seedling in it, make a birdhouse
Newspaper	Use as wrapping paper
Old postcards	Make into birthday or Christmas cards
Jam jar	Use it to store things in!

3. Now talk about recycling by using the recycling bin. Explain that putting things in the recycling bin means that other people will take the items and turn them into something else for us. As an example, **use the “Follow that Bottle” comic** to show them how a bottle can be turned into a fleece sweater.

4. Use the **“goes into/comes out as” Recycling Cards** to show the kids what recycled items get turned into.

F. Waste Relay Race

1. Have bags or boxes, labeled with “blue bin”, “green bin”, and “cannot be recycled” signs, set up at one side of the room. Explain the difference between them (blue is for plastics, green is for fibers, and a third bin is for non-recyclables.) Have students line up at the other side of the classroom. Set the basket with various waste items in between the class and the bins. When you say go, have one student at a time run to the waste basket, pick an item, try to put them in the correct bin, then run back and tag the next student. Play until all the waste is sorted. Tell them they are racing against the clock.
2. After all of the waste is sorted, go through the bins with the class to see how they did, explaining in more detail what can go in each bin and what cannot.

G. Count yourself in: shrink your garbage footprint!

Have students come up with a list of 5 ways they can reduce the amount of garbage they create. Write the list on chart paper and hang it in the classroom.

If your class is participating in the “environmental footprint tree” activity, then have students record their garbage-reducing deeds on a leaf and put in on the tree.



OUTDOOR OPPORTUNITIES

- Take students on a garbage collection walk around the school.

FIELD TRIP OPPORTUNITIES

- Visit a local garbage dump or recycling plant so students can witness the scale of the problem in Parry Sound.

COMMUNITY/HOME/SCHOOL ENGAGEMENT ACTIVITIES

- Challenge students to bring a litterless lunch to school and encourage the school to use a composter.
- Do a waste audit for your school. See davidsuzuki.org/youthandnature/e to download instructions
- Create a “classroom landfill” by placing various garbage items as well as biodegradable items in a bin with soil. Observe what happens to each item over time. How well does each biodegrade?

ADDITIONAL RESOURCES

- Included in the bin at the Classroom Support Center is the book “Just a Dream” by Chris van Allsburg. In the book, Walter is a boy who dreams of the future of the Earth.
- Download individual sections or the complete “The Quest for Less” document, produced by the EPA. “The Quest for Less” provides hands-on lessons and activities, enrichment ideas and journal writing assignments related to preventing and re-using waste. Find it at <http://www.epa.gov/osw/education/quest/index.htm>