



Activity Theme: Waste

Activity Type: Experiential 

Grade 2-5

Community Recycling Centre

Activity Overview: In this activity, students will learn which items should be brought to Peel Region's Community Recycling Centre (CRC) rather than placing them at the curb for landfill. The importance of and how to safely dispose of Household Hazardous Waste (HHW) items will also be discussed. All of the materials used to construct this activity (right down to the paint!) are reused and recycled materials from the various CRCs in Peel Region.

Objectives:

- Learn what a Community Recycling Centre (CRC) is and where they are located in Peel
- Learn what items are collected at Peel's various CRCs
- How to identify household hazardous waste materials around the house
- How to dispose of household hazardous materials in a safe manner
- Describe how to handle household hazardous materials and reduce their use

Materials:

- HHW entrance
- Reuse Centre entrance
- 2 wagons
- Various items to be sorted into HHW/Reuse/Recycling/Garbage/Yard Waste/Wood/Metal/Electronics (i.e., fake medicine, aerosol cans, household cleaners, a toy, wrappers, etc.)
- Recycling bins (one for each sorting category)

Set Up: The CRC, HHW, and Reuse sections will already be set up. Line up the wagons in the middle of the space and put a pre-made kit (composed of different materials) into each wagon.



Takedown: At the end of the day, re-bag all of the waste products and leave them in the wagons

Safety: Please tell the students not to open up any bottles.

What will I be doing? (Procedure):

Remember that **doing** an experiment and **discovering the answer** is more powerful than watching and listening to someone, so try to involve as many children as possible.

Part 1: Introduction

Say: "Welcome to the Community Recycling Centre! Today we will learn to keep our lakes and well water pollution-free by disposing of things properly."

Ask: "Has anyone visited a Community Recycling Centre with their family before?"

If this prompts discussion, ask the students if they remember what they went there for.

Say: "In the Region of Peel, there are 6 Community Recycling Centres. There are 2 in Brampton, 2 in Caledon, and 2 in Mississauga."

Ask: "Does anyone know what a Community Recycling Centre is for?"

Answer: "It's a place where you can bring all of your waste, especially the items that you can't put into your garbage carts at home. There are many things we can't place at our curbside for the waste collectors to take."

Ask: "Can anyone think of some examples of things we do cannot or should not put out at the curb?"

Answer: "Things like tiles, wood, cleaning products, clothing, electronics, and more. These are some of the items we bring to the CRCs."

Ask: "Does anyone know what we should do with items such as this?" (Show bleach, motor oil, paint can)

Answer: "These are hazardous liquids. They can never be placed at the curb or poured down the drain because they can harm people, animals, or the environment. They *must* be brought to the Household Hazardous Waste depot at a Community Recycling Centre." (Point to the HHW stand).

Ask: “Do you know how to find out if something is hazardous?” (Wait for answers)

Answer: “You can tell if the container has any of these symbols (point to the symbol chart on the HHW model - poisonous, corrosive, flammable and reactive). These items should only be handled by the adults in your home.”

Ask: “What would happen if we poured hazardous liquids down the drain?” (Wait for answers)

Answer: “If these items get into our wastewater system, they can make it difficult for us to properly clean the water, and then our water becomes polluted, which isn’t good for us.”

Ask: “What about items like clothes, toys, and books? Should we throw them out when we no longer use them?”

Answer: “No – there is another part of the CRC called the Reuse Centre (point to Reuse stand) that accepts items that other people can use again.”

Part 2: Sorting Activity

Say: “I will now split you into groups. Each group will have a wagon with objects in it that belong at the CRC. You will walk along the course with your group, and you will need to decide where each item belongs. Your choices are HHW/Reuse/Recycling/Garbage/Yard Waste/Wood/Metal/Electronics. Don’t worry if you are unsure, we will go over the correct answers when you are done.”

Answers (go over these after the students have sorted their items):

Please note that not all items listed below are in their kits.

| HHW ITEMS | REUSE ITEMS | OTHER CRC ITEMS |
|---|---|--|
| <ul style="list-style-type: none"> • Paints and stains • Aerosol cans • Household cleaners and detergents • Medications • Automotive fluids (i.e. motor oil) • Batteries (all types) • Fuels, solvents, adhesives • Oil filters • Fertilizers and pesticides • Powdered cement and grout • Pool chemicals • Sharps (syringes, needles, lancets) • Cooking oil • Fluorescent bulbs • Fluorescent lamp ballasts • Mercury thermometers/thermostats • Propane and helium cylinders | <ul style="list-style-type: none"> • Accessories • Antiques & Collectibles • Clothing • Computers/electronics (working) • Housewares • Books & media • Seasonal items • Textiles • Toys | <ul style="list-style-type: none"> • Garbage • Recycling • Yard Waste • Construction/renovation material: tiles, wood, metal • Electronics (no longer working) |

Part 3: Wrap-Up:

After reviewing the items the students sorted, remind them:



Say:

- Reducing the amount of waste we generate and reusing items instead of discarding them helps save natural resources, conserves energy and creates less garbage.
- Anything with a flammable, corrosive, oxidizer, and poisonous symbols as well as unused medicines should be brought to the Household Hazardous Waste depot at a Community Recycling Centre to ensure they are disposed of properly.
- All CRCs accept HHW items free of charge from residents of Peel.
- Keep our lakes and well water pollution-free by disposing of things properly so they do not get into our water.

Background Information (for high school volunteer reference):

What is Household Hazardous Waste?

Household Hazardous Waste (HHW) is any product that has the potential to harm people, animals, or the environment. Hazardous products have four classifications:

- Flammable
- Corrosive
- Oxidizers
- Poisonous/Toxic

Almost every household uses (and discards) items that contain hazardous waste, such as:

- Paint
- Batteries
- Cleaners and solvents
- Garden fertilizers and pesticides
- Motor oil
- Medication and other pharmaceutical products

How Do I Know Which Products Are Hazardous?

Products in the household that can be hazardous have at least one of the following warning symbols displayed on them:



Flammable substances are those that easily set fire on (e.g., gasoline lighter fluid and turpentine).



Corrosive substances eat away at other substances (e.g., car batteries and drain cleaners).



Oxidizing agents can cause or contribute to the combustion of other material (e.g., fertilizers and pool chemicals).



Poisonous/toxic substances are dangerous to humans or animals, even in small concentrations (e.g., carpet cleaners, oven cleaners, bleach, window and glass cleaners).

Dangers of Hazardous Waste

Hazardous waste can filter down through the soil and contaminate groundwater. Plumbing systems can be damaged when corrosive chemicals are poured down the drain. Burning hazardous wastes simply distributes them over a larger area and releases them into the air.

HHW requires special attention during handling, storage, collection, transportation, treatment, and disposal. HHW should not be mixed in with your regular garbage and should **never** be poured down the drain, emptied into your toilet, laundry tub or storm sewer.

Disposal

The best solution to managing HHW is not to generate the waste in the first place. You can do this by buying only what you need and using up the product entirely or giving the unused portion away to someone who can. Rather than purchasing toxic products, you can try using safer non-toxic alternatives. Finally, you should always take your household hazardous waste to one of six HHW depots in Peel Region.

Vocabulary:

Household Hazardous Waste (HHW) - waste containing chemicals that are dangerous to human health and/or the environment.

Flammable - can be easily set on fire.

Corrosive - able to eat into; wear away; or dissolve a variety of materials such as metals.

Oxidizer - a substance that can cause or contribute to the combustion of other material.

Poisonous/Toxic - poisonous/harmful to humans and other living things.