Taking Action



INTRODUCTION

Action competence is an important aspect of any educational programme. Raising awareness and mobilising action is an important citizenship aspect. This lesson plan engages students on the issue of disposal of hazardous waste.

Objectives:

Students will be able to

- investigate and find out the local and national Household Hazardous waste collection programme.
- research and find out the nearest household hazardous waste drop off location.

YRE steps: Investigate, Research Solution, Report, Disseminate

Curriculum Linkage: Science/ Environmental Studies/Social Science

- design a campaign to inform the immediate community about the drop off locations for the collection of hazardous waste.
- write about your efforts to the local newspaper.

Time required/ Duration:

- Classroom Session 1: 45 minutes (15 minutes for the teacher to do a background introduction on household hazardous wastes and why we need to be careful while handling and disposing these and 30 minutes for the group activity with students for identifying local and national efforts for managing household hazardous wastes and identify different locations which collect hazardous waste locally).
- **Group Assignment 1:** 45 minutes for group discussions so students could plan out the awareness material for the week long hazardous waste collection drive.
- **Group Assignment 2:** One week for preparing the awareness material for the drive and two days for students to put together their experiences in the form of a newspaper article.

Resources Required:

- Large chart paper
- Markers, crayons, other coloring tools
- Old magazines and glue for collages (optional)
- Paper and other student stationery
- Cartons/ bins/ othe material for designing different material for promoting the drive
- Internet connection













Activity

Classroom session

- Start with a discussion introducing students to the different types of products consumed at home for various requirements including cleaning, personal care, pest control to name a few and mention that a range of products are available in the market for these functions. The waste products and labels powerpoint presentation should be made use of for the same.
- Lead the discussion so that students understand that some of these products are potentially hazardous and appropriate care needs to be taken while handling and disposing them.
- During the background introduction, discuss with students the importance of the different household hazardous chemicals collection points or any laws that might be in place for the same in their city/ country.
- Provide students time to research and identifying local and national efforts for managing household hazardous wastes and identify different locations which collect hazardous waste locally.

Group Assignment

- Divide the students in groups of 3-4. Each group should choose one type of product listed in the resources.
- Using the poster paper, markers, magazine cut-outs, and the internet as an additional research tool, ask each group to create an informative poster about safe disposal of that product.
- Each poster should include the following information in their posters:
 - Examples of product and its main ingredients.
 - Types of hazard (Reactive, Toxic, Corrosive, Ignitable) and
 - Best disposal method and where to take it in their community
- Once completed, groups can present their poster to the class and take a feedback.
- Students should then design a campaign posters.

Group Assignment 2

- Guide students to go around the immediate community and spread the message with the help of the posters that they have developed.
 - Common areas like parks and shopping malls could be possible areas which should be targeted for community awareness.
- Ask the students to interact with the community and identify one appropriate location where
 the household hazardous waste could be collected during the campaign period. They will also
 have to identify volunteers from within the community who will take charge of this collection
 and ensure it is routed out for recycling efficiently.
- At the end of their campaign, ask students to write an article to the local newspaper about their achievements.
- Allocate one month for all these tasks.

Activity

Evaluation:

- The feedback to the students as part of the poster presentation in class will be an important way to evaluate the student understanding.
- The success of the campaign can be evaluated based on the quantity of hazardous waste collected.

Resource 2

Hazardous waste table

SI. No.	Product category	Hazardous category mentioned on the products			
		Hazardous symbol picture	Hazardous symbol frame	Signal words	
1	Household cleaners - soaps, detergents, anti stain liquids, disinfectants, floor cleaners and drain openers				
2	Lawn and garden products				
3	Oil-based stains, paints and varnishes				
4	Latex and oil based paints				
5	Thinners and other solvents				
6	Glues and Adhesives				
7	Automotive products				
8	Batteries - household and car				
9	Antifreeze				
10	Inflammable liquids				
11	Household pest control liquids and other hazardous traps				
12	Mercury containing Thermometers, CFLs, etc				
13	Hair care and body care products including beauty care				
14	Watch and Torch batteries and cells				
15	Swimming pool chemicals				

Resource 3

School Hazardous waste - survey chart

School survey team	Products found in use on school campus	Hazardous category mentioned on the products			
		Hazardous symbol picture	Hazardous symbol frame	Signal words	
School gardens team					
School sanitation and hygiene team					
School cafeteria team					
Others					

Resource 4

Community Hazardous waste - survey sheet

Areas within homes where different	use on school	Hazardous category mentioned on the products			Alternative products
products are used		Hazardous symbol picture	Hazardous symbol frame	Signal words	(if any are used)
Gardens					
Kitchen					
Sanitation at home (toilets, kitchen sinks, floor cleaning, etc					
Pest management within homes					
Gums and adhesives					
Personal hygiene and beauty products					
Others					

References

http://www.hazwastehelp.org/educators/lessons.aspx

https://www.canada.ca/en/health-canada/services/home-safety/household-chemical-safety.html

https://swa.org/183/Household-Hazardous-Waste-Symbols

http://neerienvis.nic.in/faqs.html

 $http://www.ct.gov/deep/cwp/view.asp?a=2708\&q=323956\&deepNav_GID=1763\%20$

http://www.rethinkwasteproject.org/hazardous-waste/hhw-alternatives/

 $https://www.epa.ie/pubs/reports/waste/haz/HSA_EPA_Hazardous_Waste_Guidance_CAS.pdf$