



ACTIVITY DESCRIPTION:

This activity introduces students to the idea that many household chemicals are classified as hazardous waste. It also informs students that the water and other substances/items that go into roadside sewer (storm) drains do NOT go to a sewage treatment plant before entering our natural waterways.

MATERIALS

- Large garbage bin
- Recycling Bin
- 2 pairs of rubber gloves
- Explosive and flammable signs
- 2 paint cans & 2 aerosol cans
- 1 weed out container
- 1 fertilizer container
- 1 motor oil container
- 1 spray bottle & 1 water bottle
- 1 juice container
- 1 glass bottle
- 2 pop cans
- There may be additional containers as well

Make sure you have all items before the students arrive!

BEGIN THE ACTIVITY

Many items that are dumped down the drain shouldn't be. You will be explaining the process of sorting residential wastes, what the warning symbols on packaging mean, and some alternatives to hazardous materials.

Does everybody know what a storm drain is? These are the sewer drains on the side of the road along the curb, or in the gutter. Has anybody ever looked down the sewer? What did you see down there? A lot of what's down there is very bad for the natural environment. Has anybody participated in the "Yellow Fish" storm drain marking program before? What is it? It's a program run by local conservation authorities that educates people about where the storm drains empty into and provides them with equipment and instructions for marking the sewers in their neighborhoods to remind people to stop dumping any garbage, substances or other items down the drains. We are going to learn more about storm sewers today.

The water that goes into storm drains and sewers is NOT treated at the sewage treatment plant. What does this mean? This means that it goes right into the natural waterways like lakes and rivers. If it's dirty, it can kill plants, birds, fish and other animals. Eventually the water that is contaminated in a storm drain will flow into the natural environment and will find its way back to us as we drink or wash with. Here's a big word – bioaccumulation! Hazardous wastes that are dumped into the water supply are absorbed by plants and these plants are eaten by animals. As the hazardous waste or chemicals move up the food chain they accumulate in higher and higher amounts. That is bioaccumulation! Chemicals from hazardous waste can become so high in some water bodies that we are not allowed to swim in them.

What is recycling?

What are the 3 R's ? Reduce, Reuse, and Recycle.

Does anybody know what hazardous means? It means dangerous, kind of like poison. Do you know what hazardous wastes are? We are going to see which things (from the pile of various objects on the table) are hazardous wastes and which are recyclables.



Choose some students to put on the rubber gloves (each student who handles items **MUST** wear gloves for safety - make sure that nobody is allergic to latex). The others will aid them in sorting the various materials into the 2 bins. One is recyclables, and the other is hazardous wastes. Give the students one minute or less to do this. Have a student wearing gloves go through the "recyclables" bin. *Is it OK to pour any of the things from these containers (NOT the containers themselves) in the sewer? Answers will vary depending upon the container. For example, the water bottle is NOT OK to put in the sewer, but pouring the water in the sewer and recycling the bottle is OK.*

Go through the hazardous wastes bin, it will NOT be OK to pour ANY of those substances down the sewer and, of course, the containers should not be put into the sewers either. Let's review the symbols on the containers, do you know what each symbol is. Can you explain why they are hazardous (ex: corrosive, explosive, etc.). These substances are hazardous to people AND ecosystems.

What happens if we pour or put things in the sewer that don't belong there? They end up in our waterways; they poison plants, birds, fish and other animals. Eventually, they will poison us, too! What's the message we should tell our friends and family? The sewer is not a garbage can. Don't pour hazardous chemicals into the sewer or down the drain at home!

What can we do?

1. Take hazardous materials to a hazardous waste depot or call your local health department.
2. Do we need to use hazardous materials? Not necessarily, there are many alternatives to hazardous materials. There are lots of books that list pesticide-free substances for gardens and homes and non-toxic cleaning products which are healthier for people, too.

WHAT HAVE WE LEARNED?

Preventing pollution begins with you. Do not put hazardous waster down the storm drains or sewers!

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