



Product Toxicity*

Activity P.f/E.z

GRADE LEVEL: K-6

OBJECTIVE: To understand product toxicity and explore ways to reduce it.

VOCABULARY: toxic, nontoxic

PROCEDURE:

You might want to introduce this activity by asking children to have their parents help them find five things around the house that could be harmful to the earth. Stress that children should not handle these items. Begin a discussion by talking about what children have found.

- Have you ever seen a product with a label that says “warning,” “danger,” or “caution”? What does this mean? What kinds of products have these labels? (Ammonia, turpentine, bug spray, drain cleaner, nail polish remover)
- What does the label usually warn you against doing? (Swallowing, getting it in your eyes, maybe getting it on your skin) Why?

Explain to children that substances that contain ingredients that may be poisonous are called toxic. Encourage children to consider where waste from toxic products might end up and why it might cause problems to people or to the environment. Explain to them that many of these toxic substances can be replaced by nontoxic or less toxic products that do the same job.

Ask children if any of them have seen boxes of baking soda in refrigerators or sachets of herbs in closets or drawers. Explain that these are nontoxic substitutes for air fresheners that may contain toxic ingredients.

Let children know that some products, such as household batteries, also contain ingredients that become harmful only after they are thrown out and may leak into the environment.

You may want to conduct the following demonstration of a nontoxic substitute for the class. Tell children you are going to show them a homemade “silver polish” that is safe and can be made from ingredients they have around the house. Boil 2 to 3 inches of water in a shallow pan with 1 teaspoon of salt, 1 teaspoon baking soda, and a sheet of aluminum foil. Totally submerge a piece of silverware and boil for 2 to 3 minutes. Wipe the utensil with a cloth; tarnish should come off. Repeat the procedure if any tarnish remains.

* Source: U.S. Environmental Protection Agency Let’s Reduce and Recycle: Curriculum for Solid Waste Awareness