K-3: Warning Words

Subjects
Language Arts, Social Studies, Music, Mathematics

Skills
Applying mathematical concepts, communicating, evaluating, graphing data

Materials
Poster with song lyrics, pictures of Mr. Yuk and skull and crossbones poison symbols, colored water, measuring spoons, dropper, small clear containers or test tubes, graph paper, hazardous product labels or empty product containers (for teacher’s use only)

Time
One class period

Vocabulary
Hazardous, caution, warning, danger, symbol, toxic, product, ingredient, poison, flammable, reactive, corrosive

Related Teaching Toxics Activities
K - 3 Warning Words
4 - 6 Hazardous Homes?
4 - 6 Looking at Labels
7 - 8 What’s Hazardous?
7 - 8 Characteristics of a Hazardous Substance

Concept
Signal words and/or symbols identify products which contain hazardous substances.

Objective
Students will recognize the signal words (caution, warning, danger) and visual symbols that indicate the presence of hazardous substances in consumer products through a demonstration, singing and discussions.

Background
See Information Section, pages 127-128.
The Federal Hazardous Substance Act requires that signal words (caution, warning, danger) appear on labels of products containing hazardous substances. The degree of toxicity associated with the product is indicated by which signal word appears on the label:

- Danger: Highly toxic, one drop (.01 teaspoons) is a fatal dose
- Warning: Moderately toxic, one ounce (two tablespoons) is a fatal dose
- Caution: Low toxicity, over one ounce, is a fatal dose. Dose based on a 150 pound adult.

Procedures and Activities
Getting to Know the Warning Words

- How do you know if something is dangerous? (If you have conducted the activity K - 3 Home Tour, review what products found in the home are hazardous.) Discuss with students that people buy many different types of products for household chores. Although most of the products used around the house are safe, there are some products that contain ingredients that could be dangerous (hazardous) to our health and the environment.

- Warning Words identify products as hazardous. Write the three warning words on the board (Caution, Warning, Danger.) Show pictures of commonly used poison symbols (Mr. Yuk, skull and crossbones.) Other words that may appear on hazardous product labels include: toxic, poison, flammable, reactive, corrosive.
**How Much Is Dangerous?**

- In small groups, conduct the following measuring activity to visually demonstrate the difference between the warning words. Note: This works better as a demonstration for younger grades.
- Give each group three containers or test tubes labeled Caution, Warning, Danger, measuring spoons, dropper and a container filled with colored liquid. Assign students to measure:
  1. Two tablespoons of a colored liquid; pour this amount into Caution container.
  2. One teaspoon of colored liquid; pour into Warning container.
  3. One drop of colored liquid; drop into Danger container.
- As a class discuss which product is the most dangerous: the one with the word Caution on the label or one with the word Danger? Is there a big difference between the amounts of liquid in the different containers? Ask students to create a picture graph or bar graph using graph paper to show evidence of learning from the measuring experiment. Graphs should be labeled with Caution, Warning and Danger and use a single-unit scale to represent data observed.
- Tell the class: The amounts you measured for each container would seriously hurt or kill a 150 pound adult.
- Ask the class: “Do you think hazardous products would affect you the same way they do a 150 pound adult? How are you different? Would it take more or less of a hazardous product to make a child sick?”

**Recognizing Hazardous Products**

- Bring in hazardous product labels or empty product containers. Show students what hazardous products may actually be found in their homes. Younger students may write the hazardous word and/or draw a picture of the product to reinforce the topic.

**Warning Words Song**

- Sing the song “Be Aware of Toxics in the Home.” (see next page)
- As a class, or in small groups, create another verse to the song which describes what students should do if they see a product with the words: Caution, Danger, Warning or any poison pictures on the label. Note: The main message to get across is that students should stay away from these products. Sing the entire song with its new ending.
“Be Aware of Toxics in the Home” [Song Lyrics]
Sing to the tune of “When Johnny Comes Marching Home”

There are many different products in our homes, our homes.
Some are safe and others are unknown, unknown.
Look at the label and take care,
Household dangers - BE AWARE!
And we’ll be safe when we know the toxics in our homes.

Product labels have a message to share, to share.
Look for certain words and then take care, take care.
CAUTION, DANGER, WARNING TOO.
These are words to listen to,
And we’ll be safe when we know the toxics in our homes.

The signal words may not be on the label alone, alone.
The label might have a skull and a crossbone, crossbone.
CAUTION, DANGER, WARNING, TOO
These are words to listen to,
And we’ll be safe when we know the toxics in our homes.