



Lesson Plan: Read the Label

Adapted from the MPCA Household Hazardous Waste Learning Trunk Lesson Plans – www.pca.state.mn.us

Goal: Students will understand the importance of reading label information.

Assessment: Students will learn the definition of the different signal words, how to list the four signal words in order from most hazardous to least hazardous, and determine the level of hazard of two products by using the signal words found on the labels.

Age Group: Grades 4-5

Time: 20-30 minutes

Materials: A collection of HHW product labels from the list below. Alternatively, you can have students bring in one HHW product label from home off the list below (**Note:** can be a bottle but needs to be completely empty!), create a chart on the board that has least toxic on one end and highly toxic on the other end, pencils and paper.

Vocabulary

Caution- One of four signal words. Products labeled with this signal word are mildly to moderately hazardous.

Characteristics Words- Indicates the type of hazard posed by a product (as opposed to the level of hazard as indicated by the product's signal word) and is found on the label. The most common characteristic words are flammable, combustible, corrosive, toxic and reactive.

Danger- One of four signal words. Products that have this signal word on the label are extremely flammable, corrosive or highly toxic. They pose the greatest hazard.

Poison- One of four signal words. Products that have this signal word on the label are extremely toxic. They pose a great hazard.

Signal Words- Words on a product's label which indicate the degree of hazard (how toxic or hazardous a product can be). The 4 signal words are *caution, warning, danger and poison*.

Warning- One of four signal words. Products that have this signal word on the label are moderately hazardous.

Background Information for Teachers

- Many household products could harm children, adults, pets, or the environment if not used, stored, or disposed of correctly.
- Signal words on the label show the product's degree of hazard – how toxic or hazardous a product is. Signal words are required by law to be on the labels of hazardous products.
- **Signal Words** from least hazardous to most hazardous:

Caution – mildly to moderately hazardous (not fatal if swallowed but the product may irritate the skin or make a person sick).

Warning – moderately hazardous.

Danger – extremely hazardous, i.e. extremely flammable, corrosive, or highly toxic.

Poison – highly toxic (harmful or fatal if swallowed).

- **Characteristic words** are terms that further describe the type of hazard. They include the terms flammable, inflammable, protect from heat, corrosive, may cause burns, toxic, reactive, eye irritant, and skin irritant.

Activity

- Give each student one HHW product label. Have them find and record the signal words.
- Have each student switch their label with another student. Then find and record the signal words on that label.
- Using the chart on the board, have the students record the level of hazard on the product based on the signal word. Is it a low level hazard or high level hazard?
- Comparing the two products they recorded; discuss which product they would use and why they came to that decision.
- Ask students if there are other low level hazard products that could be used. (Refer to the *How to Reduce Toxic Chemicals in Your Home* brochure found on the MPCA website <http://www.pca.state.mn.us/index.php/view-document.html?gid=11366>)

Examples of Household Hazardous Waste Products

- Drain Cleaner
- Oven Cleaner
- Tub/Tile Cleaner
- Toilet Cleaners
- Furniture Polish
- Window Cleaner
- Bleach
- Car Wax/Cleaner
- Latex/Oil Based Paint
- Rust Remover
- Paint Stripper
- Mineral Spirits
- Caulk
- Glue
- Insect Repellent
- Weed Killer
- Rat/Mouse Poison
- Mothballs
- Shoe Polish
- Air Fresheners

Minnesota Teaching Standards

4th Grade:

Science: 4.1.2.1.1

Language Arts: 4.2.7.7, 4.8.1.1

5th Grade:

Science: 5.3.4.1.3, 5.4.4.1.1

Language Arts: 5.2.7.7