

Hazards on the Homefront

A Teacher's Guide to Household Hazardous Waste

6th-12th
Grade



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Special accommodations:
For the visually impaired, call 360-407-6700.
Persons with hearing loss, call 711.
Persons with a speech disability, call 877-833-6341.

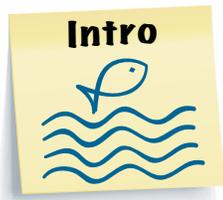
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Produced by

as part of the **Local Hazardous
Waste Management Program
in King County**

 DEPARTMENT OF
ECOLOGY
State of Washington





Acknowledgements

This newest edition of Hazards on the Homefront: A Teacher's Guide to Household Hazardous Waste is a project of the Local Hazardous Waste Management Program in King County in partnership with the Washington Department of Ecology and with funding from the Environmental Protection Agency, Region 10.

The guide was first developed in 1995 by the Local Hazardous Waste Management Program in King County (LHWMP) as a compendium of lessons, facts and ideas drawn from many sources. In 1999, the guide was restructured and rewritten to focus on specific key messages to more easily guide teachers in their presentation of household hazardous waste concepts to their students. The 1999 revision utilized the lesson writing and adaptation skills of educators Barbara Baar, Jenna Glock, Maggie Meyer, and Susan Wertz and editor Laurie Usher.

This newest edition of the guide retains the six original lessons developed in 1999 with some minor revisions, updated references, and new resources relevant for teachers throughout the state of Washington. It incorporates three new lessons developed by LHWMP since the publication of the 1999 edition.

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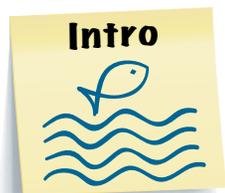


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Letter to Teachers

Dear Teachers:

Welcome to *Hazards on the Homefront: A Teacher's Guide to Household Hazardous Waste*, a series of lessons that will equip your students to contribute to a healthier and safer environment.

Over the years, many teachers have found this guide to be engaging and easy to use. The lessons are designed to be practical and flexible with investigations, enrichments and extensions that encourage students to delve into issues such as pesticides in our foods, contaminants in our waters, and other poisons that pose health and environmental concerns – issues that affect their daily lives.

The intent of *Hazards on the Homefront* is to bring these issues to students in a manner appropriate to their grade level and give them tools to be critical thinkers, problem solvers, and thoughtful consumers. The goals of the guide are to

- help students meet Washington state learning standards.
- provide real-life examples that make the topic accessible and relevant to students.
- present information that will enable students to make knowledgeable decisions about their health and environment.

We encourage you to stretch and mold these lessons to make them your own. You may bend, fold, or otherwise adapt them to meet your particular needs and themes. They are certain to provide students with knowledge and skills they can share with their families and their community through projects or everyday actions.

About the Guide

Intro



The *Hazards on the Homefront* guide contains a variety of hands-on lessons that highlight the health and environmental effects of household products, and describe how to find and use safer alternatives and properly dispose of the products we must use. The lessons will help students navigate through the choices they are making now and will make in the future — skills also needed to master the goals of Washington's education process.

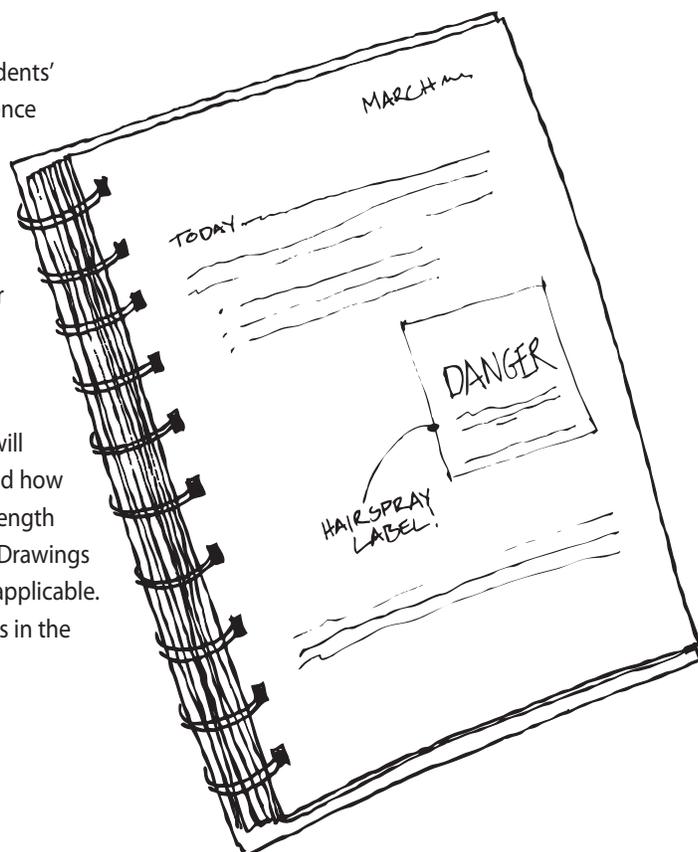
In each lesson

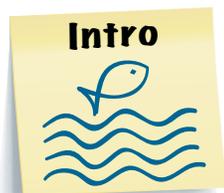
The nine lessons are based on goals for household hazardous waste management, as indicated at the start of each lesson. The intent of these goals is to reduce exposure to toxic ingredients and create a safer and healthier environment for all of us. Each lesson also

- identifies the multiple intelligences and the Washington State Essential Academic Learning Requirements that apply.
- specifies the focusing question, lesson duration, relevant vocabulary, necessary materials and resources.
- provides flexibility for the teacher to choose the variety and length of a lesson.
- recommends keeping a journal or science notebook as an important part of the scientific process.

Journals

One of the most valuable tools to assess students' understanding of material is a journal or science notebook. Journals in this guide are used as a place for students to record feelings, thoughts, impressions and scientific data. To guide you in the journaling process, each set of investigations includes suggestions for journal opportunities as well as prompts at the end of each investigation for student reflection. It is our hope that through the journaling and reflection process, students will become aware of what they have learned and how it connects to other parts of their lives. The length of each entry will vary with the assignment. Drawings and diagrams should be encouraged when applicable. It is suggested that teachers make comments in the journals, since feedback is crucial.





Making your own kit of hazardous products

A kit of sample hazardous products commonly used in the home is an important teaching tool for the lessons in this guide. You can set up your own kit of hazardous products, using the steps below to ensure your students' safety as well as your own.

1. Begin collecting your containers a few weeks prior to teaching the lessons. Collect empty and washed product containers from friends, neighbors, and colleagues. You may want to suggest the type of product containers you are looking for (e.g. detergent, all-purpose cleaner). Please remind them to wash them out several times prior to giving them to you and to keep the labels on them. Include some non-hazardous products, too. Your goal is to have 15 to 20 containers.
2. Once you have obtained all the product containers you need, wash each container twice. Allow them to air dry. Apply a sturdy tape over the cap area and then place each container in a separate zip-lock bag.
3. Find a plastic bin or box to keep the containers safely inside. It is important that these containers are kept away from the public, especially children, and from food preparation areas.

Multiple intelligences

Included in the curriculum design is Howard Gardner's Theory of Multiple Intelligences. The intelligences are identified in the guide because the authors believe meeting the needs of all students and helping them succeed is possible when the teacher consciously accommodates the intelligences in lessons. (See Appendix H for more information.)

Washington State Essential Academic Learning Requirements

The guide is designed to be an integrated set of lessons tied to the Washington State Essential Academic Learning Requirements and Grade Level Expectations. As you teach these lessons, you will address standards in reading, writing, communication, math, science, and health and fitness. (See Appendix G for more information.)

Web resources

Because resource information and educational standards change, updated information and links to new material related to the *Hazards on the Homefront* guide will be provided online at www.ecy.wa.gov/HazardsontheHomefront.