
Understanding Nonpoint Source Pollution Lesson Four: “Nonpoint Source Pollution Within Your Own Home”

Academic Question: How are you and your household contributing to nonpoint source pollution?

Objective(s):

- To identify household hazardous wastes and ways these wastes can contribute to nonpoint source pollution

Handouts:

[Household Hazardous Waste Information Sheet](#)

[Household Hazardous Waste Home Inventory](#)

Process (Activities):

1. Begin by asking students “How many different sources of nonpoint source pollution do you think you have in your house?”
2. Explain to students that many of the household nonpoint source pollution sources are found in common hazardous waste found around the house. Household hazardous waste may be any discarded liquid or solid material or container holding gases, which may have an adverse, harmful, or damaging effect in an organism or upon the environment itself. When household hazardous waste is disposed of improperly it can contaminate our environment by polluting our water and soil. Share with students the following information about household hazardous wastes:
 - ~~✍~~ The average household has between 3 and 10 gallons of hazardous materials.
 - ~~✍~~ One liter of motor oil can contaminate two million liters of drinking water.
3. Allow students to review Household Hazardous Waste Information Sheet. Ask students to conduct a Household Waste Home Inventory.
4. Have students share their results.
5. Discuss with students the proper method of disposing hazardous wastes--which is to take the waste to local community's household hazardous waste collection sites. Ask students to find out where this site is located in their community.

Product/Application: Have students research the different chemicals found on the back of several of the most common household hazardous wastes found during the inventory. Have students determine the impact of these chemicals on the aquatic systems. (The Office of Waste Management at the University of Missouri website, <http://outreach.missouri.edu/owm/hhw.htm> has a great deal of information on household hazardous wastes.)

Assessment: Ask students to create labels for hazardous wastes in their home that will help family members identify household hazardous wastes and understand proper disposal methods. Have students include information on their local community's household hazardous waste collection on their labels.

Resources:

Department of Toxic Substance Control
Public Education and Information

<http://www.dtsc.ca.gov/index.html>

400 P Street

P.O. Box 806

Sacramento, CA 95812-0806

Telephone No. 916-255-3545

Fax No. 916-255-3595

Household Hazardous Waste Project

Southwest Missouri State University

<http://outreach.missouri.edu/owm/hhw.htm>

1031 East Battlefield

Suite 214

Springfield, MO 65807

Telephone No. 417-889-5000

Time Frame: Two 45 minute lessons

Grade Level: 6th- 10th

TEKS Correlation:

Science

Grade 6: 6.1, 6.2, 6.3, 6.4

Grade 7: 7.1, 7.2, 7.3, 7.4, 7.8, 7.12

Grade 8: 8.1, 8.2, 8.3, 8.4

Biology: (b)1, 12.D

Aquatic Science: (b)1, 4.B, 7B,C, 8.C, D

Environmental Science: (b)1, 5.A, B, C, E, F

Geology, Meteorology, and Oceanography: 10.C

Mathematics

Grade 6: 6.1, 6.8, 6.11, 6.12, 6.13

Grade 7: 7.3, 7.4, 7.9, 7.13, 7.14, 7.15

Grade 8: 8.5, 8.14, 8.15

Geometry: 6

Precalculus: 2

Technology Applications (Computer Literacy)

Grades 6-8: 2, 4, 5, 7, 8

Social Studies

Grade 6 6.21, 6.22, 6.23

Grade 7 7.8, 7.21, 7.22, 7.23

Grade 8 8.10, 8.30, 8.31, 8.32

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English

Grade 6: 6.1, 6.2, 6.5, 6.13, 6.17, 6.20, 6.22, 6/24

Grade 7: 7.1, 7.2, 7.5, 7.13, 7.17, 7.20, 7.22, 7.24

Grade 8: 8.1, 8.2, 8.5, 8.7, 8.10, 8.13, 8.17, 8.18, 8.20, 8.22, 8.24

English I: 1, 4, 6, 8, 13, 15, 16, 21

English II: 1, 4, 6, 7, 8, 13, 15, 16, 21