



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY Lesson Plans for Teachers

www.tceq.state.tx.us/assistance/education.html

Trash City

Grade level:

- Kindergarten through fifth grade.

Sample TEKS: Science:

- K.1A, B
- K.2A - E
- K.3A - C
- K.4A
- 1.1A, B
- 1.2A - E
- 1.3A - C
- 2.1A, B
- 2.2A,B, C, E, F
- 2.3A - C
- 3.1A, B
- 3.2A - D
- 3.3A - D
- 4.1A, B
- 4.2A - D
- 4.3A - D
- 5.1A, B
- 5.2A - D
- 5.3A - D

Social Studies:

- 2.8D
- 3.2B
- 3.4C
- 3.9B
- 3.11A, B

Objective:

Students will build a "trash city" and display it in the school's cafeteria on Friday of Pollution Prevention Week (P2 Week). Encourage students to be creative, collecting items that would otherwise go into landfills.

Materials:

A visit to the school's dumpster can trigger lots of ideas, including ways to cut back on the creation of garbage.

Procedure:

Each class should build a city block. For ease in movement, it should be built on a sturdy piece of cardboard or something similar. At the end of the project, all of the classes should be able to bring their blocks together to form a city. Each class can label their block with "street signs." This makes it easier for judging at the end of the project.

Trash City Judging Criteria: The criteria for judging the city can change from year to year, but these are some that can be used:

most environmentally conscious block

tallest structure; shortest structure

most sturdy structure

most creative building

most organized block

greatest variety of items used in a building

most creative students can receive special titles (Mayor of Trash City, city council, solid waste manager, water quality manager, and so on)

Other sources of Pollution Prevention (P2) information: The No Waste Anthology: A Teacher's Guide to Environmental Activities K-12 includes background information, experiments, and transparencies on water pollution, oil, air pollution, solid waste, the three Rs, household hazardous waste, etc. Contact: Public Education Coordinator, Department of Toxic Substances Control, 400 P Street, P.O. Box 806, Sacramento, California 95812-0806 or visit their Web site: www.dtsc.ca.gov/Education/index.html.

The four-volume Regional Environmental Education Program. The P2 component was funded by US EPA. Volumes cover social, biological and physical sciences, and emphasize ecosystems, biodiversity and interdependence. As with the first source, these binders include experiments and lesson plans (K through 12). Call the Schuylkill Center for Environmental Education at 215-482-7300.

Extension: The following is a general outline for suggested P2 Week lessons.

Monday: Water Pollution (Gather items for Trash City and brainstorm ideas for your block.)

Stress that the Earth naturally recycles its water and that students are drinking the same water that the dinosaurs did. Display a poster on the hydrologic cycle and discuss pollution scenarios. Stress how some chemicals around the house can be bad for the students and for the environment. Fourth grade and up could discuss specific water quality issues such as recycling oil.

Tuesday: Air Pollution (List Trash City ideas and pick the best ones; let students start putting it together.)

Discuss acid rain. Students could discuss ozone action day alternatives such as car pooling and riding the school bus. Older students could do a project on temperature inversions and smog. Younger students could draw pictures of how the air is sometimes "dirty" and sometimes "clean." Include their pictures in Trash City as billboards promoting clean air. Fourth grade and up could track the number of ozone action days their city has from P2 Week until the end of October.

Wednesday: Land Pollution (Keep building!)

Stress litter prevention. Make a quick trip around the campus to pick up litter. This litter (if appropriate) could be used in the Trash City. Discuss how litter affects a whole ecosystem by hurting living things.

Thursday: Source Reduction (Finish building each block and make sure it is in place for judging.)

Discuss the issue of excess packaging. Get the kids thinking about why they have to have the toy that comes in three boxes instead of the one with a price sticker on it.

Friday: Trash City judging day.

Submitted by: TCEQ Pollution Prevention staff