



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Lesson Plans for Teachers

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

Storm Drain Dumping

Grade level:

- Fifth through sixth grades.

Sample TEKS for 5th grade: Science:

- 5.1A, B
- 5.2A - E
- 5.3A - D

Social Studies:

- 5.9A, B, C

Objective:

Students will develop an awareness of what happens to water contaminated through neighborhood runoffs.

Focus:

Begin by discussing how students would feel if everything that was dumped in the gutter went into a glass as they turned on the water tap.

Materials:

- wax paper
- salt
- tape
- food coloring
- clay
- oil
- water
- other materials to represent pollutants
- sugar
- eyedropper

Procedure:

Cover a piece of cardboard with wax paper and form a maze out of clay. Let the clay dry for one day. The maze needs a starting point and two exits. One exit leads to the treatment plant and the other into a stream. Label each exit. Students should make a list of those things which enter a gutter inadvertently or on purpose. Place drops of food coloring, salt water mixed with pepper, and oil on different locations. Allow one day for water to evaporate. Tilt the maze, add a drop of water at the starting point and let it drop slowly to an exit. It will pick up contaminants as it goes through the maze. Students should be able to describe what the drop looks like and feels like

when it exits. If the drop went to the treatment plant, the drop gets replaced with a clean drop of water. If it ended in the overflow (untreated) exit, the drop is added to a cup labeled stream. Discuss the problems associated with untreated urban runoff entering bodies of water.

Extension:

Have students identify/research ways contaminated water affects contaminated aquatic life and drinking water supplies. Students research alternatives to house and lawn chemicals

Submitted by: R. Debra Lopez, University of Houston Clear Lake TES Course, 1996.