



Landfills*

Activity M.v/H.m

GRADE LEVELS: 7 - 12

OBJECTIVES:

Upon completion of this lesson, your students will be expected to:

- Describe the role of a modern sanitary landfill
- Explain why a landfill is constructed as it is
- Diagram the construction of a modern sanitary landfill
- Examine the reasons for enforcing strict environmental standards in the construction of a municipal solid waste landfill.

OVERVIEW:

This lesson will explain how and why a modern sanitary landfill is constructed. Landfills will be discussed as a necessary, but final resort within the EPA's hierarchy. Also, biodegradability of material in a landfill will be explored.

PROCEDURE:

Distribute and discuss Student Handouts 1 and 2, which provide background information on landfills as a method of managing municipal solid waste. Then have your students complete Student Handout 3 to demonstrate understanding. Some teachers may prefer to have students complete Student Handout 3 first, before distributing Student Handout 2. Having students diagram a landfill themselves first may prompt increased interest in the completed diagram that has been provided.

EXTENSIONS:

Arrange for a field trip to a local landfill. Before the trip, discuss with students the need to collect information about the disposal of the solid waste that they generate. Place them in working groups (3 - 5 students is probably most appropriate) and make these groups responsible for gathering information about the local landfill. Distribute Student Handout 4, "A Trip to A Landfill," to your class as a guide to students as they seek information.

As a further extension, using the student handout illustration of a landfill as a guide, have your students build a scale-model of a modern sanitary landfill--complete with methane entrapment, leachate controls and model trucks, excavators and the like.

*Source: Kraft General Foods Environmental Institute Solid Thinking About Solid Waste