



Name: \_\_\_\_\_

Date: \_\_\_\_\_



**Directions:** Carefully read the information below to learn about landfills and dumps. On the back of this page, write a paragraph comparing and contrasting landfills to dumps.

### Landfills and Dumps

Many years ago, most communities disposed of directly into the dump (that means there wasn't any type of screening process to remove household hazardous waste [items such as oil-based paint, pool chemicals and rechargeable batteries] and or biohazardous waste [medical waste]). Furthermore, there wasn't any protection system to prevent leachate (a liquid that is produced when rainwater mixes with garbage in a landfill and percolates through the waste) from contaminating groundwater. This method of dealing with waste is no longer used because it is environmentally harmful.

Today, sanitary landfills are used for the disposal of garbage and trash. In Palm Beach County, two types of landfills are utilized. The Class I landfill is for garbage, products such as used diapers, used paper towels, and product packaging; however, most of this garbage does not enter the landfill directly. Most of our garbage is processed at a Waste-to-Energy Facility first. At this facility, garbage is screened to remove household hazardous waste and biohazardous waste, which is no longer, permitted in landfills. After the processing stage, lightweight garbage is burned and reduced to ash. This ash, along with unburned garbage is placed in the Class I landfill. The Class III landfill is for trash such as furniture and construction debris.

As part of federal and state regulations, the Class I landfill has a double liner system and a leachate collection system to protect the groundwater. The Class III landfill has a single-liner and leachate collection system. Furthermore, there are groundwater-monitoring wells that have been placed around the perimeter of the landfill. Tests are regularly conducted to determine the quality of groundwater. Both the Class I and Class III landfills have a methane gas collection system in which methane gas is collected and safely burned by using a flare. Dumps typically did not have such a system.

The materials in landfills are covered daily with soil to reduce odors and insects. Dumps were not covered on a regular basis.

Below is a cross-section of a sanitary landfill.

