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Solid Hazard Waste  
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## Quiz 5

### QUESTION 1-25pts.

What is the difference between Reuse and Recycling?

Reuse lengthens the life of an item. It is accomplished through many different methods, a perfect example of this is developing products that are reusable and long-lived. Recycling is the reprocessing of an item into a new raw material for use in a new product.

What is the rate of recycling in your state?

The rate of recycling in Washington, DC is 27%.

Why do we recycle less than we landfill?

Everyone knows recycling means less trash going to our landfills but the greatest environmental benefit of recycling is the conservation of energy and natural resources and the prevention of pollution that is generated when a raw material is used to make a new product.

What is composting?

Another method of treating municipal solid waste is composting, a biological process in which the organic portion of refuse is allowed to decompose under carefully controlled conditions. Microbes metabolize the organic waste material and reduce its volume by as much as 50 percent.

### QUESTION 2-25pts.

Differentiate between waste dumping and landfilling. Which one would you recommend for your community and why?

A dump is an excavated piece of land used as storage for waste materials while a landfill is also an excavated piece of land for waste storage but it is regulated by the government. 2. A dump is smaller than a landfill. I would recommend a dump for my city because we are a small city and don't have much space for a landfill.

#### QUESTION 3- 25 pts

What is waste-to-energy? Give examples of such practice in the United States.

Waste-to-energy or energy-from-waste is the process of generating energy in the form of electricity and/or heat from the primary treatment of waste, or the processing of waste into a fuel source.

Anaerobic digestion: Biogas rich in methane. Fermentation production: examples are ethanol, lactic acid, hydrogen. Mechanical biological treatment (MBT) MBT + Anaerobic digestion. MBT to Refuse derived fuel.

#### QUESTION 4- 25 pts

Using the average rate of waste generation per person/day in the US, estimate the rate of waste generation if a city has a population of 250,000 people. How much waste (lbs) will be recycled if their current recycling rate is 7%?

I would think the current 4.91lbs would triple, because that means people are creating more and not recycling which is not energy efficient and does not help our environment.