**Garbage Webquest**

**Part I**

DIRECTIONS: You are going to visit three different websites related to garbage and waste handling. Your job is to collect as much relevant information as you can to help find a solution to our garbage problem. Please read through the information on each webpage carefully and write a complete response to the questions below. You will want to use this information in your end product for this problem. You may work with a partner, but each of you needs to complete this packet individually.

**Site #1: How Landfills Work**

(<http://science.howstuffworks.com/environmental/green-science/landfill.htm>)

1. Read the opening page (Introduction to How a Landfill Works).

a. How does the amount of waste that Americans generate compare to the amount of waste produced in other countries?

b. Watch and listen to the video clip at the bottom of the page called “Really Big Things.” Summarize what you learned:

2. Click on the “keep reading” button at the bottom of the page (or click on “2. How Much Trash

is Generated” at the top of the page).

a. How many tons of solid wastes are generated in a year?

b. If 1 ton = 2000 pounds, calculate … How many pounds is this?

3. Click on “3. How is Trash Disposed?” (or the “keep reading” button).

a. What are the three main ways that solid waste is handled in the US?

b. What percentage of trash ends up in landfills and what percentage is recycled?

4. Click on “4. What is a Landfill?”

a. What makes a landfill different than a dump?

b. What is the difference between a sanitary landfill and a municipal solid waste (MSW)

landfill?

5. Click on 7 - “Parts of a Landfill.”

a. What are some of the parts of a landfill designed to prevent contamination to the surrounding environment? Choose at least 3 and describe each of them.

b. Why is it important to try to keep water out of a landfill?

c. What is leachate?

d. What are some indicators in ground water that a landfill could be seeping leachate?

List at least two and explain them.

6. Click on 8 – “What happens to trash in a landfill?”

a. Why is it necessary for landfills to be monitored even after they are closed?

b. Why does it take so long for the garbage in a landfill to break down?

7. List any other relevant information that you obtain from this website.

(At least three additional facts)

**Site #2: EPA Reduce and Reuse**

(<http://www.epa.gov/osw/conserve/rrr/reduce.htm>)

1. Is the amount of waste generated in the US per person increasing or decreasing? By how much?
2. What are the benefits of reducing waste? List and explain as many as you can.
3. Follow the hyperlink on the right-hand sidebar “What You Can Do.”
   1. Choose one of the tabs to read about and investigate. You and your partner should each choose a different topic. Your choices are:
      1. At Home and in the Garden
      2. On the Go
      3. At Work
      4. At School
      5. In the Community
   2. Identify which of the topics you selected from the list above and summarize your findings.

**Site #3: Municipal Solid Waste Recycling**

(<http://www.epa.gov/epawaste/nonhaz/municipal/index.htm>)

1. What is municipal solid waste?

2. What types of things are in our municipal solid waste that could be recycled? How much does each contribute to the percentage of waste?

3. Choose one of the following hyperlinks and read about the process of recycling that particular material. You and your partner should each choose something different.

 *Paper* [*http://www.epa.gov/wastes/conserve/materials/paper/*](http://www.epa.gov/wastes/conserve/materials/paper/%20)

 *Food Scraps and Yard Trimmings* [*http://www.epa.gov/wastes/conserve/rrr/composting/index.htm*](http://www.epa.gov/wastes/conserve/rrr/composting/index.htm%20)

 *Aluminum* [*http://www.epa.gov/wastes/conserve/materials/alum.htm#process*](http://www.epa.gov/wastes/conserve/materials/alum.htm%23process%20)

 *Glass* [*http://www.epa.gov/wastes/conserve/materials/glass.htm*](http://www.epa.gov/wastes/conserve/materials/glass.htm%20)

 *Plastics* [*http://www.epa.gov/wastes/conserve/materials/plastics.htm*](http://www.epa.gov/wastes/conserve/materials/plastics.htm%20)

 General list of other materials [http://www.epa.gov/wastes/conserve/materials/index.htm](http://www.epa.gov/wastes/conserve/materials/index.htm%20)

a. Which material did you select to research?

b. What are some of the key benefits to recycling this material?

c. How much of this material is recycled each year?

d. What are some uses of the recycled material?

e. What does the process of recycling this material involve?

**Part II**

The following are questions that are frequently asked. Provide a complete sentence answer for each question.

1. What would be the problem with shooting our trash into space? How much would it cost per pound to do this? [http://greenanswers.com/q/36560/recycling-waste/garbage/what-would-be-problem-shooting-our-trash-space](http://greenanswers.com/q/36560/recycling-waste/garbage/what-would-be-problem-shooting-our-trash-space%20)

2. Is there a better option than recycling? What is it? Why is it a better option? [http://www.greenlivingtips.com/articles/100/1/Reuse-vs-recycle.html](http://www.greenlivingtips.com/articles/100/1/Reuse-vs-recycle.html%20)

3. What is the percent of solid waste that comes from packaging? <http://www.enotes.com/science-fact-finder/environment/how-much-does-packaging-contribute-municipal-solid>

4. List 4 ways that you can reduce the amount of packaging you use. [http://wwf.panda.org/about\_our\_earth/teacher\_resources/project\_ideas/waste\_management/](http://wwf.panda.org/about_our_earth/teacher_resources/project_ideas/waste_management/%20)

5. List 5 things you can do to reduce the amount of waste generated in your home. [http://www.youtube.com/watch?v=yNIoyhhHyYA](http://www.youtube.com/watch?v=yNIoyhhHyYA%20)

6. Why can’t we burn our garbage? [http://www.dhs.wisconsin.gov/eh/hlthhaz/fs/woodbrn.htm](http://www.dhs.wisconsin.gov/eh/hlthhaz/fs/woodbrn.htm%20)

7. Why can’t we dump garbage into the ocean? (Watch whole video.)

[http://www.greenecoservices.com/the-horrible-effects-of-litter-and-trash-in-the-ocean/](http://www.greenecoservices.com/the-horrible-effects-of-litter-and-trash-in-the-ocean/%20)

8. How is copper recycled? What percentage of copper is recycled?

<http://www.copper.org/publications/newsletters/innovations/1998/06/recycle_overview.html>