

# **It's a Dirty Job, but somebody's got to do it**

## **5<sup>th</sup> Grade**

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### **Benchmarks & Objectives:**

ES-5: Explain how the supply of many non-renewable resources is limited and can be extended through reducing, reusing and recycling but cannot be extended indefinitely.

ES-6: Investigate ways Earth's renewable resources (e.g., fresh water, air, wildlife and trees) can be maintained.

ST-1: Investigate positive and negative impacts of human activity and technology on the environment.

ST-3: Explain how the solution to one problem may create other problems.

### **Materials:**

- Trash bags
- Newspapers
- Coat hangers
- Cardboard boxes
- Plastic containers
- Glass jars
- Tin cans (without sharp edges)
- Any other 'trash'

### **Preparation:**

Clean all material and put one of each item in a trash bag. Have one trash bag full of 'trash' for each group. On the board, write a list of how long it takes certain materials to decompose.

### **Initial Demonstration:**

Take a look at the classroom trash can. Grab an item that is made of different materials and looks clean. Talk about what the item is made of. Talk about where those materials came from. (Wood and paper from trees, metal from mines, plastic from oil) Engage the students in a discussion about whether these materials can be replenished indefinitely as well as where these materials go when they are thrown in the trash (the landfill).

### **Procedure:**

Separate the students into small groups and explain that we are going to look at a typical bag of trash. If introduced with appropriate enthusiasm they should not object, too much. Have the students look through the trash and identify each item, the material it is made of, and how long it will take to decompose. If time permits a simple trash calculation is included that shows how much trash is produced.

#### **Decomposition Times:**

Apple core – 2 months

Newspaper – 3 to 4 months

Styrofoam – 50 years

Plastic bottle- 70-80 years

Aluminum – 200 years

Glass – never

Science

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

*It's a Dirty Job* - Trash Activity

**Instructions:** Fill in the following information:

- A. The name of the **ITEM**.
- B. The **MATERIAL** from which the item is made.
- C. Will the item **DECOMPOSE**?
- D. How many **YEARS** will it take to decompose?

A. Item	B. Material	C. Decompose?	D. Years?
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

Question- Instead of throwing these things away, what would be a better thing to do with them?

Science  
Trash Calculation

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

**The average human in the USA produces 3 pounds of garbage each day.**

1. How many pounds of garbage does the person make in a week?
2. How many pounds of garbage does a person make in a month?
3. How many pounds of garbage does a person make in a year?
4. How many pounds of garbage does a family of four people make in one day?
5. How many pounds of garbage does one family of four people make in one year?
6. If a person recycles 2 lbs of their garbage every day, how many pounds of garbage would they send to the landfill each day?
7. If a person recycles 2 pounds of garbage every day, how many pounds of garbage will NOT be sent to the landfill each year?