Lesson designed by the City of Lubbock Water Utilities Conservation Education Department 406 Muncipal Drive Lubbock, Texas 79403 (806) 775-2586

Garbage Pizza

I. Objectives

- a. Students will construct a "Garbage Pizza" to represent all the trash thrown away.
- b. Students will learn the composition and the proportion of the types of trash that enter the landfill.
- c. Students will classify recyclable materials.
- d. Students will analyze how personal choices make a difference.

II. Materials

- a. Cardboard pizza (red poster board, yellow clay)
- b. Glue
- c. String (7 strings per student)
- d. "Trash"
- Food: pasta, beans, goldfish, pretzels, fruit loops
- Plastic: buttons, straws, bottle lids
- Glass: glass pieces (crafting glass), glass beads
- Yard waste: leaves, small pieces of mulch
- Metal: Coke tabs, paper clips, safety pins, bottle caps
- Other: rubber bands, fabric scraps, Styrofoam
- Paper: paper scraps, newspaper scraps, labels, cardboard

III. Introduction

- a. Each person in the United States creates about 5 lbs. of trash each day! We know that some of that trash is recycled, but most of it actually goes to the landfill. Our landfill takes in about 1,000 tons of trash every day from people in Lubbock like you and me! What kind of stuff are we throwing away to make all that trash?
- b. It's hard to imagine all the different types of trash that we have buried in the landfill, so we're going to make a pie chart to help us understand. A pie chart is a type of graph that helps us to learn information quickly. Pie charts can be lots of fun. In fact, today we will be making a pizza as our pie chart! We'll call it the Garbage Pizza, and it will teach us about the different types of trash that we add to our landfill.
- c. Our pizza will have everything on it! Instead of Pepperoni Lovers—Garbage Lovers! All of our toppings will represent the different types of trash we add to our landfill and what the percentages are of each type of trash.
- d. Trash that we add to the landfill can be classified or grouped into 7 different categories. We're going to have each slice of pizza represent a category of trash. Yum!

IV. Content/Procedure

- a. To begin let's look at our bag of pizza slices. You'll notice that some of these pieces are too small or too big to be a regular slice of pizza. This is because our pizza is going to measure different amounts. If you put all of these slices together, they will form a complete pizza—or we can say 100% of the pizza.
- b. Find the largest slice. This slice is so big that it is almost half of the pizza isn't it? This slice of pizza is going to measure 41%. Do you see how 41% is almost half of 100%. What type of trash do you think makes up nearly half of what we throw away? Paper! That's paper and cardboard.

- c. Let's look at the other slices and learn what types of trash they represent.
- d. Show each type of trash and it's matching percentage.

V. Activity—Garbage Pizza

- a. Students will construct a pizza (pie chart) to show the proportion of types of trash that are thrown away in the landfill.
- b. Give each student the "pizza slices" or percentage measurements.
- c. Using the yarn to mark off the correct measurement, the students will create a slice on the pizza to represent each type of trash.
- d. Students will then add "toppings" to the pizza. Each slice should be topped with trash representing that group.

VI. Conclusion

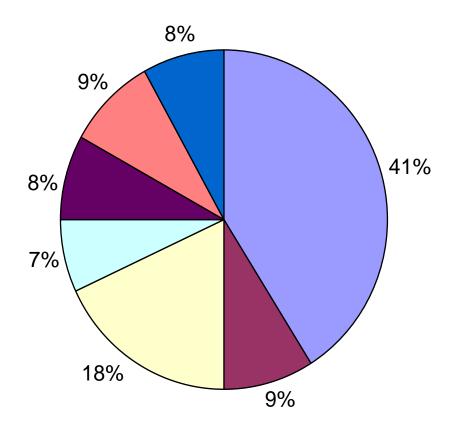
- a. Now we have a delicious pizza with everything on it. But I have some questions about this pizza.
- b. This pizza shows us the different types and the amount of each type of trash that we add to the landfill each day. We know that it is important to save space in the landfill. Looking at our pizza, tell me what type of trash do we send most often to the landfill. And which the least?
- c. Looking at our pie chart—that's our pizza, what do you think we could do to reduce the amount of trash in the landfill? Can we get rid of any of these categories?
- d. Of course! Paper, plastic, glass and metals can mostly be recycled here in Lubbock. Also, yard waste and food scraps can be mostly be composted. If we were able to recycle and compost almost all of these types of trash, what would be left to go to the landfill? The "other" category.
- e. It's true that we can't recycle all the types of paper—only newspaper and light colored paper. But imagine if we did recycle all the paper and cardboard that we could. The paper slice would become a lot smaller...maybe even like the metals or plastics.
- f. Do you see how recycling will make each category, or each slice, smaller. This leaves more room in the landfill, and it saves our Earth's natural resources!

VII. Lesson Assessment

a. How have the students' behavior and attitude towards trash, towards recycling changed?



Garbage Pizza



■ Paper ■ Other □ Yard Waste □ Plastic ■ Food ■ Metal ■ Glass