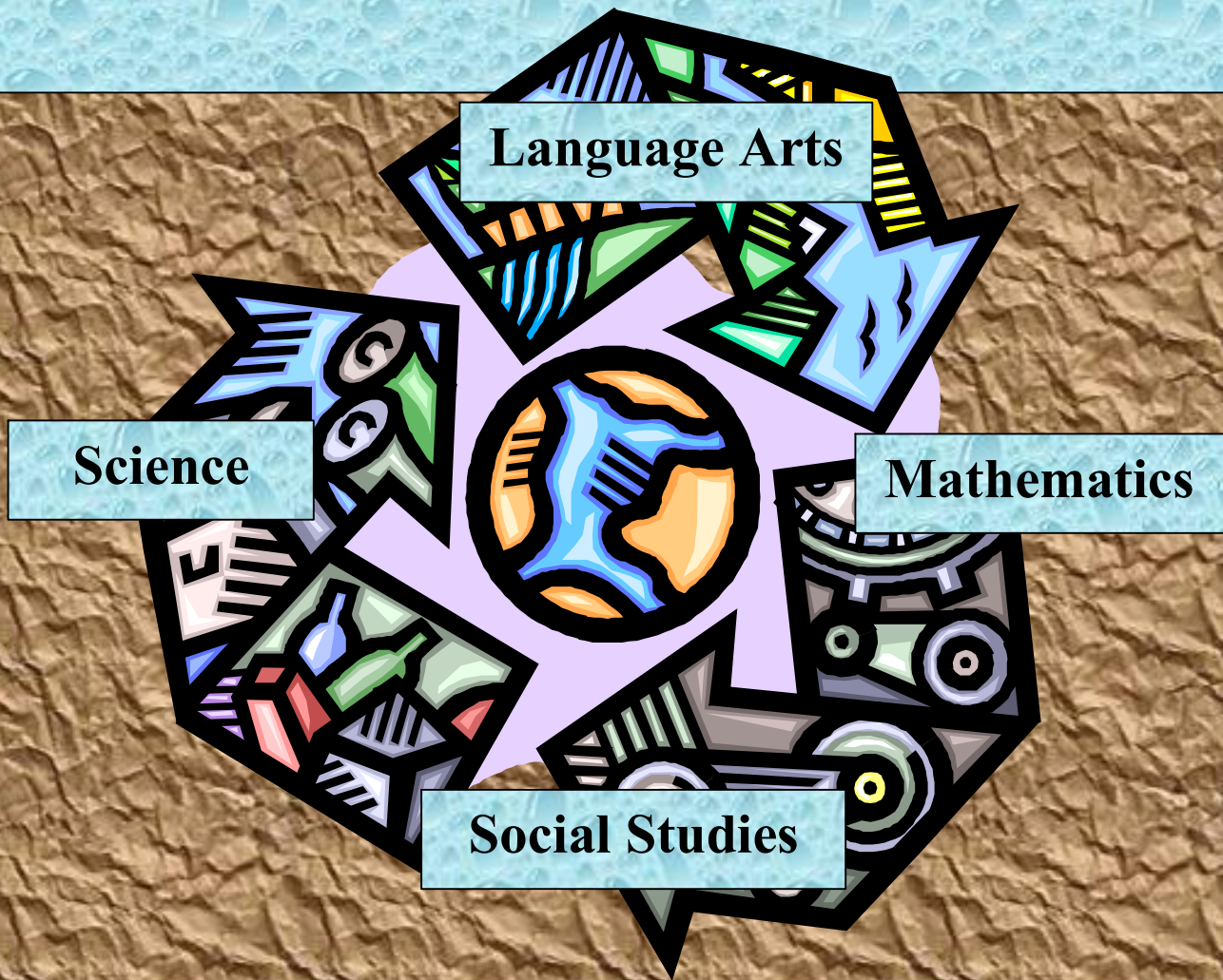


Garbology

A Thematic Unit about Trash

By Nancy L. Wilkinson



Lesson 6

Finding the Percentage of Recyclability.

Objective:

Students will find the percentages for each recyclable item.

Materials:

Worksheet 6 - One for each students or group.

Opening Activity:

- 1) Tell the students that we throw away 4.4 pounds of trash per day and 50% of it can be recycled. We only recycle 13% of our trash currently.
- 2) Ask the students to answer the questions below:
 - a) How many pounds of trash do we recycle and how many pounds can be recycled each day?
 - i. *(The answer is .572 pounds per day are recycled when 2.2 pounds should be recycled.)*
 - b) What is the difference in weight between how much we recycle and how much we should recycle? *(1.628 pounds)*
 - c) According to the World Almanac of 1996, 248,709,873 people were living in the United States. How much extra trash is thrown away per day due to not recycling? *(248,709,873 * 1.628 = 404,899,673.2 pounds per day).*

Activity:

- 1) Pass out Worksheet 6.
- 2) Find the percentage of recyclability by:
 - a. Dividing the number of garbage items in each category by the total number of pieces of trash.
 - b. Converting the decimal into a percent.

Closure:

Students should share their responses with the class.



Lesson 6, Worksheet 6 Statistical Analysis in Mathematics

Name _____ Period _____

Directions:

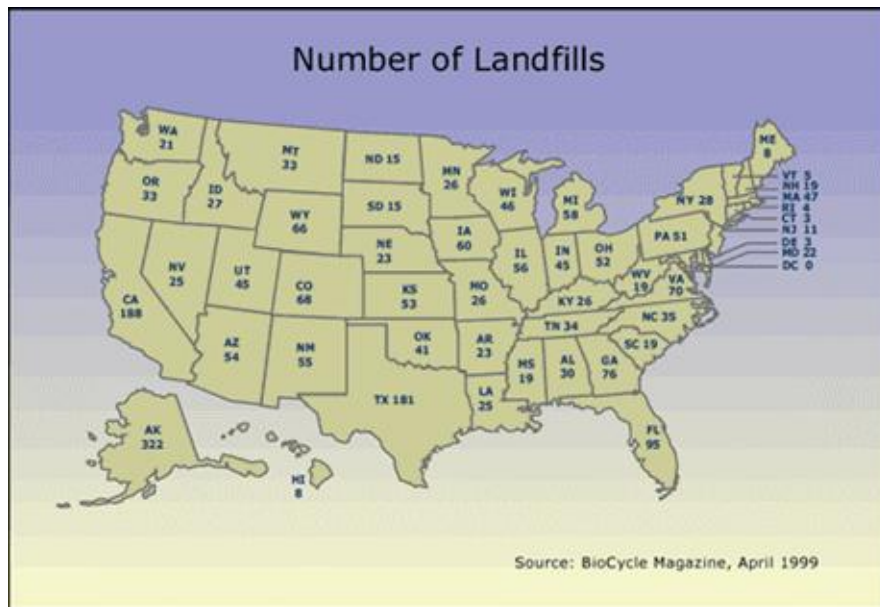
Find the percentage of Recyclability by:

- a. Dividing the number of garbage items in each category by the total number of pieces of trash.
- b. Converting the decimal into a percent.

Here's an example:

- 1) There are 8 pieces of trash. One piece is glass.
- 2) Divide 1 by 8. The answer is .125.
- 3) Convert .125 into a percent by moving the decimal two places to the right. The answer is 12.5%.

Garbage Category	Total Number	Percent
Glass		
Metal		
Aluminum		
Plastic		
Paper		
Styrofoam		



Lesson 7

Creating a Bar Graph Showing the Percentage of Recyclable Items

Objective:

Students will create a bar graph showing the percentage of recyclable items.

Materials

- 1) Worksheet 7 - One for each student or group
- 2) Information from Lesson 6, Worksheet 6.

Opening:

Ask the class "Why would someone want to create a bar graph to show information?"

Activity:

- 1) Pass our Worksheet 7.
- 2) Using the information from Lesson 6, the students should create a bar graph that displays the amount of recyclable items in their trash.

Closure:

Students may share their graphs with the class.

