

**Solid Waste and Recycling Curriculum
Lesson 9**

Waste Characterization/ Composting

Objectives:

I will understand that studies have been conducted to determine what makes up municipal solid waste.

I will be able to identify which of the categories of MSW generated can be recycled.

I will be able to identify what types of materials can be composted and what cannot.

I will recognize that for efficient composting, there must be a balance of materials.

Standards:

E.12.C.4 Students know processes of obtaining, using, and recycling of renewable and nonrenewable sources. E/S

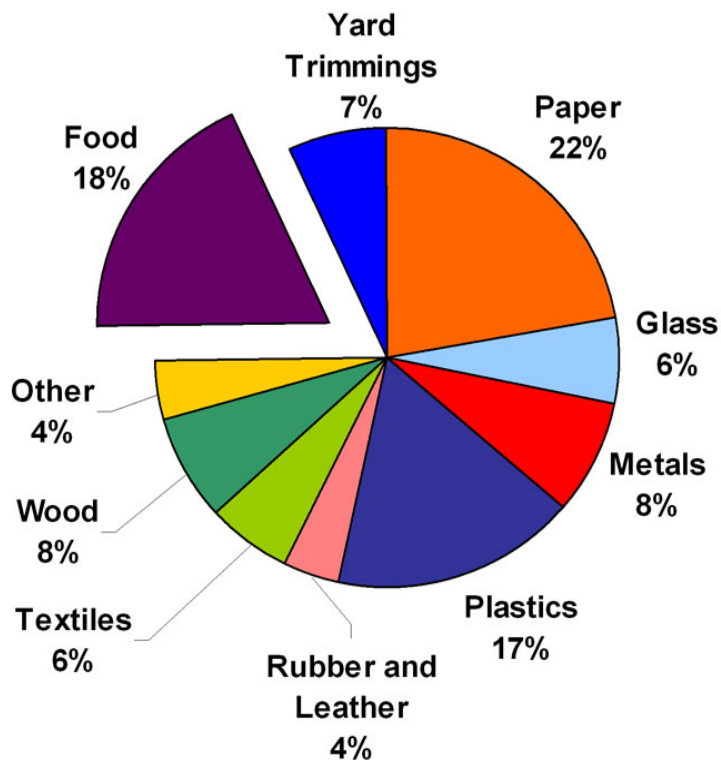
N.12.A.1 Students know tables, charts, illustrations and graphs can be used in making arguments and claims in oral and written presentations. E/S

N.12.A.2 Students know scientists maintain a permanent record of procedures, data, analyses, decisions, and understanding of scientific investigations. I/S

N.12.B.2 Students know consumption patterns, conservation efforts, and cultural or social practices in countries have varying environmental impacts. E/S

N.12.B.4 Students know scientific knowledge builds on previous information. E/S

Municipal Solid Waste Sent to Landfill, 2007



Taken From: <http://www.epa.gov/region09/waste/features/foodtoenergy/food-waste.html>

SAMPLE RESPONSES

Vocabulary:

1. **Municipal Solid Waste:** *trash or garbage generated by people and industry.*
2. **Waste Characterization Study:** *a study performed in order to find out how much and what types of waste are thrown away.*
3. **Environmental Protection Agency:** *a federal agency dedicated to helping the environment. They set rules and regulations for how waste can and should be disposed.*
4. **Organic Compounds:** *includes things that are living, have once lived, or are made from living things.*
5. **Decompose:** *the process that an item goes through to break down into its smallest elements.*

6. Biodegrade: *the process that an item goes through to break down into its smallest elements, through the use of micro-organisms.*

7. Compost: *the result of decomposition of organic material. It is generally used for fertilizer or soil conditioning.*

Questions:

1. Draw a pie chart representing the information in the waste characterization table.

2. Which of the categories above can be composted? *yard waste, paper products and food*

3. List some items that can be composted. *office paper, banana peels, moldy lettuce*

4. List some items that cannot be composted. *metals, plastics, and glass*

5. Write the formula for next session's compost column.

2 ½ cups bagged salad, ½ cup dried leaves, ½ cup pencil shavings, 1 cup shredded paper, 1 cup water, 1 cup soil, 1 tablespoon compost starter (microorganisms)