

Activity: Lots of Litter

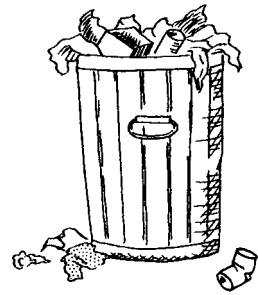
Grade Level: Grade 1

Major Emphasis: Pollution

Major Curriculum Area: Science

Related Curriculum Areas:

- Refer to Outdoor Education Curriculum Matrix K-2
- Language Arts
- Mathematics
- Art



Program Indicator:

1. The student will become aware of polluting forces in the natural environment in relation to air, land and water.
2. The student will be able to sort and classify objects by attributes.
3. The student will be able to construct and interpret bar graphs.

Student Outcomes: The student will: **(DL2&3)**

1. identify solid litter in the outdoor environment.
2. collect solid litter in the outdoor environment.
3. classify litter by various characteristics.
4. graph data from classification on a bar graph.
5. choose appropriate compost items and justify their selections.
6. use his/her senses to examine compost.
7. list details to support the main idea: Ways to Save the Environment.

Readiness:

1. Introduce vocabulary:
environment pollution litter bar graph
2. Complete the first grade Unified Science Unit, "Pollution."
3. Read The Lorax by Dr. Seuss.

Materials:

- | | | |
|--|----------------------|-------------------|
| 1 plastic trash bag containing 6 lbs. of trash | shower curtain graph | spinner bottle |
| prepared bag of camp litter | empty litter bags | small wastebasket |
| small pieces of paper | compost cards | Main Idea Chart |
| 4 Rs Chart (Reduce, Reuse, Recycle, Refuse) | sticky tack | trowel |

Procedures:

Activity A: Collecting and Graphing (DL1,2&3)

1. Distribute litter bags and have students search and collect "planted" litter. Return to central area after all litter has been collected. Ask students to examine the litter and think of possible ways to group or classify litter. *Classifications can be based on size, color, function, materials, shape etc. There is no single, best way to classify the litter. Accept and discuss all possible classifications. Require verbal justification for each classification.*
2. Arrive at a consensus, name the categories and group the litter by agreed upon categories.
3. Develop your graph by the categories agreed upon. Be sure to title and label your graph.
4. Discuss the graph. Refer to Figure 1 for an example.

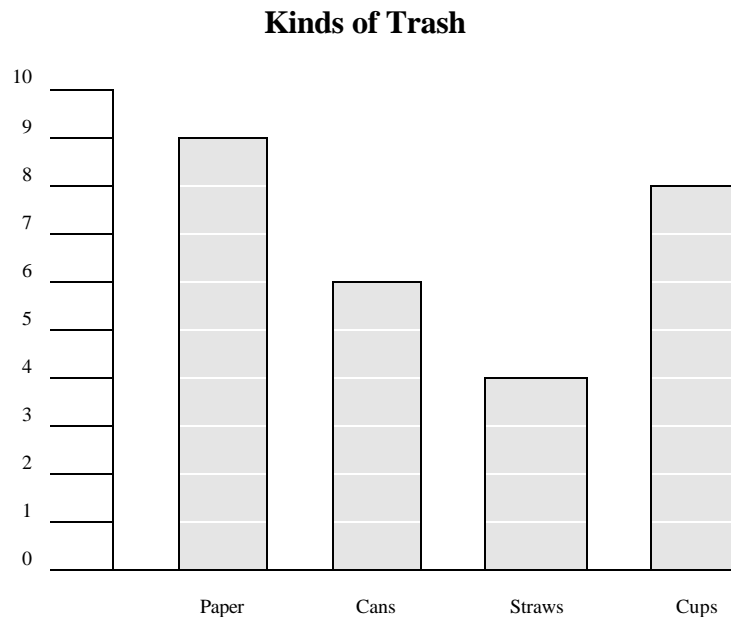


Figure 1: "Trash" Bar Graph

Activity B: Trash Spin (DL1,2,3&4)

1. Pass around a securely tied 6 pound bag of litter. Tell the students that this bag represents the amount of trash generated by every American every day. Discuss some of the problems created by solid waste disposal methods and pollution. Review the 4 Rs (reduce, reuse, recycle, refuse).
2. Give each student a small piece of scrap paper. Have them draw a picture of something that was thrown away at their house during the past week. Place their pictures into a small wastebasket.
3. Have students sit in a circle. Place the bottle in the center of the circle. One student spins the bottle. When the bottle stops spinning, the person it is pointing to will reach into the trash can and pull out one of the trash pictures.

- The student will then decide and explain which of the 4 Rs apply. (i.e. picture of milk bottle: Student responds that he will reuse it as a bird feeder.) The student will then attach his picture to the chart in the appropriate column.

4 Rs Chart			
Reuse	Recycle	Refuse	Reduce

- That student becomes the spinner. Encourage students to be original with their ideas.

Activity C: Compost Exploration (DL1,2,3&4)

- Walk through the forest. Look at the leaves. Observe how nature recycles its parts by viewing the leaves and soil on the ground.
- Visit the camp compost piles. How can you recycle to be as efficient as nature? What can we learn from nature?
- Tell students the kinds of trash that:

can be put in a compost pile:

- fruits (skin/seed/pulp)
- vegetables (skin/seed/pulp)
- breads and bread products
- tea leaves
- coffee grounds
- egg shells
- yard waste (leaves/twigs)

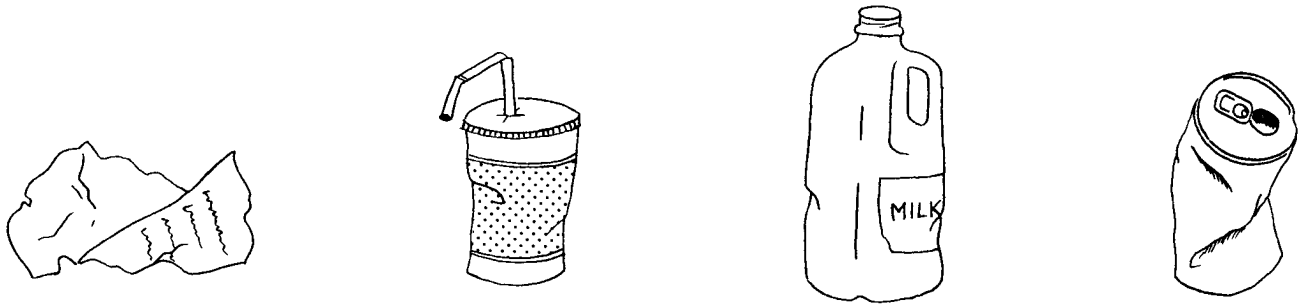
cannot be put in a compost pile:

- meat scraps
- bones
- dairy products
- fats
- oils
- fish

- Using pictures, the students will do “thumbs-up” or “thumbs-down” as to whether the picture food can be put in the compost pile.
- Using a trowel, display the finished compost from the compost pile.
 - Emphasize that it is like regular soil.
 - Have the students note the texture, smell and color.
 - Ask for some ways in which people can use compost.
 - Discuss why composting is a good way to help the environment.

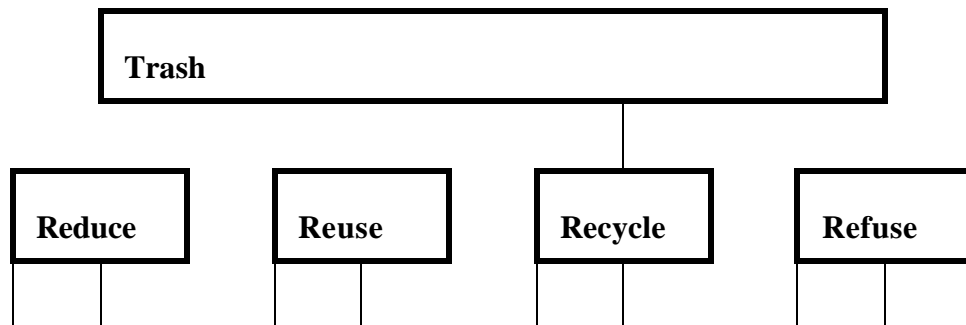
Summary: (DL2,3&4)

- Use "Save the Environment" as a main idea. Have students supply details of how people can save the environment. Complete the graphic organizer with these details.
- Use the 4 Rs Chart to complete a writing activity or poster.



Follow-Up: (DL1,2,3,4&5)

1. Using trash, have students create a bulletin board picture.
2. Design mobiles using trash. Label each section with one of the "4 Rs".



3. Do the activity "Trash Can-Do" in Ranger Rick's NatureScope: Pollution.
4. Have students begin a recycling center and a compost pile at their homes.
5. Begin a recycling center for your classroom.

Extension Activities: (DL2,3&4)

1. Have students create a poster that will make their fellow students more aware of the problems and solutions of trash disposal.
2. Have students discuss how they can refuse, reduce, recycle or reuse something in the classroom, school or community. Have them write a letter to the principal explaining their ideas and reasons.

Teacher Resources:

Books:

- < *The Lorax, Dr. Seuss.
- < *NatureScope: Pollution, National Wildlife Federation.

Video:

- < *"The Lorax," Dr. Seuss.