

RECYCLE + REUSE = REDUCE!

Grades:

1 - 2

Time Allotment:

Lesson and Activity: 45 – 60 minutes

Vocabulary:

Recycling
Solid Waste
Waste Reduction
Waste Reuse

Integrated Curricular Areas and Corresponding Core Curriculum Content Standards:

Science: **5.1:** (G4) 2
 5.10: (G2) B1 (G4) B1
Language Arts: **3.3:** (G1) A1, B2 (G2) A1-4, B1-4
 3.4: (G1) A1 (G2) A3, B1
Mathematics: **4.1:** (G2) A1
 4.2: (G2) D1
 4.4: (G2) A1-2 (G3) A1-2

Content Objectives: Students will be able to –

1. Identify types of trash thrown away in class, what the trash was used for and/or where it came from;
2. List ways to reduce classroom trash by identifying items to be reused or recycled; and
3. Describe the environmental benefits of trash reduction.

Process Objectives: Students will –

1. Brainstorm types of trash thrown away in class;
2. Estimate and predict the weight of trash being thrown away;
3. Compare the weight of different cans;
4. Categorize trash into three piles – disposable, recyclable and reusable; and
5. Count the number of trash items in different categories.

Materials:**For teacher's presentation:**

- Chalkboard and chalk or large paper and markers
- Two garbage cans
- Rubber gloves
- Newspaper
- Scale
- One garbage bag
- Classroom trash and/or trash from home (optional)

Preparation:

- Set up two trash cans in the classroom. Weigh each can when it is empty and write down the weights. Can #1 should be labeled and used for food, used tissues and other unsanitary waste and Can #2 should be used for all other trash. Both cans should be filled with classroom trash for at least two days. While Can #1 should be emptied each night by the custodian, make arrangements to have them leave trash in Can #2

Anticipatory Set:

- Ask students at the beginning of the first day: *What trash do you think we will throw away today and tomorrow?* Encourage their ideas and suggestions. Explain that the purpose of this project will be to collect the trash that the class produces for two days, examine it, and discuss how the class can reduce some its solid waste

Teacher's Presentation or Modeling:

- Show them Can #1 and Can #2 and explain what they are to put into each one
- Observe them often to make sure they are putting trash into the appropriate cans throughout the day for 2 or more days
- Check the cans often to make sure that waste is being placed into the appropriate can

Guided and Independent Practice:

- When collection time is complete, have students sit in a circle on the floor or in desks forming a circle. Spread out sheets of newspaper in the middle of the circle. Set the two cans of collected trash on the paper
- Ask students the following questions and document their answers and predictions:
 - *What types of trash do you think we threw away during the past couple days?*
 - *Which can do you think is heavier – Can #1 or Can #2?*
 - *How much do you think each can currently weighs?*
- Put gloves on and explain why you are wearing them (safety and health precautions). Point to Can #1 (unsanitary trash) and review with the students what the contents are. Also explain why you aren't going to have the group examine this trash
- Place a scale on the floor in the circle. Weigh each can and compare their weights with their predictions. Share with them the weight of each can when empty and have them determine the amount of trash in each can
- Dump the trash from Can #2 onto the newspaper. Ask the students to pick an item that was thrown away and talk about why the item was used or what it was used for

Closure:

- Discuss what can be done with some of the trash so that it is not discarded – categorize trash items accordingly (recyclable, reusable or trash)
- After the trash from Can #2 has been sorted discuss the following questions:
 - *How many items can be recycled? How many items can be reused? How many items will go into the trash?*
 - *How much do you think the trash pile will weigh now?* List predictions. Put the remaining trash into a trash bag and weigh it. Compare weight with their predictions
 - Ask students: *If we decrease the amount of trash that goes into landfills by recycling and reusing items, does this help the environment? If so, how?*

Assessment:

- Responses to questions from teacher;
- Ability to classify trash as recyclable, reusable or disposable;
- Ability to follow directions; and
- Ability to work with others in a group on a common task.

Extension:

- Students can discuss how to set up recycling and reuse stations in the classroom

Safety/Clean Up:

- Teacher should wear gloves when handling trash. Students should not be allowed to handle any trash. When the lesson is completed, keep the reusable items, recycle the recyclable items and properly dispose of the rest of the trash