

Recycle Me!



Grades 3-5

Objectives

To learn about the different items that can be made from recycled products.

Class Organization

Whole Class

General Description

Students play a fun sorting game to learn more about recycling and the different types of items that can be made from recycled products.

Materials

Paper or note cards

Marker

Preparation

Write each of the following words on a separate sheet of paper: aluminum, glass, paper, plastic.

On note cards or smaller pieces of paper, write the names of various items that can be made from each of the four recyclable products.

Procedure

1. Discuss with students the concepts of recycling. Explain that there are many products that we use everyday that could be re-used but are instead thrown away. These products are taken to landfills where they may sit for hundreds of years.
2. Ask students if they have ever recycled anything. What types of products can be recycled?
3. Ask students if they have ever used anything that has been made out of recycled materials. Make a list on the board.
4. Pick 4 students to be recycled products – aluminum, glass, paper and plastic. Give each student a sign with the name of their product on it and have each student stand in a different corner of the room.
5. Give each of the remaining students in the class a card with the name of an item that is made from recyclable materials. Without talking, have each student go and stand behind the student whose product they think their item is made from.
6. After all of the students have sorted themselves, go around and tell each group how many items they have correct. (ex. "Two of you do not belong here.") Within their group, have students discuss which items they think are made from that product and should stay there and which ones are not and which group they should now join. Then have students re-sort themselves into what they think are the correct groups. Continue this process until all items have been sorted correctly.
7. Bring the class back together and discuss the results of their sorting. Were they surprised by what some of the items were made from?
8. Remind students that these are just some of the many items that can be made from recycled products. Given what they just learned, what do they think about recycling now? Why is it important to recycle?
9. Remind students the best way to tell if something can be recycled or if it has been made from recycled materials is to look for the recycling symbol on it.

Extension Ideas

- Divide the students into small groups. Have each group research a different type of recycling process. Have them report back to the class describing the process by which their product is recycled and the variety of items that can be made from that product.
- Have someone from a recycling center come and speak to your class.

Heroic Helpers

Grades 3-5

Objectives

- To introduce the concept of charity/philanthropy and the different ways in which people can help those in need.
- To organize and execute a pop tab recycling program.

Class Organization

Whole Class

General Description

Students discuss various ways they can help others. They then organize and execute a pop tab recycling program for their school/community.

Materials

Poster board/construction paper

Markers

Glue and/or scissors

A box or jar (for collecting pop tabs)

Procedure

1. Ask students what the word “charity” means. Discuss with them the concept of giving aid to those in need and why people want to help others (You might also introduce them to the word “philanthropy.”)
2. Then ask students if either they or anyone else in their family has ever done something for charity. Discuss various examples of how you might assist others- donate money, donate goods, volunteer your services, attend and/or organize a fundraising event, etc.
3. Ask students if they have ever heard of the Ronald McDonald House? Explain to them that the House provides a home away from home for families to stay when their children are sick and in the local hospital. Tell them the House relies on donations from others to operate.
4. Ask students if they would like to help organize an event to raise money for the Ronald McDonald House of Arkansas. Introduce the pop tab recycling program – students collect pop tabs from home and bring them to school. At the end of the designated time period they give all the pop tabs they have collected to the Ronald McDonald House of Arkansas. From there the tabs will be taken to the recycling center and the Ronald McDonald House of Arkansas will receive the money from every pound of tabs turned in..
5. Review with the students where they can find pop tabs. Tabs can be found on coke cans, soup and vegetable cans, etc.
6. Why just the pop tab and not the whole can? Explain to students that pop tabs have a higher aluminum content than the cans which makes them more valuable. Also, pop tabs are easier and cleaner to collect and store which is important at the Ronald McDonald House because we have to keep a clean environment for our families.
7. Tell students that as organizers of the pop tab program it will be up to them to establish goals and to promote the program to others in the school and community. As a class, have students establish a goal of the number of pop tabs to be collected. Discuss with them whether the goal is achievable in the time allotted and, if necessary, encourage students to adjust their plan accordingly.

8. Divide students into small groups and have the groups volunteer to be responsible for different components of the program. Jobs might include:
 - a. School Ambassadors – create posters/signs promoting the program to hang around the school, give presentations to other classrooms encouraging them to participate, etc.
 - b. Collection Agents – make/decorate a classroom container in which to save the pop tabs.
 - c. Record Keepers – track the progress of the campaign so that everyone knows how close to the goal they are. (There are many ways they can do this. Let the students brainstorm on how they might keep track of the tabs. For example, they might count the number of pop tabs in the classroom containers each week, add them together and create a chart to depict the progress made each week (or month). Or they might determine how many pop tabs it takes to reach a certain height on the container, or they might weigh them.)
9. Give students time to get started on their various assignments. Encourage collaboration within the groups. Remind students that in addition to the roles they have volunteered for, all of them can participate by collecting pop tabs and bringing them to school.
10. At the end of the collection period, have students calculate the total amount of tabs collected and announce this total to the school. Thank the other students and teachers for their participation.

Measure Me!

Grades 3-5

Objectives

- To estimate and measure objects using non-standard and standard units of measurement.
- To understand why we need a standard form of measurement.
- To practice selecting the appropriate unit of measurement for an object.

Class Organization

Whole class or small groups

General Description

Students estimate and measure objects using pop tabs. They then repeat this activity using rulers and yard sticks comparing the usefulness of each measuring system and the appropriateness of different units of measurement.

Materials

- Pop tabs
- Objects to measure
- Measure Me! Activity sheet
- Rulers and yard sticks

Procedure

1. Explain to students that they will be estimating measurements and will use pop tabs to measure objects around the room. Give each student or small group a copy of the Measure Me! Activity sheet and some pop tabs.
2. Have each student/group pick one or two objects to measure. Explain to students that they should first estimate how many pop tabs long, wide or tall the object is and then measure the object using the pop tabs.
3. Bring the class back together and discuss the measurements students came up with using the pop tabs.
4. As a class, discuss the usefulness of measuring objects using pop tabs. How easy/hard was it?
5. Brainstorm measuring tools that would make it easier to measure objects. Discuss the need for using appropriate units of measurement.
6. Bring out the rulers and yard sticks and review the measurements of inches, feet and yards.
7. Review each of the objects that students chose to measure and which unit of measurement would work best for measuring that object.
8. Now have students go back and measure the objects again using a standard unit of measurement.

Extension Ideas

Use this activity as the basis for a discussion on nonstandard vs. standard measurements and why it is necessary/useful to have standard unit of measurement. You can demonstrate this principle by having students measure objects using their feet as the unit of measurement. Since everyone's feet are different sizes their measurements will also be different.

Measure Me!

Name _____ Date _____

How big am I? Make a guess. Then measure and find out.

1. My object is a: _____

I think it measures: _____ pop tabs.

It actually measures: _____ pop tabs.

It would be easier to measure this object using: _____

I think it measures: _____

It actually measures: _____

2. My object is a: _____

I think it measures: _____ pop tabs.

It actually measures: _____ pop tabs.

It would be easier to measure this object using: _____

I think it measures: _____

Weigh to Go!

Grades 3-5

Objective

- To help students understand the concept of mass
- To give students practice in measuring and comparing the weight of objects
- To teach students how to use facts about objects to make predictions about similar or related objects.

Class Organization

Whole class

Materials

Pan balance

Supply of pop tabs

2 quarters, 4 pennies, 2 dimes

Objects to weigh

General Description

Students estimate the relative mass of a variety of objects placing them in order from lightest to heaviest. They use pan balances to check the accuracy of their predictions.

Procedure

- Pop tabs are made from aluminum, one of the lightest elements. How much does a pop tab weigh? What else weighs the same as a pop tab (or set of tabs)? What weighs more? What weighs less?
- Show students the objects to be weighed. Ask them to guess which object is the lightest and heaviest. To assist the students, allow them to come up and hold the objects in their hands.
- Have student attempt to order the objects from lightest to heaviest and write the predictions on the board.
- Bring out the pan balance and demonstrate how to use it. Point out that the heavier of the two objects will make that side of the scale dip lower and when objects weigh the same the scale will remain level.
- Using the scale, have students compare the weights of the various objects and record their findings. Allow students to select items to compare. They might pick comparing individual objects to individual objects (ex. A pencil to a crayon) or a group of objects to an individual object (ex. A group of 10 pop tabs to a penny) and so on.
- After everyone has had a chance to compare two or three pairs of objects, report all the findings. Which objects are heavier? Which are lighter?
- Based on their results, have students rank the objects from lightest to heaviest. Compare this to their original predictions.

Extensions Ideas

- Challenge students with the following questions: Which weighs more: 20 cents (2 dimes) or 20 pop tabs? 50 cents (2 quarters) or 40 pop tabs? (They weigh the same.) Have them make an estimation and then check it using the scale.
- For a harder challenge ask students questions such as: If 1 penny weighs the same as 10 pop tabs and 2 quarters weigh the same as 40 pop tabs, how many pennies do you need to equal the weight of 2 quarters?