



Lesson 2:

Do I need all this?

The best way to help our environment is to use less in the first place.

OBJECTIVE: Students examine their own consumption and explore ways to reduce.



Ask Students

How many of you used a plastic water bottle this week?

Do you know where it ended up? How many of you can tell me?"

How many of you use a bunch of plastic baggies at home?"

Did anyone's parents buy makeup or medicine at the store?"

Can anyone tell me what it was packaged in?"

Provide the students with examples of how the same product can be packaged in different ways. For example:

- jug of orange juice vs. individual small bottles of orange juice
- big box of crackers vs. individual snack bags.

Ask students what happens to the small containers after they have been used. Most of these cannot be recycled. Reducing what we consume and therefore dispose of is at the top of our priority list.

Some interesting facts that make this priority clear:

- Packaging accounts for 31% of all household waste and 50% of the volume.
- The average American uses 500 plastic shopping bags per year. The majority of this ends up in a landfill.
- Americans use 29 billion water bottles per year – which is 93 bottles per person! Only 1 in 6 plastic water bottles is recycled.
- Plastics are made from fossil fuels. In U.S., we use 17 million barrels of oil per year to produce our plastic water bottles.
- The U.S. uses more plastic water bottles than any other country.
- People consume 2x as much today as they did 50 years ago!



ACTIVITY 1 - Re-Package!

Students will examine over-packaged items and redesign the packaging in groups.

Discussion:

Product packaging serves multiple purposes – this can include holding items, such as in containing liquids or multiples of items; it can also help protect the item from damage and for display. This process also uses many of our resources – especially plastic, aluminum and paper.

We can help by purchasing products with less packaging and using less material when we are packaging things ourselves.

Materials:

- 5 or 6 items that have excessive packaging (*see examples*)
- Re-Package Worksheet (one per group or this can be used as an overhead and students use backs of old worksheets/work to record and sketch)

Activity:

- Divide the students into 5 or 6 groups.
- Distribute the items, one per group
- Using the “Re-package Worksheet,” ask the students to think about their item in these terms and complete the questions as a group.
 1. What do you think is the intended purpose of the packaging? (to protect from damage, to hold contents, to display, to make it easier to transport, to prevent theft)
 2. What is the packaging made from?
 3. Where might it end up after it is removed from the product?
 4. How might you package this differently?

Have the students present their ideas to the rest of the class. Emphasize that there isn’t necessarily one best answer. A variety of answers or “solutions” is useful because this is a very complex problem.

Adaptation: If you do not have items on-hand, you can show pictures of suggested items (included).



ACTIVITY 2 - Classroom Reduce Survey

Students will determine level of paper use in their classroom by examining their own habits.

Discussion:

Paper makes up **23%** of our landfills. What do you know about paper and how is it made?

Materials:

- Examples of paper use in our lives (newspaper, books, computer paper, paper cups, paper napkins, paper plates, - construction paper)
- Classroom Reduce Survey (as an overhead)
- Large paper/ half-size poster board

Activity:

- Ask the students to name paper products in their lives. Keep items in a box and pull out as they name them.
- Ask students to think about how they might use less paper at home (ceramic plates instead of paper, cloth - napkins instead of paper napkins, kitchen towels instead of paper towels...)
- Ask students to now think about how they use paper in the classroom. Do they think they make efforts to reduce - what they use? Have each student write their hypothesis on this based on what they observe in class.
- For the Reduce Survey, display this on overhead and ask students to write 1 – 5. They can then write their - answers for each one on a reused piece of paper.
- Collect surveys and divide students into groups of 4 or 5.
- Have each group take a question and display the results in both a circle graph and bar graph with labels on large - sheets of paper or ½ of a poster board. Display these.
- Ask students to present their results and then decide as a class if their hypothesis was supported or not.
- Why or why not?
- Decide as a class on measures to take to reduce the overall use of paper in the classroom and post this in - the classroom.
- In 4 weeks, revisit this question of paper reduce to determine any progress. Students can use the backs of the - first graphs to display these new results.



Words to Know

Reduce – to use less

Fossil fuels – petroleum (oil), coal, and natural gas. These non-renewable materials are called fossil fuels because they are the remains of organisms that lived long ago.

Consumption – the action of using up a resource or the purchase of items by people

Re-Package Worksheet

Name:

Date:

Item:

1. What is the intended purpose of the packaging?

(to protect from damage, to hold contents, to display, to make it easier to transport, to prevent theft)

2. What is the packaging made from?

3. Where could the packaging end up after it is removed from the product?

4. How could you package this differently?

Classroom Reduce Survey

Date:

1. I recycle paper in the classroom.

(to protect from damage, to hold contents, to display, to make it easier to transport, to prevent theft)

Never

Sometimes

Most of the Time

2. I use both sides of paper before I recycle it.

Never

Sometimes

Most of the Time

3. If you bring a lunch...I bring reusable items in my lunchbox.

(skip this one if you don't bring a lunch)

Never

Sometimes

Most of the Time

4. I print a lot of stuff from the internet that I don't end up using.

Never

Sometimes

Most of the Time

5. When I wash my hands, I get too many paper towels.

Never

Sometimes

Most of the Time