

Project Learning Tree Standards-Based FCAT-Style Activities



Reduce, Reuse, Recycle

Teacher Page

Students practice FCAT skills while learning about reducing solid waste in their community.

GRADE LEVEL: 6th - 8th grades

ACADEMIC OUTCOMES/LESSON OBJECTIVES:

- Students will read a selection introducing them to the concepts of reducing, reusing, and recycling solid waste materials.
- Students will respond to FCAT-Style questions and prompts in Reading, Writing, Math, and Science.

SUNSHINE STATE STANDARDS ASSESSED:

- (LA.6.4.2.1, LA.7.4.2.1, LA.8.4.2.1) writes in a variety of informational/expository forms (e.g., summaries, procedures, instructions, experiments, rubrics, how-to manuals, assembly instructions).
- (LA.6.2.2.2) uses information from the text to answer questions related to the main idea or relevant details, maintaining chronological or logical order. (LA.7.2.2.2) uses information from the text to state the main idea and/or provide relevant details. (LA.8.2.2.2) synthesizes and uses information from the text to state the main idea or provide relevant details.
- (MA.B.2.3.2) solves problems involving units of measure and converts answers to a larger or smaller unit within either the metric or customary system.
- (SC.D.2.3.2) knows the positive and negative consequences of human action on the Earth's systems.

RESOURCES:

Florida Project Learning Tree Web site - <http://www.sfrc.ufl.edu/plt/>
Florida Department of Education Web site - <http://www.firn.edu/doe/>

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ANSWER KEY:

1. LA.6.4.2.1; LA.7.4.2.1; LA.8.4.2.1 Use the 6-Point Writing Rubric.
2. d) MA.B.2.3.2
3. b) SC.D.2.3.2
4. Use the rubric for Extended Response Reading Questions – 4 points
LA.6.2.2.2, LA.7.2.2.2; LA.8.2.2.2

Example of a Top-Score Response

According to the article, people can reduce, reuse, and recycle to get rid of trash in an environmentally friendly manner. They can reduce the amount of trash they need to throw away by using both sides of paper, buying only the amount of food they can use before it spoils, and choosing reusable products. They can also reuse items again and again by finding another use for them. Recycled plastic bottles, paper, and aluminum cans can be used again for something else.



Reduce, Reuse, Recycle

Student Handout

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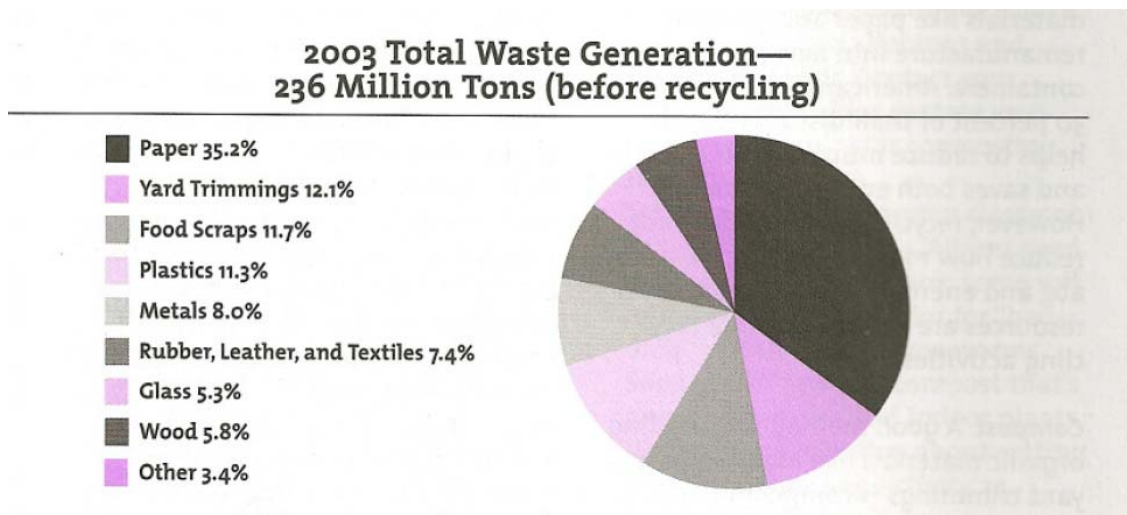
WRITING

1. During a typical school day, students and teachers throw away large amounts of trash. Think about the types of trash produced in your classrooms each day. Write to explain how teachers and students could reduce the amount of trash thrown away each day in the classroom.

NOTE: Write your response to question 1 on another sheet.

MATH

2. Use the graph titled, "2003 Total Waste Generation – 236 Million Tons (before recycling)," to answer the following question. What was the total weight of waste paper (in pounds) produced in 2003? Note: 1 ton is equal to 2000 pounds.



- a. 83,072,000 pounds
- b. 16,614,400,000 pounds
- c. 144,166,000,000 pounds
- d. 166,144,000,000 pounds

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Date:



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SCIENCE

3. As the world's human population increases, people will need even more resources to create the foods and tools they need everyday. Which of the following would best help us meet the world's future resource needs?
- a. create treaties so we can import our food from other countries
 - b. ask industries to reduce the packaging they put around the things we buy
 - c. vote to increase the work day to 8 ½ hours so people can produce more goods
 - d. increase our use of inexpensive, disposable items like paper plates

~continued on next page~

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READING

This article was adapted from Background information provided in the Project Learning Tree activity, "Reduce, Reuse, Recycle."

The Three R's

What is trash? Trash - also called solid waste, rubbish, refuse, and garbage - is the solid materials that we no longer want or need. It can include an old newspaper, a broken toy, a shirt we have outgrown, a banana peel, or a million other things we want to dispose of. In 2003, Americans produced 236 million tons of trash from homes, businesses, and schools. On average, each American generates 1,600 pounds of trash a year, or 4.5 pounds a day. Most of that trash is paper, yard trimmings, and food scraps. There are several ways to get rid of this trash.

Reduce: The best way to "manage" trash is to not generate it in the first place. People can reduce by doing things like printing on both sides of paper instead of just one, buying only the amount of food that can be eaten before it spoils, and choosing reusable containers and products instead of items designed to be thrown away after only one use.

Reuse: Reusing items again and again - or finding a new use for them once they've worn out - helps to reduce the amount of trash we make. Repairing a broken toy, reusing a lunch bag, or donating "hand-me-down" clothes are some simple ways to reuse.

Recycle: Recycling means gathering up materials like paper, plastic bottles, and aluminum cans so they can be made into something new. By recycling these old items instead of making new ones, we use fewer natural resources and less energy. As a bonus, there's less trash piling up in our landfills too! But remember, just putting things in the recycling bin isn't enough. We also need to buy the products made from these recycled materials. That's called "closing the loop."

The next time you have some trash, try to think of a way to reduce, reuse, or recycle. You'll be keeping our planet beautiful and healthy each time you do!

Name:

Date:

