

# Grade 3

## SWA Classroom Presentation Pre Lesson Plan

### Objectives:

- 1) Students will understand the need to protect natural resources.
- 2.) Students will gain an understanding of the environmental benefits of recycling.
- 3.) Students will write an informative and motivational song or commercial about recycling.

### Sunshine State Standards: Science:

*Processes that Shape the Earth*  
Standard 2: Benchmark 1:  
Knows that reusing, recycling, and reducing the use of natural resources improve and protect the quality of life.

### Language Arts:

*Writing*  
Standard 2: Benchmark 3:  
Writes for a variety of occasions, audiences, and purposes.

### Materials:

- 1) Illustration of Transfer Station
- 2) Pictures of recyclables

**Time:**  
45 minutes

### Evaluation:

Assess students' understanding of the material presented by questioning them throughout the lesson.

Review the songs and commercials performed by the groups.

Review the students' stories.

### Homework:

Ask the students to write a creative short story about an aluminum can that gets thrown in the garbage instead of placed in the recycling bin.



### Background for Teachers:

The garbage from your home, apartment or townhome is collected by garbage trucks and taken to one of five transfer stations located throughout Palm Beach County. At the transfer station, garbage is transferred onto large semi-trailer trucks. The large trucks can hold 4 truck loads of the smaller ones. *(This procedure allows the smaller trucks more time on their route, it reduces traffic on the highway and saves fuel.)*

After the garbage is loaded into the larger trucks, it is driven to the Solid Waste Authority of Palm Beach County's Waste-to-Energy facility in West Palm Beach. The lightweight garbage is shredded and burned so that it can be used as a fuel source to generate electricity. The ashes leftover from the burning process are placed in a sanitary landfill along with any unburned garbage. *(Sometimes people say that garbage goes into a dump; however, dumps are no longer used because they were not environmentally-friendly. State and federal regulations require landfills to have many environmental protective systems installed and maintained. In addition, the landfill is monitored on a regular basis.)*

The landfill is filling up rapidly because so many people throw away a lot of garbage. One way to stop the landfill from filling up is to recycle as much of the garbage as possible. Right now in Palm Beach County, the following items are recyclable at home:

#### Place in the recycling bin for containers:

*aluminum cans  
aluminum foil  
aluminum trays  
glass bottles & jars  
milk cartons  
juice cartons  
drink boxes  
all plastic containers*

#### Place in the recycling bin for paper:

*newspapers  
magazines  
catalogs  
phone books  
brown paper bags  
corrugated cardboard*



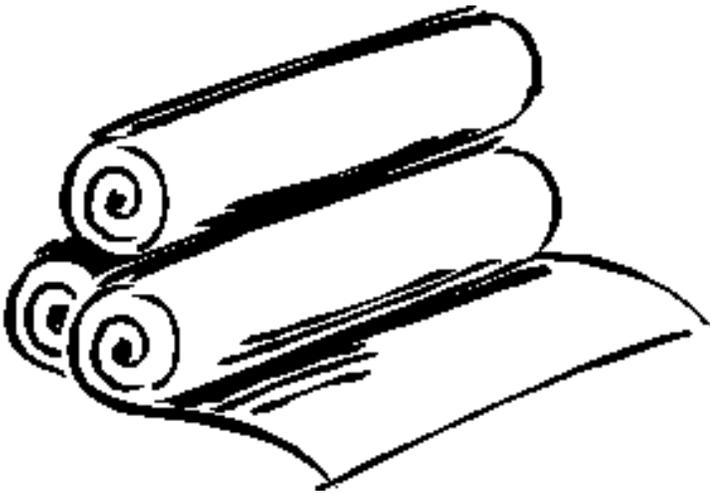
## Procedure:

1. Elicit responses from students as to what they threw in the garbage yesterday or this morning. Focus on items that could have been recycled. Explain that everyone throws away garbage everyday and all together in Palm Beach County, we throw away approximately 2,500 tons (5,000,000 lbs.) of garbage in one day. That is enough to fill an entire football field from one end to the other. Consequently, the landfill is filling up quickly.
2. Discuss how garbage is processed in Palm Beach County (*refer to background section*).
3. Discuss the importance of recycling as a method of protecting the environment because it saves resources, saves landfill space and saves energy.
4. Ask the students the following:
  - (1.) Why it is important to protect natural resources?
  - (2.) Why is it important to stop the landfill from filling up quickly?
  - (3.) Why is it important to recycle?
5. Tell the students that we can recycle many things. Show pictures of recyclables that are accepted in Palm Beach County's recycling program (*refer to enclosed pictures.*)

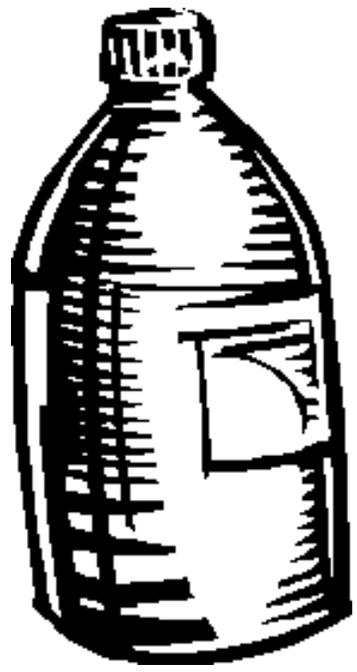
Explain to the class that the next activity will be a group activity. Divide the class into groups and assign them the task of writing a song about recycling and recycling right. Or, assign them the task of making a television commercial to encourage others to recycle. Allow students 10 minutes for the activity. Ask each group to perform their song or commercial in front of the class.
6. Tell the students that for homework they will write a creative story about aluminum can that was thrown away in the garbage instead of placed in a recycling bin. Explain that they should give the aluminum can human attributes so it can think and talk in the story.



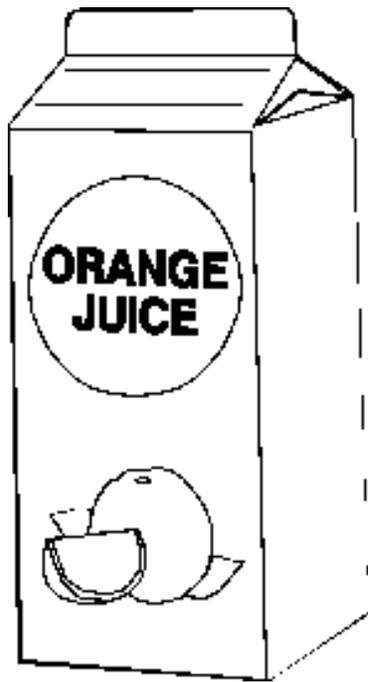
# PICTURES OF RECYCLABLES



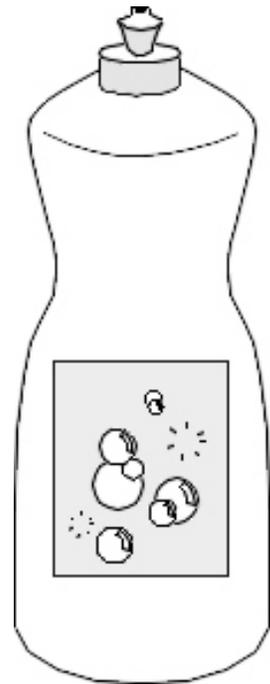
**aluminum foil**



**plastic soda bottle**



**juice carton**

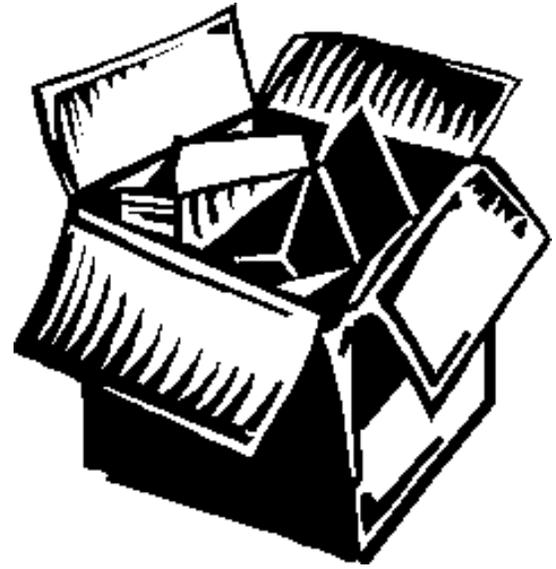


**plastic bottle**

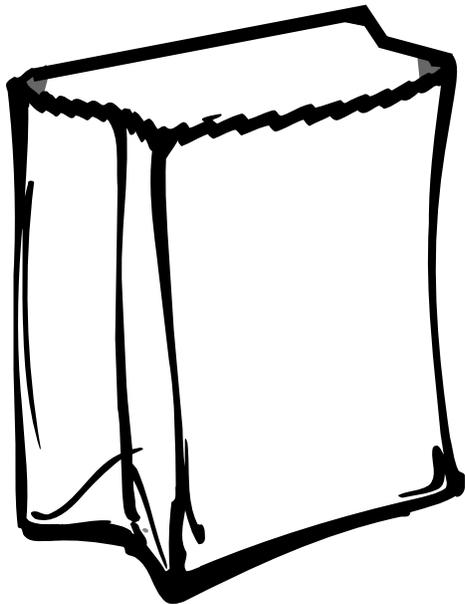
## PICTURES OF RECYCLABLES



**catalog**



**corrugated  
cardboard box**

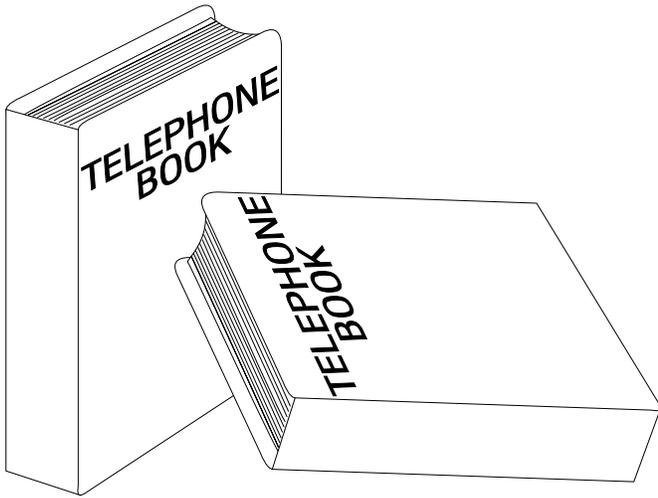


**brown paper bag**



**Newspaper**

# PICTURES OF RECYCLABLES



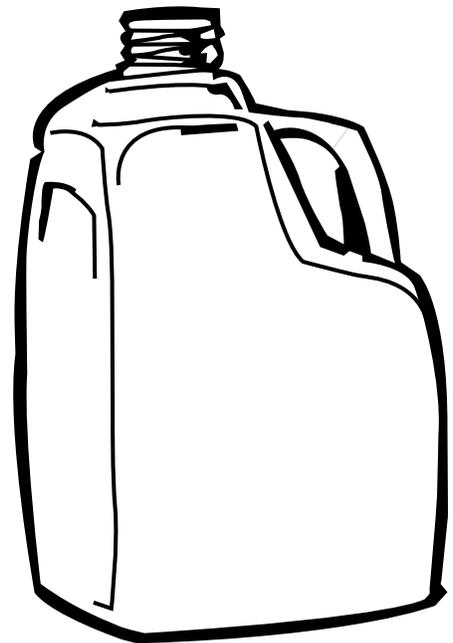
**telephone books**



**magazine**

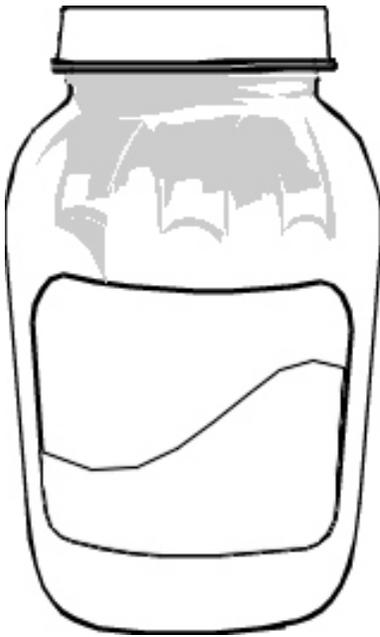


**aluminum can**



**plastic jug**

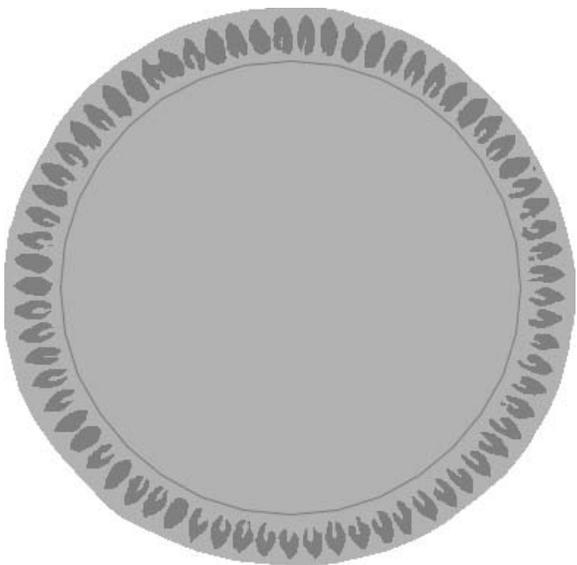
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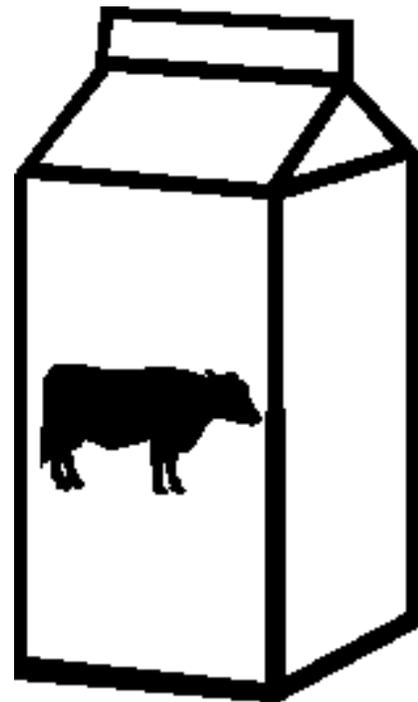
**glass jar**



**plastic bottle**

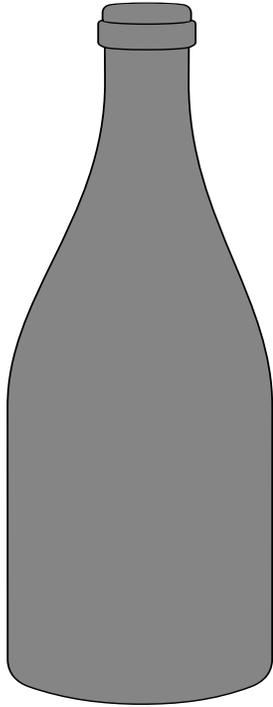


**aluminum foil tray**

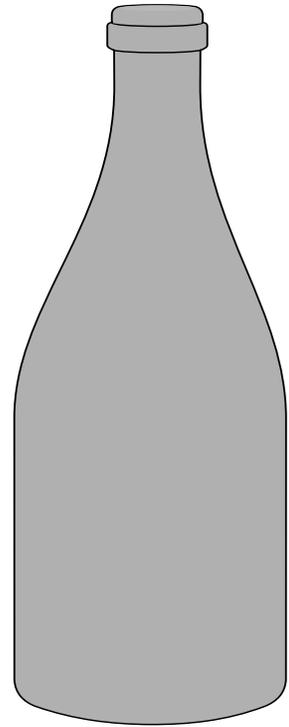


**milk carton**

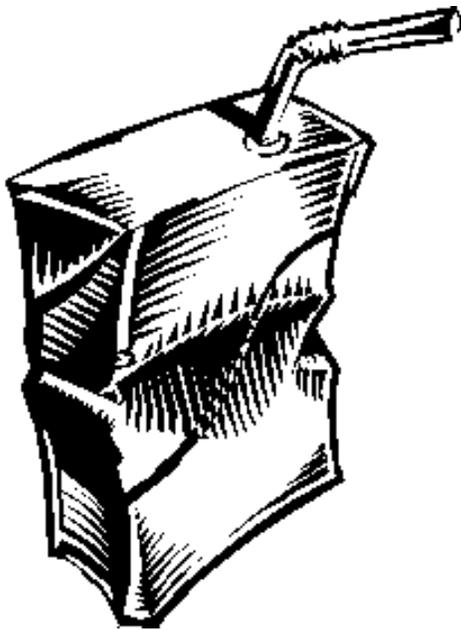
# PICTURES OF RECYCLABLES



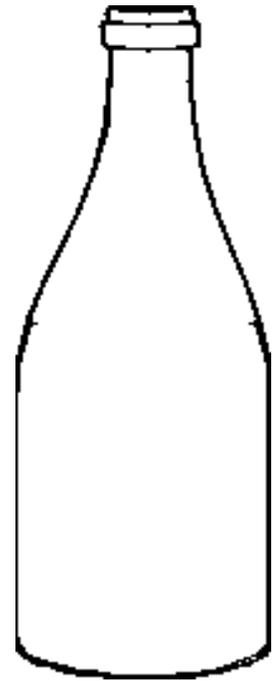
**brown glass bottle**



**green glass bottle**



**drink box**



**clear glass bottle**

# Transfer Station

Garbage enters on upper level.

1

5

4

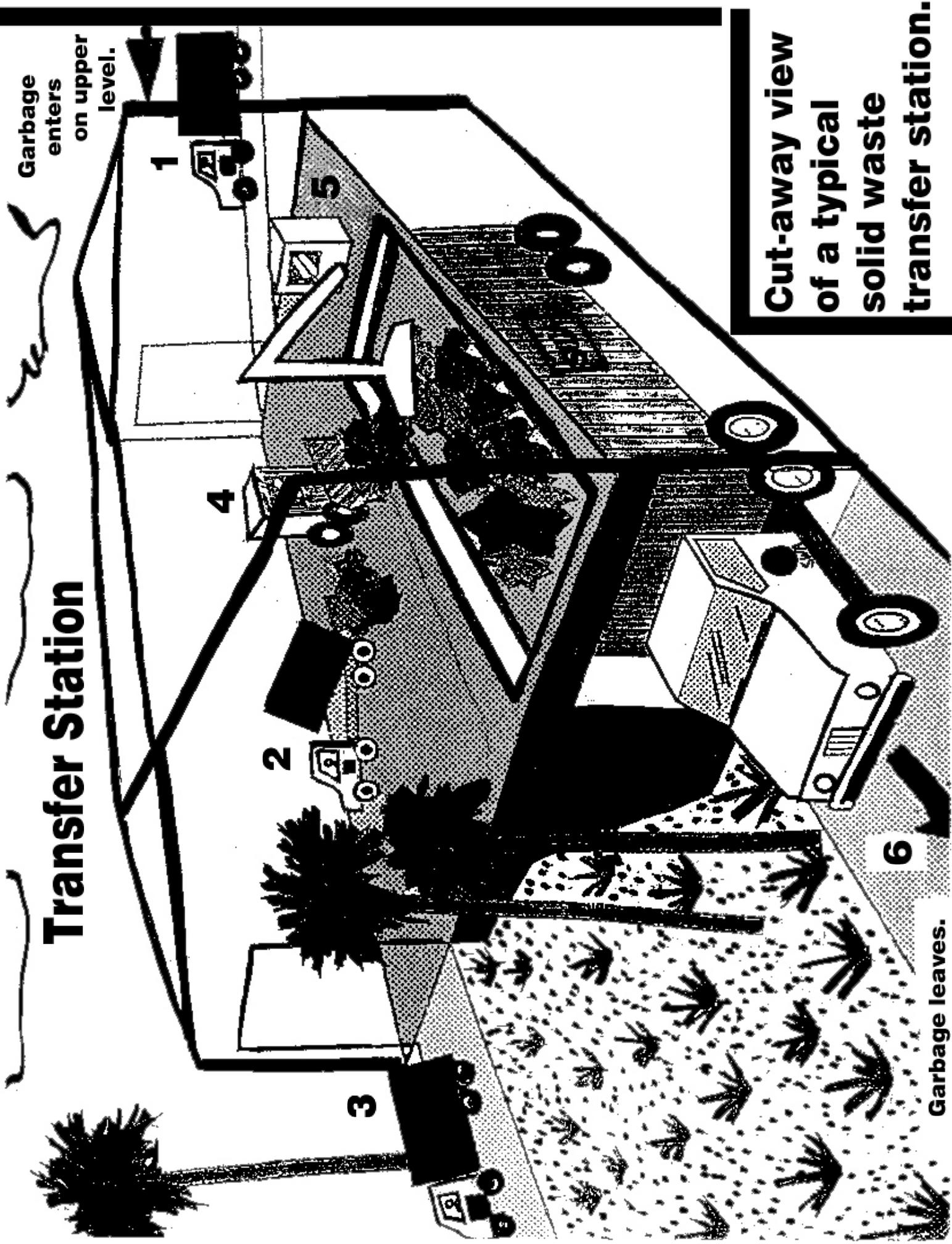
2

3

6

**Cut-away view of a typical solid waste transfer station.**

Garbage leaves.



# Grade 3

## SWA Classroom Presentation Post Lesson Plan

### Objectives:

- 1) Students will review the items that are accepted in Palm Beach County's recycling program.
- 2) Students will gain an understanding of how recycling conserves natural resources.

### Sunshine State Standards: Science

*How Living Things Interact with Their Environment*

Standard 2: Benchmark 1: Knows that all living things must compete for Earth's limited resources.

### Materials:

- 1) "Think Fast" list
- 2) "Recycle Puzzle" activity sheet
- 3) "I Recycle Right" certificate
- 4) A ball

### Time:

35 minutes

### Evaluation:

Assess students' understanding of the material presented by questioning them throughout the lesson.

Assess students' answers while they are playing the "Think Fast" game.

### Homework:

Ask the students to create a bookmark about recycling. *(They can make the bookmark out of a piece of a recyclable item or reuse a piece of garbage.)*



### Background for Teachers:

Recycling is beneficial for the environment because it saves natural resources, conserves landfill space, and conserves energy. For example, aluminum is made from a non-renewable resource called bauxite ore. It is most prevalent in Australia. Much pollution is created and much energy is used when bauxite ore is mined and extracted from the earth. On the other hand, when aluminum is recycled, much energy is saved and bauxite ore, a precious natural resource, is saved.

The Solid Waste Authority (SWA) of Palm Beach County has two recycling facilities. The Residential Materials Recycling Facility (RMRF) is for recyclables collected from residents. The Commercial Materials Recycling Facility (CMRF) is for recyclables collected from businesses. At both facilities, the recyclables are separated and prepared for markets. It is a labor-intensive process because many of the items are sorted by hand. For example, workers sort glass bottles by hand according to their color: brown, clear or brown. After the items are sorted, they are shipped to companies that manufacture them into recycled products.

In Palm Beach County's recycling program, we can recycle many items at home, at school, at work, at parks and even beaches. Our program is among the top in the country. Through the active participation of residents, approximately 50% of the waste generated in the county is recycled. This percentage will continue to increase in the future because children today recycle out of habit, making it a part of their daily routine. That means the landfill will not fill up as quickly. In one year, recycling saved the equivalent of 2 acres of landfill space 74 feet high from being filled in Palm Beach County. Recycling matters!

### Procedure:

1. Review the importance of recycling.
2. Review the items that can be recycled at home and at school.
3. Explain that the next activity is called "Think Fast" and that it is a fun way to review the things that can be recycled at home.

(continued)

## **Procedure:**

4. Explain the directions to the class.

### **“THINK FAST”**

*Directions: The class is divided into two teams with an equal number of students on each team. The teacher will state an item listed on the “Think Fast” list (enclosed) and toss a small ball to the first student on one of the teams. The student has to state whether the item belongs in the yellow recycling bin, the blue recycling bin or the garbage. If the student answers correctly, he goes to the end of the line and it is the next team’s turn. If the student answers incorrectly, he must sit down. The teacher alternates from one team to the other team naming different objects. The objective of the game is to make the students think quickly. They should not be allowed more than 3 seconds to answer. At the end of one round (in which everyone has had a chance to respond once) count the number of students that are left standing on each team. The team with the most students that are left standing is the winning team.*

5. Play the game twice.
6. Distribute the “Recycle Puzzle” activity to each student and explain the directions for the puzzle.
7. Allow the students time to complete the activity.
8. Review the importance of recycling.
9. Distribute the “I Recycle Right” certificates to students.
10. Explain and assign the homework.





## "Think Fast"



Plastic soap bottle-blue bin  
Broken chair-garbage  
Brown paper bag-yellow bin  
Drink box-blue bin  
Moth balls-hazardous waste  
Cereal box-garbage  
Plastic bag-garbage  
Brown glass bottle-blue bin  
Broken window-garbage  
Weed killer-hazardous waste  
Milk carton-blue bin  
Banana peel-garbage  
Plastic milk jug-blue bin  
Corrugated cardboard box-yellow bin  
Paper towel-garbage  
Broken beach chair-garbage  
Plastic ketchup bottle-blue bin  
Motor oil-hazardous waste  
Broken doll-garbage  
Newspaper-yellow bin  
Empty mustard jar-blue bin  
Paper cup-garbage  
\*Soup can-garbage  
Catalog-yellow bin  
Green glass bottle-blue bin  
Broken picture frame-garbage  
Phone book-yellow bin  
Newspaper inserts-yellow bin  
Juice carton-blue bin  
Plastic spray bottle-blue bin  
Full paint can-hazardous waste  
Empty paint can-garbage  
Fertilizer-hazardous waste  
Tissue box-garbage  
Aluminum foil-blue bin  
Broken pencil-garbage  
Pickle jar-blue bin

plastic detergent bottle-blue bin  
last year's calendar-garbage  
rubber cement-hazardous waste  
aluminum tray-blue bin  
magazine-yellow bin  
juice carton-blue bin  
plastic shampoo bottle-blue bin  
newspaper-yellow bin  
pool chemicals-hazardous waste  
candy wrapper-garbage  
car battery-hazardous waste  
salad dressing bottle-blue bin  
pop tart box-garbage  
napkin-garbage  
plastic ziploc bag-garbage  
blue glass bottle-garbage  
laundry detergent bottle-blue bin  
paper bag-yellow bin  
broken plastic toy-garbage  
bleach-hazardous waste  
rat poison-hazardous waste  
egg carton-garbage  
aluminum pie plate-blue bin  
empty plastic fruit cup-blue bin  
regular battery-garbage  
rechargeable battery-hazardous  
peanut butter jar-blue bin  
lunchables tray-blue bin  
empty chip bag-garbage  
pen with no ink-garbage  
jelly jar-blue bin  
empty bleach container-blue bin  
catalog-yellow bin  
gasoline-hazardous waste  
plastic bag from the newspaper-garbage  
styrofoam cup-garbage  
apple core-garbage

\* A soup can gets pulled out of the garbage by a magnet and is then recycled.

Color the picture. Cut out the puzzle pieces and scramble them. Then put the puzzle back together again.

## Recycle these in your blue bin.

Brown Bottle



Green Bottle



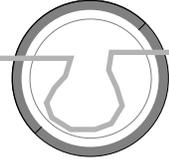
Aluminum Can



Plastic Jug



Foil Plate



Juice Container



Milk Carton



Glass Jar



Aluminum Foil

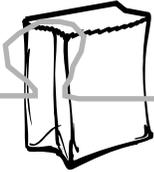


Juice Box



## Recycle these in your yellow bin.

Paper Bag



Newspapers



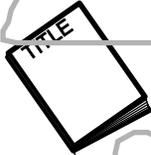
Newspaper Inserts



Corrugated Box



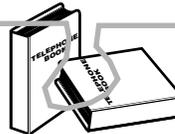
Magazine



Catalogs



Phone Books

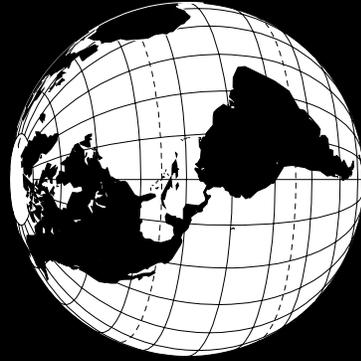


Brown Bags

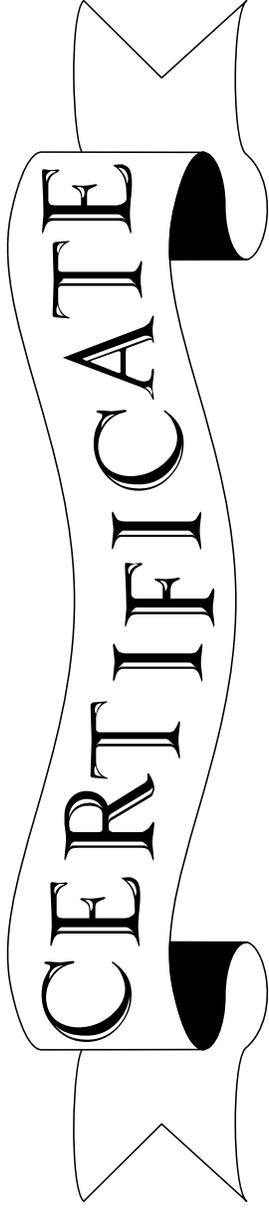




**Recycling Saves  
Resources  
and  
Energy.**



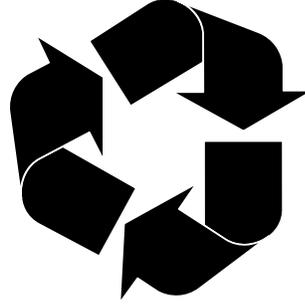
**Recycling Helps  
the Earth.**



**I**

# Recycle Right

\_\_\_\_\_  
Name



\_\_\_\_\_  
Signed

\_\_\_\_\_  
Date

