

PLASTICS RECYCLING – IDENTIFYING THE NUMBERS



Contact Information

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Grades

K-12

Objectives

Students will be able to 1) recognize the place of plastic in our society, 2) describe the plastic code system, 3) demonstrate the separation of plastic for recycling, and 4) explain the need for a plastic code system.

Method

Students will observe and report on the types of plastics.

Materials

A collection of coded plastic containers the students bring from home (allow enough time for students to gather a collection of several different types of plastic), and the student sheet following this lesson.

Vocabulary

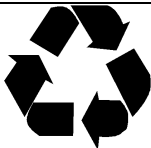
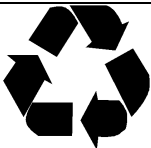
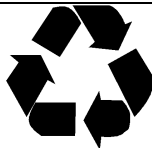
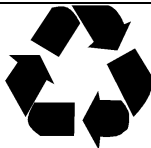
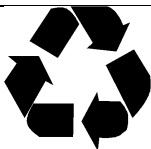
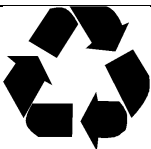
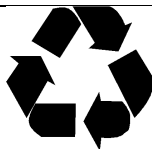
Coded, polystyrene, recycle, source reduction, waste

Procedure

1. Introduce the topic of plastics. Brainstorm types and uses of plastics.
2. Provide copies of the "PLASTIC CONTAINER CODE SYSTEM" sheet.

- A. Discuss components of the “PLASTIC CONTAINER CODE SYSTEM”.
 - B. Practice pronouncing the full name of each type of plastic.
3. Distribute copies of the student sheet “PLASTIC CODE ANALYSIS”.
 - A. Ask students to sit in a circle around a pile of plastic containers they have brought in.
 - B. Each student chooses a container and records the required information.
 - C. On the teacher’s signal, the students will start the WASTE STREAM “flowing” by passing the items that they finished recording, to the right.
 - D. Keep the stream flowing until all blanks are filled or until seven types of plastic are entered. Students may “draw” from the pile if necessary to keep the activity moving.
 - E. Have the students share their conclusions based on the data.
 4. In the center of the circle or on the table, group all the bottles by number and discuss the properties of each.
 5. Find out the types of plastic that are recycled in Athens-Clarke County.

PLASTIC CONTAINER CODE SYSTEM
(found on the bottom of coded containers)

CODE				
ABBREVIATION	PETE	HDPE	PVC	LDPE
FULL NAME	Polyethylene Terephthalate	High Density Polyethylene	Vinyl	Low Density Polyethylene
PERCENTAGE OF TOTAL BOTTLES	20-30%	50-60%	5-10%	5-10%
CAN BE TRANSPARENT	Yes	Yes	Yes	No
TYPICAL CONTAINERS	soft drink, instant coffee	milk, laundry detergent	liquid dish soap, peanut Butter	grocery bags, coffee can lids
CODE				
ABBREVIATION	PP	PS	OTHER	
FULL NAME	Polypropylene	Polystyrene	Other resins or a mixture of Resin types	
PERCENTAGE OF TOTAL BOTTLES	5-10%	5-10%	5-10%	
CAN BE TRANSPARENT	Yes	Yes	Yes	
TYPICAL CONTAINERS	deli tubs, bottle caps, straws	foam cups, trays, egg cartons	catsup and syrup bottles	

Plastics Recycling by the Numbers

PLASTIC CODE ANALYSIS

NUMBER SYMBOL	LETTER CODE	TYPE OF PRODUCT	OBSERVABLE PACKAGE PROPERTIES
Examples: transparent, 1,2,3,4,5,6,7	Examples: PETE, HDPE, V, or PVC, LDPE, PP, PS Other	In this column, write the name of the product, or sketch the product container shape	Examples: Flexible, rigid, opaque, translucent, color, white, creases when crushed.
