

# *Popsi, The Daughter of Mother Nature*

## Environmental Instructional Guide



For Teachers & After School Programs

The guide is across-the-curriculum  
in a standards-based instructional model  
for grade K-3.

*Fun & Easy Way To Learn About the Benefits of Recycling*

*Girls Scouts can earn their Earth Is Our Home Bag,  
Brownies can earn their dark green peddle.*



# ***Popsi, The Daughter Of Mother Nature***

## **Lessons & Fundraiser Program Guide**

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### Supplies Needed

*Popsi, The Daughter of Mother Nature* story book.  
The recycled toy Popsi is optional, but helpful in demonstrating the program.

### Benefits of the program

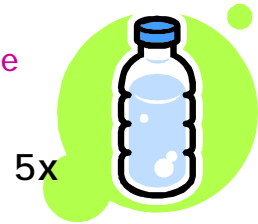
#### Trade Book

Educators and parents recognize the importance of enhancing the teaching of established subjects as science, reading, writing and math through the use of trade books. The trade book, *Popsi, The Daughter of Mother Nature*, introduces to Preschools through Grade-3, a fun and exciting way to discover environmental science. The activity lessons that follow help to shape values, stewardship, problem solving and critical thinking; tools that will help expand their intellectual development and knowledge about their environment.



## Popsi's Preparation

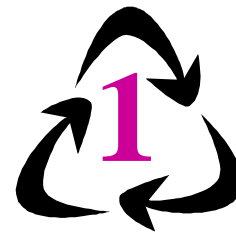
This preparation is designed to help create intrigue and mystery about what they are going to learn.



### Introduction

Start by asking each child to collect at least five empty plastic water bottles and bring them to the class or program. Inform the children that they are going to read a story about a very special character named Popsi, The Daughter of Mother Nature. Let them know that Popsi will teach them a valuable lesson about the bottles they have collected and about recycling.

Discuss how all bottles are not made from the same type of plastic. They will need to collect bottles that have a #1 symbol inside a recycling logo. This means the plastic is P.E.T.E. (Polyethylene Terephthalate).



Show the students a water bottle with the logo on the bottom. Most water and juice bottles are made from P.E.T.E. However, be aware that milk jugs, detergent bottles and other containers may have a #2 symbol which stands for H.D.P.E. (High Density Polyethylene).

Once students have collected their bottles you are ready to introduce them to *Popsi, The Daughter of Mother Nature*.

### Overview

This collection exercise will demonstrate to students that every week they may be discarding hundreds of items that could be of use to them, their families, and friends. By having them collect a seemingly useless item, they will learn in depth about its true value. This will help encourage your students to analyze much of their day-to-day habits.

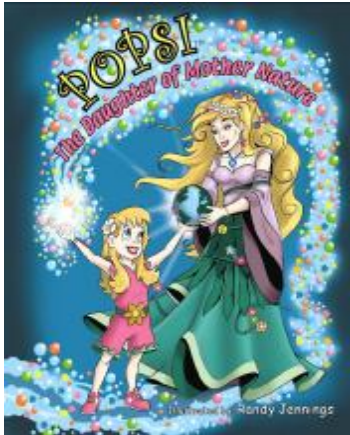
By recycling plastic, paper, aluminum and glass we can help reduce toxic greenhouse gas emissions and conserve energy. Finding creative solutions for the recycled material contributes to the manufacturing of innovative new recycled products such as Popsi, which closes the recycling loop.

**Americans use 4-million plastic bottles every hour and only 25% get recycled.  
When manufactured Popsi saves 20 minutes of energy vs a  
non recycled toy.**

Across the Curriculum  
Language Arts, Critical Thinking, Mathematics, Social Science, Science.

### Preparing to Read

Introduce Popsi, the character, through reading the *Popsi: Daughter of Mother Nature* storybook. If you are reading the book to the children you can also stop to ask the questions and receive the answers during the story.



## Summary of Story

Mother Nature yearns for a daughter but, with her heavy workload, her dream has been pushed aside. However, one smoggy day while picking up trash she came across a pile of plastic bottles and had an idea. Magically, with a sweep of her hands, she turns the plastic bottles into a soft, cuddly rag doll and names her, Popsi. Mother Nature makes a wish that Popsi would become a real girl to give her a hand caring for the earth. Although unable to do it alone, a wise wizard named Woolley helps to bring Popsi to life. Woolley warns Popsi that she must prove herself useful to Mother Nature in three days or she will revert to being a rag doll forever. Aided by a trusty caterpillar, Popsi sets out to find her purpose, though at first she becomes distracted with playing. Eventually she learns the value of responsibility, of recycling and caring for the earth, and teaches other children how to turn the recycled garbage into toys, books and other useful things.

The story illustrates how Popsi recognizes a problem, searches for the source of that problem and creates a solution.

(Question and answers are on the next 2 pages)

## Reading Questions & Answers

Q: Mother Nature dreams of having a daughter to give her a helping hand in caring for the Earth. What do people do to take care of our Earth?

A. Clean up trash, plant trees, recycle bottles, help the animals and compost the garbage.

Q: What does Mother Nature use to make the fabric for Popsi the Doll?

A. Plastic bottles she picks up from the park.

Q: What was Mother Nature's wish?

A. That Popsi would become a real girl to help her clean up the Earth.

Q: Woolley the wizard magically helps Popsi come to life as a real girl. What will happen to Popsi if she doesn't help Mother Nature?

A. Turn back into a rag doll.

Q: Who was Popsi's guide?

A. Caterpillar

Q. Why was Caterpillar a good guide?

A. Caterpillar lived in the forest and knows the way.

Q: When Mother Nature made Popsi her scout, what was Popsi to find?

A. Trash

Q: How did Popsi feel when she saw the forest?

A. Sad, because there was so much trash.

Q: Why did Popsi run off to the ocean?

A. She thought it was too much work cleaning up the forest and wanted to have fun instead of taking on responsibilities.

Q: When Popsi played too long at the beach, what happened to her?

A. She became a rag doll again. A bottle floated out from a storm drain, sucked her inside and washed her out to sea.

Q. Does anyone know what a storm drain is?

A. A large tube or tunnels that captures extra rain water and releases it into either a beach, canal, river, lake or reservoir.

Q. Does anyone know where the trash from the storm drain come from?

A. From people who have left trash in city streets and gutters.

Q. Does any one know what a "second chance" is? And who gave Popsi a second chance?

A. When you do something wrong and get an opportunity to do it right. Wooley gave Popsi her second chance.

Q: What did Caterpillar mean when she said "Let's show the Wizard what you're made of, Popsi."

A. Popsi was smart and made from recycled bottles.

Q: Popsi thought and thought until she came up with a great idea. What was Popsi's great idea?

A. Picking up trash and recycling, paper, plastic, glass, aluminum and making toys from their recycled trash.

Q. Who helped Popsi make her idea work?

A. The kids and even a duck.

Q: After Popsi made toys from the Super Solar Sonic Recycling Machine what happened?

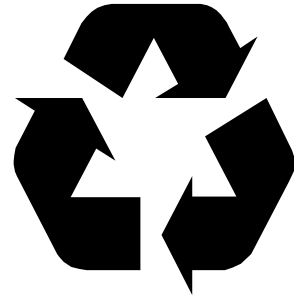
A. Mother Nature appeared and Popsi turned into a real girl.

Q: What happened to Caterpillar in the end?

A. Turned into a butterfly and changed very much like when trash is recycled and changes something else.

## The Recycling Logo—Closing The Loop

Introduce the recycling logo to the children and show them how the arrows follow around in a circle - this is called "Closing The Loop". Remind them when shopping with their parents to look for this logo which means it's recyclable and they will be closing the loop, saving water, energy and resources while creating a healthier planet for their future.



Across the Curriculum  
Creative Arts, Critical Thinking, Science, Social Science

### Popsi the Recycled Toy Introduction



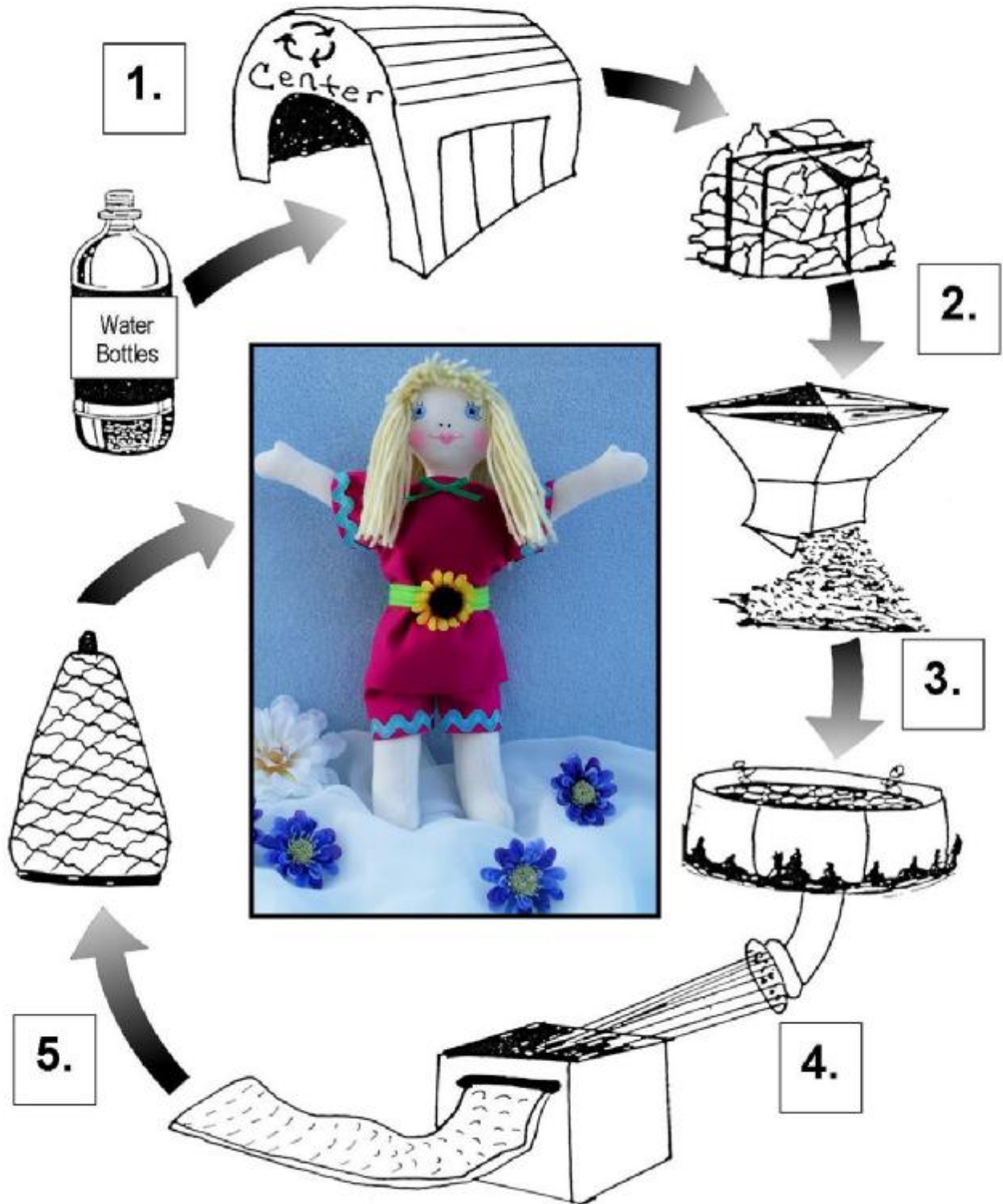
Now it is time to introduce Popsi, the recycled toy, transformed from plastic bottles. Have the students examine the *How Popsi Is Made* Chart and identify, from the pictures and icons, the process of each step. Explain that Popsi's body, dress, and stuffing are made from a soft fabric, which was created from five recycled plastic bottles just like the ones they brought to class.

#### How Popsi is Made Chart Information

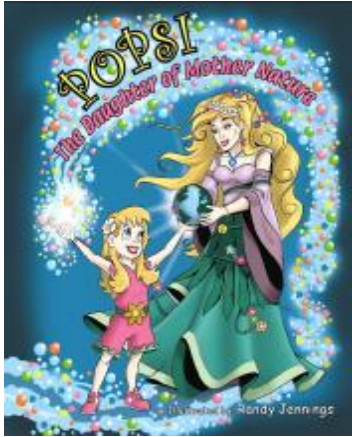
1. Recycled plastic bottles are collected and sent to the recycling center.
2. The bottles are crushed into bales, cleaned and chopped into small flakes.
3. The flakes are heated up and melted into a gooey liquid.
4. The liquid is poured through little holes and comes out looking like string.
5. The string is cut into short pieces and fluffed into cotton type balls.
6. The cotton like balls are woven into cloth and Popsi is made from the cloth.  
- The Popsi doll may be reviewed on Popsi's website at, [www.gopopsi.com](http://www.gopopsi.com).

(chart on next page)

# How Popsi Is Made



# Recycled Product Closing The Loop



Discuss how Popsi's Storybook is made from RECYCLED PAPER

Show children the storybook again, ask if any one knows what the book is made from?

A. Recycled Paper.

Let the children know that paper is the number one material that we throw away.

Then have the children take the time to count the paper products they use in the classroom. Posters, Notebooks, Cardboard Boxes, Textbooks, Bulletin boards, Decorations, Construction Paper etc.

Paper Facts:

1. 1-Ton of recycled paper saves, 17-31 trees, 4,000 kw of electricity, 60 lb of air pollution.
2. If every home recycled newspapers 500,00 trees would be saved each week.
3. For every 100 lbs of trash created, 35 lbs is paper.

Discuss - RECYCLED ALUMINUM

Ask the children if they own a slinky, then inform them how the original Slinky toy was made from recycled aluminum.



Aluminum Facts:

1. Americans use 200 million aluminum cans every day.
2. Aluminum can be recycled over and over again.
3. One recycled can saves enough energy to operate a television set for three hours.

Discuss- RECYCLED GLASS

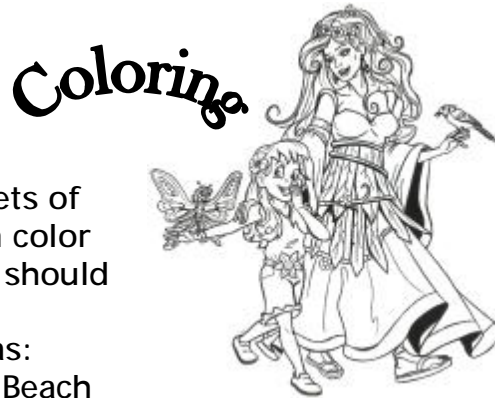
Using recycled glass to make new glass products requires 30 percent less energy than making it from all new materials. Today almost 26% of recycled glass is remade into products such drinking glasses, vases and yellow painted road strips in the center of the street.

Glass Facts:

1. Recycling 1 glass bottle saves four hours of energy used by a 100 watt light bulb.
2. Making products from recycled glass cut air pollution 20%.
3. It takes 1 million years to break down a glass bottle in a land-fill.



Across the Curriculum  
Art, Critical Thinking, Science, Social Science



Duplicate and pass around the coloring sheets of Popsi and Mother Nature. Have the children color their picture then ask them where and what should Popsi and her Mother clean up next?

- A. There are many answers such as:  
Rain Forest, Their School, The Beach

For those children who write, have them do a short essay on where and what they think Popsi and Mother Nature should clean up next.

(Duplicate sheet on next page)

Across the Curriculum  
Role Playing, Critical Thinking, Science,  
Social Science, Math

## Popsi Toss Game

The Popsi Toss Game is a great lesson that demonstrates that “recycling” can be fun and can become a group or community activity. The class will be divided into two teams and they will compete by tossing their bottles into recycling bins. The Winners—the team that tosses the most bottles in their bin.

Now, it’s time to use to the five plastic bottles the children brought with them. Start by having the children divide into teams A & B. Get two trash can/bins and place a recycling logo on each one. Follow these easy four steps.

1. Have both teams remove the cap on top of each bottle.
2. Place bottles on the ground then crush the bottles by safely stomping on them. (small children may use hands)
3. Line teams A & B in front of their recycling bins and have them toss each bottle into the bin.
4. When both teams are finished count the bottles to see who wins.



**Have the children calculate how many Popsi’s toys could be made from all their bottles they recycled. (5 bottles = 1 Popsi).**

**Go To Page 13,14,15 For Fundraising Recycling Drive**



[www.gopopsi.co](http://www.gopopsi.co)

# Educational Review

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## Popsi across-the-curriculum in a standards-based instructional model.

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Steven D. Altman, M.A.

As an educational tool, Popsi is a platform for teaching artistic, scientific, ecological, mathematical, musical, linguistic, and logical concepts in a way that is both engaging and comprehensive. In adapting the presentation of the materials to the developmental levels of the intended audience (K-Third Graders) without handicapping those students who need extra help understanding basic concepts, the instructor leaves creative thematic expansion unrestricted.

Two essential ideas in this discussion are:

1. Standard-based instructions, i.e., using the guidance of various educational standards written by professional, local, state, and national organizations to express what the student will know and be able to do after a course of study, and

2. Cross-curricular themes, those ideas that are used (with or without specific acknowledgement) in nearly all elementary schoolwork, irrespective of the predominant theme of the lesson, that cross the boundaries of other subjects. Almost all primary grade educators use cross-curricular lessons and tasks in everyday practice. The distinctions among "subjects" are largely adult conceptions of the way information should be organized. For the student, mathematical concepts are tied to language; game-playing, involves the inhibition of impulses and the application of rules; and dropping a pencil is simply one more physics lesson. Where these crossings of subject boundaries are capitalized upon and encouraged, cross-curricular education is in progress.

### STANDARDS-BASED INSTRUCTION

The SBI model relies heavily on two components: a standard for educational attainment, usually produced by a national professional organization which predicts what a student should know and be able to do at a particular grade-level, and an evaluative component, assessing whether the session has, in fact, been learned by the students. (Rubrics are the preferred method of measuring educational progress and are under development for the Popsi program). In each lesson plan, the standards are addressed by the original Popsi lesson plan are listed. Each of these standards have been developed by one or more national organizations of teachers, such as the N.C.T.E. (National Council of Teachers of English), N.C.T.M. (National Council of Teachers of Mathematics), and other organizations, especially McREL, (Mid-continental Regional Educational Laboratory) which has attempted to integrate the standards of the various national organizations.

### CROSS CURRICULAR THEME

In the Popsi lesson plan, each component makes use of skills from standards that cross the usual subject boundaries of Reading, Language Arts, Mathematics, Science, and Physical Education. The intent of the combination of components is to extend the understanding of the students beyond the bounds of any particular subject, and encourage critical thinking in all areas simultaneously.

# GoPopsi Give A Helping Hand

## Fundraising Recycling Drive

Raising Money Without Solicitation \* School Pride



Any organization such as schools, libraries, after school programs, girl and boy scouts, fire departments, clubs, other volunteer organizations, etc. can conduct a bottle drive: It's easy to earn large amounts of cash with the aid of a container deposit law.

Example:

Liverpool, NY high school marching band collected  
**\$3,756.80 in just one day!**

San Dimas, CA elementary: Holy Name of Mary School  
**\$900 -**  
**went toward new books for their library**

## Program Goals

In states with container deposit laws, it is common for organizations to raise money through can and bottle drives. By cleaning up littered bottles and cans or collecting them from community members, returning the bottles to a redemption center, these groups accomplish two good things at once-- community service and fundraising for a good cause.

This Program engages students in school and communities activities; helps to develop team work skills, while focusing on environmental issues. This program empowers children to make a difference in their community, home and school. Popsi's Helping Hand Program will help to empower students to create a community where everyone works together towards a better future.

## Program Concept

It is suggested that the "Popsi, The Daughter of Mother Nature" story book and program guide be taught prior to the Recycling Drive. The children bond with Popsi as the guide throughout the program. She shows the children the end results of what become of their efforts, not only earning money for their school or organization, but that they will be helping towards cleaning up the earth.

Students will collect and recycle - plastic bottles, glass bottles, aluminum cans and paper products.

These recycled products will then be redeemed for money which can be used for additional school programs or materials.

## Let's Get Started

Choose your Popsi Recycling Team Members. These team members can consist of faculty, students and parents who will help operate the program.

If you are not familiar with your school's or organization's nearest recycling or redemption center contact your city recycling coordinator. If you need additional information feel free to contact [www.GoPopsi.com](http://www.GoPopsi.com).

The team will be divided into these four groups:

- \* Coordinating Team
- \* Collection Team

- \* Publicity Team
- \* Transport Team

## The Publicity Team

The Publicity Team is responsible for producing and distributing posters and flyers to promote the GoPopsi Give a Helping Hand Recycling Drive. If you would like to use the Popsi illustration contact [www.gopopsi.com](http://www.gopopsi.com). The posters should advertise the start date of the fundraising drive.

Once you have decided on the date, the area and the collection method, you can coordinate the publicity. This is essential to a successful drive.

- Have a reason for the drive such as buying sports equipment, financing a trip, helping in a building program or supporting a charity; some goal the community can get behind.
- Print simple flyers with:
  - Name of your school or organization
  - Reason for drive
  - Date of drive
  - List of what you are collecting
  - Telephone number people can call for information
- Make sure every child in your class or group has flyers to take home.
- Write a short announcement of the event, including the information on the flyer, and send it to the community events page of your local newspaper and to the public service announcement departments at local radio and television stations
- An announcement can be made at the end of an assembly to "Kick Off" the Drive. Inform the children that many useful things are made from recycled materials .

If prizes are to awarded to the winning classroom they can be promoted at this time.

## The Collection Team

Once a week, on the designated collection day, The Collection Team will stop by each classroom and pick up the collected plastic bottles, can and paper. The Collection Team will keep a record of how many bottles each class collected. If needed they will crush the bottles and cans. The paper may be tied in bundles and put into trash bags. The team will empty the bottles, can, and paper into the correct recycling bin. If your location does not have recycling bins you should keep separate items in a large plastic trash bag till they can be properly recycled.

## The Transport Team

This team is responsible for transporting the collected bottles to the recycling redemption center. The transport of the bottles can be executed weekly, bi-monthly, or monthly depending on convenience. This team will receive the money for the collected bottles and turn the money into the Coordinating Team.

## Coordinating Team

This team will monitor all stages of the recycling drive and supervise all other teams. They will coordinate with appropriate school officials or program directors to obtain teacher, staff and maintenance personnel participation and approval of all recycling drive events.

This team will then select a specific day of the week as the collection day. The Publicity Team will be notified so they can start to promote the fundraising event.

The collected recycled bottles, can and paper will be transported by the Transport Team to a nearby recycling center where they will be redeemed for money. Many states such as California have established Redemption Value Programs like (CRV). This program allow for cash refunds for recycled bottles.

Once your GoPopsi Give A Helping Hand Fundraiser is completed, this team will tally each classroom's final total of all collected bottles, can and paper. The team will also tally the amount of money the entire school earned for the drive. The class which recycled the most products will win a prize. The Coordinating Team will turn in the money to the appropriate school official.

An assembly can be held to announce the final tally and you could provide small giveaways to all those that participated.

For more information contact  
www.GoPopsi.com  
GBL&CLjr Publishing, P.O. Box 3034, San Clemente, CA 92674 \*  
(949) 280-1261

For more information about recycling go to:

<http://www.conservation.ca>.

<http://www.bottlebill.org>