

A Hands-on Recycling Curriculum for Second and Third Graders

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Introduction

As a young child, I would often play school. I enjoyed pretending to be the teacher because I loved writing on the chalkboard, handing out homework and grading papers. Until October of 1999, I had abandoned my fantasies of becoming a teacher. At this time, I began to draft a recycling education proposal for an Aaron S. Allen Grant. This is an environmental grant that is awarded to Tulane and Xavier University students and is sponsored by the Center for Bioenvironmental Research at Tulane and Xavier Universities. It is named in honor of Aaron Allen, a Tulane University graduate who was responsible for making Tulane students and faculty more environmentally conscious.

Since I had worked with children during most of my volunteer and employment experiences, my proposal focused on teaching children. I was interested in working with second and third graders since they are very energetic and are also willing to listen to other's suggestion. They are also more willing to change and are excited about learning. In order to motivate the students to recycle, I suggested the lessons should include playful activities. Participatory activities are important since they help students to retain what they have learned and make a learning a more enjoyable experience.

Recycling education is badly needed in the New Orleans area since many families do not participate in the city's recycling program. In fact recycling bins in New Orleans are more likely to be used as garbage cans, laundry baskets and storage boxes than for their intended purpose. If we want the city's recycling program to continue, we must motivate students to recycle, then they can encourage their family members and friends to recycle as well.

In November of 1999, I was awarded an Aaron Allen grant. Immediately after I received the news, I began to work on my lesson plans. I went to the library, read environmental education and recycling books, and searched the internet to educate myself about recycling. After obtaining text and educational books that are written on a second and third grade reading level, as well as the environmental science standard benchmarks, which are the state's educational objectives describing the skills that each student should have mastered by the end of the school year, I started writing my lesson plan. I was interested in teaching topics that were not only interesting to the students, but also easy for them to understand. As a result of this, I asked several teachers and the Tulane Environmental Coordinator to review the lesson plan. It was rewritten in response to their comments and completed in January of 2000.

I began teaching at Lusher Elementary School in February. I became interested in teaching at this school after I spoke with several parents who had children enrolled in the school and local teachers who were familiar with the school's educational curriculum, which is similar to

that of magnet school. Students enrolled in this school took art, piano, dance and music classes as well as the fundamental subjects. I contacted the school's principal to express my interest in teaching at the school. Her secretary referred me to the school's educational coordinator. I was given permission to teach once I met with the educational coordinator to describe the recycling program and give her a copy of the lesson plan.

As I had sent a letter to the students' parents and gave the teachers who were interested in the recycling program a copy of the lesson plan before I started teaching, many of the students and parents were excited to see me on the first day of the program. Throughout the course of the program, I observed the students and their reactions and comments concerning the hand-on activities. I took note of the activities that they understood and enjoyed, and also noted the confusing and less interesting activities. In the following weeks, the students became enthusiastic about recycling since they were learning how redworms can recycle, and how to make art from recycled materials. Changes to the lesson plan were made based on my observations, teachers' suggestions and the students' comments.

In the beginning of the program, many of the students knew that if we recycle, then we would save the earth. Many of these students did not understand how recycling saves the earth. Now they understand better why and how recycling saves the earth.

Suggestions for finding a school interested in recycling education

1. Talk to parents and teachers to determine which schools will be interested in your program.
2. Talk to local environmental educational agencies and city officials who work with children and ask them if they could recommend any schools that would be interested in your program.
3. Find out who the educational coordinator and principal are for interested schools.
4. Write down the names, phone numbers and positions of everyone that you consult.
5. Submit a copy of your lesson plan and a cover letter explaining who you are and why you are interesting in working at this school to the educational coordinator and /or the principal.
6. Keep in touch with administrators!
7. If they can not incorporate your program into their curriculum, ask them to recommend other schools.
8. Submit your lesson plan to other schools.
9. Good Luck!

Instructional Plan for Recycling Education Program

Day 1

What is Litter?

Objective: Obtain an understanding of what litter is and why it is bad.

Materials: books, old clothes, toys, aluminum cans, receipts, candy wrappers, potato chip bags, plastic bottles and other garbage and recyclables

Activities:

1. Throw objects such as candy wrappers, toys, books, aluminum cans and old clothes onto the classroom floor.
2. As you throw objects onto the floor, act as if you don't care that you are littering. Don't be afraid to talk to yourself and sigh. The students will really enjoy your performance.
3. Allow students to walk through garbage.
4. Encourage students to imagine how unpleasant life would be if we continue to throw objects onto the ground.
5. Lead discussion about your actions. Possible Questions include:
 - a. By throwing my trash onto the floor did I do anything wrong?
 - b. Are my actions harming anyone or anything?
 - c. If so, what would you do to correct my actions?
6. Ask students to correct your actions by placing objects that are trash into the trashcan and objects that can be recycled into the recycling bin.
7. Once all of the objects have been put into either the trashcan or the recycling bin, ask the class to tell you if each object was put in the correct place. If all of the items have been put into the correct place:
 - a. Tell the student that the potato chip bags, candy wrappers and plastic bags have to be placed into the trashcan because it can not be made into something else.
 - b. Tell students that the aluminum cans and the plastic bottles were placed into the recycling bin because they can be used to make something else.
 - c. Tell students that the clothes, toys and books can not be recycled, but they can be used again. They could be donated to other people when we do not want them anymore.

- If all of items have not been placed into the correct place:
- a. Ask other students if they can correct their classmates' actions by placing the items that they think is trash into the trashcan and the items that they think can be recycled into the recycling bin
 - b. If they are having difficulty determining if the object is trash or recycable, give assistance to the students by asking them if they think we could use the item or if it can be made into something else.
8. Ask students to draw pictures with important messages explaining why garbage is harmful to the environment.
9. If you have extra time, ask the students if they would be willing to read their message to the class.

Day 2

Let's Make A Cake!!

Standard Benchmark: "Understand how products are discarded."

Objectives: Obtain an understanding of where garbage goes when it is thrown away and how a landfill is made.

Materials: glass and plastic jars with lids, used coffee grinds, orange peels, apple cores, plastic grocery bags, aluminum foil, construction paper, staplers, bell, markers, timer and BFI manual

Activities:

1. Tell students that once we throw our solid trash into the trashcan it is brought to a landfill. A **Landfill** is a place that our garbage is taken to once it leaves our trashcans. People can either dig holes into the ground to make a landfill or they can build it on top of the ground.

2. Think of a landfill as a giant **birthday cake**. Draw a birthday cake on the board. Use colored chalk to emphasize the different layers of the cake.

3. Draw a picture of a landfill. Refer to the one found in the BFI manual. Use colored chalk to emphasize the different layers of a landfill.

4. Tell the student that we can compare a landfill to a birthday cake because they both are made of different layers. I know most of you like to eat birthday cake, but I am sure that none of you would want to eat anything that comes from a landfill.

5. Tell them that we are going to make several cakes today. These cakes will be similar to the ones that make up our landfill.

8. Tell the students that the bottom layer is made of plastic, this keeps the stuff that's in the landfill from escaping. The next layer contains **garbage**. The next layer is covered with dirt. The dirt is used to keep the stuff that's in the landfill from flying out. Once the top layer is put onto the landfill, it is covered with plastic. The plastic prevents water, insects and animals from coming in and stuff that's in the landfill like old stinky socks and water from coming out. Show the students where each component of a landfill is found by referring to the diagram drawn on the chalkboard.

9. Give each member of the groups an assignment (assignments on other page).

a. Tell each group to cut some of their plastic bag and place it at the bottom of the jar.

- b. Tell some of the students to put of the orange peelings on top of the plastic.
- c. Tell some of the students to put the coffee grinds on top of the orange peels.
- d. Tell some of the students to put aluminum foil on top of coffee.
- e. Tell students, put coffee on top of foil.
- f. Tell students to put another piece of plastic around the mouth of the jar.
- f. Finally, put lid on top of jar.

10. Inform students that sometimes some the plastic that lines the landfill has holes in it and because of this the water that is found in the landfills leaks out. The **water** and other liquids that leak out of landfills is called **leachate**. When the leachate escapes from the landfills it goes into lakes, streams and other bodies of water. **Why is this a problem?** If the people who work @ the landfill notice that the leachate is escaping from the landfill, then they can take the chemicals that are in the leachate out so that it won't make people sick.

11. Ask the students to tell you if they think landfills are the best place to put most of our garbage.

12. Inform students that landfills are not the best place to put things when we are finished using them. In fact, most of the things that are put in a landfill can be recycled. Explain that recycling is taking an object and using it to make something new.

13. Ask students to wash their hands.

14. Answer students if they have questions about the activity.

15. If there is time remaining, ask students to play Wheel of Fortune. (Instructions on the next page.)

Wheel of Fortune Instructions

- a. Cut construction or reused paper into small squares and put a numerical value on each card (\$200-\$1000).
- b. Include Bankruptcy and Lose A Turn cards.
- c. Place all of the cards into a clean canister.
- d. Divide students into two teams (most of the classes like to be divided according to gender). Give each team about 1minute to vote for a team captain. Ask the captains to give team members that remain silent a chance to play the game.
- h. On the chalkboard, put dashes for the number of letters in each word. Play according to the rules of "Wheel of Fortune". Teams take turns drawing a card (instead of spinning the wheel!), guessing consonants and buying vowels.
- i. Suggested words: landfill, garbage, plants, animals, insects, birthday cake, and leachate.

Day 3

Let's Get Yucky!!

Objective: Introduce class to the worms and worm composting bin.

Materials: composting bin, newspaper, redworms, fruit, information on worm composting from www.yucky.com

Activities:

1. Review important concepts from first two classes.
 - a. Ask them if they remember where trash goes once it is thrown away.
 - b. Ask them if they remember what types of things are found in a landfill. We can also find orange peels, apple cores and dead plants in the landfill too. Right?
2. Pass out orange and pear slices to the students and ask them to eat fruit.
3. After they finish eating, pass out small cups with worms to each table.
4. Ask them to find the largest worms, smallest worms.
5. Tell students that these worms are known as redworms. And that they are a special kind of worm that doesn't like to live in the ground. Instead they like to live in organic matter—like leaves and even horse poop!
6. Tell them that just like they need a home, worms need a home too.
7. Give each table some newspaper and ask each table to shred it and place it into the composting bin.
8. Ask students what else they think the worms need to live. Once they say food allow them to put the fruit remnants into the bin. Tell them that worms also eat plants and veggies.
9. Ask them what else do worms need to live, when they say H₂O use spray bottle in order to wet the newspaper.
10. Ask them what else do worms need to survive. (Hold air in mouth in order to give them a clue). Show them the air holes in the top of the bin.
11. Place another layer of paper into the bin and wet. Put dry newspaper on top and cover with plastic black screen.

12. Tell students that worm composting allows the worms to eat our leftover food. This is one way that we can cut down on the garbage that ends up in the landfills. Composting can be done inside or outside, all year long.

13. Ask students to wash their hands.

14. Ask the student the following questions:

a. If putting stuff into a landfill is bad, then where else can we some of the things like paper, banana peels if we are finished with them? We can put the paper into a recycling bin. We can feed the banana peel and dead plants to our pet worms. Right?

b. Tell me again, why do we want to feed the worms?

c. We also said that recycling is important. Right? Anytime we make something totally different out of something that we already have, we are recycling.

So do you think that composting is recycling?

d. Right, composting is a type of recycling because we are feeding the worms our food scraps and dead plants so that they can make better dirt. We can use this dirt in order to plant seeds into the ground or add the dirt to plants that are already growing in the ground. We will do this in a few weeks!!

15. Encourage students to write in journals concerning the composting lesson. Topics include:

a. What do you think about our pet worms?

b. What do you think about composting?

16. Ask teachers to:

a. Feed worms fruit and vegetable scraps.

b. Allow students to check on worms 1-2x/week

c. Allow students to write in worm journal

Comments\ Suggestions: Students enjoyed playing with the worms. In fact, you may have to limit their playing time in order to finish the lesson.

Day 4

What is Recycling?

Objective: Begin to define concept of recycling and develop a concept of how recycling occurs.

Materials: used cardboard boxes, plastic beverage containers, old buttons, packaging material such as soap and toothpaste boxes, unused sewing material, old paint, wrapping paper, tissue paper, rubber bands, paper clips, straws, bottle caps, tape and Mardi Gras beads.

Activities

1. Briefly review first three lessons with students.
2. Inform students that we are going to recycle by making art from recycled materials.
3. Encourage students to imagine what types of objects they would be interested in making. Bring mask and other objects that you have made in for demonstrations. Also bring more material than is required for the project.
4. Give students suggestions on how they can use the material in order to make different types of masks and other items that they can make.
5. Give students time to think of what they want to make before you give them the material that they will need.
6. Encourage students to use the material in order to make their own unique mask.
8. Once project is complete, ask students to explain how making art is recycling.

Comments/Suggestions: This activity works better with younger students because they are more imaginative and are more willing to use their imagination. I think the third graders would have enjoyed making paper more than making art from recycled material. (See appendix #1)

Day 5

How Can I Recycle?

Materials: composting bin, recycling bin, play money, aluminum bats, several newspapers, plastic toys, aluminum cans

Activities:

1. Ask students if art activity was a type of recycling. Why?
2. Ask students to define recycling in their own words.
3. Tell students that we are going put on a play. The roles include 2 families, recycling pick-up and recycling factory workers and cashiers. Describe each group's role to the students. Ask them to pick a role.
4. Tell them that as you read you want each group to act out their role.
5. Give family 1 the newspaper and cans. Tell the recycling pick-up workers that they will pick up the recycling bin from the family's home and bring it to the recycling company.
6. Give shredded newspaper, newspaper and aluminum cans, several pairs of scissors and pieces of cardboard to the factory workers/inventors.
7. Give money to family 2.
8. Tell the cashiers that they must give the items to the family once they have given them the money.

9. Read the following to the class:

Family 1 will place the newspaper and the aluminum cans into the recycling bin. Afterwards, the recycling pick up workers will take the recycables to the recycling company. Recycables are things that can be used to make something different.

Recycling factory workers separate recycables into different piles. Ask factory workers to separate newspaper and cans. Aluminum cans are smashed into a big pile. Ask students to smash the cans. These piles are called bales. That's B-A-L-E. The bale looks like a box made of cans. It is made of ~25, 000 cans and can weigh 1,000 lbs. Next, the bale is melted into aluminum sheets. These sheets are taken to an aluminum factory where they can be made into cans or something new like an aluminum baseball bat.

Newspapers are put into bundles using string. Each bundle is stacked into piles that are also called bale. These piles contain about

1,000 old newspapers. After the paper is stacked it is brought to the paper mill where it is chopped and mixed with water to make pulp. Pulp is the slimy, gummy and wet newspaper that is used to make cardboard. Cardboard is strong paper that is used to make boxes. Cardboard is brought to a factory where it can be used to make pizza boxes, tennis shoe boxes and baseball cards. Once the items are made in the factories, they are brought to the stores. Items are bought by the families once they are brought to the stores.

10. Ask the student if they understand what just took place. Tell them that we acted out the process of recycling because we need to understand how things are recycled. Also tell them that we will be visiting the recycling facility in a few weeks.

Comments/Suggestions: Students enjoyed role playing. Limit activity to 25 minutes in order to complete today's lesson. Give material required for each part of the skit to the groups when it is their turn to act. Otherwise, the students will spend most of the time playing with the materials instead of watching the skit.

Day 6

Visit to Recycling Center

How to Schedule the Field trip if school is in New Orleans:

1. Contact Dedra Jones, Recycling tour coordinator of Browning-Ferris Industries (BFI) 808 L&A Road Metairie, LA 70001 at (504) 832-1920 to schedule tour.
 - a. BFI does not provide transportation
 - b. Best to schedule from Monday – Thursday because it is easier to get a school bus on these days
 - c. Schedule field trip before lunch

Activities:

1. Allow students to observe how objects are recycled.
2. Ask students to write about what they learned, what their favorite and least favorite thing that they saw at the recycling center.

Comments/ Suggestions: Students enjoyed visiting the recycling center. They were fascinated with the scale that is used by the recycling center in order to determine how much recycled material each truck brings. The enjoyed watching the numbers on the scale increase and decrease as each truck as was being weighed. Many of the students wanted to play in piles of cardboard, newspaper and plastic containers. As you know, it is difficult to keep young children from running and jumping especially when there is a lot of open space.

Day 7

My Life as a Tree

Objective: Determine why recycling is a solution to pollution.

Activities:

1. Ask students to close their eyes and imagine that they are trees.
2. Ask them to describe themselves to the class.
3. Read story to students. Ask students to keep their eyes closed while you read to them.
4. Read the following story to the students.

The Story of My Life

By A.L. Tree

I was born in Friendly Oaks Forest on April 17, 1940. On July 8, 1998, my friends and I were removed from our home. A whole army of people riding in big, big school bus yellow trucks took us to a paper mill. When we arrived, these ladies removed the leaves from our branches. Next, we were ground into pulp. Next, they sprinkled water on us. And before I could count to 100, they had made me into a piece of paper.

And after this, three people took me and two of my friends, Chris and Armari to the local newspaper company. Here, they used a special kind of ink to write on us. After we were all inked up, we were placed onto a truck with several thousand other newspapers.

Next, the trucks dropped us off at local grocery stores, banks, libraries, gas stations, schools, and newspaper stands. Chris was bought at the grocery store while Armari was bought at a truck stop. Me, I was bought by a family that had a cute chocolate colored cockerspaniel named Coco. After they read me, the mom, Mrs. Magee put me into the recycling bin. I heard her say that the recycling bin would be picked up on Tuesday. I wonder what's gonna happen to me on Tuesday!

It's finally Tuesday and I can't wait to tell you what happened next. A big white truck came to get me, Tyrese the aluminum can and Alyliaha the plastic bottle, and Tyler the glass jar. They brought us all to Changing Faces Recycling Company. Once I got here I said bye to all of my new friends. I knew that I might not see any of them again because all of us were brought to separate rooms. I was brought to a large room that was stacked with paper. All of the paper including newspaper was separated and stacked into bundles in this room. The bundles of paper, I am told, are called bales (that's B-A-L-E-S).

After we were all stacked and tied bundled, we were brought to the paper mill and grounded into pulp. This time the paper mill workers made me into cardboard. All of this travelling has made me sleepy. I think I'll take a nap. Ummmm, something smells good in here. What, am I doing in here? It's too hot in here, I want to go home. "Welcome to Tony's Pizza, may I take your order.' 'I want large with mushrooms, black olives and spinach." Finally, I get to leave this place. Now I have a new home. TO BE CONTINUED!!

5. Ask students to write about their experiences as a tree.

Comments/ Suggestion: This lesson is very similar to the "How Can I Recycle" lesson. Although the purpose of this lesson was to show how recycling saves trees, this story and lesson don't quite teach that important point. The Grocery Bag Project uses a drawing of the recycling process to show how recycled paper becomes the source of material for new paper, taking the place of standing trees in a forest.

Day 8

We Can Recycle and Reuse

Standard Benchmark: “Understand difference between reuse and recycle.”

Objective: Same as benchmark

Materials: jump rope, Mardi Gras beads, several balls, magazines, old jewelry boxes, buttons, junk mail, baton, paper, old lock

Activities:

1. Show 2 objects to the class. One should be recyclable and the other should be reusable.
2. Ask the students if both of the objects are recyclable.
3. Use objects to define recyclable and reusable. Recyclables are things that are used and made into something different at a factory. For example, newspaper can be made into cardboard that can be used to make shoeboxes and cereal boxes. Define reusables as things that are not taken to the factory to be made into something different. These things are often given away when someone is finished using them so that someone else may use them again. For example, we can give our clothes away when we are too big for them. We can also give our toys away we don't want them anymore.
4. Put all of the items in the center of the table. Ask students to list five things that they think are reusable.
5. Reuse scraps of paper to label on side of the table “recycle” and the other side “can not recycle”.
6. Divide students into 4 groups. Give each student an item and label them according to the students' group.
7. Ask groups 1 and 2 to come to the front of the class. Tell them that they have 1 minute to put all of the items into the correct place. Inform the rest of the students that they must remain quiet while the first two teams are playing.
8. On a separate table, label one side “reuse” and the other side “can not recycle”. Ask groups 3 and 4 to come to the front of the classroom and tell them that they will have 1 minute to put all of

the items into the correct place. Remind the students that they must remain quiet.

9. Once the game is complete, ask the students if each item was put in the correct spot. Tell them which items were misplaced and where they should have been placed.
10. Give students reused paper to write letter to the city council/mayor explaining why the city should continue its recycling program. Ask them to include colorful illustrations.
11. Ask students to tell you their favorite and least favorite things about the recycling program.

Day 9

We are Ready

Objective: Discuss how recycling is helping our ecosystem.

Materials: reused paper for letters, certificates, soil from composting bin that is free of redworms, and prizes

Activities:

1. Return corrected letters to students and allow them to rewrite.
2. Assist students who are having difficulty writing their letters.
3. Ask the students if they remember why worm composting is considered to be a type of recycling. Remind them that we fed the worms and the worms pooped the soil after they finish eating. This poop contains nutrients like nitrogen. Plants need nitrogen in order to grow.
4. Inform them that we are going to feed the plants using the some soil from our composting bin.
5. Once the students are outside give each of them some soil in a piece of paper. Ask each of the students to put the soil on the plants that are located in the school yard.
6. Ask students to wash their hands.
7. Return to the classroom and issue certificates to the students. The certificate states the students' names and congratulates them for participating in the recycling program on one side. There is a glossary of important terms, and information about recycling on the other side.
8. Give students another copy of handout that explains to parents and students how to recycle and which items can be recycled in the New Orleans area.

Comments/Suggestions: Most of the students did not enjoy rewriting their letters as much as they enjoyed feeding the plants because it made them feel as they were doing classwork. Many of the students enjoyed hearing me call their names in order to give them their certificates. Afterwards, many of them commented that they had "graduated from recycling school". They were really excited after they received their "recycling diplomas".

Final Suggestions

1. Create a recycling log for the students to put on their refrigerator at home. It could include:
 - a. the date of the beginning of the program
 - b. column asking them to circle the recycling pick up day for their community
 - c. column asking if they remembered to put their newspaper, magazines, catalogs, and telephone books in a paper bag and placed it along the side of the recycling bin.
 - d. column asking if they remembered to put aluminum, tin and steel cans into the bin once they had been cleaned and dried.
 - e. column asking if they remembered to put glass bottles and plastic bottles with a #1 or #2 at the bottom into the bin once they had been cleaned, dried and the lids had been removed.
 - f. column asking if they had placed their clean corrugated boxes (box ridges between paper sheets) into a paper bag and placed them into the bin once they had been flattened.
2. Before the program begins, write to local bookstores, toy stores, science museums, zoo, city environmental office, environmental organizations informing them of your program and ask them if they would be willing to donate T shirts, pencils, plastic cups, environmental coloring books or any other ecological toys to the students.
3. Once you have a school, send a copy of your lesson plan to each of the teachers who are interested in the program. Ask them for their suggestions. Meet with them to get feedback, establish a teaching schedule and to answer any questions.
4. Write a letter to the parents of the students who will be participating in the program telling them who you are, what their children will be learning and how to contact you if they have any questions or comments. (See appendix #2)
5. Write a letter for the school's newsletter informing the parents who you are, which classes will be participating in the program, what they will learn, inviting all parents including those of students who are not participating in the program to contact you for questions and comments. (See appendix #4)
6. Make a handout informing parents and students how and what to recycle (and how to get their own recycling bin). Staple this to the letter to the parents. Also ask the teachers to staple it to the newsletter. (See

appendix #3) Distribute another copy of the handout to the students on the last day of the program.

7. Write all of your teaching experiences as well as your observations in a journal.

8. Ask students and teachers for feedback once program is complete

Helpful Books

- Browning-Ferris Industries Mobius Curriculum: Understanding the Waste Cycle 3rd Edition
- Hand of Ecology by Ovid Wong
- Recycle!: a handbook for kids by Gail Gibbons
- Where does the garbage go? by Paul Showers
- Eco Art! earth friendly arts and crafts by Laurie Carlson
- Here Comes the recycling truck! by Meyer Seltzer
- It's My Earth Too! by Katheline Krull

Appendix #1

**Paper-making Instructions
from the Mid-City Green Project**

Materials: paper, blenders, buckets, food coloring, screens

Activities:

1. Soak paper in a bucket
2. Next, put paper into a blender with water
3. Food coloring is optional
4. Put paper onto a screen
5. Squeeze excess water from the screen
6. Let paper dry
7. Paper can be put into molds to make it more decorative!

Appendix #2
Letter to Parents

February 15, 2000

To the Parents of the Second and Third Grade Students of Mrs. Melissa Knapp, Mrs. Linda Holley, Mrs. Catherine Russo, Mrs. E. Gitlan and Mrs. Megan Neelis,

My name is Emán M. Williams; I am a senior biology major at Xavier University of Louisiana. I am also an intern at the Tulane Environmental Law Clinic's Environmental Outreach Program. I recently received the Aaron Allen environmental grant, which is issued by the Tulane/Xavier Universities Center for Bioenvironmental Research to teach second and third graders about the importance of recycling so that they may start recycling at home. I am interested in working with second and third graders because they are very inquisitive, active and extremely interested in learning.

I am writing this letter to inform you that I will be educating your children about the importance of recycling beginning Wednesday February 23. I believe that it is essential that we educate children about conservation, man made pollution and other environmental problems in order to prevent them from occurring in the future. If we inform children about the importance of recycling, then they will be more likely to recycle at home. They may also encourage other adults and young friends to recycle as a result of participating in the program.

As a result of my past employment and volunteer experiences at the Louisiana Children's Museum, the New Orleans Museum of Art and Children's Hospital, I have realized that children learn more and retain more information if they are actively involved in their own education. Therefore, each lesson contains hands on activities. Topics that will be discussed include:

- "What is Garbage"
- "Where does the pizza box go when I throw it away"
- " Getting Yucky with Our Pet Worms"
- "What is Recycling"
- "How Can I Recycle"
- " What Happens to My Newspaper when it is Recycled"
- "My Life as a Tree, a Continuation of What Happens to the Newspaper"
- " We Can Recycle and Reuse"
- Recycling with Nature"
- "We are Ready"

Some of the hand on activities that the students will participate in include pretending that they are going on a field trip to a landfill, making mask from recycled material, participating in an environmental relay game, and participating in an active tree, newspaper, recycling facility role play activity. The students will also visit a recycling center during the course of the program. Parents, you are welcomed to accompany us to the recycling facility. On the last day of the program, the students will write letters to local officials informing them of why recycling is important to our community. During this time, they will also a receive a packet which will include information how they can recycle at home, glossary of important terms as well as information on composting. After the program is complete, the students will participate in a short role-play activity that will be seen by the entire school during the daily Morning Meeting.

As mentioned earlier, many of students may become interested in recycling at home. Some of them may question you about recycling or even ask you to start recycling at home. In order to answer some of your children's questions, and to assist them with their recycling at home, I am enclosing a handout on recycling and giving you a number to call in order to find out more about the city's recycling program.

I look forward to sharing information on recycling, conservation and similar topics with your children. I am excited to hear their opinions on these topics. Should you have any questions concerning the program, questions pertaining to recycling, suggestions or comments. You can call me at the Tulane Environmental Law Clinic at 865-5787 on Mondays from 11:00a.m. -4:00p.m., Tuesdays after 1:00p.m.-4:00p.m., Thursdays after 1:00p.m. -4:00p.m. and Fridays after 2:30p.m. I am looking forward to meeting and hearing from you in the near future. Thank you in advance for your support.

Sincerely,

Emán M. Williams

Let's Get Started (What you need to know to begin recycling @ home)

If you need a bin contact the city's Sanitation Department @ 299-3670. For Recycling Pick-up Schedule & Any Other Questions Call BFI @ 837-8940 or Sanitation Department @ 299-3670.

What does New Orleans Recycle?

Paper Products:

- a. Newspaper
- b. Magazines
- c. Telephone books
- d. Catalogs
- e. Paper bags

Plastic Products:

- a. Plastic beverage containers
- b. Plastic food containers with # 1 or #2 on the bottom

Cans:

- a. Aluminum
- b. Steel
- c. Tin

Cardboard:

Clean unsoiled corrugated boxes.

How Do I Recycle (Information taken from BFI Handout)

1. Rinse all beverage and food containers.
2. Remove caps from plastic and glass bottles.
3. Flatten cardboard, cans, and plastic containers if possible.
4. Place paper products in paper bag near recycling bin.

Appendix #4
Letter for School Newsletter

March 29, 2000

To the Parents of the Students of Lusher Elementary School,

My name is Emán M. Williams; I am a senior biology major at Xavier University of Louisiana. I am also an intern at the Tulane Environmental Law Clinic's Environmental Community Outreach Program. I recently received the Aaron Allen environmental grant, which is issued by the Tulane/Xavier Universities Center for Bioenvironmental Research to teach second and third graders about the importance of recycling in order to motivate them to recycle at home.

I am writing this letter to inform you that I started educating the second grade students to Mrs. Catherine Russo and Mrs. Linda Holley as well as the third grade class of Mrs. Knapp on Wednesday February 23. On the first day of class, I walked into each classroom and threw trash and other items that I did not want onto the floor. When I asked the students if my actions were inappropriate they yelled out in unison that I littered and that littering is bad since it makes our surroundings unpleasant to look at and that causes many water mammals and fish to become sick. I then informed the students that once something is thrown onto the ground, it becomes litter. Afterwards, I allowed the students to correct my actions by placing the trash into the trashcan and the material that could be recycled into the recycling bin.

Next, we discussed whether the students had placed the items into the correct place. Finally, the students drew pictures that were accompanied by written explanations either describing why recycling is important or pretending how they would feel if they were garbage. Some of the students who pretended to be garbage stated that people would ignore them and step on them once they were thrown onto the ground. Many of the students are not only concerned about their own health and safety, but they are also concerned about the safety of others. As a result of this, many of them are already well aware of current social problems including pollution. Parents, I commend you for making sure that your children are not only aware of the importance of obtaining an education, but that it is also important to be aware and concerned about how our actions affect others.

In order to allow students to have a better understanding of the information and to retain the information, we will participate in more hands on activities in the future. Some of these may include:

- Making mask from H2O & milk jugs, cardboard and other materials that can be recycled
- Eating fruit and feeding earthworms the fruit remains in order to teach about composting
- Visiting a recycling facility * Parents, you are welcome to accompany us!!
- Participating in an active role-play activity concerning the recycling process

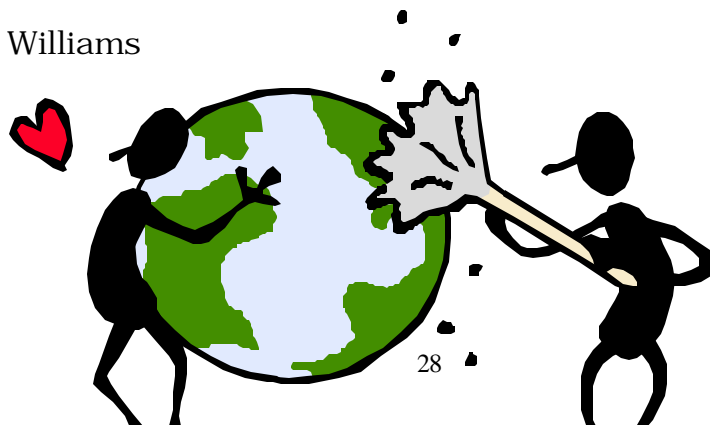
On the last day of the program, the students will write letters to local officials informing them of why recycling is important to our community. During this time, they will also receive a packet, which will include information on how they can recycle at home, a glossary of important terms as well as information on composting. After the program is complete, the students will participate in a short role-play activity that will be seen by the entire school during the daily Morning Meeting.

As mentioned earlier, many students may become interested in recycling at home as a result of participating in the program or talking to their peers or siblings who are participating in the program. Some of them may question you about recycling or even ask you to start recycling at home. In order to answer your questions, and to assist them with recycling at home, I am enclosing a handout on recycling and giving you a number to call in order to receive further information about the city's recycling program.

Even though many of your children are not participating in the program, you are welcome to call me with questions concerning the program, questions pertaining to recycling, comments or suggestions. You can call me at the Tulane Environmental Law Clinic at 865-5787 on Monday from 11:00a.m.-4:00p.m., Tuesdays and Thursdays from 2:00p.m.-4:00p.m. and Fridays after 2:30p.m. Thank you again, for your support.

Sincerely,

Emán M. Williams



Filename: teaching
Directory: A:
Template: C:\Program Files\Microsoft Office\Templates\Normal.dot
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Subject:
Author: Environmental Studies
Keywords:
Comments:
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Change Number: 46
Last Saved On: 06/06/00 4:41 PM
Last Saved By: CBR
Total Editing Time: 204 Minutes
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As of Last Complete Printing
Number of Pages: 28
Number of Words: 6,038 (approx.)
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