



RECYCLING PROJECT

Owl – Lincoln Road: Preschool 2

Background

The Preschool 2 room started a Recycling Project in early February 2017 and it ended in early May 2017. The children ages range between 2 ½ and 4 years of age. The Teachers in this room are Mary Klug, RECE, Kathy Dunk, RECE and Nidya Gamboa, RECE.

Phase 1: Beginning the Project

This project came about one morning when the children questioned Mary of why she was throwing all the odd papers in our garbage can. Mary mentioned to them that sometimes when our artwork has no names on them or we have old paperwork, we throw them out. Benjamin expressed his concern with Mary and said that he puts his paper in the blue bin at his home and that is where we should put all our papers. Owen then said that the garbage man would come, get it, and take it away to a safe spot. The two boys then entered the block area and began exploring with the large hollow blocks. Mary observed them carefully listening in on their conversation and discovered they were trying to make a garbage truck. When they finished Mary asked them if they needed anything else and Owen stated he needed the paper now for the inside of his truck. Watching others join in this play and observing the creativity in their work, and the curiosity of where to go next, lead to a more in depth conversation.

Asking them what they know about Recycling lead to answers like:

1. There is a blue bin
2. There is a green bin
3. The garbage man picks it up at my house
4. It goes in the back of the truck

When we asked the children, what they wanted to know about recycling, they all started to yell things out. They wanted to know:

1. Where does the garbage go
2. What happens to the garbage
3. Why are there different trucks
4. Why do we have so many bins
5. What is the green bin for
6. Why do some people not use the green bin
7. What do they do with the recycled items

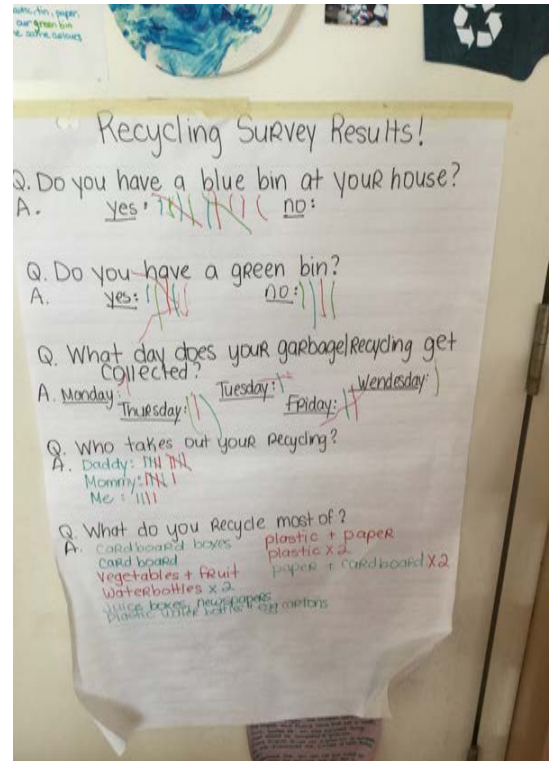
Phase 2: Developing the Project

Our focus in the beginning was *how* we recycle. We started by sending home a survey for the children to fill in with their parents. The children tallied their answers and we found that almost everyone that did the survey recycles at home, but only about half the class uses the green bin (this was just around the time when the garbage pick-up and limitation changes were occurring).

This prompted some of our children to become more aware of when their garbage day was at home. Parents informed us their children were offering to help take out the garbage and recycling. The children would come in to report to us how they saw garbage bags and bins on the lawns, and some would state how they watched the trucks remove it.

When the staff started talking about recycling in more depth, we noticed that the children were familiar with words they may hear from home.

- Truck
- Blue bin
- Green bin
- Cardboard
- Paper
- Plastic



As the project started to unfold, we noticed how many new words popped up. We discovered that neither the children nor staff knew the definitions. Words we learned from books we found from our Library trip or from our tour of Value Village.

Here are a few new words we discovered and the meanings for each:

- Trommel- a mechanical screening machine used to separate materials.
- Receiving Hopper- used to receive materials and direct them to a conveyor.
- Conveyor Belt- and endless belt set on a roller for carrying materials a short distance.
- Tipping Floor- a floor where the dump trucks dump all their materials out of their truck.
- Baler- a machine used to squeeze all the material into tight bundles.



Our next step in *how* we recycle was to understand *what* is recycled. They learned that food, Kleenex and paper towel goes in the green bin, and quickly were able to find all the green bin items. The recycling aspect was a bit trickier to sort because it included separating the various categories of recyclables. Kathy brought in visual cues to help the children have a tangible object to look at when deciding. The children were asked to separate the pictures into five sub-categories; paper, plastic, glass, tin, and to a donation bin. Through discussion, inspecting the real objects and problem solving the children sorted pictures of garbage, green bin items

and recyclables into their respective groups. Ava noticed that there were not many items in the garbage section. This prompted a great conversation about reducing the amount of garbage by using recycling bins and green bins.

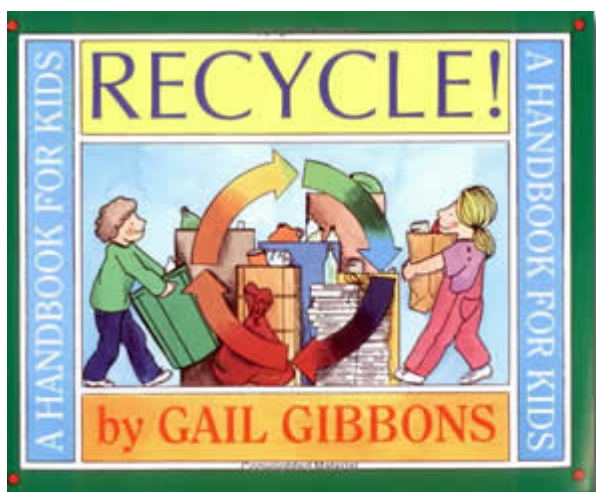


As we continued our project, the children began to voice a concern that items were not being disposed of in the right spot. "The lunch should go in a green bin," explained Julian. "Paper goes in the recycling bin, not in the garbage," added Tyler. Mary contacted the dump and was able to get a green bin and a blue bin for the classroom. The children were beyond excited! They began to scrape their plates in the green bin and clean up their lunches on their own, expanding their self-help skills. Whoever was done

lunch first would lift the lid and the children were excited to clean up! The teachers also observed the children encouraging each other to throw their Kleenex and paper towel in the green bin and held the lid for each other. When we had three toddlers moved up to our room, the older children ensured they knew where the green bin and recycling bin were and even our youngest are throwing their Kleenex in the green bin! Unfortunately, since we are attached to a building that doesn't have a green bin, we are not able to put it out for garbage collection, but we continue to use the bin as if we could. Having the green bin in the classroom has brought about some changes in our families as well. One family told us, their child wanted a green bin at home, insisting that a lot of their garbage can be either composted or put in the green bin. This family went through the process and got a green bin and is happy to share that now their whole family green bins! Cooper's mom, Mandy, also let us know that Cooper has been more interested in the green bin at home and remembers to put leftover food and Kleenex in it.



Our next focus was on *why we recycle* and *how the process works*. This took much more research. We had a book in our classroom that we read a few times and we watched a couple YouTube videos to see recycling and garbage being collected. When we went on our field trip to the Library, we made sure we asked the librarian if we could borrow some books on recycling for our research. We knew that items in our class and at home have come from recycled materials and we understood that recycling meant, “converting waste into reusable material and using again,” but not even the teachers knew how the process happened.



Using the book “Recycle” by Gail Gibbons, we learned all about how the recycling depot transforms the recyclables. Linden, Carter, Owen and Benjamin helped find the steps and cut and paste the pictures. This answered not only *how* the process happens but also *why* recycling is so important.

After a few weeks of having our blue bin in the classroom, we noticed it was quickly getting full. We then, thought about what we could do besides emptying it in the big blue bin by the church. We remembered that on one of the videos we watched, they talked about making recycling paper and got excited about making our own.



We started by sorting the materials from the blue box and selecting only the paper, which we placed in our sensory bin; Emma was very diligent in making the tiniest pieces of all. For a few days, we worked on ripping the paper into small pieces. We also used YouTube to research instructions of how to make it, and made a sign with the instructions to follow.

We went through the list of tools we needed and headed to the craft closet to gather them. We got sponges, wax paper, a blow dryer, and towels. Owen and Rowen helped Nidya to create a type of strainer out of a window screen and a picture frame. Having everything gathered we were ready to start!

We worked together putting the paper in a blender, pressing the 'paste' on the strainer to drain the water out, using the sponges to absorb more water out, and taking turns to use a dryer to accelerate the process. We let the paper air dry for 4 days.

The paper was rougher than a normal paper, but still it was good to write on it. We wrote our names with Nidya's help and used some glitter to make it "sparkly."



The Field Study

Through their journey in this project, children learned that a way to recycle is through donating the items we no longer need to other people who need them. The children agreed that this was a good way of “helping the planet.” and wanted to take part. First, we sent a letter to our preschool 2 room families and a few days later, we decided to involve all the families of the centre. The children were excited and were sure to let us know when they brought something for the donations.

When the day of our trip came, the children were very excited as each one held their own bag full of donated items from our Owl Families. As we sat on the bus, heading to Value Village in St. Jacobs, the children were talking amongst themselves about what they would see, and whether they could touch things. Willem shared with Mary how he and his mom go there to play with the toys and if he listens, he may get a treat to take home. Owen was curious, and asked Mary “why do we have these bags?” Mary told him that we would leave our bags there to help other people, who may need something we no longer needed.

Once we arrived, Ali, a floor manager, approached us and explained that a large red cart would be coming out and this was where we could place our bags. Tyler asked a very good question “is the red bin a garbage bin?” Ali explained to us that this is where all the items go once they are dropped off to the store before they are sorted in their different categories.



Albert, one of the store managers, joined us before we went inside. He went over a few safety rules with us before we could enter the factory part of the store. We learned about staying in a “train-like” form. We practiced how to make a train first, and then how this train had to stay within the two yellow lines. Julian was concerned that some of the workers were not inside the lines, as we had to be. Here,



Albert explained to us that the workers each have their own section, which is divided with their own yellow lines. The yellow lines that we used were for us to walk within. As we walked through the factory, we discovered that each station had three large grey bins. These bins were used for sorting the items. One bin for garbage, one bin for recycling items, and one bin for the items to be placed in the store. The workers go through each item and have to decide which bin the item is to go into.

As we continued on our tour we went to the back of the factory, here we saw a large scale and a large garbage can. We watched carefully as they wheeled in our red bin that had all our donated items in. They placed the bin on the scale, which was on the floor, and asked us how heavy we thought it was; Benjamin thought 1lb, Owen thought 40lbs, and Julian thought close to 100lbs. The Owl Families donated a total of 108lbs. Congratulations to Owl for a great job!

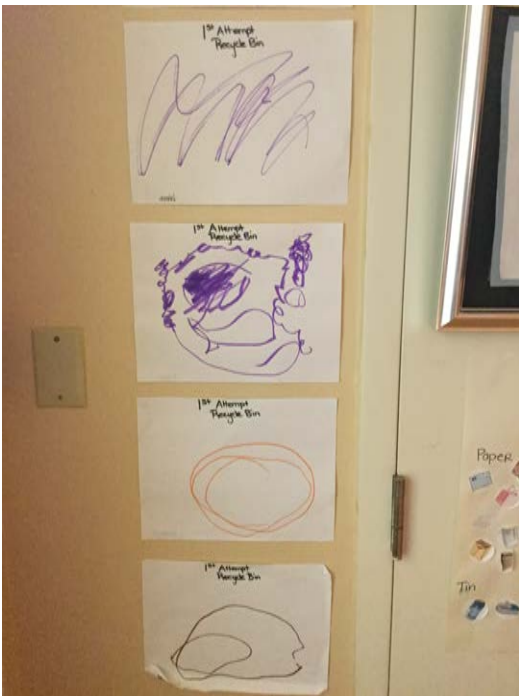
The children were still very curious of the garbage bin behind us. Hudsyn asked if it eats our garbage. Here the children learned that this machine is called a "Baler" and it actually squeezes the clothes, towels and bedding together into about a 10-inch bag that will then be sent either to other charities through the Waterloo Region or to some countries in Africa and the Philippines.



The children then went into a special room and we pretended we were the sorting crew. A game was set up for us to try to sort different clothing items into the three bins. This game really taught us that even if something has a small stain or two on it, these items could still be recycled to those other charities.



Our tour ended with the children looking throughout the store and purchasing a few things for our classroom. The store manager also let us each pick a book and bag of toys to take home as a special thankyou for being the first class to visit them. This field study trip explained the reused portion and the final part of our project.



At the beginning of our project, we asked a few of the children to draw what they thought a recycling bin looked like. Some of the children knew what a recycling bin was but were unsure how to put it on paper. Near the end of our project, the same children not only drew more of a box structure but they all grabbed a blue marker as well.

Phase 3: Concluding the Project

We knew the end was near when all the questions the children and teachers wanted to know were answered and we all felt like we had a better appreciation for recycling and reusing. We had hands-on experience when we incorporated recycling into our room. We had the opportunity to see how others recycled and reused in our community with our field study and some families incorporated a green bin in their house due to awareness and the children's interest.

For our large group project, the children wanted to build their own recycling truck. We used recycled items and brainstormed items we could use. We did some research to find out what parts of the truck needed to be included. We learned even more vocabulary words, including "tilting systems," "cargo box" and "push pedal." The children worked with Mary to problem solve how to get the cargo box to tilt like a real recycling truck. They added a wooden artist mannequin for the driver and one on the side for the "collector." The final product is on display!



Teacher Reflections

I was very excited to do a project on recycling and being able to look behind the scene from the beginning process to the end. The children gained so much knowledge through all the different hands-on activities that were provided to the children throughout the four months. The children had the opportunity to participate in making paper, a 3D garbage truck out of recycled materials, and donating to our reuse box with unwanted items from home. The children are very cautious now in the classroom of what actually goes into the garbage, and have had many conversations before things were thrown away. My favorite part of this project was the field study trip to Value Village in St. Jacobs with Albert Foo and Ali, both Managers of the store. Being behind the scenes opened my eyes to why we should donate. Watching the children's expressions as they watched the workers sort the materials into the proper bin, and hearing the questions the children were able to ask was a joy to see. This is one more way to help protect and save our beautiful earth we call home.

-Mary Klug, RECE

I joined the class part way through the Recycling project and it was wonderful to see the enthusiasm the children had for recycling. They were quick to tell me what they had learned already and what direction we would be going in to further research the topic.

The children and I had found out that we could make our own paper using unwanted paper in our recycling bin. The whole class was interested in participating, ripping the paper and helping spread the blended paper "juice." They had the opportunity to do some hands-on recycling of paper just like a recycling plant would. It was a learning experience for them and me.

-Nidya Y. Gamboa, RECE

This was a fascinating project. It was sparked because of one child's visit to the dump and expanded to include other children when they worked together to dump everything in the class in piles. We chose recycling because the regulations for waste collection were just about to come into effect and some of the children were discussing they had just got a green bin in their home. I was excited to see their eagerness to understand the sorting process. It really mattered to them that each item they disposed of was in the right place (i.e. the recycling bin or green bin). Every child was involved and they encouraged each other to green bin their tissues, paper towel and food. I was even "caught" throwing out paper and they reminded me that it should go in the blue bin. Even now, the children will bring "caring for the planet" into conversation and they will tell us "if we recycle and green bin we can help get rid pollution and keep the earth clean." Many of our parents have mentioned their child is more involved at home with recycling and helping take out the garbage. Some were even inspired to go out and try a green bin in their home! This project moved beyond just learning about the process of recycling and created 24 young environmental advocates.

-Kathy Dunk, RECE