

The Project Approach to Learning at

RisingOaks
Early Learning

| St. Matthew

Project Name: Garbage Trucks

Age Group: Toddlers (17 months-2 years)

Project Start Date: January 2022

Project End Date: April 22, 2022



RisingOaks
Early Learning

Growing minds through play

Background

The toddlers at St. Matthew RisingOaks began their garbage truck project late January 2022 and concluded Friday April 22, 2022 on Earth Day. The ages of the children involved range from 17months to 2years. Brittany, Heather, and Jamie were the RECEs involved in this project.

Phase 1: Beginning the Project

In the toddler room at St Matthew, the windows are located where the toddler get a great view of the street. Each week, the children noticed a large truck move its way down the street, and stopping off at each of the homes nearby, or in front of the school where the large recycle bins sit for collection. This was always a big anticipated event for the children that they began to look forward to each week! Sometimes, the garbage truck would arrive before many of the children, yet two very interested toddlers were usually always present at this time, Bruce (2 years) and Emily (2 years). They both would run to the window to observe what was occurring and to see if they could get a glimpse of the truck. These two Individuals would also make observations and ask some questions about what the truck was doing.

In the program, we had various trucks and car toys. These included, lone behold, a few mini garbage trucks. One of the garbage trucks seemed to be a program favorite from the toddlers. It was green with details that included a couple recycle bins attached to the back.

Through innovative observations and some discussion with some of the toddlers, the project came together. Highlighted below are a few questions that the toddlers seemed to be most curious about.

What we know

- Garbage trucks drive by our school
- They are big!
- They stop at every house

What we want to know

- Why do they stop at each house?
- What do they put in the truck?
- What is garbage?
- When does the garbage truck come?

Who can we ask?

- The Waterloo dump
- Our parents

The photographs below show the children observing the garbage truck that sparked the curiosity of this project.



Figure 1 Three toddlers watching a garbage truck pass by our playground.



Figure 2 Three toddlers watching a garbage truck from our window.

Formal and informal definitions

Formal definition: garbage truck (noun) a vehicle used for collecting household refuse.

Informal definition: Aria (2 years) "Aria's house, garbage truck comes. Dump it, dump it, dump it on the road!"

Phase 2: Developing the Project

What is garbage/ recycling?

To answer this question, the educators added a provocation of a small recycle bin to the program room. When recycling items appeared, from lunch, or boxes from new materials, the children were given the opportunity to drop them into the bin. Through this process, many discussions were had about the difference between the types of recycling materials. The toddlers discovered that some of items, such as cardboard/boxboard belonged in one bin, while plastic materials belonged in the other blue box!

This activity was then scaffolded upon when educator Heather brought a black garbage bag and set it onto the table, alongside an empty recycling container and a box full of recyclable and non-recyclable items. The toddlers enhanced their teamwork skills and they each patiently waited for their own turn. They would grab any item they wished, and the educators would engage them in a small discussion about the items pulled out of the box. "Does the milk container go in the garbage bag or the recycle bin?" Most often, the children used their critical thinking skills to find the container the item belonged to. Through this activity, the children learned that items are separated into two categories, recyclable and non-recyclable/garbage. They also built on their social skills and language development as they took part in this activity.



Figure 3 Bruce helping to sort garbage and recycling with Heather RECE.



Figure 4 A toddler picking out a piece of plastic to sort into the recycling bin

On a later date, after filling the class-recycling bin with items collected from lunch and snack times, the children made a delivery to the school recycle bin and took turns placing the items in. The children learned once again the importance of recycling into the proper bins.



Figure 5 Heather RECE showing the toddlers the larger recycling bin in the school

The shape of a garbage truck:

Through an art experience, the children expanded on their creative expression skills as they had the opportunity to create their own individual garbage trucks. The children were provided with paper, glue and many open ended shapes including circles, squares and rectangles. Using their fine motor skills, the children smeared glue across the page. Shapes were carefully chosen by the children and added to the page, creating their unique vision of a garbage truck!



Figure 6 Fletcher & Natalie creating garbage truck pictures with cut out paper shapes



Figure 7 Tyson gluing shapes onto his paper to create a garbage truck

Exploring what garbage trucks look like:

The toddlers continued to explore garbage trucks, how they look, and their different parts through a variety of art experiences during our project. The toddlers found the appearance of the large trucks fascinating and enjoyed going into depth and detail with these experiences. We used watercolors to paint pictures of garbage trucks, used our toy garbage trucks to drive through tempera paint to create a different piece of art and we also taped markers onto the back of the trucks for the children to “drive” them around and create a paper mural. All of these opportunities gave the toddlers a chance to observe the parts of the garbage truck and a hands-on way to explore what they can do and how they maneuver from place to place.



Figure 8 Julie and Olivia painting pictures of garbage trucks with water colour paints.

Where does garbage go?

Using the iPad, the toddlers went on a virtual field trip and explored the Waterloo landfill and recycling center. We observed trucks arriving at the facility and driving onto a large scale to weigh their garbage. In the recycling center, we watched as all of the cans and bottles moved across conveyer belts and throughout the facility. Through this careful observation, the toddlers were able to explore where the garbage trucks go after they’ve driven past our school and houses. The children

developed their language and literacy skills with words like landfill, dump, scale, waste, bulldozer and compactor.

The following week when the garbage truck drove past our classroom window Bruce (2 years) said “garbage truck going to the dump!” This showed to us as educators that the children were learning and expanding their knowledge.



Figure 9 Educator Brittany RECE showing the toddlers a virtual tour of the Waterloo Landfill on the iPad

3D Cardboard garbage truck

The educators wanted to provide a larger scale experience for the children where they could showcase what they had learned and expand on existing knowledge. They brought in a large box, green paint and paintbrushes and provided these materials to the toddlers. The children expanded on their social interaction skills by using the brushes or their hands to start painting the box. Ellis and Bruce used their investigative skills to find the areas that needed more paint all around the box. As the activity grew, the focus shifted and became sensory orientated as the children started to apply the paint to their bodies. They smoothed the runny green substance over their arms, bellies, faces and for some, even their hair! They took pride in the large box that would soon become their very own garbage truck, but were even more interested in making themselves match the colour of the truck.

A smaller box was also provided and was painted brown, as chosen by the toddlers. This would become the attachment to hold “garbage” items onto the side of the truck.



Figure 10 Bruce painting a cardboard box green

Figure 11 Julie and Fletcher painting a box brown

Garbage Truck Family Survey

Outside the program room door, and available for both the children and families to take part in, a survey was posted. It posed the question, “Which day does your garbage get picked up?” At either drop off or pick up, families were invited to find the face of their child and have their child assist in matching it up with the day their garbage/recycling is picked up. This small experience created a sense of belonging, as the children were excited to have their parent observe and guide them as they used their fine motor skills to move their picture to the correct column. We discovered that most children had their garbage collected on Thursdays.

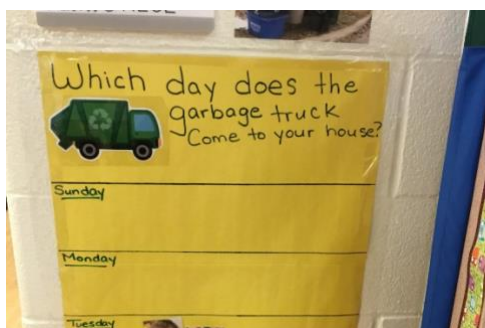


Figure 12 A chart titled 'Which day does the garbage truck come to your house?' with the days of the week listed below

I am a garbage collector!

When dramatic play clothing was re-introduced into the program, the toddlers showed curiosity and excitement about the items that were brought forward to them. They became bumblebees, police officers, animals and even garbage collectors. They used their independent self-help skills, as well as their communication skills for the times they needed to ask for “help” to get dressed or undressed in the clothing they chose. With a bright safety vest on, similar to a garbage collectors' uniform, some children became garbage collectors. They observed themselves in the mirror to see their new image. They developed their imaginative play skills as they engaged in play and conversation. It was another chance for the children to express themselves and allowed them to be their true selves.



Figure 13 Fletcher wearing an orange high visibility vest to dress up as a garbage collector



Figure 14 Julie wearing an orange vest and carrying a recycling bin to engage in dramatic play as a garbage collector

First and second drawings

Prior to beginning the project, we had some of the children complete their first drawings of garbage trucks. We asked them to draw their own representation of what a garbage truck looks like to them. As we approached the conclusion of our project, we had them complete a second drawing. After expanding on their knowledge about garbage trucks, the colours on the second drawings reflected and resembled that of a garbage truck more closely.



Figure 15 Bruce and Natalie creating their first drawing of a garbage truck.

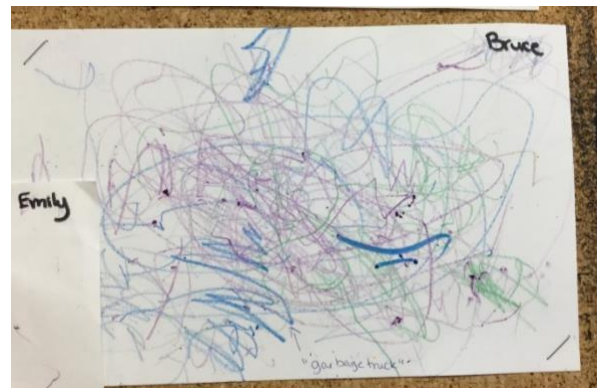


Figure 16 Bruce's first drawing of a garbage truck

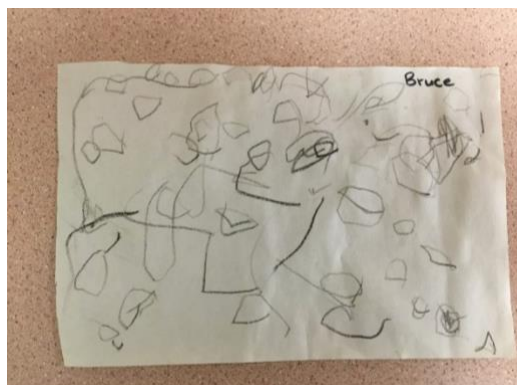


Figure 17 Bruce's second drawing of a garbage truck

Garbage Truck, Child Survey

A short survey was conducted amongst the children as the educators involved them in more discussion and conversation surrounding garbage trucks. The educators gathered the ground and asked each individual children if they like garbage trucks. Almost everyone exclaimed “yes” to this question.

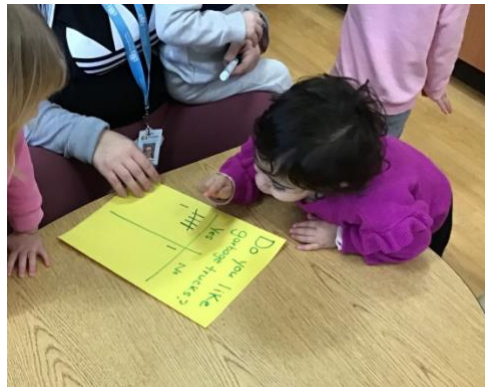


Figure 18 Julie pointing at a chart titled with the question 'Do you like garbage trucks?' tally marks below indicate that 6 toddlers said yes and one toddler said no

Why do the garbage trucks stop at each house?

To learn the answer behind this question, the toddlers did weekly observations of the garbage trucks. They watched out the window as the truck came by every Thursday and did just as they thought, stop at every house. They continued to watch as the garbage bags were lifted and thrown into the back of the truck and the blue bin contents were shook out into the side of the truck. To get a closer look, we took a morning walk one Thursday and found recycle bins lined up by the side of the road. The children took a closer look and peaked inside. What did they find? Plastic bottles! Cans! Cardboard boxes! It was exciting for them to see what was hiding in the bins all along! Then, to the toddlers surprises a truck pulled up across the street! From the safety of the other side of the road, the children observed as the garbage collector picked up the items, walked to the side of the truck and then with a thump returned the empty bins! What an exciting moment for the children. Now they knew why the trucks made stops, and what went into the trucks. It was now time to wave goodbye to the truck and garbage collector.



Figure 19 Two toddlers watching a garbage truck pass by our classroom window



Figure 20 Educators Heather RECE and Jamie RECE showing two toddlers the contents of a recycling bin on the curb



Figure 21 The toddler class observing a garbage truck collecting garbage while on a walk around the neighborhood

Phase 3: Concluding the Project

Throughout this project, the toddlers have built and decorated two cardboard garbage trucks. One was built with a bin for recycling items on the back and the other had a bin for garbage. The colour of each one reflected what it would be used for and each had a picture to show what the bin was for. To get ready for our final activity, the homemade garbage trucks were attached to two wagons, each with space for two toddlers to take turns riding in their creations. All of the toddlers were provided with a vest, just like those that the garbage collectors wear. Days before the walk, the toddlers assisted in gathering recyclable items and putting together mini garbage bags. On the day, everyone was excited to become a real garbage collector! Off they went dressed for the part and some riding inside the trucks as we went for an adventure around the school yard. Heather and Sarah (ECE student) dropped the recyclable items and garbage bags, and the toddlers flew into action! They picked them up and sorted them into the bins that were attached to the back of the trucks. As they worked, their confidence grew with each item they picked up. They had learned all about this project over the last several months, and now they could put all of their gained knowledge into action! The walk ended after everyone was given a turn to ride in the trucks, gather the garbage bags and recyclable items and return to the centre or the “recycle station and dump” where the items were dropped off. This was a memorable experience for both the children and the educators.



Figure 22 Tyson placing a bag of garbage into our cardboard garbage truck



Figure 23 A toddler picking up a piece of recycling



Figure 24 Bruce and Julie riding in our cardboard garbage truck



Figure 25 Fletcher carrying two empty milk cartons

Teacher Reflections

For an adult, a garbage truck is a normal thing to see, no excitement, just a regular weekly occurrence. For a toddler, a garbage truck is so exciting, amazing, a big moving noisy mystery! From one age to another, what makes the difference? Everything is new to young children, of course, and that makes it fun. Vehicles are noisy and fast, a big vehicle that only comes once a week, and sometimes too early to observe, well that is just makes it even more intriguing! It comes by and objects by the side of the road quickly disappear! That makes it amazing in their books! When there is so much excitement around a topic it makes those learning about it want to find out EVERYTHING they can. That is the thrill of learning. When it's new, fun and exciting. As an adult, if everything that I needed to know came in a fun, exciting way, it would make it that much easier to learn all I needed to know about that topic. If banking, cooking complex meals, learning how to use a new piece of equipment needed for home repairs was exciting. Well, that would make me an expert in all of these areas! When young children enjoy something so much, and are given the opportunity to explore it to the fullest, that in itself gives them a chance to become enthusiastic learners. It is the joy of learning, and I also felt joy as I watched them and experienced areas of this topic with them. Who knew garbage trucks would even be inspiring to adults too?

Heather, RECE