



# Garbage Truck Project

Owl - John Sweeney: Preschool 1

## Background

Our Garbage truck project began on September 10<sup>th</sup> 2017. The Preschool 1 class at Owl-John Sweeney consists of 28 preschoolers aged 2.5-4 years of age, with 4 RECEs; Michelle Hiebert, Ashley O'Connor, Jessica Rau and Shamini Jude. We had both full-time and part-time children involved in our project.

## Phase 1: Beginning the Project

Our garbage truck project began when our group of Preschool 1 children were always getting so excited to see the garbage truck go by as it gets picked up from the street on Tuesdays and from our school parking lot on Wednesdays. Many of the children would build garbage trucks out of the blocks, Lego and connectors we had in the class and began to ask questions about the trucks as we saw them go by. We then started noticing that the garbage truck did not always pick up everything that was put out on the curb, so we examined the different trucks and bins that are associated with garbage day. We completed a survey that asked when the garbage gets picked up from your house, if you see the garbage truck and if you put garbage out. We began to create webs and charts about what the children knew about garbage, what they wanted to learn and whom we could ask that might know about garbage trucks (Table 1.) We also created a teachers' web about where we thought the project might take us (Table 2). As we continued we thought the children might be interested in the different parts, the types of trucks, the garbage dump, what happens to our garbage and about the driver himself? We also asked the children where they have seen a garbage truck (Table 3).

Table 1:

What we know	What we want to know	Whom can we ask?
I like garbage trucks because I like saying "garbage truck" – Scarlett	How do you drive a garbage truck? – Max	My Mom and Dad- Max
They dump – Michael	Where do they dump the garbage buckets? –Lincoln	Garbage Man- Landon
They dump dirt – Isla	How do they get up the road? – Paisley	iPad- Michael
They dump out the garbage from people. – Lincoln	What garbage is in? – Enoch	School- Max
Stink! – Paisley	How many pounds of garbage can a garbage truck hold? – Ashley	Library- Liam

They pick garbage up and they drive it away to the garbage station. – Max	Are they like dump trucks? – Abigail	
Garbage trucks drop some garbage onto the road. – Liam	Is a recycling truck and a garbage truck the same? – Landon	
They dump dirt. – Gwen	How many wheels are on a garbage truck? – Gwen	

**Table 2: Garbage Trucks**

TYPES OF TRUCKS	PARTS	GARBAGE DUMP	DRIVER
Green bin	Number of wheels	Size	Training/schooling
Garbage	Compactor	Who works here	Jobs
Recycling	The mechanics	Process of receiving garbage	How many drivers
How to sort	How does it work	Where is it	Man hours
	Sounds	What happens to garbage once it gets there	

**Table 3: Where have you seen a garbage truck?**

To a building and on a building	Max
At my home, outside the window	Landon
Outside with my mommy and daddy up a mountain	Cecilia
Outside	Enoch
Up the road	Paisley
Down the road	Michael
At our school	Max

## Phase 2: Developing the Project

### Preschool 1 Garbage Truck Vocabulary

Garbage Truck	They pick up garbage and put in the recycling. – Landon
Garbage	Empty bottles of yogurt – Olivia
Dump	A dump dumps garbage. – Lucian The garbage station. – Max
Garbage Collector	A guy who throws the garbage. – Cecilia
Compactor	It's on the garbage for more garbage. – Lucian It's loud and goes "pppppffff" – Liam
Trash can	A garbage can – Colton To put garbage in it - Scarlett

## Questionnaires

We placed our first questionnaire outside our classroom for parents, staff and volunteers to take a moment to answer. The question was “What day of the week does the garbage truck come to your house?” We then brought that questionnaire in and compared the results. The results were as followed:

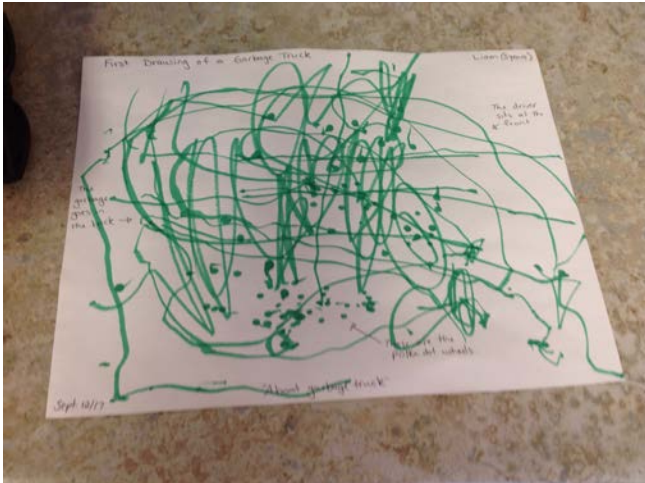
Monday	Tuesday	Wednesday	Thursday	Friday	Not Sure
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(4)	(14)	(5)		(3)	(1)

Tuesday had the most days with 14, Wednesday was the second most popular day followed by Monday.

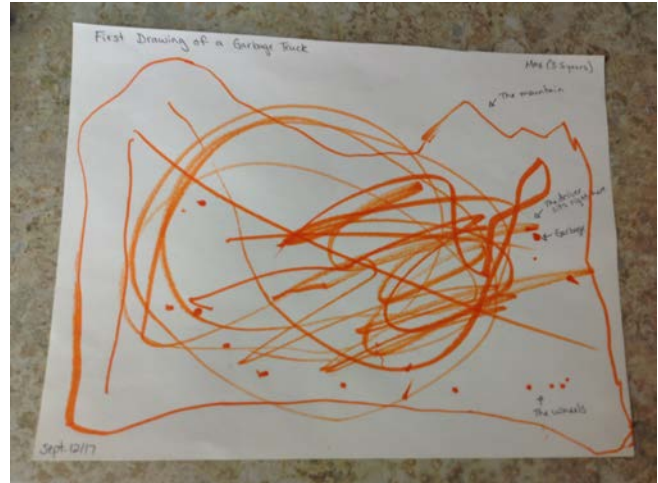


## First Drawings

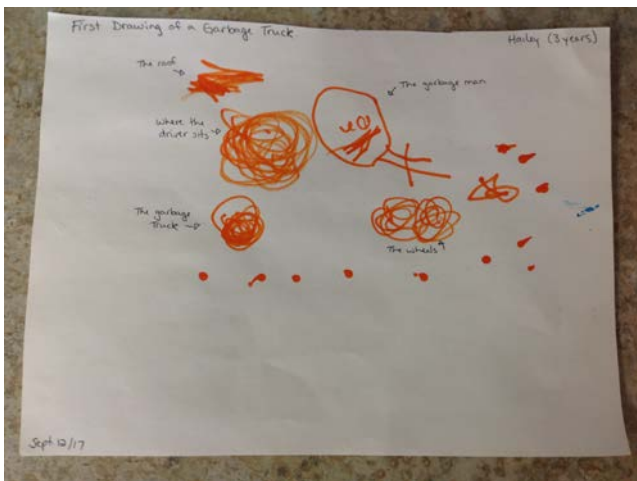
On September 12, we began our first drawings of a garbage truck. Many of the children just drew circles with dots. Not knowing any of the names of the areas of the truck they drew what they knew from seeing one outside, they knew it was square and had wheels.



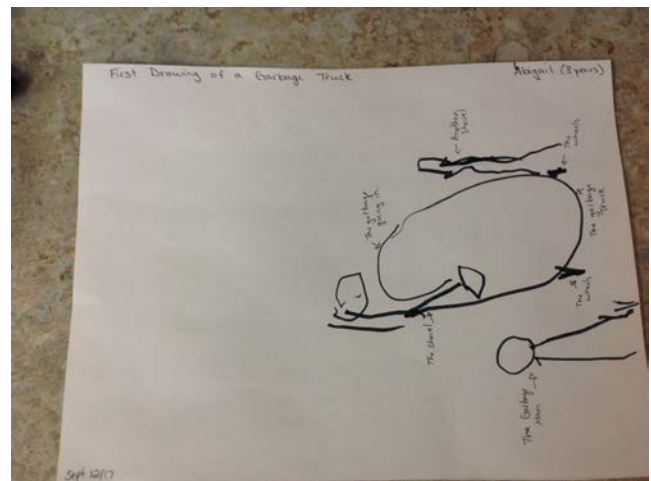
Liam First Drawing (3 years)



Max First Drawing (3 years)



Hailey First Drawing (3 Years)



Abigail First Drawing (3 Years)

### Making our own bins

On September 19, we went searching for boxes that we could recycle into our own blue box and green box. First, we started with the blue box. Gwen, Hailey, Jordynn, Paisley, Michael, Max, Lincoln and Landon enjoyed working together to get the blue box painted. They painted each side and then we let it dry before placing the recycling symbol on the side. We then moved on to the green bin. Isla, Wilton, Marcus and Liam worked together to get that box painted green. We selected a slightly smaller box for the green bin.



## Going on Garbage truck hunt

On September 20, we set out on a hunt for our garbage truck in the school parking lot. Weeks prior, we observed that the truck collects our garbage around 10:20 am Wednesday mornings. Therefore, we went out to see the truck in action but on the first attempt, we missed him! By the time we made it outside he had already concluded collecting the garbage so we waved goodbye to him as he drove by. We then walked down the street to see the bins in front of people's houses that had not yet been brought inside the house. Nevertheless, during our second attempt on September 27, we were able to see the garbage truck in full action! We sat on the curb near where the large dumpster sits. The children listened for and watched as the garbage truck pulled up to the large dumpster. We watched the bin be lifted up by the large arms on the truck and saw all the garbage fall out of the dumpster and into the hopper on the truck. We then listened very carefully. We heard the garbage being crushed slowly and heard the engine on the truck rev up. The children cheered as the garbage truck backed up and went beep, beep, beep. We waved as the garbage truck drove past us on the way to the street.





## Sorting

September 21 was sorting day! Jessica had cut out and laminated many different items that we may have at our house that we would have to throw out. The children were able to learn about these items and then had to decide whether they belong in the blue recycling bin, green organic bin, yard waste or the garbage can. There were four coloured and labeled poster boards hung from the wall for them to place the items on. Landon placed the light bulb in the garbage can, Max placed a milk container in the recycling bin, Spencer placed lettuce in the organic green bin and Gwen placed the leaves with the yard waste.



## Creating

Shape Garbage trucks came to life on October 11<sup>th</sup>. We set out imagination to the test and used a mixture of shapes, colours and objects to create what we thought a garbage truck could look like. Some trucks had many wheels, some had none, some were green and some were pink.

Liam used a rectangle at the back for where the garbage goes on a garbage truck. He placed another rectangle at the front, so the driver had a place to sit.

Abigail used the blue circles for the wheels on the garbage truck. She placed a yellow and pink rectangle next to each other and used this as a place where the garbage is kept.

Michael used four circles as wheels, and one yellow rectangle on top of the wheels as a roof. Paisley used all circles to create her garbage truck.

Hailey created a house out of her shapes, so that the garbage man had a place to live.

Gwen used a large pink rectangle to represent a house, “that was the house where the garbage truck will pick up the garbage,” she tells Jessica. She uses a large blue circle to represent the garbage truck.

Scarlett placed a triangle, square and circle next to each other. She was trying to make the garbage trucks house. We discussed how the garbage truck would park at the landfill station.

Wilton used lots of yellow rectangles all glued together to show all the garbage that “needs to be picked up”

We had fun being creative using our imagination and different shapes.





## Planning

November 22 became planning time. We cruised through our project. It was time to brainstorm what size and how many boxes we needed to put our vision in place. Abigail, Skylar and Scarlett S worked hard to paint each box green. Three boxes were painted with regular green tempera paint; eight small and one large box were painted with green finger paint, which we used our hands as paint brushes, and spread the paint around. Jordynn pointed out how shiny the boxes looked when they were painted with finger paint. Our last two large boxes were covered in green construction paper and then coloured on in black and green marker.

November 23 the painted boxes were dry, and coloured green and were ready for assembly, it was time to build! We worked together gathering tape, glue, a bungee cord and a spare box and started to build. Children had a chance to give their input as to where a box should go. Max thought it would be a good idea to cut black circles for wheels, Landon suggested we needed a steering wheel and Paisley wanted yellow lights. We made sure to use one large box as the hopper and a small box was placed inside to represent the compactor.



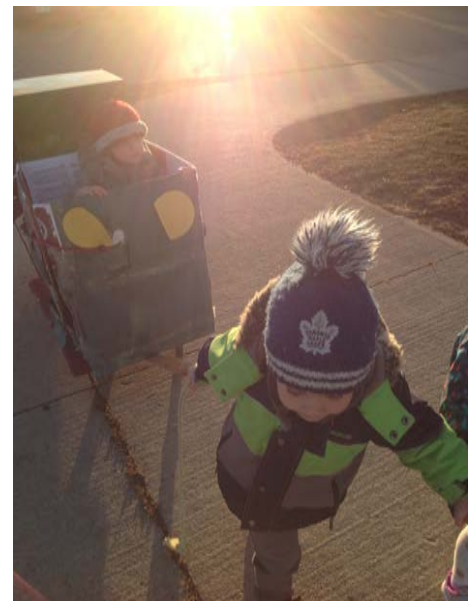
On November 27th, Scarlett and Bronwyn noticed that our garbage truck had no garbage to collect. “We have no bags to collect,” said Scarlett. Therefore, as a group we found items to fill garbage bags with so that we could “crush them” (Max) in the compactor. One bag was filled with tin foil, another bag was filled with ripped up paper and the last bag had old broken toys in it. We chose a few different items to go in each bag in hopes that when we crushed the garbage it would make a sound. As we explored our garbage truck during free playtime, Scarlett instructed her peers to dump the garbage into the hopper. Max and Lucian worked as a team to push the boxes together causing the garbage bags to be crushed inside the compactor. While Max and Lucian worked to crush the garbage, Landon, Scarlett and Cecilia were concerned that the garbage trucks door would not stay shut. Cecilia offered the bungee cord as a solution, she tried to attach the bungee cord with tape but it did not hold. With assistance from a teacher, the children were able to make a hole in the cardboard box so the hook on the bungee cord could be placed in order to have the option to open or close the door.

Landon offered the door handle off his mom’s truck if our bungee cord stopped working. Cecilia and Scarlett thought this was a great idea.



## Trip

We put our new truck to the test. Preschool 1 hit the streets on November 28<sup>th</sup> to collect garbage in our freshly manufactured garbage truck! We collected from the toddler room, preschool 2 and the school age room at the end of the hall. Once our compactor was full, we headed out back to deliver the garbage to the large dumpster. We engaged in teamwork and great communication skills to get the job done.



## Survey

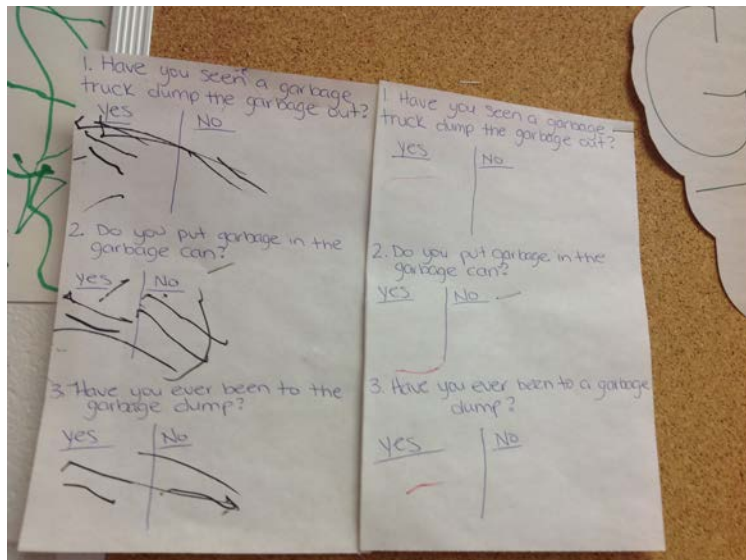
As a group, we came up with three survey questions that we wanted to ask.

\*Have you seen a garbage truck dump the garbage out? - Lucian

\*Do you put garbage in the garbage can? – Max

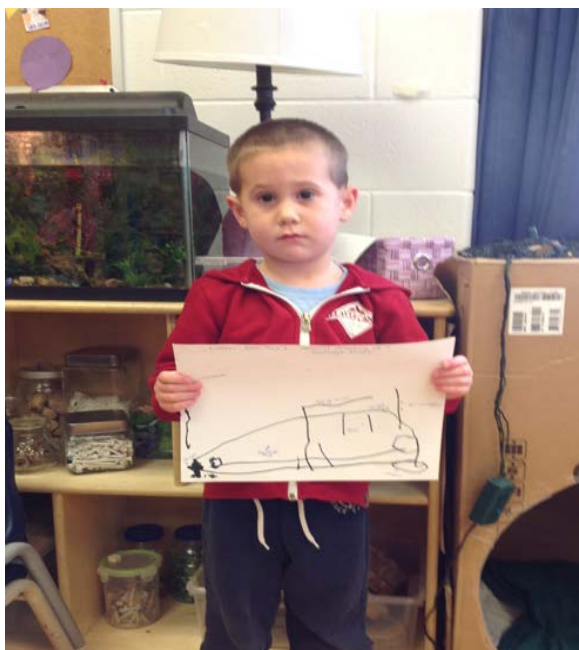
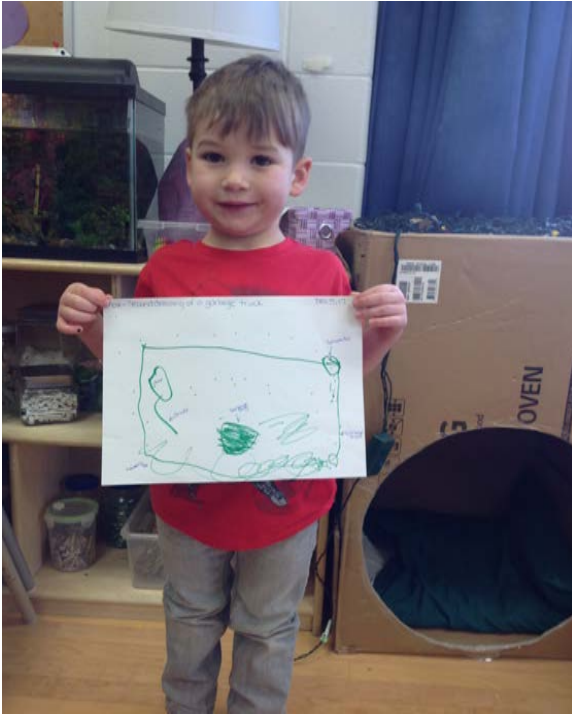
\*Have you ever been to a garbage dump? – Paisley and Landon

Max, Gwen, Isabel, Michael and Abigail set out for some answers. They decided they wanted to ask Debbie and Kelley in the Toddler room, Simone from Preschool 2, Deb from the kitchen and Jo in the office. The results were in; everyone had seen the garbage truck dump, everyone put their garbage in a can but two people had never been to the dump. Max thought that was crazy.



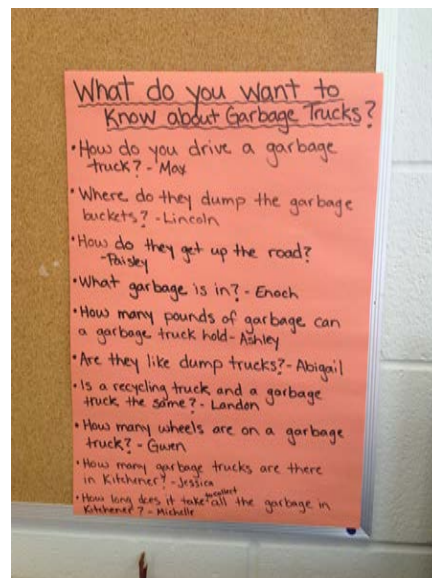
## Second Drawings

On December 5, 2017, the children sat down to recreate what they thought a garbage truck now looked like after all the learning we had completed. Liam and Max made sure to include a compactor, a window, a spot for the garbage bag and a driver. Hailey and Abigail made sure their truck had shape to it as well as wheels and a driver to move the truck.



## Special Guest

On December 12, 2017, we invited William Hunt to come speak with our class about garbage trucks. He currently works collecting the garbage in Guelph. The children were very excited to talk to him and ask him all the questions they had. He gave us information such as it takes 8 hours to collect each routes garbage in a day, that a garbage truck can hold up to 10,000 lbs. of garbage and that there are only about 12 garbage trucks that they use to collect all the garbage, that's why we all have different garbage days!



## Song

As a group we worked together to create a song that we could sing about garbage trucks. We placed it to the tune of one of our favourite stories/songs to sing in the class “fire truck”.

### Garbage truck Song

Garbage truck!  
Garbage truck!  
I want to ride on a garbage truck!

I’m gonna drive down the road,  
Drive down the road  
I’m gonna drive down the road  
To find the garbage.

I’m gonna pick up the garbage,  
Pick up the garbage,  
Pick up the garbage in my garbage truck.

I’m gonna sort the garbage,  
Sort the garbage, sort the garbage  
I’m gonna sort the garbage in the  
Bins on my...

Garbage Truck!  
Garbage truck!  
I want to ride on a garbage truck!

I’m gonna drive to the landfill,  
Drive to the landfill,  
Drive to the landfill to dump the load

Because....

I’m a garbage collector,  
Garbage collector  
I’m your neighborhood garbage collector!

## Phase 3: Concluding the Project

We knew the project was finished when all our questions were answered. We found the children never lost interest in the topic and continue to talk about garbage trucks still as well as play with garbage trucks and even watch for the garbage truck on Wednesday mornings. We still touch back on talking about the garbage trucks but there is no longer anything they want to learn about them. When conversations happen that involve the trucks the children will often refer to the statement “do you remember when we learned *blank* about garbage trucks.”

## Teacher Reflections

I feel the children really enjoyed learning about garbage trucks and they all had a personal connection to this project because each of them at one point in time had seen a garbage truck at their own home, or had helped their parent sort out the recycling and garbage and bring it to the curb. We had lots of parent engagement during this project when we asked parents to take pictures of their own garbage and recycling bins, a garbage truck collecting garbage or even the date which garbage is collected in their area. During this project, the majority of the children participated in every activity offered to them, and they showed interest in learning new words associated with this project. Words such as compactor, hopper and landfill station can be heard when the children are playing in the dramatic play area and they still enjoy pretending to be a garbage collector even now that our 3D garbage truck is gone. The children still continue to look for the garbage truck driving by our classroom window every so often and get excited when they see it. Sometimes if we are lucky, the truck driver notices us and honks the horn for us. This always brings a smile to the children’s faces.

Jessica RECE

Over the few months, that we studied garbage trucks it was amazing to see what the children had already known based on their own observations and what they wanted to know. I expected that they would have wanted to know more about different aspects such as the dump or recycling but they did not. They had their eyes set on the truck its self and it never left. They learned different words such as compactor and hopper and the true definition of them and were able to use them in a proper sentence by the end. Throughout the project they learned new facts such as how much a garbage truck can hold, how long it takes to collect garbage, the realization that not everyone has the same garbage day and what it takes to build a truck. Even though we have completed our project, the children still talk about the garbage truck and get very excited to see the truck go by!

Ashley RECE

When I started working full-time in Preschool, I had the chance to participate in their garbage truck project along with the children. It was amazing to watch how majority of the children were interested in learning about the topic. Even though I know a little about recycling and the green bin process, I didn’t have much knowledge about landfills and the behind the scene process. I enjoyed learning about how the compactor worked, and how it was able to compress the load, and learned more about this when our guest speaker came to visit. The children showed great eagerness and engagement in





learning more about garbage trucks each and every day. Making our 3D model of a garbage truck out of recycled cardboard boxes that were donated by our parents was amazing. I cannot describe with words how every child was involved with enthusiasm when constructing the garbage truck and its different components like the wheels, driver's seat, steering wheel and compactor. The most exciting part was when the children drove the garbage truck around the school to collect garbage. They all had a blast, and took turns collecting the garbage from the toddler and preschool rooms along with the schools classrooms. Even now that the project has ended the children's learning and engagement still continues as they continue to sing the garbage truck song and play with the two garbage trucks that Santa brought for the class at Christmas.

Shamini RECE