



# Construction Vehicles Project

Owl - St Luke: Preschool

## Background

This project started at the end of November 2016 and it ended on February 10<sup>th</sup> 2017. The children in the Preschool Room are ages 2 to 4 years old. The Educators in the Preschool Room are Gabi R.E.C.E., Steph R.E.C.E and Shannon R.E.C.E.

## Phase 1: Beginning the Project

This project started with the children discussing the three little pigs. One day Dylan, Luka and Nathan were sitting outside with Steph and they began to tell the story of the three little pigs. This began a discussion about construction and the vehicles that are used for building houses. As we moved into the beginning stages of our project, we thought that the children were interested in structures, but as we dug deeper and asked the children what they knew about structures it became apparent that they children were interested in construction vehicles.



Figure 1: The preschoolers created a topical web based on their interest in construction vehicles.

What do we know?	What we want to know?	Who should we ask?
<ul style="list-style-type: none"> <li>• “Some run on tracks” -Rory</li> <li>• “A digger moves stuff away so cars can drive” -Shelby</li> <li>• “A bulldozer bulls things” - Kabir</li> <li>• “Construction sites are dangerous you have to wear a helmet” -Ethan</li> <li>• “Dump trucks pour dirt on the sidewalk, excavators scoop” -Dylan</li> <li>• “Bob the Builder drives them” - Tatum</li> </ul>	<ul style="list-style-type: none"> <li>• “Who digs the dirt?” -Dylan</li> <li>• “Does an Excavator go up and down?” -Shelby</li> <li>• “What do rollers do?” - Kabir</li> <li>• “What do Diggers pick up?” -Kabir</li> <li>• “Can they drive fast?” -Ivy</li> </ul>	<ul style="list-style-type: none"> <li>• “Probably my Daddy” - Ethan</li> <li>• “The Museum” -Kabir</li> </ul>

## Phase 2: Developing the Project

As we investigated further into Construction vehicles, the children were observed talking about the different types of vehicles. We observed that previously some of the children would label the Excavator as a Digger, but we were now labelling them as an Excavator, or a Backhoe. You can see below how the Children were able to label vehicles and items they would see at a Construction site. This is how we came up with our Vocabulary list.

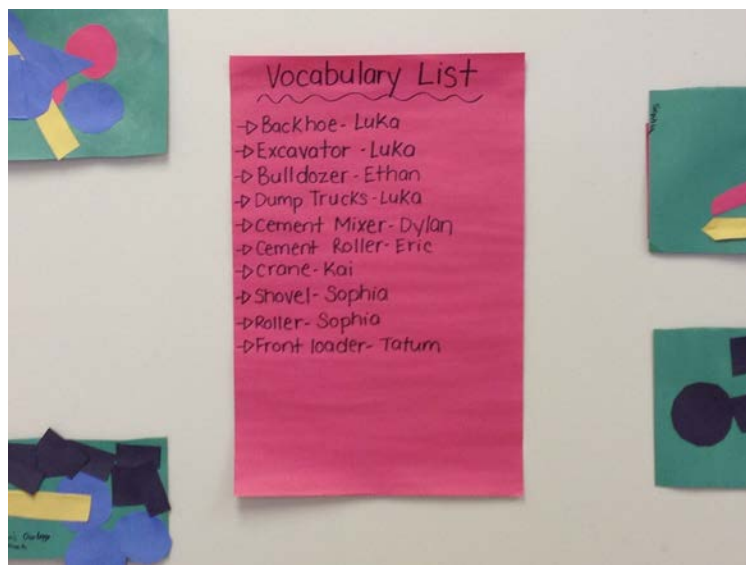


Figure 2: The children created a vocabulary list



Figure 3: Tatum (3.6 years) Emmett (2.5 years) Micah (2.4 years) and Ivy (4 years) are creating their first drawings.

Using the Dump truck and Excavator on the table, the children were able to create their first drawings. They were able to use many colours, as well as being able to pick up and explore the vehicles as they drew. Ivy picked up the excavator and traced the shape on her paper.



Figure 4: Tatum (3.6 years) and Emmett (2.5 years) first drawing.



*Figure 5: Emmett (2.7yrs), Viggo (2.7yrs) and Aiden (2.8yrs) are investigating trucks in sand.*

Throughout the project, the children demonstrated their learnings about different vehicle jobs through their play. We had learned that bulldozers help to push large amounts of sand or gravel to different locations. We learned that a dump truck's job is to transport loose materials such as sand, gravel and dirt to and from construction sites. Emmett, Aiden and Viggo were able to demonstrate the things we were learning by pushing sand and creating by using the vehicles to build, smooth and lift.



*Figure 6: Ivy (4 years), Brooke (2.5 years) and Micah (2.4 years) using the construction mat.*

Ivy, Brooke and Micah were using a cement truck, dump truck, tow truck and crane to pretend they were working at a construction site. We heard Ivy say, "I'm going to bring you dirt, Brooke". Ivy then pretended to load up her dump truck with "dirt". This was a great way for the Preschoolers to gain new words and to use their imagination to create a story.

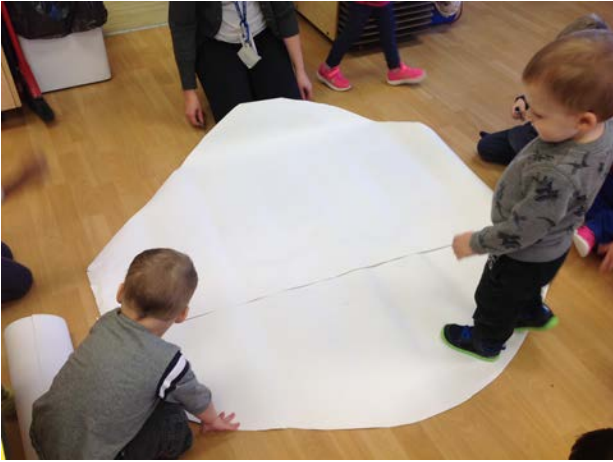


Figure 7: Micah (2.4yrs), Emmett (2.7yrs).



Figure 8: Tatum (3.6yrs), Rory (3.5yrs) Grace (3.6yrs), Viggo (2.7 yrs).

The children enhanced their numeracy skills when they measured and cut out a crane tire. Steph then measured each child and compared how tall the children were in comparison to the crane tire. This was done to show the children big/small and quantities of more/less. We talked about the jobs a crane has and different types of cranes; tower crane and mobile crane. We learned that a tower crane is used to build very tall buildings, whereas a mobile crane is used to lift and transport heavy objects.



Figure 9: Rory (3.6 yrs) is conducting a survey asking Sophia (3.9 yrs) and Brooklyn (3.10 yrs) "have you seen a dump truck before?"

For our special visitor we had Rory's dad Kevin bring a backhoe to the centre. He showed us how the stabilizers come down so the bucket can scoop up dirt. We talked about the things backhoes are used for such as moving heavy objects, paving roads, breaking asphalt, and landscaping. We even got to sit inside the backhoe and look at all the gages.



Figure 10: Viggo (2.7 years) sitting inside the backhoe



Figure 11: the children looking at our special visitor



Figure 12: In Tatum's (3.6 years) second drawing after the visit with the backhoe you can see how she incorporated more details in her drawing by adding the wheels and rims

## Phase 3: Concluding the Project

For our large group project, we created a dump truck. With help from the parents in the Preschool Room we were able to use cardboard boxes to build it. We talked about the different dump trucks we see on the road and the ones we have in the classroom and discussed what colour we should paint our dump truck. We then took a vote and yellow was the winner.



*Figure 13: Sophia (3.9yrs), Grace (3.7yrs), Ivy (4yrs), and Alina (2.9yrs) are starting to paint the outside yellow.*



*Figure 14: Tatum (3.6 yrs), Brooke (2.5 yrs), Ivy (4 yrs) and Elise (3.10 yrs) are cutting out the wheels for the dump truck*



*Figure 15: Marie-Eve (3.3 yrs), Brooke (2.5 yrs) and Shelby (4 yrs) are painting the wheels black.*

The children are using a tape measure to measure 6 inches from the bottom of the box, this is where the Dumper of the truck will be. They are also using an exacto knife in the next picture to cut along the line that was drawn.



*Figure 16: Tatum (3.6yrs) Colm (3.8yrs) Ivy (4yrs) and Sophia (3.9 yrs) are watching Tatum as she traces the line.*



*Figure 17: Tatum (3.6 yrs) and Ivy (4 yrs) watch as Shelby (4 yrs) cuts out the flaps to make the dumper.*

We knew the project was coming to an end when children started to show more of an interest in talking and learning about the ocean instead of construction vehicles. The children and educators learned a great deal about construction vehicles and how they work and what each vehicles jobs were. We held an open house for our parents to showcase all of our hard work. It was amazing to see how proud the children were to lead their families around the classroom to show off all their hard work. The children were eager to teach their families all about our findings!



*Figure 18: Rory's dad looking at our project research*





*Figure 19: Colm showing his mom all our project research and documentation*

## Teacher Reflections

Reflecting upon our construction vehicle project, we as educators learned a great deal about construction vehicles that we did not know beforehand. We as educators feel this is what made the project successful, collaboratively learning together with the children. Being able to learn alongside the children and feed off their excitement and energy is what collaborative learning is all about! It was amazing to see how eager the parents were to jump in and help when needed! We cannot wait to dive into more projects that are successful!