

The Project Approach to Learning at

RisingOaks
Early Learning

Lincoln Road

Project Name: BUILDING

Age Group: Preschool 1 (2.5 yrs – 4 yrs)

Project Start Date: July 11, 2022

Project End Date: August 31, 2022



RisingOaks
Early Learning

Growing minds through play

Background

Christine Beitz, RECE Shae Costa, RECE and Fatima Faiez, RECE have noticed that the preschoolers enjoy building as they are often stacking up blocks, asking for Lego and making buildings with different materials around the room. We began this project on July 11, 2022 and it ended on August 31, 2022. In total, we had 24 children participating in this activity, and their ages ranged from 2.5 years old to 4 years old.

Phase 1: Beginning the Project

What We Know

- Buildings are big
- We build with blocks
- Rooftops and windows
- Constructions

What We Want to Know

- How buildings get tall
- How they're built
- How to take down buildings
- How to put on a roof
- How to put a building together (How it sticks)
- What is the tallest building?
- How tall can buildings be

Who Can We Ask

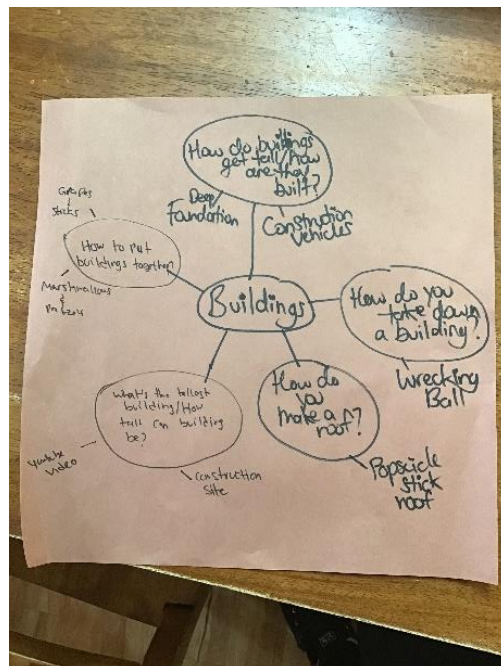
- Construction workers
- Architects

Phase 2: Developing the Project

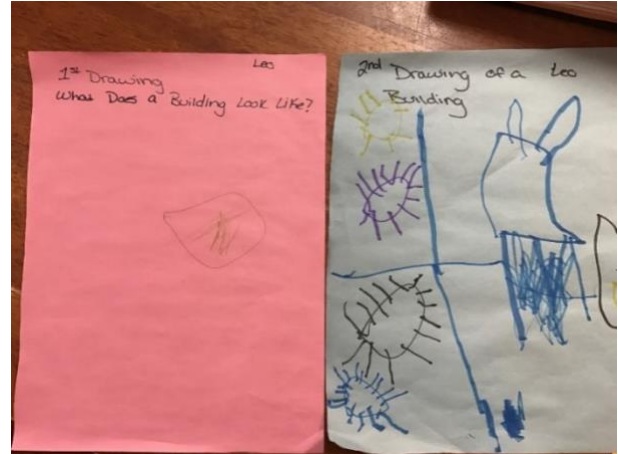
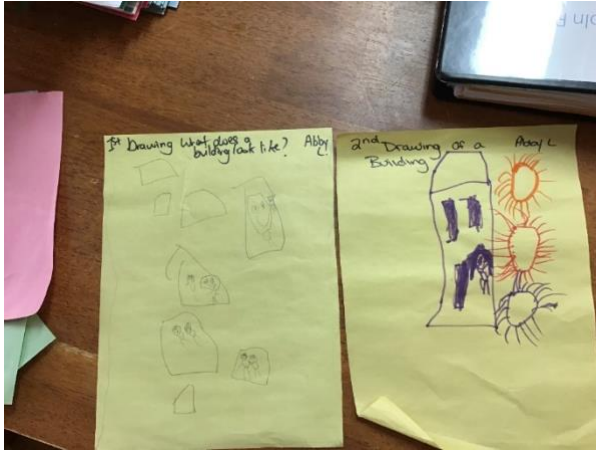
Vocabulary List

- Construction
- Vehicle
- Gravel
- Mobile
- Loader
- Excavator
- Levelling
- Forklift
- Surface
- Wrecking Ball
- Back Hoe
- Scooptram
- Foundation
- Tracker
- Grader
- Unloading
- Roller
- Construct
- Asphalt
- Architech

Web



First and Second Drawings



August 02, 2022 - The children engaged in a building activity using marshmallows and pretzel sticks.

Today we did something a little different, since the interest right now is building. Fatima found a unique way to build and allow children to enhance their interests by using food items like pretzels and marshmallows to build.

Some children built wheels as others made bridges and stick people using the pretzels as the arms and legs. Some preschoolers enjoyed connecting them together. The children then devoured the yummy snack. The children ate all our three jumbo marshmallows as well as some pretzel sticks. Through this activity, the preschoolers practiced their fine motor and pincer grasp skills as well as hand eye coordination as they held the marshmallow in one hand while assembling the pretzel sticks on it. Some children also challenged each other to use all the pretzel sticks they had. What a fun, yummy and unique way to build using different materials.



August 09, 2022 - Building outdoors with logs

There were lots of wooden blocks and round pieces out on our playground.

Markus decided to build with them on top of the coloured stools. As he started to arrange the pieces on top of each other, some other friends joined in. The challenge was to keep adding wood and not dropping them.

Markus assembled the pieces starting off with the smaller ones. Elliot and Eli said the big pieces go on the bottom. This turned into a game of jenga as the children lined up taking turns to place a piece of wood and once it fell apart, the game started again.

They started to work together rearranging the pieces. Maya and Colby worked together as they built pizza and towers. Throughout this we had open discussions about how buildings don't fall apart and what makes them fall down.

The children had some idea that they needed big machines as well as more materials. This allowed the preschoolers to explore and work on building hands on as they tried different ways to stack by adding materials from outdoors to build.



On August 11, the preschoolers engaged in a construction vehicle matching game as they worked to identify, label and match various trucks and machinery. As the children have been curious about how buildings are built and what is used to build them, Shae decided we could have a look at the vehicles that are used during the construction process.

Many of the children were able to quickly point out and find the dump truck, crane, excavator and bulldozer. These trucks are commonly seen at construction sites, easily distinguishable and are used in our classroom in toy versions. However, some of the construction vehicles were new to us so we discussed their names and did some research to see what they are used for. Here are a few examples of what we learned about:

- The tracker-loader-backhoe that is used for digging and moving sand and rubble.
- The graders construct and maintain the dirt and gravel roads by creating a flat surface for the asphalt to be placed.
- The scoop tram is used for transporting, digging, unloading, filling and levelling.

We also learned that there are different types of cranes, such as, a mobile crane and a tower crane. Some preschoolers recognized the bobcat, reach truck, roller, forklift and front-end loader as well. Overall, this experience helped the preschoolers to develop their cognitive abilities as they searched for and matched various images in both colour and black and white. Furthermore, it expanded their vocabulary as they learnt about the names of multiple construction vehicles and their purpose.



On August 12, we continued to work on our project. Preschool One was curious on how buildings are taken down.

We spoke about different forms of how buildings could be taken down, including how construction workers would use bulldozers and wrecking balls. We focused on the wrecking balls and the children were able to see a picture of a wrecking ball, followed by a discussion on how the wrecking ball works. After the children learned about the wrecking ball, they were able to test it out. They were provided with a ball attached to a string, some small cups and some dominos. They used their fine motor skills to create a building out of the cups and dominos then used their gross motor skills to knock their buildings down with the "wrecking ball."



On August 17 we began focusing on the question, "how are roofs made?"

The preschool 1 children were handed Popsicle sticks and glue and they were asked to make their own roof. We discussed roofing tiles, and the preschoolers learned that most roofs are made out of these roofing tiles.

The preschoolers were asked if they knew what roofs are for, and many of them were able to indicate that roofs help keep rain and snow out of buildings. The preschoolers also learned that the roof helps to insulate the buildings, and keep animals out.

Through this activity, the preschoolers were able to utilize their fine motor skills, along with their creativity. There were many discussions on how they were making their roofs and what types of roofs they have seen.



On August 22 we continued our conversation about how roofs are made, however, instead of discussing the materials used to make a roof, we discussed which materials are better for roofs.

We brought out different materials to test which ones would hold water. The materials included; the Popsicle stick rooves previously made, large foam pieces, and pieces of fabric. Through this experiment, we were able to learn about cause and effect. We learned that when water was poured on to the foam pieces, the foam pieces would hold the water and the water ended up dripping off the side. The fabric pieces would hold the water at first, however once more water was added, the water would then begin to drip through. The Popsicle sticks did not hold any water, as there were gaps in between each Popsicle stick from the glue. We also observed that the Popsicle sticks would begin to cave in as the glue would get wet and melt away. After each piece of material was tested, we had a conversation on how roofs need to be made with specific materials that would hold water if there is a big storm, or when snow starts to melt.



Phase 3: Concluding the Project

To conclude our project, we watched video footage of a construction site of a building being built. Throughout this clip, there was lots of machines that we had learned in the project. It also helped to answer some of our questions.

Teacher Reflections

Shae, RECE

This project definitely took me by surprise and before I knew it, the end of summer came and it was time for many children to head off to Kindergarten.

Throughout the project, I observed as the children engaged with numerous building materials from wooden blocks to colourful connectors as they constructed their creations. However, before this project I had never thought into what it was that they loved about building. Is it the way that buildings are put together, how they are taken down and/or what machines are used to build them? Is it also all of the different machines, trucks and materials that are used during the construction process? I loved learning about the types of construction vehicles alongside the children but also watching to see their thought process as they utilized their imaginations to make their ideas come to life! I am proud of how this project sprouted and where it took us over the course of the summer!

Fatima, RECE

As the interest and the topic of building came up during many conversations amongst the preschoolers and educators. The preschooler's curiosity grew as they asked questions like, "how is the buildings so tall?" Also, about the deconstruction of buildings, which allowed the educators to dig deeper, and do some research.

Through this project and the children's interests, even the educators like myself learned information, which I did not know. My focus was to allow children to extend on this as they built using different materials. We also watched an educational video on the different types of buildings and houses as well as discussed about the materials used to keep the building high up in the sky even during the bad weather conditions.

This project was a brief one, as the children were also getting ready to head to kindergarten. I also had some construction happening near my house, so I took a short video clip and showed children some video footage of a construction site.

I am happy about the outcome of the project and very proud of my team for being able to complete a project in such a short span.

Christine, RECE

Before this project started, we saw that the children were Interested in building with blocks and Lego, and when asked they would express that they were making, "buildings," or, "towers." We decided to start asking those questions about building to see if they would be interested in learning more.

As we began discussing the buildings, you could see that many of the children had animated faces and they began asking many questions about how building are made, how they are taken down, and what the tallest buildings were. We decided this would be a great project to focus on.

I became curious on how I would help the children answer these questions, and then began doing some research. I was able to come up with some fun activities that the children seemed engaged. Through these activities, I was also able to; earn many new things; such as the names of different vehicles used to make a building. It was also fascinating to see how the children's curiosity really drove this project, and made it so much more fun!