



# Plants Project

Owl - St Luke: Toddler

## Background

This project was completed in the toddler room at St. Luke between the months of March 2017 and May 2017. There were 16 children between the ages of 17 and 30 months, however only 15 participated at any given time. The educators were Sarah RECE, Nancy RECE, Mary RECE and Christine RECE.

## Phase 1: Beginning the Project

We began to sprout an interest in planting when the children noticed some buds growing on some of our trees. It became very warm early on this year and the buds came out at an unusual time, which enabled the project to start at such an early time in the year. We started by planting some herbs and veggies in a miniature green house. The Toddlers were very excited to see how the seeds sprouted! From that our interests seemed to blossom!

To kick off our project we sat down with the toddlers and we discussed what we already know about plants, what we want to know about plants and whom we can ask. We also set out to learn the proper terminology relating to plants.

What We Know	What We Want To Know	Whom We Can Ask
<ul style="list-style-type: none"><li>- Broccoli - "vegetable" – Gabriel</li><li>- Onion - "vegetable" – Anna</li><li>- Apple – "fruit" – Camille</li><li>- Aubergine - "vegetable" – Emma</li><li>- Salad – "vegetable" – Bianca</li><li>- Apples grow on "trees!" – Genevieve</li><li>- Cucumber grow on "ground" – Gabriel</li><li>- Bananas grow on "trees and monkey!" – Bianca</li><li>- Salad grow on "eat salad for lunch!" – Anna</li></ul>	<ul style="list-style-type: none"><li>- What plant is the biggest? <i>The biggest plant is the Redwood! Its 250ft tall!</i></li><li>- What plant is the smallest? <i>The smallest plant is the Peppervine! Its 0.1ft tall!</i></li><li>- How do plants grow?</li><li>- Where do plants grow?</li><li>- How often to plants need to be watered?</li><li>- What plant is the longest</li><li>- We want to learn more songs about plants and vegetables.</li></ul>	<ul style="list-style-type: none"><li>- Greenway Blooming Centre</li><li>- Sheridan Nurseries</li><li>- Sheldon Wagg</li><li>- Belgian Nursery</li></ul>

## Phase 2: Developing the Project



Gabriel (27 months), Genevieve (30 months),  
Camille (27 months)

As the toddlers dug into planting they explored their senses as they felt the coolness and texture of the soil on their hands. We learned that in order to plant we have to dig a hole. Then we bury our seedling. Once we have planted our seedlings they need lots of water and sunlight. The toddlers helped decide where the best place to put our newly planted seedlings would be. The children decided beside the window is best. Some of us had a hard time understanding that once we have planted something we can no longer play in the soil because we would disturb the seeds life cycle.

We had fun exploring different ways to plant. We discovered that if you plant parts of some foods they would grow. We planted a piece of green onion, garlic, potato, and a radish! Our garlic sprouted up fast. Next was our onion... I wonder what will sprout up next. We planted an avocado pit as well! We wonder if the little sprout we have will grow into a big tree. We also learned that to plant a lemon tree we first need to peel the shell off the seed to allow it to germinate. Who knew? The educators noticed that some of our plants, our aloe in particular were getting a little large for their pots. This was when we thought about bringing an expert into our room to help us separate our plants successfully. After calling around to a few

places, we were able to bring in Christine's husband, Mr. Sheldon to help us! He showed us that the aloe plant needed to be separated because it had babies and was too big now to keep growing in one pot. In order for plants to get the space and nutrients they need to live, we need to keep them pruned. If plants are overcrowded, they will not be happy and may not be healthy.





Camille (27months) looking at the garden through her magnifying glass

The toddlers were quite intrigued as we started to dig into the garden outside. We began pulling the weeds to prep the garden for planting. When we pulled out the weeds, we could see the big root that they had. What a great way to see and learn how the plants get nutrients. We learned that we have to pull the weeds so that the plants that we plant in the garden will get all of the nutrients instead of the weeds taking them. We also learned that plants get nutrients from the soil as well as water.



Aubrey (19 months) and Bianca (27 months) exploring our spider plant

Next was our representational drawing of a plant. The educators placed one of our spider plants in the middle of the table for the children to explore with their senses. The children touched, smelled and tried to taste the plant! Look at the concentration on Aubrey's face; she is very determined to find out more about this plant! Bianca drew the leaves on her paper. She even used the colour green! She explained how they were the "big leaves."





Counting and labeling our seventh plant

Now that our project is in full swing, we have so many plants in our room! Eleven to be exact, we decided to count how many plants we have and label them with a number. The children were very excited to go on a “hunt” to find our plants and count them.



Emma (23 months) pushing seeds into the plastecine

We wondered what a seed would grow in so we decided to experiment with different materials. We planted carrot seeds in plastecine. Lo and behold a couple days later a root was forming! We put it in a bag at the window to see if it would germinate some more with the sun hitting it.

While we were on the topic of germination, we put some seeds in a damp paper towel and placed them in a bag to go at the window. The heat from the sun warms up the water in the bag and helps the seed grow roots like a mini greenhouse.



Gabriel (27 months) sealing his seed package in a bag



Evan (29 months) placing his sealed bag of seeds on the window





Sarah brought in some flowers from her garden to explore. They were white so we decided to see if we could colour them. We cut the flowers and put them in containers with yellow, purple, blue and pink food colour mixed with water. Sure enough, within that day the colour was soaking up into the petals! We discussed how the veins took the nutrients to the petals and that is how plants grow bigger!

Our flowers sitting in the coloured water.



Our flowers after a week of sitting in the water.



Camille (28months) explores a pinecone that she found on the ground!

We went for a nature walk in order to see if we could find some plants and flowers. We explored big trees and saw that they expelled pine needles and pinecones. We found out that they are Evergreen trees.



Camille (28months) drawing her interpretation of a flower

The educators set out a provocation of flowers, pencil crayons, chalk, water and paper on the table for when the children came in from outside. The children explored the flower first by touching and smelling it. Some of the children tried to draw on their paper with the flower.





The finished product!





Camille and Bianca brought in their favourite flower from the garden. We looked it up in our flower encyclopedia and discovered that the flower is a tulip. We all enjoyed taking turns, as we smelled the tulip.

August (22months) explores the smell of a flower.



We looked in some books to discover more about plants and flowers. We noticed that some names were very tricky to pronounce. The children looked at all of the pictures and picked out their favorite flowers.

Some of our favorite flowers!



Dandelions everywhere! We explored the field of dandelions next door. We picked bunches of them to bring into the room and paint with. We discovered that you could paint on our bodies with dandelions. The toddlers took turns painting each other yellow with the dandelions.

August (22 months), Gabriel (28 months)



Our Plant Vocabulary List grew over the course of the project to include:

- Roots
- Stem
- Flower
- Sun
- Trees
- Garden
- Soil – black and brown
- Water
- Green
- Botanist
- Plant Biologist

## Phase 3: Concluding the Project

We saw that the project was coming to an end once the flowers had bloomed at home, and in the gardens in our neighborhood. It was a great adventure as our journey began while we still had snow on the ground. It was exciting to see the children so interested in nature and how everything comes to life during warm weather. Even if it is still early spring!

The toddlers were excited to finish off by showing us what plants they have been working on at home in their gardens as well. Aubrey, Anna, and Gabriel sent in some pictures of their gardens at home. We saw how they were planting and exploring the flowers.

It was fun to have Mr. Sheldon come in and show us how our Aloe plant had grown so much that it had babies! We had four adult plants in our pot as well as seven baby plants. We were able to spread out our adult plants into two pots, and we put our baby plants into a vase to see how the roots would grow. We were also excited to plant our garden outside; we planted some flowers and even some vegetables. We cannot wait to see how they grow, and then be able to taste the food that we grow. We have had a great, full adventure and have learned so much about plants, and how they differ!

## Teacher Reflections

This project has been one of the most diverse and in depth projects, which has taken place in the toddler room thus far. The educators learned so much alongside the toddlers. We owe much of the credit to the early start of spring weather, which allowed us to explore the very beginning of the plants starting to sprout! This was a longer project and that was mostly due to the fact that the weather was warm then it was cold again so the growing cycle seemed to be disturbed. However, we were still able to keep the provocations coming as we read books about plants, talked about the life cycles and started planting inside. We, the educators felt invigorated because we had learned things about plants that we never knew or took the time to know before. This newfound learning made us want to dig deeper, to keep setting up provocations that not only enabled the toddlers to know more, but for the educators to know more as well. Having the children and the educators so invested in the outcome made our whole program centered on plants in some way, shape or form. This was truly co-learning!