



Owl – St. Luke: Toddler

Background

This topic was explored by the toddlers and educators at St. Luke. The project began in September 2016 and ended in December 2016. We had 17 children participate but the maximum of 15 at any given time. The educators were Sarah RECE, Nancy RECE and Christine RECE.

Phase 1: Beginning the Project

The toddlers began to show an interest in light in September. We set out provocations on the light table, windows and brought in flashlights to see what the toddlers would do with these materials. Michael displayed an interest in the reflections given by the CDs hanging in the windows. He would climb up to reach them, and seemed to enjoy turning them observing how the light reflected off them.



Figure.1 Emmett (26months), Camille (19 months) stack containers full of transparent gems on the light cube. Each container reflected different light.

Figure.2 Bianca (19 months) explores transparent gems in a container on the light table

Figure.3 Emma (16months) compares the different light shining on CDs

We brought in gems and more CDs to see how they reflected light on the light table. Emmett enjoyed stacking the containers of gems while seeing the way the light reflects through them. While Camille seemed to enjoy using the CDs to create shadows. Bianca showed a sense of wonder while holding the container of gems in her hand. I wonder if she was noticing the light bouncing off the gems in the container. Emma used the CDs to expand her numeracy skills counting them 1, 2, 3. She noticed that even sitting beside the light table they still reflected light.



Figure.4(Gabriel 19 months) creating our 3D art. We plan to make stepping stones for our garden
Figure.5 and Figure.6 Alina (30 months) exploring gems on a mirror and checking out the reflection

We used gems within the classroom in many ways, such as, exploring them with clay and seeing how they squished into the clay. The toddlers brought the flashlight over to see how the light shone with the clay and gems together. The gems have also helped to develop our transient art centre. We have also added battery powered holiday lights to our transient art centre. Alina observed that the light was enhanced when the flashlight was shone at a close proximity. Gabriel brought the gem to his eyes to see how his perspective view changed when looking through the gem. Bianca really seemed to like the tactile experience of gelatin on the light table. She squished it in her hands while observing how the light shone through the gelatin.



Figure.7 Gabriel (22 months) exploring the transparency of gems
Figure.8 Bianca (22 months), Gabriel (22 months) squishing gelatin on the light cube.

We researched on the computer about reflections and refractions. It was a great time for educators to learn alongside the toddlers. Viggo's interest continued as some of the toddlers noticed a circle of light dancing on the ceiling in our room. "Look!" yelled Viggo. "What is that?" Emmett and Genevieve followed Viggo's finger as he pointed. Soon many of the children were staring up at this circle of light that was now moving on the ceiling. The children spent the next little bit looking around the room for the source of the light. During their travels, the children noticed their shadows and shadows from other objects that were set up around the room and they were so excited. As the days went on the children began to find different ways to explore light. The educators have been setting up different provocations for the children to explore, question and solve. We have explored many different ideas such as shadows and reflections. The children have discovered their own shadows outside as well as shadows created from objects in the room. Camille, Bianca and Gabriel seemed to enjoy shadow drawing. The educators set out a provocation of blocks, pencil crayons and paper taped to the floor in front of the window at the end of the night when the sun shines at a certain angle through the window. The children discovered that if they set the blocks on the paper, a shadow was created. Camille took this a step further and added the coloured blocks to the experience. Lo and behold- coloured shadows appeared!

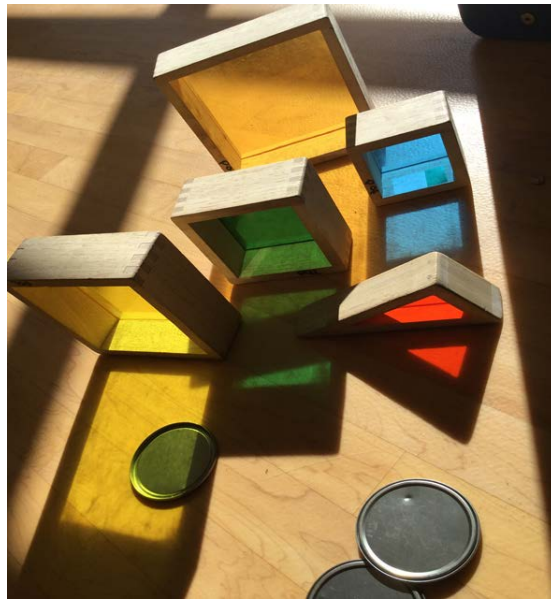


Figure.9 Our shadow figures!

Phase 2: Developing the Project

We began to document what we know and what we want to know. The toddlers curiosities were discovered more so throughout our project as they began to explore more, often peaking the curiosities of the educators as well. This created an amazing co-learning experience for everyone...including our parents. We engaged our parents through sharing our experiences and wonders in the classroom and asking them to do the same at home. Our families were eager to share many learning stories from home about the light activities they were engaging in. Our discovering became the centre of many conversations we had with families. It was amazing to see the excitement of discoveries, learning and passions from all involved.

What We Know & What We Want to Know

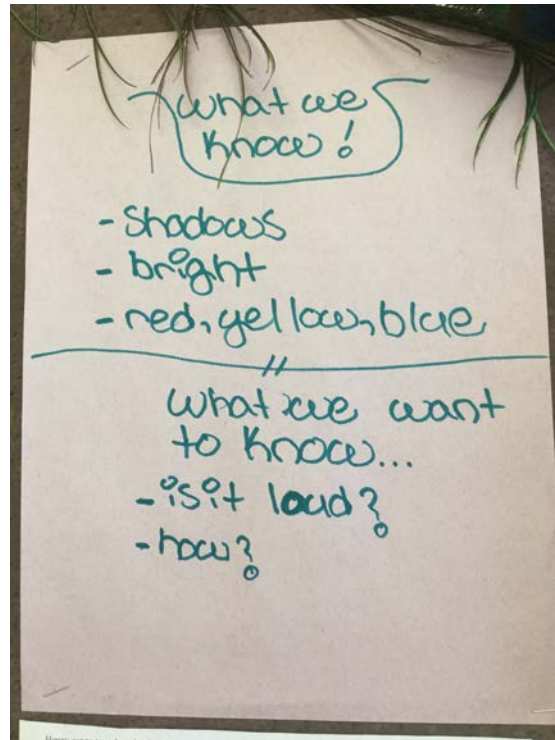


Figure.10 -our starting questions

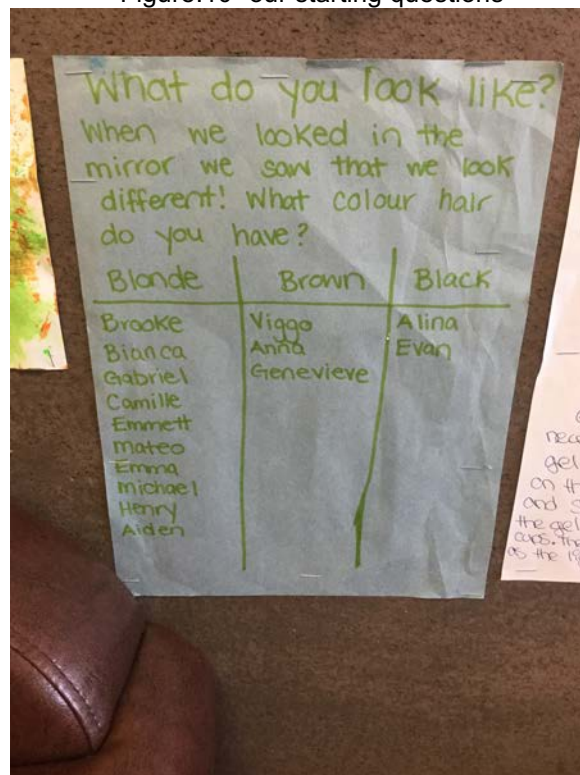


Figure 11- Exploring how different we are by looking in the mirror. Made a list of what colour of hair we have.



Figure.12 Evan (24 months) explores placing gems in small cups. He puts them in and takes them out.



Figure.13 Matteo (20months) places tin foil on the table. He then uses a flashlight to shine on it to see the reflection



Figure.14 Aubrey(18months) and Anna(25months) paint our pumpkin on the light cube. The colours were glow in the dark!



Figure.15 Emma(age16 months) creates tape/paint art! It did not taste too great!



Figure.16 Anna(25 months) checks out animal x-rays on the light cube.



Figure.17 (Bianca 22months) developing fine motor skills by making "stained glass" with glue and tissue paper. She is pointing to the piece that she put on the window



Figure.18 Anna (25 months) seeing if we can see light through soil



Figure.19 Aubrey(18months) and Genevieve(27 months) playing peek a boo with eachother and coloured magnifying glasses



Figure.20 Aubrey (18months) explores small lights



Figure.21 Genevieve (27 months) Camille (23 months) Bianca(23 months) Gabriel(23 months) dive into exploring reflection on the mirror shelf

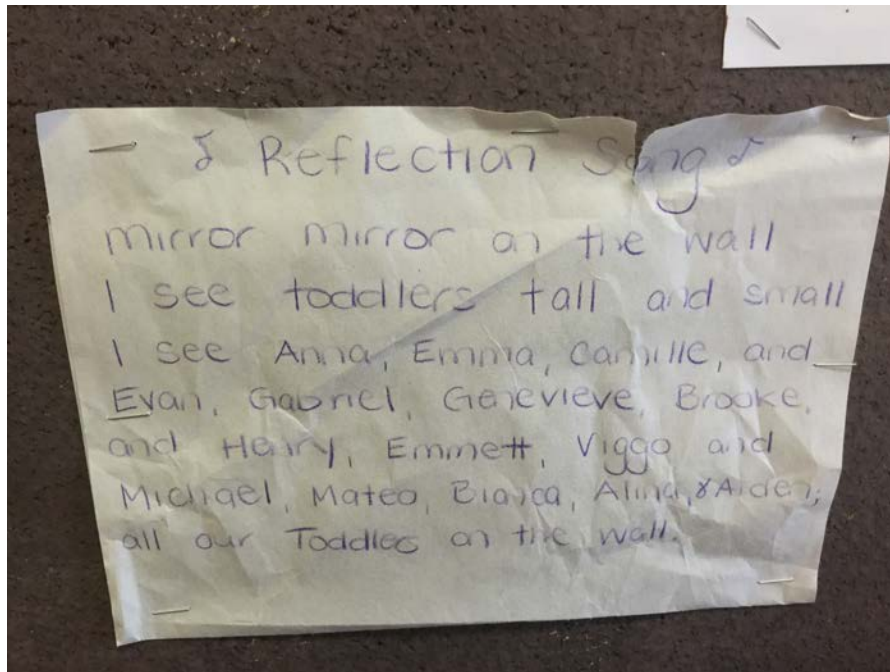


Figure 22- We created a song about reflections.

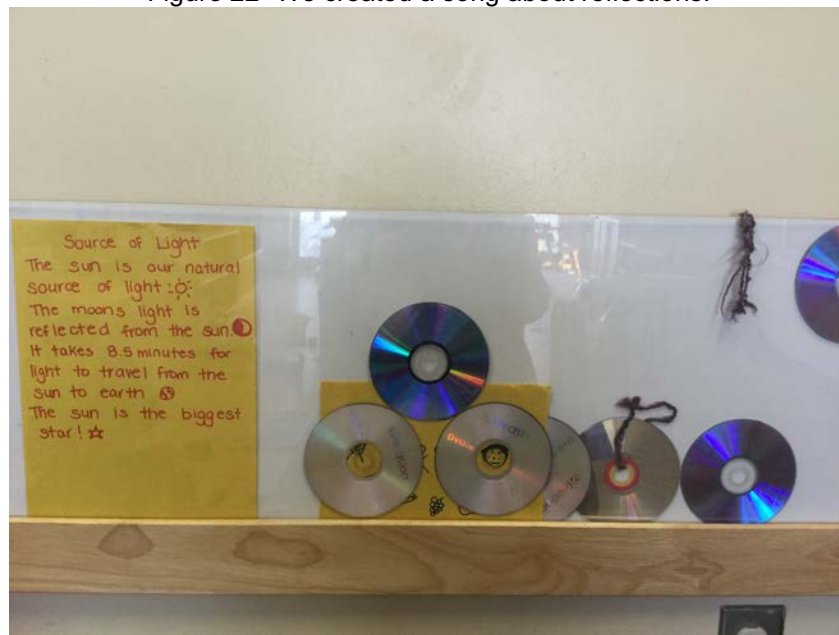


Figure 23-check out the light on the CD's!



Figure 24- Teacher's web.

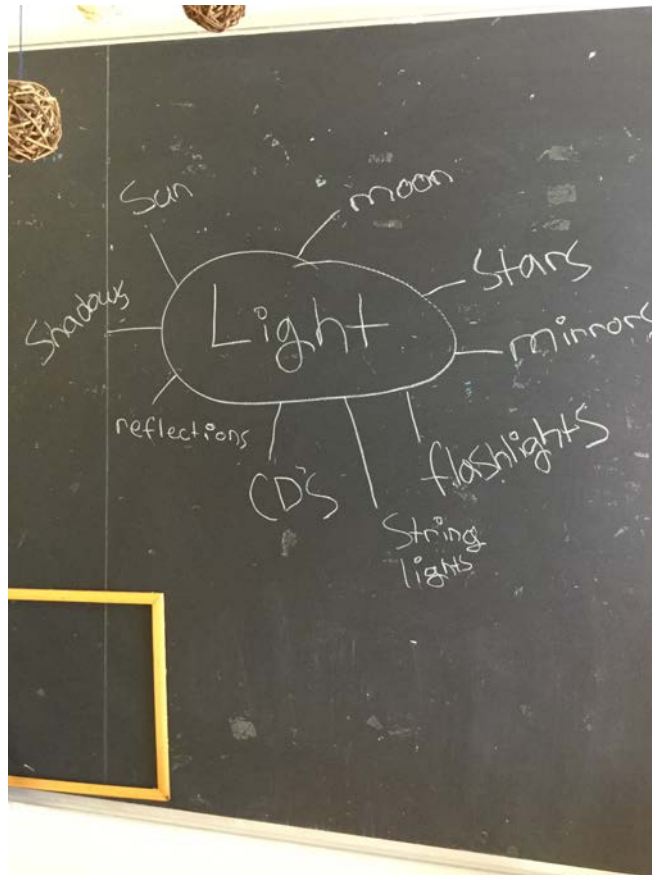


Figure 25- Children's Web

Phase 3: Concluding the Project

The educators knew that our project was coming to an end when the children started to move on to other interests. A big factor was the day's getting shorter. Many times in the afternoon and in the morning the children would see some really neat shadows and reflections. Now that they were no longer there, the children's interest started to waiver. We wrapped up our project by having an open house for our parents to attend to showcase all of the toddler's hard work. We completed our board and we had a few provocations set out for the families to explore during their time with us. Of course our 3D art of coloured gems placed in clay was included in our display. Our plan is to seal the stones and makes a few more to place in our garden with hopes that the light reflecting off of them will spark some new conversations and extend our learning. The children loved seeing themselves in photos and documentations around the room and on the board. The educators have created a book that includes documentations and photos of our learning adventure that is kept on the bookshelf for all the children to read. During the open house the children were very involved in showing their parents the ideas and conversations that we have had surrounding light. They were eager to show pictures and play peek-a-boo through the coloured blocks.

Teacher Reflections

This project seemed to really captivate the toddlers. We were not sure which way it would go after we had a large shift in ages in the room. It was neat to see all of the children that were the younger ones before really develop and take on the lead of the older toddler while they explored the materials. The younger children followed their lead and we were fully immersed in our project again! The children came up with neat ideas and interests that we explored such as discovering why there was a rectangle of light coming through our window in the morning. It turns out that it was a reflection from our mirror on the playground shining in when the sun was positioned a certain way. Why were there shadows in our room? Where did they come from? Those were all questions that seemed to fascinate the children and in turn made the educators step back and say “They’ve got this!” These children know their interests and they understand what they need to do to learn about it. It was so neat to see the development in all of the children from the day we started this focus. The toddlers have developed language, cognitive skills, math concepts, social concepts and motor skills.

We still have the odd shadow that pops into the room that the children seem to be interested in but for the most part the children have learned what they set out to learn! Who knows, maybe the spring will bring something new to light!