The Project Approach to Learning at

RisingOaks Early Learning | Saint John Paul II

Project Name: Creating Light

Age Group: Infant (11months-16 months)

Project Start Date: November 15, 2022

Project End Date: March 30, 2023

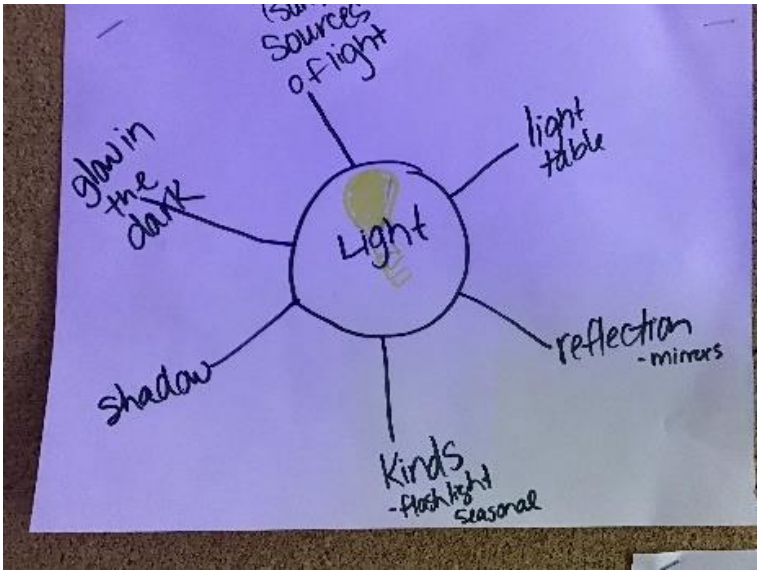
RisingOaks Early Learning

Growing minds through play

Background: The following educators involved in the project were Tami Sutton RECE, Connie Cunningham RECE, Jennifer Silva RECE and Judy Hackbart RECE. The age range of the children was 11 to 16 months. Throughout the duration of this project 12 Infants took part in exploring the ideas and concepts surrounding the topic on light.

Phase 1: Beginning the Project

While exploring different ideas and engaging the infants in different invitations to spark a project, the educators noticed that Henry N. would come into the classroom every day and say, lights. He would look at the lights, point at them, and say "lights". We as infant educators decided that a project on lights would be something the infants would be engaged in as a group. This could create learning and wonder as we explore light sources and how lights can make things change colour. This project could also create cause and effect exploration and parent engagement as we continue to move forward. We created a web to help generate Ideas and spark questions that the Infants may want to know.



We decided to add different light sources and see if the interest would engage a project. The Infants seemed excited to explore the lights on the climber, the light table on the floor and watch the twinkle lights hanging from the ceiling. As educators, we made natural assumptions on what the infants would be curious about and the questions we thought the infants may wonder about are: what gives us light? How is light made? Why do some things glow under certain lights? We also would find answer to these questions on YouTube, a general internet search and a scientist.

We also engaged our families in a survey asking them different questions regarding light and light sources:

1. Can you name different light sources? Yes = 30, No = 3
2. Do you use different light sources? Yes = 33, No = 0
3. Which source of light do you prefer? Natural = 33, Electricity = 0

Phase 2: Developing the Project

When starting our project, we decided to start small and put the disco ball up in our window observing the infant's reactions, as the sun hit the ball and created little dots of reflection all over the walls and floor. Eva sat and watched in awe as the light danced around the room, while Henry N looked everywhere repeating the word light. As we continued to engage the Infants in the project, we introduced different sources of light. We brought out the blue-ribbon lights, along with the light table and light cube, giving time for exploring different elements. Christmas lights in buckets with the different colours had the infants looking through the container and communicating with us to open the container by passing it to us. As pictured below, Henry N. exploring different sources of light. When Henry N. moved up to the toddler room, the infants became disinterested in the light project.

We added many different ideas to pull interest and keep the project on track, continuing to explore different sources of light we used flashlights to Introduce shadows. The Infants watched the dark shapes as their educators created, moved and changed items into different shapes. We left some flashlights out for exploration and allowed them to explore in their own way. This encouraged Reid to bring the flashlight over and make a sound Indicating he wanted the light on. His educators would build on his verbal expression saying "light on" when he brings the flashlight. When the flashlight Is turned on for him, he then walks around the room pointing the light in various directions, with the occasional look at the light itself. The light table and light cube also brought out some curiosity in the Infants as they place different object on them and notice that some of the light can be seen through, while others show no light and some even show a colour. The push lights on the wall encouraged the Infants to turn the lights on and off, building on their fine motor skills, as well as gross motor skills having to use their core for stability. For some It has built strength as they have to use their arm strength to be successful at turning the lights on. As pictured below, the infants exploring light sources such as flash lights and push lights.

We explored many different types of creative experiences with our light project, but the ones that stand out the most were the ones where we turned off the lights and used the blue lights hanging in our program room to explore the florescent paint and goop in various ways as well as exploring how the highlighters look under the blue light, giving it that glowing effect. These activities really showed us the effects of the blue lights and florescent paints.

We found out why the lights have the effect on fluorescents the way they do. We looked up on the Internet and found this answer from science world. A black light gives off harmless, highly energetic, ultraviolet (UV) light that is invisible to humans. Certain fluorescent substances absorb ultraviolet light and re-emit it at a different wavelength, making the light visible and the material appear to glow. A simpler answer from wonderopolis was put simply Phosphors hit by UV light become excited and naturally fluorescent or in other words, glow.

The educators also made cookies with the Infants. A simple sugar cookie was made and then we made a "glow in the dark Icing." It was all trial and error. Although, it did not turn out as expected It was still a great experience for the Infants, as simple math skills were Introduced and science experienced in a natural way.

The educators also Introduced a candle as a different type of light source and took the Infants Into the sleep room where they had a chance to see the flame of a candle create light for them. Some were

heard repeating the word "hot", as the educators reminded them It was hot before and during the activity. The opportunity was present for them to observe the candle create a small light in the room. Tami then also took the opportunity to show them how to blow the candle to make It go out. Learning that light can be produced through natural light sources such as the sun and artificial light sources such as electricity or flames.

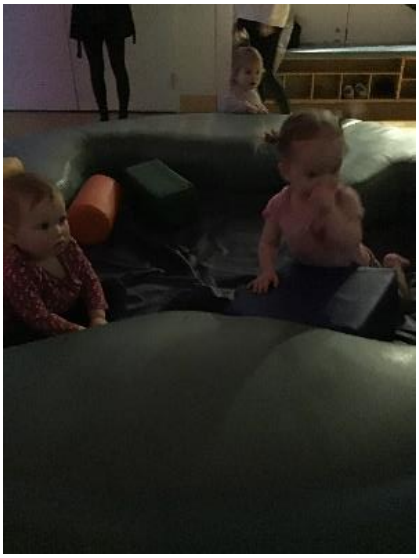
Phase 3: Concluding the Project

As the infants Interest in the project faded we knew it was time to naturally bring it to a close. We contacted three different companies to help us wrap up the project, but due to the ages of our children and the ages they cater to, it was not possible for them to come out to see us. We talked about the possibility of a field trip to The Museum to visit the" tot" spot and explore the snoezelen rooms. A letter first went to Shannon, which was then passed onto Lori our CEO. We waited for approval, which was granted. An email was then drafted and again approved and a survey sent out to families to see if they would be willing help make a field trip an option. This was an all or nothing activity, as we wanted to create a sense of belonging. All of our parents agreed so we were able to go to The Museum on March 24 as our first ever field trip, where we had to travel to a location. This would have not have been possible If our families weren't willing to drive and join us.

This was so exciting. We gathered in the lobby and as the infants saw their educators and peers walking in their faces lit up with joy and excitement. Walking into the room what first attracted them was the bubble light tubes.

Pictured above, Dominic watched in awe as the bubbles floated from the bottom to the top of the coloured tube, while Ethan and his dad enjoyed playing a game of peek-a-boo. With more exploration the infants noticed that some of the buttons that they pushed made objects light up or create sounds. Pictured below, Eva watches the lights move as she presses the button.

Figuring out their repeated actions created a result; was a great cause and effect experience. While exploring the cozy pit some of the infants noticed that if they looked up, there were lights and banners hanging from the ceiling.



Eva and Tami explored the fiberoptic lights hanging from the ceiling. They watched as it changed colour from red to blue to green, purple, pink and orange. This experience created a sense of wonder and exploration in the infants as they explored a new space allowing them to be fully hands on. The buzz and excitement of us going a field trip continued for weeks after our project was complete. The parents, educators and Infants were ecstatic that this experience could be shared together.

As a final way to end the project the Infants created a candle. Their own light source to be shared with their family. As pictured below, Isla and Jen work together rolling a beeswax sheet to create a candle.

Teacher Reflections

When we started this project, it was exciting as Henry N. was engaged in the lights, but when he moved up, the project kind of fizzled out and we had to see if anyone else was interested in what was going on. Some were, others weren't, but it took quite some time to get this project back on track. I was feeling a little discouraged in continuing the project. It took time to bring the interest back around but the fun activities we provided with the florescent paint and blue light sparked some of the Interest in the Infants as we continued on. The most exciting part of the project was when we were able to go to The Museum and explore and learn alongside the Infants with their parents. Jen Silva RECE

Seeing the light elements through the eyes of the children make you reflect on how amazing our world is. Introducing new Invitations to play and setting up ways the Infants could work through their natural curiosity kept us brain storming as a team and looking at Ideas from all angles. Building on the knowledge the Infants have and seeing them discover more concepts was exciting and I was constantly surprised by how quickly they could adapt and use their new knowledge, whether that was Imitation or Independent Investigation. Having a wide variety of ages was one aspect of the project that kept us re-evaluating what was working and constantly adapting Ideas; just one of the ways we co-learn. Tami Sutton RECE

As an educator it is fascinating to observe the infants get immersed in wonder and excitement. As the project went along It became intriguing finding more actives that we could do under the blue lights. After I attended "The Blue Man Group" it Inspired us to try painting on drums (and themselves) to make a splash under the blacklight. Being able to go to The Museum was an ultimate gift. It was so rewarding as an educator to have a child come up to me/us looking for a hug with excitement in their eyes when they saw me/us in a different context with their parents. It allowed the Infants to explore lights in a new atmosphere with their peers, educators and parents. Watching them interact in curiosity with the bubble tubes, light panels, tunnels, cozy pit and mirrors was so rewarding. Connie Cunningham RECE

This project did span over a long period of time but by Introducing new aspects along the way kept encouraging enthusiasm. For me, the blue lights held a certain aura that was calming for the Infants and promoted more quiet play yet the colourful "disco" ball Inspired lots of gross motor/dance moves for the Infants. It showed me how different lighting can be so Influential to the mood and Interests for young children. It was a pleasure to engage with the Infants throughout the project. Judy Hackbart RECE.