



REGGIO-INSPIRED  
**LEARNING  
CENTRE**

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**Frog Hollow**

# The Nature Project

Spring 2017: Water



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Frog Hollow

## A Culture of Collaboration



In 2016, the educators at the Frog Hollow Children Centres proposed a new organizational intent to work with: creating a culture of collaboration in respect to children's 100 languages.

At Nootka, the intent took the educators and the children on an amazing journey that lasted for a year and a half.

It was a painting that got our attention: Grace (age 5) had created a painting named "Harmony."

*"What does the title mean?"* – Kyle (educator)

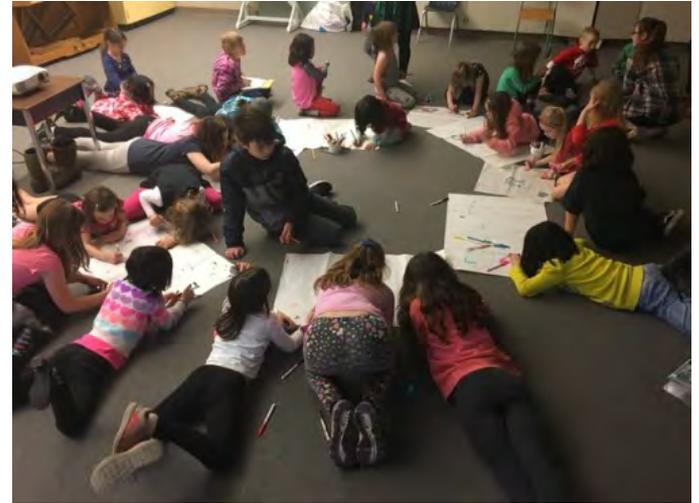
*"It means all animals are getting along in the ocean"*

## Poptalks: a weekly dialogue group

It was just after the American presidential elections. Children and adults had many questions, many worries. Children found it challenging to find the right place to talk about the events.

We knew that it was our role to create bias-free environments in which children and adults could freely speak their minds, ask questions and make sense of the world.

Could Grace's painting be a beginning for these conversations?



*Could Grace's painting be a beginning for these conversations?*

## “What does Harmony mean?”



Elliot (age 8): “Harmony means everyone gets along”

Emily (age 7): “music”

Abby (age 5): “sharing and caring”

Grace (age 5): “Earth Day is coming!”

Abby: “I don’t feel safe going to America because I don’t want to be close to Trump”

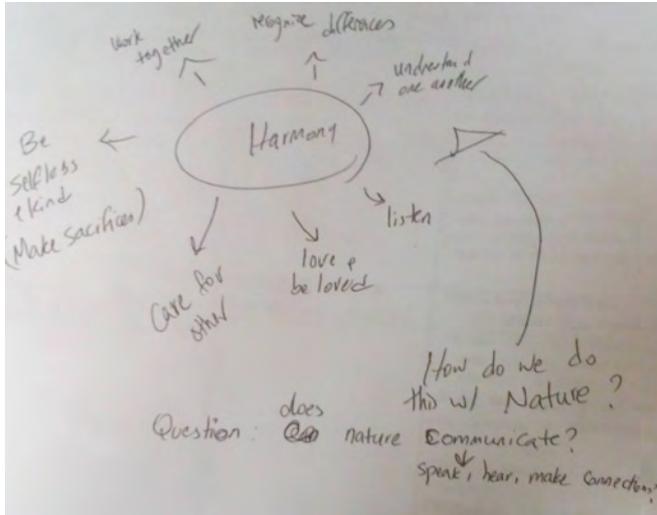
Elliot: “he is sexist and racist and he is building a wall”

### **The conversation made educators wonder:**

*Are children thinking of nature when talking about harmony? (Earth Day)*

*Are children seeing humans out of harmony with the Earth? (the wall)*

It seems that children agree that while nature is harmonious within itself, humans interrupt this harmony.



## We exchanged ideas and created a web of our own

**We asked:**

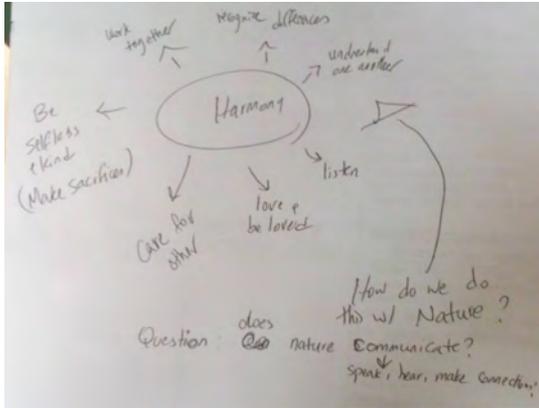
“How do we understand Nature?”

**We further asked:**

“Does nature communicate? How?”

*We exchanged ideas and created a web of our own*

# For the next while we explored this question with the children





*In their conversations, children brought up several subjects regularly*

## **In their conversations, children brought up several subjects regularly:**

Nature communicates in many different ways:  
dancing, growing, moving

While the “Earth itself is not violent,” it can communicate through violence (natural disasters)

Nature communicates with its own elements and with humans in different ways

Humans are “violent” and are not in harmony with nature

Nature is on-going; it is a cycle; it is born, it grows and it dies and it is born again in a different format



Michael (age 10): Earth doesn't have a brain...

Louella (age 6): Does the Earth have a brain?"

Nora (age 6): "Of course it does!"

Iyebah (age 5): "Yeah"

Michael: "It doesn't have a brain, it has a mind though"

Grace (age 5): "A mind is a brain"

Rachel (11 years old): "It has an atmosphere"

Louella: "A mind of learning"

Michael: "It just does it naturally"

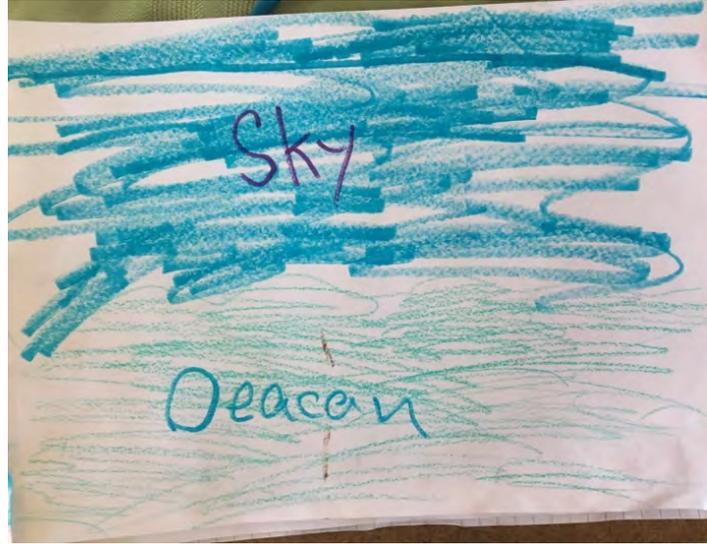
## Our conversations in our Poptalks led us to a new journey



As educators we met to educate ourselves about the elements of nature. One educator who was very inspired by this topic, shared the history, philosophy and mystical stories of the elements with us. We felt more familiar with the topic and more energized by the possibilities.

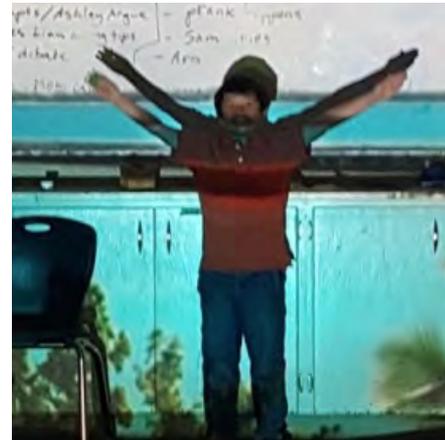
We wondered: *“How do nature’s five elements (water, fire, earth, air, spirit) interact and relate?”*

We started our investigation by deeply studying the element of water



Investigating water's life cycle

## The 100 Languages



When time-lapse videos of water cycles and clay meet...

## The group story that turned into a musical play

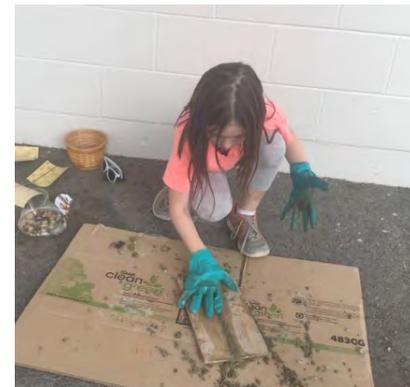


“Once upon a time there was a raindrop...”

## Taking a trip to the beach



# Making a water fountain



## Exploring water at the dam



*Children were curious about the distance the drops fall. August tested this by pouring water out of his bottle.*



Where does water come from?

“We can drill for water” – Mayumi (age 5)

“Yea, you can do it with a mining stone” – August (age 5)

## The movement of water



The children's musical play made us wonder of other ways to demonstrate movement of water

## Sharing theories...

A river is like a pool but in a straight line. [In a pool], the water only moves if you shake it and by the wind. The water in a river moves by itself. —Iyebah (age 5)

Water from the mountains go into the river because of gravity. —Charlisse (age 9)

Waterfalls also move water in one direction... also hills because it keeps the water from going everywhere. —Hannah (age 12) (demonstrating hills with her two hands angled and a river flowing between).

*You're telling me, water can't go up hills? Does that mean water always flows down, like to the lowest point?* —Lynne (educator)

Yes. —Hannah

No. It might sometimes go backwards. For example, if there's construction in the area, they might drop some large rocks into the water and that might block the flow going in that direction.

—Jayden (age 9)

Speaking of blocking flow of water... do you know where Lynne and Kyle took the other kids?

A dam is a concrete wall that humans build to control the water like they don't want it to overflow into the city and outside the river. —Hannah

*What can you find in rivers?* —Lynne

Rocks, plants, ducks, fish, twigs. —everybody

I don't think anything is flat in nature. —Hannah

*Are you saying water is never flat?*

Well it sometimes just sits there... [like in] oceans, lakes, ponds. — Hannah and Jayden

*What's the difference between those bodies of water and rivers?*

A river is a constant stream flow... it evaporates... goes up into clouds... rains down to earth... it's like a rectangle... a cycle that keeps going. —Jayden

I don't believe nothing in nature is flat... like look at this rock... it's sort of flat on the top.  
—Jayden

*How do you think these different shapes and sizes are created?*

Earthquakes and stuff... they shake and create dents and rocks crack. —Jayden

*Do you think the river ever runs dry?*

Yes! The sun can make it evaporate. They become rain clouds which can move... by wind... so the clouds rain somewhere else that's not where the water evaporated from. —Jayden

## “Listening is an active verb” —Rinaldi

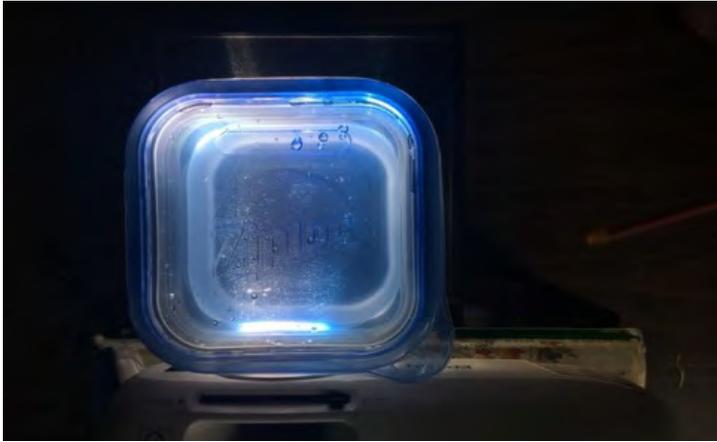


Children were invited to listen to pre-recorded sounds of water and express their ideas using natural materials

## Exploring different forms of water



## How does sound visually manifest itself through water and light?



“If you shake it,  
it makes more waves...it’s  
called ocean tornadoes.”  
Erika (age 5)



Fox liked to press his  
belly against the sub to  
feel the bass.

“The music makes me  
dance inside of my  
body...it charges me” Fox  
(age 5)

## New School Year: remembering & reflecting



We started the new school year with almost 15 new children who joined the group while we lost four educators and gained two new ones.

We knew that in order to continue our project we had to remind ourselves of all we did and share our story with the new members – so we met and went through the documentation from the last school year



## Remembering with children:

As educators we wanted to continue with our latest hypothesis – but we needed to see if the children were still interested.

At our first Poptalk of the year, we went over last year's documentations and together, we remembered.

*We went over last year's documentations and together, we remembered.*

## Movement of Water

After reflecting on children's thoughts, we decided to continue with the concept of movement of water.



*How does water move?*

*How do other objects interrupt the movement of water?*

## Movement, Natural Disasters & Hurricanes



As we thought about movements of water, we had to consider the current world events. It was the time of Harvey and Maria hurricanes and the horrifying news was everywhere.

We decided to create a before and after scene using clay and natural materials

*How would we make the hurricane?*

*"I know!" we can put water and have a fan to make wind" Louella (age 6)*

## How does the movement of water affect other things around?



*What happened to the park?*

*“it’s all flooded and the homes are all wet”*

*“the hurricane comes from a tsunami and wrecks people’s houses”*  
—Mateo (age 5)

*“there is rain coming”*

*“here is wind”*

*“this boat survived!”*

Testing Louella’s idea we brought our buckets of water and a fan to create a hurricane

At first, children found it fascinating to destroy the park – but as things got wrecked, the constructors got emotional

## Exploring how Temperature of water affects objects



As we have been exploring the movement of water, we thought we would try the skittles and water experiment again!

This time we wanted to see how water temperature and movement affected the experiment. We had the children make a skittles design on a white plate and poured hot water over it and then watched what happened.

After a minute we shook the plate a little to see what would happen when the water on the plate moved.

Next, the children poured skittles on another white plate and cold water was poured over them. We watched the reaction and then the children used their hands to swirl the water on the plate.

## Exploring how Temperature of water affects objects



Olive: “The hot water ones were losing their colour faster and dissolving and mushy.”

Olivia: “The colour goes away when we put in water.”

Rowan: “The colour of the skittles goes away faster in the hot water.”

Some other observations were that the hot water skittles smelled more than the cold water skittles and the hot water ones were more slippery than the cold water ones.

The hot water skittles were softer and mushed together while the cold water ones stayed hard.

## Continuing with Temperature

*We were curious to see how temperature of water would affect other elements. So we brought branches to our temperature table.*



Nora: “When the leaves come out of hot water they break. It’s like paper. When you put it in water, it rips. The hot water makes the leaves weaker. The cold water helps it. It helps all plants. Plants need fresh water. When you get flowers you always put them in cold water, never hot. Hot would destroy them. Cold water helps plants grow. The hot water is stronger than the cold. If we put hot water in cold some of the water will turn hot.”

Lola: “Cold water in hot water will make it warm. Hot hot water is not good for us. It hurts us (like when you get burned) so plants don’t like it either.”

Grace: “In the hot water it breaks up. It’s like a tea bag. It’s small and then it gets bigger.” (in hot water)

## Movement of water in nature



Walks by the stream.  
The group was so excited to see water in its natural habitat.

We wondered if the group would be interested to see how temperatures react when introduced to moving water. So we brought ice to the stream to watch how it interacts.

“It melts and joins the moving water like a family.”  
– Louella

## Poptalk

As we continued with water, we noticed that the group was starting to lose interest. It felt to us as educators that the group was ready to move on to a new element. As we planned, we decided to organically let the group decide which element we were going to move onto without us asking them to vote. We set up an invitation of discovery for the 3 remaining elements; Wind, Fire and Earth. We wondered which element would strike them the most.

We judged this by noticing which element they created stories for, which element they were most drawn to and which element they naturally brought into their free play.



## Poptalk

To our surprise, the group was immediately drawn to wind, and of course was very intrigued by the element of fire. The earth invitation was completely untouched.

They were talking about birds and that their very existence was reliant on the element of air, then connected that humans also would not exist without the element of wind. They also spoke about the connection between fire and wind; they said that fire was an energy and that without air that energy could not exist, that the flame would go out. The next day the group began making kites and started a dramatic play about the movement and song of wind.

