



Paleontology Project

Owl - St. Luke: Preschool

Background

This project is the work of the preschoolers at Owl - St Luke. The children are between 2.5 and 4 years old. The project started at the beginning of April, and went to the middle of May. The educators of the room that lead the project were Gabi, RECE, Shannon, RECE and Steph, RECE.

Phase 1: Beginning the Project

The project started when the preschoolers became interested in dinosaurs after Luke (4.4 years) started bringing his in from home to share with the other children. The children began talking about dinosaurs and wanted to find out what they were called and what had happened to them. They began asking questions regarding the history of the dinosaurs and so began our paleontology project! The educator's wondered what the preschoolers would learn and discover about dinosaurs. We started our query by asking the children what they knew about dinosaurs.

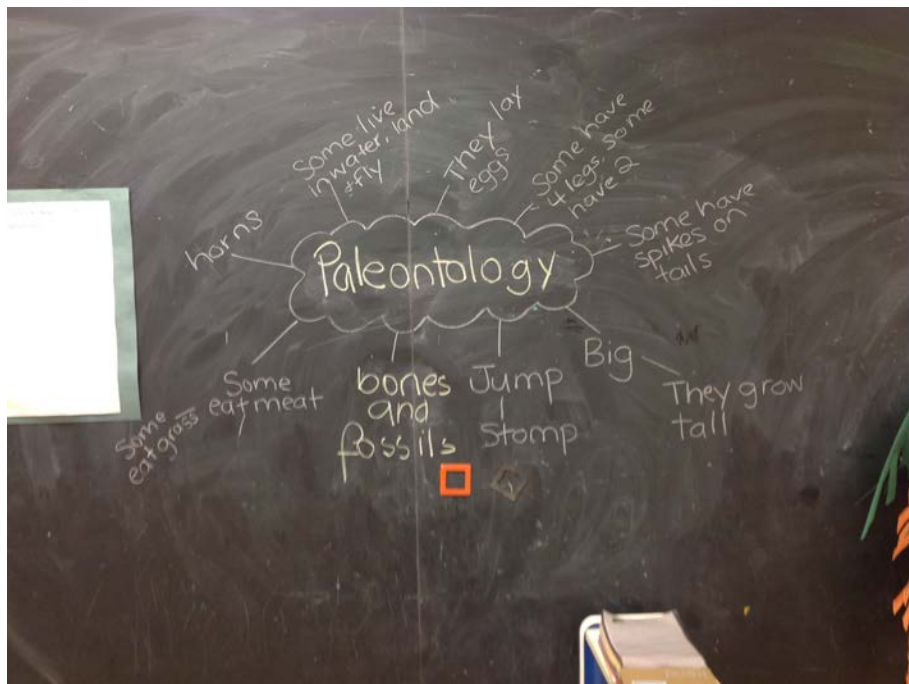


Figure 1: The preschoolers created a topical web based on the interest they had on dinosaurs.

What do we know?

- Some dinosaurs might have eaten people, grass, vegetables
 - Maybe some dinosaurs are alive today
- Dinosaurs are different sizes and colours
 - Some have spikes on their backs
 - Some have long necks
 - They had long sharp nails and teeth
 - Some had horns
 - Some had big noses
 - They stomped when they walked

What do we want to know?

- How did they die? (Simona 4.1 years)
- How big was a T-Rex? (Jamie 4 years)
- Where did the T-Rex live? (Kai 3.11 years)
- Did the T-Rex eat other dinosaurs? (Luke 4.4 years)
 - How did they sleep? (Catherine 4.2 years)
- Do dinosaurs sleep in the day? (Mary 3.9 years)
 - How big were their legs? (Elise 3 years)
- Were there other animals around? (Claire 4.3 years)

Who can we ask?

- Paleontologist (Wade 4.3 years)
- A dinosaur museum (Wade 4.3 years)
 - Gabi (Elise 3 years)
 - Books
 - iPad



Figure 2: Kai (3.11yrs) Megan (4.2yrs) Grace (2.11yrs) are looking at an Encyclopedia about Dinosaurs.

Phase 2: Developing the Project

We were really interested in finding out how big a dinosaur foot was so we used the iPad to look up the size of a Brontosaurus footprint. We learned that it was 3 feet wide! We decided to investigate how big 3 feet was. Shannon and the preschoolers got out a measuring tape and cut out a footprint 3 feet wide! They decided to stick all their shoes inside to see how many preschool shoes fit inside a brontosaurus footprint. Through their co-learning experience, they discovered that 30 preschool shoes fit inside!



Figure 3: The preschoolers fitting their shoes inside the brontosaurus footprint.

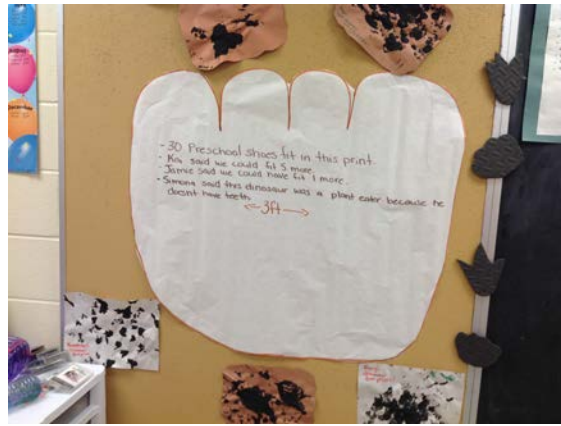


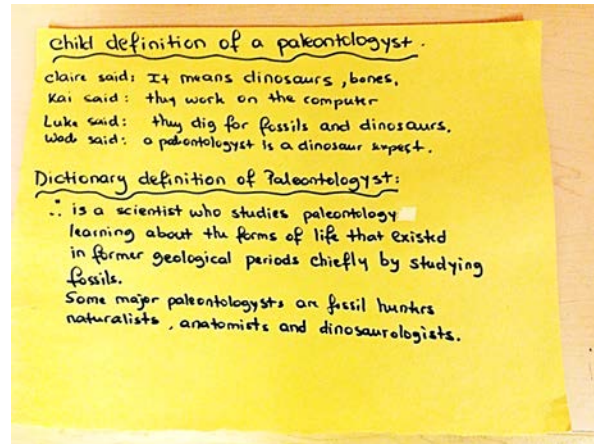
Figure 4: Our findings.

The children demonstrated what we were learning through their play. After seeing pictures in books and on the iPad of what paleontologists have documented as dinosaur's habitats the children were observed creating similar habitats for the dinosaurs in the classroom.



Figure 5: Landon (3.5 years), Jamie (4 years) and Luke (4.4 years) brought artificial grass and a bath mat to the table to represent the grassy terrain and water the dinosaur's habitat consisted of.

As we dug deeper into Paleontology, we asked the children what their definition of a Paleologist was, all new it had to do with Dinosaurs and the exploration of Dinosaurs, some began to list equipment that a Paleontologist would use, listed below are the three that were most common.



The children's definition's and the definition found in the Dictionary.

We learned that that palm trees were around when dinosaurs were so we created a palm tree by stacking baby formula containers on top of each other and wrapped them in brown construction paper. We also added straw grass and green Bristol board to create the leaves



Figure 6: Catherine (4.4 years) gluing the straw grass on the palm tree



Figure 7: Our finished creation

We travelled to The University of Waterloo Earth Sciences Museum for our field study and to ask the experts our unanswered questions. Jamie wanted to know how big a T-rex was. And Mary wanted to know how dinosaurs slept. Did they sleep standing up or lying down? During this visit we got to explore dinosaur teeth, feel dinosaur eggs and hold fossilized dinosaur poop.



Figure 8: During our Field Visit, we got to explore a Velociraptor



Figure 9: Rory (2.8 years) and Sophia (3.1 years) exploring Dinosaur teeth

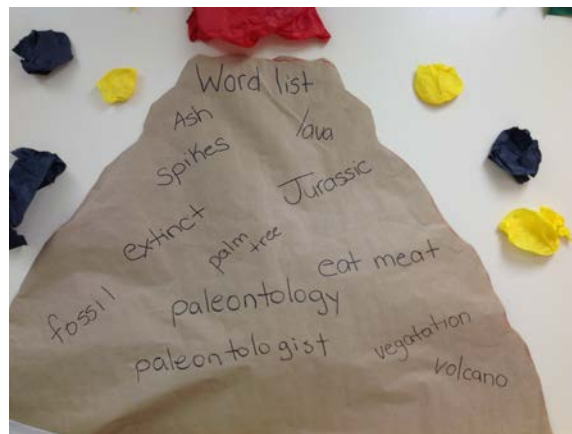


Figure 10: Preschool word list

As we moved through our project we tracked some of the new words we were learning. We learned that dinosaurs lived in different periods. Through using the iPad, we found that most of our favorite dinosaurs lived in the Jurassic Period. We learned that dinosaurs with sharp teeth are carnivores, that dinosaurs with blunt teeth are herbivores, and that they had rocks in their stomach to aide in digestion.

In the beginning of our project we had begun to investigate the environment in which dinosaurs lived. We read dinosaur books, and books about volcanos. Through this process we created a 3D volcano using paper mache, rolled newspaper, flour and water. We looked back through our books, and to us the volcanoes seem to be dark in colour so we chose to paint the volcano in red and purple.



Figure 11: Rory (2.8yrs) and Hannah (3.9years) using newspaper, flour and water to create the Volcano.



Figure 12: Kai (3.11 years), Mary (3.9 years) and Ivy (3.4 years) are painting the volcano

We conducted a survey to find out what kind of dinosaur was everyone’s favourite dinosaur. We asked the children to name some dinosaurs. The children eagerly came up with; Pterodactyl, T-Rex, long neck and stegasaurs. Most of the children chose Pterodactyl as their favourite dinosaur.



Figure 13: Our finished survey

Near the beginning of our project we asked the children to draw a picture of a dinosaur, in the final stages of our project we decided to ask them again to draw a picture. We observed a big difference in the small details of the children’s drawings.

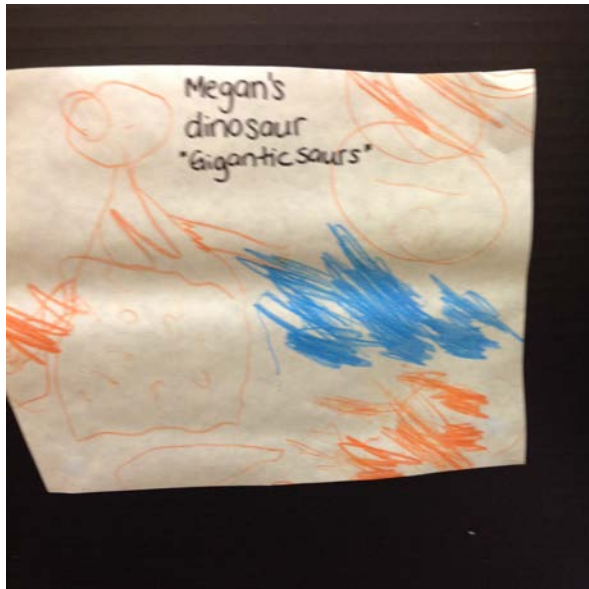


Figure 14: Megan's first drawing

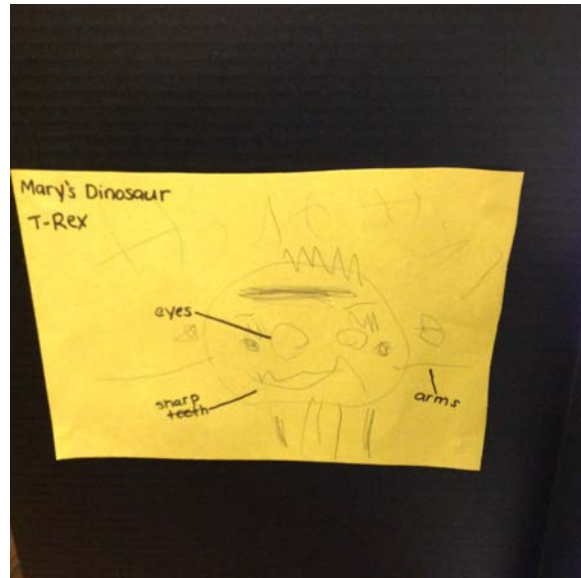


Figure 15: Mary's second drawing

Throughout our discussion and site visits at the Dinosaur Museum, we created a song with the children, We thought about where we find most Dinosaur fossils and with the trip to the Museum bring fresh in our minds it made it easy to create a song, suing the tune Down around the Corner.



Hannah (3.9yrs) singing the song

Down around the Corner.
Down around the corner, at the museum gift shop, there was lots of Dinosaurs waiting to be explored. Along came (child's name) with her friend's, picked one up and took it home.

Phase 3: Concluding the Project

We concluded our project with a Parents Night by asking the parents to come into the centre to view our documentation. We had posted the children's creations, surveys, books and materials that we had used to research our topic. This gave the parents a chance to see what their children were doing. Parents were excited to see how involved the children were, what they had learned and interested to see the creative things we had learned. The children had begun to show a lack of interest in the beginning of May, when the weather outside started to get nicer and the children became more interested in the environment outside.

Teacher Reflections

Reflecting upon our paleontology project, we feel as educators we also learned many things about dinosaurs alongside the children. As we read stories about dinosaurs to the children we would notice their expanding knowledge and language through their play. Children presented enthusiasm and curiosity in learning more about "paleontology." We noticed great imagination and the ability to draw on what they thought dinosaurs looked like to them. Children drew and coloured in detail certain aspects of their features such as spikes on the stegosaurus, eating grass, large claws on the T-Rex, dinosaur nesting grounds and their eggs, and what type of vegetation was growing at the time, such as ferns and palm trees. They seemed very knowledgeable on what might have caused their extinction like volcano eruptions or an asteroid hitting the earth, some even suggested a flood. As Shannon built the paper mache volcano children displayed enthusiasm and wonder of how our volcano will work. As a result of this learning experience, children made their own volcanos in the sand which were experimented with water, baking soda and vinegar. This project has been led in majority by the children's interest and curiosity as well as by their wonder of discovery of this lost world of extinct creatures which paleontologists are still discovering facts about. We feel the collaborative learning between the educators and children is what made this project so successful.

