

# Raincoast Field School

2019/2020 Tofino Field School Lesson Summaries



**Ms. Aujla's Gr. 4/5**

**Nov. 20, 2019, Centennial Creek Restoration**

Today we teamed up with CWFS to help with the Centennial Creek restoration project. The students first discussed what restoration means and thought about some challenges a stream running through the town of Tofino might face. We then met up with a CWFS employee and explored the two creek sites. We observed the newly created rain garden and talked about the importance of water filtration for fish good habitat. The students gave back to their community by getting down and dirty in the mud as we actively partook in planting riparian vegetation along the creek! Nice work Gr. 4/5's.



**Dec. 10, 2019, Rain Garden Art**

Last month during our Raincoast field lesson we learnt all about the importance of water filtration and creek health for our native fish species. After helping plant some riparian species in the rain garden the students today spent their afternoon creating different art pieces to be place in the Centennial Creek Rain Garden. We painted species identification cards, wood salmon cut outs, and rocks to beautify the garden. Thanks for helping make our community rain garden a healthy beautiful spot.



# Raincoast Field School

2019/2020 Tofino Field School Lesson Summaries



**Mr. Grigg (Gr. 6/7)**

**Nov. 26 2019, Tides and the Solar System**

The grade 6/7 students of Mr. Grigg's class have focused their scientific studies on the Solar System. The students have explored the theories based around the Sun, Earth, and Moon and have been gaining knowledge in the ways in which these three masses interact and influence one another. Today, Raincoast stepped in to test the theories of gravity and orbiting planets. From Earth it may be hard to notice we are constantly rotating around our axis, and that the moon orbits around us, but we can look to the oceans for proof! As a class we headed down to the beach to look at the tides and discuss the phenomenon causing this effect! Students learnt what causes the tides and some special periods of neap and spring tides.



**Mr. Redican, Gr. 4/5**

**Nov. 25, 2019, Centennial Creek Restoration**

Once again the Wickinnish elementary school got down and dirty helping out in their community rain garden! The Centennial Creek Restoration project has been an ongoing construction site as excavators have been removing invasive species and opening up the site. The students helped by planting saplings, spreading mulch, and building the rock trail. Nice work crew, the garden looks better than ever before!



# Raincoast Field School

2019/2020 Tofino Field School Lesson Summaries



## Dec. 11, 2019, Rain Garden Art

The grade 4/5 class of Wickinninish school has been working hard to develop our community rain garden. Last outing we planted riparian species and constructed a walking path. After learning about some of the native species in the riparian zone, students painted identification cards to help the public learn too! We also decorated some wooden salmon cut outs and rocks to be placed in the garden. Be sure to check out the Rain Garden located behind the school to see the students work!



## Mrs. Bruhwiler-Kindergarten

### October 1, 2019, Mudflats Mania

Today Mrs. Bruhwiler's class experienced their first ever Raincoast field trip. Before heading out on the mudflats, the students predicted how many living things we were going to see. Down on the flats the students used their observation skills to view the differing species living in this dynamic ecosystem. A class favorite species was the shore crab which they found by turning over rocks. We summed up this lesson by reviewing some of the living things we saw, and seeing whose predicted was correct.



### November 4, 2019, Thornton Creek Hatchery

Today Ms. Bruhwiler's Kindergarten classes loaded up on the Raincoast bus and headed to the Hatchery. While on site the students got to observe male and female spawning adult Coho salmon. They saw unfertilized salmon eggs in the pen and learnt about a salmon's life cycle. The students were lucky enough to view a few wild salmon swimming up the river. This awesome day ended off by witnessing a bear catch a salmon to eat for its lunch.



# Raincoast Field School

2019/2020 Tofino Field School Lesson Summaries



## Ms. Hendry, Kindergarten

### Oct. 16, 2019, Seasonal Changes

Kindergarten classes headed out on a rainy day to enjoy the forest. In the classroom we discussed the 4 seasons, differentiating them by their weather. We talked about the fun activities each season brings and focused in on outdoor preparedness, how do we dress for fall? The students had an excellent time getting absolutely soaked outside as we walked down the Tonquin trail. We used our senses to detect signs of fall, and learned about a few local plant species growing here on the west coast



### Oct. 29, 2019, Thornton Creek Hatchery

Today Ms. Hendry's kindergarten class loaded the Raincoast bus and headed to Thornton Creek Hatchery! The students learned all about a salmon's life cycle. They learnt about the 6 life stages of salmon and how this species migrates from freshwater environments to the ocean, and then back to their original stream to spawn. We took a close look at some of the predator species that prey on salmon; we even got a visit from one of them- a very large black bear! Thank you Thornton Creek Hatchery for welcoming us on your grounds and making us feel very safe during our visit!



### Dec. 10, 2019, Composting

The students loaded onto the Raincoast bus this morning to head for the Botanical Gardens. While on site we explored the decomposing forest floor and learnt how old logs will one day return to the soil. While at the garden we looked at their Vermicompost bin and took notes on what ingredients are needed to produce a healthy compost pile. Back in the class the students investigated soil, red worms, and took a look at their lunch time food scraps. We layered these materials in a bin to produce their very own vermicompost bin.



# Raincoast Field School

2019/2020 Tofino Field School Lesson Summaries



## Mr. Holt- Grade 2/3

### October 7, 2019, Intro to Forest Bugs

Mr. Holt's grade 2/3 students got to learn all about the smallest critters of the forest ecosystem. The entire lesson plan was directed towards the primary food web species, discussing the importance they have to the forest as well as the ways other species depend on them to survive. Students were introduced to the scientific method, where we first did an in class lesson and made predictions on the types and amount of bugs we were going to see once in the field. Students also reviewed habitat types of specific species. We tested our hypothesis by visiting the specific habitat type- gravel, forest floor, grass, etc- to view our bugs in motion. The lesson was summed up back in the classroom where we made a conclusion to our findings and reviewed our class hypothesis.



### October 21, 2019, Bug Lesson #2

Today's lesson took place inside the classroom as we, just like the forest bugs, were attempting to hide out from the rain! We expanded our previous lesson knowledge by focusing our attention on the physical and behavioral traits of two bugs. We used the taxonomic classification to understand the differences between ants and spiders. Although both are Arthropods, ants being insects have 6 legs and three body segments, whereas spiders being arachnids have 8 legs and 2 body segments. The students looked at how some ants physical traits look different based on their behavioral traits, for example queen ants are able to reproduce, have wings, and are large. Worker ants too are females but much smaller in size and have absent wings. These students created some beautiful drawings showing off their new gained knowledge in bug anatomy and behavior.



# Raincoast Field School

2019/2020 Tofino Field School Lesson Summaries



**Mrs. Baas, Gr. 1/2**

## **October 3<sup>rd</sup>, 2019, Intro to Plants**

Today the students set out to explore the forest and look at the variety of native plant species growing here in the PNW. Students learnt the 6 parts of a plant, looking into how each part functions and contributes to their overall working order. Outside we studied 3 native shrub species; Salal, Huckleberry, and Salmonberry. We used our observation skills to describe the different shapes, color, and size of the leaves. We then played a relay game to sort the different plant leaves. On our way back we reviewed the plant cycle and did some plant yoga. Students acted out the life cycle of a plant by holding different poses.



## **Oct. 28<sup>th</sup>, 2019, Bear Adaptations**

Ms. Baas's class started off with a review of our previous field outing, discussing the requirements plants need to survive. We then talked about what all living things need to live in their environments; we compared plants, humans, and bears. We then focused all of our attention on bears and their needs, diet, and habitat. The students got to touch a real bear hide and explore some of their physical features used to help them survive. We headed outside along Tonquin trail to search for berries, salmon and bear dens. We made it all the way down to the beach where we talked about the importance of ocean health for our local bears.



## **Dec. 11, 2019, Seaweeds**

After learning about the parts of a plant and their functions, the students headed down to the beach to explore what may be growing near the sand. The students spent time collecting different seaweeds to be brought back to the class for a special art project. Along the way we discussed that although seaweeds looks like plants, they are in fact algae! Rather than having roots, stems, and leaves, seaweeds have holdfasts, stipes, and blades! Once back in the class we sorted the seaweed, classifying them by color. We then pressed the seaweeds on paper to create beautiful holiday cards for the season.



# Raincoast Field School

2019/2020 Tofino Field School Lesson Summaries



**Mrs. Thompson, Grade 1/2**

**October 4<sup>th</sup>, 2019, Intro to Plants**

Today's lesson plan focused all about plants! We learned about their parts, their functions, and the identification of a few native species. Unfortunately due to a problem bear on site at the school yard, we were unable to proceed with the outside prepared lesson plan. But no worries there! We headed into the school basement and continued our plant lesson. Students used their observation skills to justify why some plants were able to grow on the rocks in the basement and others were not. We then played a leaf sorting game to solidify the student's identification skills. We summed up the day by heading back to the classroom to work on our scientific drawing skills! The students did an awesome job labeling their specific leaf type.



**Oct. 23<sup>rd</sup>, 2019, Bear Adaptations**

Ms. Thompson's class started off with a review of our previous field outing, discussing the requirements plants need to survive. We then talked about what all living things need to live in their environments; we compared plants, humans, and bears. We then focused all of our attention on bears and their needs, diet, and habitat. The students got to touch a real bear hide and explore some of their physical features used to help them survive. We headed outside along Tonquin trail to search for berries, salmon and bear dens. We made it all the way down to the beach where we talked about the importance of ocean health for our local bears.



**Dec. 12, 2019, Seaweeds**

Today's lesson was all about seaweeds! Down at Tonquin beach we learnt to identify certain species and checked out the different textures, shapes and colors of seaweed. The students collected a bucket full to be brought back to the classroom. We then washed the collected blades and laid them flat on paper. The students designed holiday cards and we securely layered them in our plant press.



# Raincoast Field School

2019/2020 Tofino Field School Lesson Summaries



**Mrs. Michaud, Grade 3**

## **Oct. 9th, 2020, Nature Scavenger Hunt**

Today Mrs. Michaud's grade 3 class took to the school field to apply the use of their 5 senses. In teams of two the students had to work together to complete a scavenger hunt. The students had to hear a Stellar's Jay, taste a Hemlock needle, feel the soil, smell the fresh air, and see a rock shaped like an animal, among many other things. After the completion of the hunt, the students had to categorize their findings as either living or non living.



## **Nov. 26th, 2019, Food Webs**

The students of Ms. Michaud's Grade 3 class have been working on their species classification skills. Today we went one step further and discussed the interconnectedness across the different animal kingdoms. We headed into the school field to link up and demonstrate a real life food web! Students became predator and prey species of a forest ecosystem and followed the transfer of energy from primary producers all the way up to apex predators.



**Ms. Morris, Gr. 6/7**

## **Nov. 12, 2020**

### **Ocean Acidification Lab**

The grade 7 students at Wickininnish school have been working on the scientific method in class and reviewing chemical reactions. Raincoast decided to show the kids how chemical reactions constantly take place in the environment! The students trekked down to Tonquin beach to first explore the carbon cycle, later creating it out of collected materials found around the beach. We explored how excess amounts of CO<sub>2</sub> are entering the atmosphere and how the ocean acts as a huge carbon sink. Back in the classroom we performed a chemical reactions lab involving an acid (vinegar) and base (seashells) to understand the consequences of an increasing ocean acidic level.



**Ms. Hill Kindergarten 2019/2020**

# Raincoast Field School

2019/2020 Tofino Field School Lesson Summaries



## Oct. 17<sup>th</sup>, Seasonal Change

Kindergarten class began their lesson inside learning all about the 4 seasons. We then focused our attention on autumn looking at the ways this season affects the trees! We walked along Tonquin trail picking up fallen leaves along the way. Once every student gathered 3 different leaves we played a fun sorting game learning about some of the native plant species of Tofino. Students enjoyed learning about the evergreen huckleberry and tasting its delicious berries.



## Nov. 7, 2019, Hatchery

During our visit to Thornton Creek Hatchery, the students discovered that salmon species have 7 different life stages. We began by holding unfertilized salmon eggs, observing their size and texture. We then acted out growing into an alevin with our yolks sacks attached to our stomachs! The students learnt about the changes in a salmon's physical appearance based on its life stage and camouflage requirements. We were fortunate enough to even encounter a few salmon predators. The students watched as a black bear fished a salmon from the creek and carried it up into the forest. This transportation of nutrients from creek to forest is an essential part of ensuring overall forest health.



## Dec. 5, 2019, Composting

We had an exciting trip to the Botanical Gardens this morning to check out the natural decomposition of the rain forest and to check out the big compost bin on site. The kindergarten students learnt what it means to “decompose” and looked at all the materials that can break down over time including; leaves, tree trunks, and even old VW vans! The students took this knowledge back to the classroom to construct their very own vermicompost bin. The students carefully followed a compost recipe, ensuring all the important ingredients were added!



# Raincoast Field School

2019/2020 Tofino Field School Lesson Summaries



## Mr. Reynolds Grade 3 and 4

Sept. 30<sup>th</sup>, 2019, Bear Aware Lesson

Mr. Reynolds class learned all about bears today! Specifically we talked about the black bear species living here on Vancouver Island. In the classroom we learned about the biology of a bear looking at its physical features and adaptations to living in our harsh coastal climate. Next we headed outdoors to see the ways bears move, live, and eat in the wild. The students acted like bears and were able to run off some energy during our bear game. We summed up the lesson learning about the struggles that can arise when a bear becomes habituated and went over a few made up scenarios to test the student's knowledge.

