

## **Ahousaht Field School**

Ms. Mary's grade 1 class & Ms. Rhea's grade 5 class



### **April 26**

Field School in Ahousaht! Woo! Students headed out to learn about intertidal critters; including how barnacles feed, why anemones are sticky, about hermit crabs' territorial habits... And so much more! What a beautiful sunny day to learn outside



### **May 8**

Tofino kindergarten students head to Ahousaht! Kleco kleco Ahousaht teachers and students for welcoming us into the community with arms wide open. Thank you! We can't decide what was more exciting - having students from both communities make new friends while learning about tidepools together... Or that we got such a special ocean guest pay us a visit. In any case, it was a magical day and there were endless smiling faces over the new friendships that were made ♥

A huge thank you to [@jamieswhalewatching](#) for getting us out there and for the orca spotting



### **May 28**

Grade 1 and 5 students in Ahousaht wrapped up their intertidal studies unit! After examining sea anemones, crabs and many other species, students learned about the affects of plastic and marine pollution on these species, and then finished the day off with a team beach clean! Nice work everyone!

## Ms. Baas's grade 1/2 class



### **February 26**

After completing their map of downtown Tofino, students headed down to the harbor to learn more about navigation by making a map of the harbor! Students learned the importance of a legend and then added various boats to their map, while learning about the uses of different types of boats, and their importance in our community.



### **April 1**

The salmon forest is amazing! Students learned that spawning salmon support forest growth, and then learned more about salmon life by drawing out the fish's lifecycle in the sand.



### **May 7**

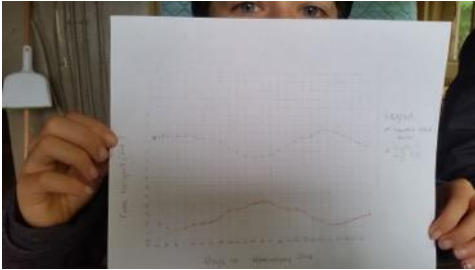
Tides are amazing! Their movement provides habitat for a plethora of intertidal critters; and many organisms depend on tidal changes. Tides can also be the boss of our ocean activities. Taking note of tides is also important for safety purposes (which is what these students did).. And isn't it fascinating to consider the effect that the Moon and Sun have on our ocean?! :) .



### **May 22**

Students headed out to the beach for a morning of traditional storytelling with Gisele Martin! Nuu-chah-nulth stories and legends are so fun, and also offer so much insight on how to best care for our lovely planet <3

## Ms. Howard's 4-7 class



### November 27

To wrap up their moon and tide project, students did a final set of observations of the high tide, then made their own graph of tidal data for the month of November. Students plotted the lowest low tide and highest high tide of each day of the month, and then compared the tidal variation against the lunar phase. Students' conclusion was that the tide is highest and lowest at full moon and new moon, and that the degree of variation between high and low tide is minimal during the quarter moons!



### April 25

The Tofino Mudflats Wildlife Management Area was designated in 1997 to help protect sensitive habitat such as eelgrass meadows - a home to many invertebrates such as crabs and nudibranchs, juvenile fishes, migrating shorebirds and so many more marine critters. Students learned about this and more by getting up close and personal with some ocean friends!



### April 30

Did you know shorebirds can nearly double their weight during stopover points along the Pacific coast?! They are currently on their way North to their Arctic breeding grounds and bulking up on all sorts of mudflat treats such as worms, diatoms and ghostshrimp. Students learned all about shorebirds and their migration - and so can you! At the [#tofinoshorebirdfestival](#) this weekend!



### May 2

Balance is key; and these students seem to already understand the importance of balance. After learning about the mudflats, students got to explore this ecosystem from a new perspective and have fun while doing it! And yes, we stopped for their daily afternoon meditation. A huge thank you to [@tashiipaddle](#) for taking us on this beautiful adventure!



## Ms. Howard's K-3 class



### April 25

What's living in the mudflats anyhow? Students learned that along with resident crabs, clams, worms and ghost shrimp, the mudflat is also an important habitat for migratory shorebirds, ducks and more! Students also made their own foodweb to represent the connection between living things in this ecosystem!



### April 30

We love shorebirds! After observing shorebirds feeding, students learned that these birds feed on biofilm, worms and ghostshrimp and more to prepare for their long migration to their Arctic breeding grounds. Afterward students played a shorebird migration game to learn some of the challenges of these long haul flights!



### May 2

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## Ms. Morris's grade 6/7 class



### November 29

Ms. Morris's class has learned all about different intertidal organisms this fall, while Ms. Avila's class has been learning how to make scientific drawings for their nature journals – and today students got to join forces! Together, they headed down to the foreshore, where big buddies guided their little buddies through a scientific drawing of an intertidal organism, and older students imparted their knowledge of intertidal invertebrates throughout the outing as well!



### April 15

It's science time! Students are reviewing the scientific method in preparation for their ocean chemistry project. Starting off with the question: What is the difference in water quality between the protected Ukee inner harbour and the current-exposed Tofino Harbour? Students will soon be testing water quality parameters including dissolved oxygen, turbidity, salinity and more! Woo science!



### April 29

Dissolved oxygen; the level of free oxygen in water (i.e. the amount of oxygen that is not part of an H<sub>2</sub>O molecule), is commonly measured to test for water quality. Many fish such as salmon and trout have high dissolved oxygen requirements, whereas smaller organisms such as marine worms and bacteria can survive in minimal dissolved oxygen environments. Students measured dissolved oxygen and more water quality parameters at the Tofino Harbour, and noticed that dissolved oxygen is much higher closer to shore... And wondered if this affects the marine biodiversity.



### May 3

Ocean chemistry time! Students are collecting data in different parts of the harbour and testing for salinity, dissolved oxygen and turbidity. Students hypothesized that as we get closer to shore there will be less salt and more oxygen.. What do you think?

### May 10

It's plankton time! Did you know that phytoplankton (the



plant-like plankton) contribute more than 50% of the oxygen in Earth's atmosphere?! Students learned that phytoplankton need abundant sunlight and nutrients, and that a large plankton bloom also leaves an area prone to becoming anoxic. Then students compared the plankton diversity and abundance in different parts of the harbour and found that some areas were nearly plankton-free, whereas others were full of the usual suspects! So neat!



## Ms. Hovi's grade 6/7 class



### March 6

Students headed on an adventure into @pacifimrimnationalpark to learn all about the Bog! Students learned about the unique plants that make up this ecosystem, how they interact with each other, and all about the cause and effects of the high acidity in the soils in the bog. Next up students will be learning about the water table in this unique ecosystem!



### March 26

After reviewing their learning from our last bog adventure, students got to expand on their knowledge and learn all about bog hydrology. Students learned that drainage changes impact oxygen availability for plants, that Sphagnum moss, the bog's 'ecosystem engineers', acidifies the soil while raising the water table, that quick soil saturation mixed with heavy rainfall leads to frequent flushing of the watershed, and that a sudden change in hydrology has a huge impact on this understudied ecosystem! So moss fun!



### April 11

Students learning from students! Grade 7s from Tofino pass along their newfound bog knowledge to grade 4s from Ukee. One of the subjects they taught was the life of Peat moss, a typical bog-dwelling plant that can absorb up to 20× its weight in water. It also grows over itself and can be up to several meters deep! It doesn't get moss cooler than that!



### May 3

Tofino students led a bog-themed interpretive walk! After learning about the bog ecosystem over the last few months, students broke into groups to present fun facts about the bog to the public! Thanks @wildpacifictail for being instrumental in making this happen!

## Mr. Grigg's grade 5 class



### May 7

Rocks rock! Some rocks are formed from magma and others from sedimentation but they're all so awesome! Students learned about the rock cycle and then used their observation skills to describe a rock of their choice, including checking its hardness, lustre and so much more.



### May 9

Students have been learning all about the gold rush and its impacts on the coast...what better way to cap off their learning than by getting their prospector outfits on and their gold pans swirling! Gold is much heavier than other materials so shaking and swirling your gold pan helps the gold settle to the bottom of the pan. Students learned some key techniques and also that looking for gold is much harder work than it may seem!



### May 15

How did the gold rush impact the west coast? We all know it led to huge economic development, but the gold rush also brought on conflicts with First Nations communities whose lives were irreversibly changed. Now many First Nations people remove gold jewellery during ceremonies to honour the past. But Nuu-chah-nulth people didn't go after gold – other resources such as shells were used to symbolise wealth, and most important was to care for the land and the water.



## Mr. Reynold's grade 3/4 class



### March 7

Students got to make some new friends from @universityofvictoria @uvicegeography ! After a giant ice-breaker game of tag, university students and elementary students got into groups to discuss their community and learn about mapping in Tofino, Opitsaht and Tyistanis. Students shared where they feel most at home, some places that are important to them and many other themes related to their community, and with Uvic students as leaders, found all these places on a topographic map of their home.



### April 17

What does being adventure-ready look like? Similar to this sand person, Tylee! Heading out for a hike with a friend, he is equipped with a raincoat, spare food, water, a first aid kit and a radio. 'Tylee' also left a trip plan with a trustworthy buddy back home, who is also a safety check in. Students learned about outdoor safety, and about the importance of staying put and finding shelter in the event that they ever got lost out in the woods.

Having a few key items, as well as leaving a trip plan with someone you trust, can be a huge help in staying safe! Please be as prepared as these kiddos were while planning your next adventure.



### May 23

Esowista visit for Field School! Students learned about the lay of the land and the traditional place names in Nuuchah-nulth. Students also learned about the symbolic importance of different colors; including the vivid red in Indian Paintbrush – red represents life!

## Ms. Michaud's grade 3/4 class



### April 10

See anything living in this photo? A bird... Some trees... And don't forget about the billions of cyanobacteria, algae and other microorganisms in the ocean! Students learned that an estimated 50-90% of marine biomass is bacteria and that some species are even photosynthetic, accounting for a huge proportion of primary productivity on Earth. Thanks bacteria!



### April 16

It's a microbiology sampling extravaganza! Students are inoculating samples from: the ocean, the forest, the human body and surfaces in the school. Petri dishes with various cultures and agar (food for the microorganisms) are being examined to test for bacterial diversity. Which habitat do you think will show the most growth?



### April 24

Microbiology mania!!! Check out these beautiful bacteria! Students sampled different parts of the ocean, the forest, the human body and surfaces of the school and inoculated microorganisms. Preliminary observations indicate that microorganism diversity is similar in the ocean, the human body and the school and there appears to be less microbial diversity in the forest... More rigorous analysis coming soon



### May 1

Did you know that some soil bacteria have been found to stimulate serotonin production? That means playing in the forest and in the dirt can make you feel happy and relaxed! Students learned this through a game of soil bacteria tag and then analysed the diversity and abundance of bacteria in the samples they previously collected. That's a wrap on the bacteria unit! But don't worry, there's still plenty of bacteria out there to explore.

## Ms. Aujla's grade 4/5 class



### March 5

After learning about the history of the Eik Cedar last week, students headed into the forest to choose natural supplies to create a piece of art to best represent the Eik Cedar, and to complement their writing piece. Some students drew a chained tree, and some got super creative and made a diorama of this unique tree!



### May 14

A huge thank you to Central Westcoast Forest Society for teaching students all about the restoration work that helps improve habitat conditions in watersheds in logging-affected areas. Students learned about their smolt monitoring program and go to weigh and measure juvenile salmon, and also got to team up with students from Ucluelet to plant trees – it was a joint restorative effort!



### May 16

We often hear about common human uses of plants; some can be used medicinally, for food, clothing or even for art. Another important perspective is to focus on the care of plants, rather than their use. How can we take care of these living beings that surround us? And ensure long-term health during any harvest? These questions are a big part of the foundation of Nuuchahnulth culture, and Nuuchahnulth language is actually rooted in the philosophy of caring for living things around us. In fact, each First Nation territory is referred to as the Nation's 'Ha-houlthee', meaning the 'land which is cared for'. What do you do to care for living things around you?



## Ms. Bruhwiler's kindergarten class



### February 22

Students are learning all about bears! They headed down the trail in search of bear habitat, and then learned that bears are omnivores, while identifying some of a bear's favorite foods and playing bear-salmon tag. Then students learned what to do if they ever encounter a bear in the woods.



### April 2

Spring has sprung and Salmonberry season is upon us! Students learned all about the Salmonberry lifecycle and then played a game of photosynthesis-adaptation tag to learn about how Salmonberry bushes adapt and thrive their environment!



### May 8

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## Ms. Payne's grade 1/2 class



### **February 25**

It's team-building day! Students headed on a grand hike over to Middle Beach, where they got to explore a new place together, learn about tidepools, local animals' habitat, and not to mention get their blood flowing on this hike through the rainforest.



### **March 27**

Students hiked out to a new beach to learn all about animal behaviour and adaptations! Students examined tidepool creatures to learn about how they behave and adapt to their surroundings. And on the hike to the beach students played trust and team building games together! Woohoo



### **May 1**

Pacific salmon are anadromous: they start their life in freshwater, then migrate to the ocean, and return home to their native stream to spawn. Students also learned this lifecycle, including that when salmon die, they also bring marine nutrients that help feed the forest!



### **May 15**

Students headed out on a grand hiking adventure, and also got to hear Nuu-cha-nulth stories and legends from Gisele Martin. Gisele shared the legend of the eagle and slug – the eagle, who once had poor eyesight and could fly to the highest treetops; traded eyes with the slug who had great eyesight so that eagle could keep watch above the village. This is why today the eagle has such great vision, and the slug is slow and has poor vision – and this is the reason we need to keep a look out for slugs on trails when we are out and about!

## Mr. Redican's grade 2/3 class



### March 4

Students headed out to Tonquin Beach to learn about local ecosystems! Afterward students chose a 'sit spot' and had quiet time in the sunshine to record their thoughts and learning.



### April 24

Teamwork makes the dream work! Students predicted what creatures they would find during a beach seine and were pleasantly surprised to find some crabs, shrimp, a gunnel, and lots of other fish living in the eelgrass! Thank you Tofino Sea Kayaking for hosting us!



### May 10

After last week's beach seine, students compared the invertebrate diversity on the dock to the diversity of critters in the mudflats! Students were pleasantly surprised to learn that many of the organisms are the same in both habitats; such as crabs, and some fish species. However, the dock is also a home to many other animals such as barnacles, feather duster worms (aptly named 'sea pompoms' by these students!), sea stars and many other creatures that need a substrate.



### May 16

Hiking and traditional storytelling go so well together! Here are some tired students learning about Nuu-chah-nulth culture through stories and legends.



## Ms. Avila's kindergarten/grade 1 class



### February 5

After learning about basic needs of plants and animals in class, students headed down the Tonquin Trail to learn more about needs and adaptations in local animals. Students found hibernating bear habitat and then learned about diving adaptations in marine mammals.



### March 29

Students headed out to the Tofino Botanical Gardens to learn all about plant diversity and seasonal changes! Students learned to identify salmonberry bushes and hemlock trees, and got to learn about the importance of moss and how it proliferates in the forest.



### April 29

Did you know horsetail is a plant that is closely related with ferns? It is also sometimes called a living fossil because it was around before the dinosaurs! Students headed out to look for signs of spring and found horsetails, salmonberry flowers, swamp lantern, budding berries and of course a beautiful blast of sunshine!



### May 27

Kindergarten/Grade 1 classes from both Ucluelet and Tofino headed to the beach to make new friends and learn all about the local plant species found on the West Coast. We warmed up playing a game of photosynthesis tag. Students teamed up with a friend from the other community and worked together to find all the species on their plant list. The afternoon was spent finding new friends in the intertidal area at Big Beach. It was a great day meeting new "buds"!