Station Sheets

FIRST NATIONS PLANT TECHNOLOGY

Theme: Experiencing plant technology from First Nations knowledge
Objectives:

- ✧ Making twine from stinging nettle – the "how to" of First Nations technology to make twine.
- ✧ The twine challenge – make the strongest twine possible with nettle and test its strength.

Duration: Each station is 40 min for activities, 5 min for reflection, 5 min to move on (for Fernwood School, stations are 5 minutes shorter)

ACTIVITY	TIME	EQUIPMENT
Introduction: What can you tell me about this plant? (stinging nettle, excellent food for us that's ready early in the spring, 4 species of local butterflies use it, grows in sunny disturbed (changed) sites, sting is countered by dock or rumex, can eat leaf without getting stung by folding carefully, etc.)	**4 min**	**nettle twine** **images of butterflies**
Demonstration – First Nations used nettle to make twine! During the fall, women would go to nettle patches to harvest it, why the fall? Present different stages of the technique; the harvest; drying; splitting and separating out good fibre; fortifying fibre by braiding or rubbing 4 strands together on one's thigh.	**6 min**	**images of twine and First Nations** **buckets for challenge** **water jug for challenge**
Activity: Students gather their own stalk of nettle and make twine Students don gloves and head to the nettle patch to gather one plant of nettle (a variation that worked well was to harvest all the nettle and leave stashed under the shelter of a bigleaf maple. Students were then given one stem each from the pile). Taking care not to sting others with top of plant, show students how to run their gloved hand up and down the stem to get rid of all leaves and stingers. Dare to remove the gloves and hold the stem with bare hands. Return to the sit upons and demonstrate the technique. While students work on turning nettle into twine, talk more of First Nations technology, how would we define or describe technology, what is it? Use images to show twine and technique, discuss uses for nettle twine, etc.	**30 min**	**8 sit-upons** **8 pairs of gloves for harvesting nettle** **cream for stings**

ACTIVITY	TIME	EQUIPMENT
Challenge – How strong is your twine? Once a student has transformed the plant into twine, they can choose to test the strength of their twine against 4 different weights (buckets – empty, with sand and gravel, with water) and the heavy water jug. Can make twine into a bracelet or anklet to keep.	**5 min**	
Reflection: Discussion and writing in journal **Nature is effective in her creativity and natural processes.** In making twine from plants nothing goes to waste and it naturally recycles by decomposing. Are there any modern products with similar properties? Do you think making twine from nettle is an effective way to make twine? State your reasons for your opinion.		

MUSEUM

✧ Chinese and Japanese presence at Bulman Lumber Co. sawmill.

Theme: Artefacts are identified by the culture they are from. As an example, specific cultures have foods which dictate the design of their eating vessels.
Objectives:
✧ Compare and contrast Chinese and Japanese implements – through drawing & critical thinking.
✧ Identify other implements and their uses in early settler times – through critical thinking and careful observation.
Duration: 40 min for activities, 5 min for reflection, 5 min to move on
(for Fernwood School, stations are 5 minutes shorter)

ACTIVITY	TIME	EQUIPMENT
Introduction: **1. START:** - start this station at the maple tree where the Chinese hut once was. Have the students recognize that the site is disturbed. This is where Chris Hatfield dug up artefacts left by Chinese who worked at the sawmill so long ago. Continue to walk towards the museum, stopping at a variety of places that tell of days gone by, i.e. the old car, the pipes in the parking lot, the view of the ocean where ocean going ships pulled in for lumber (they'll be seeing a photo of this in the museum), blacksmith site. **2. MUSEUM:** Before entering the museum, explain to students about the artefacts around them and inside the museum. These are **Treasures**, from past times, they are precious because they are rare and represent a past time; they are not to be disturbed / **DO NOT TOUCH** / Students enter and explore museum for about 5 minutes. Then students sit down; ask them what they noticed. Station leader can then tell a story about Chris Hatfield and his discoveries of the sawmill history. (drawing from *Forgotten Cusheon Cove*, by Charles Kahn and Chris Hatfield)	**10 min** **5 min**	**Water colour pencil kits (9)** **NO WATER IN MUSEUM** **NO EATING OR DRINKING IN MUSEUM** **Labels for mystery items**

ACTIVITY	TIME	EQUIPMENT
HISTORY INTRO ✧ Everything in this room was found by Chris Hatfield; before he found these things few people knew much about the settler history of Cusheon Cove. ✧ When he found these things, he came to realize that there were Japanese, Chinese, and European workers at this site, at the sawmill – but he had very little information. ✧ Gail Newman wrote an article about his discoveries in 2005 in the Victoria Times Colonist newspaper – one of the readers cut out the article and sent it to someone they knew living in England and that sparked a whole chain of communications, particularly from Richard Bulman, whose grandfather William Bulman, had owned and operated the sawmill. ✧ **PHOTOS –** the photos in this room are from the collection of Richard Bulman, after he and Chris Hatfield connected with each other from either sides of the Atlantic Ocean – point out: 1. the ocean ships moored at the sawmill (Cusheon Cove is an excellent, deep water, sheltered cove with ships coming right in close for loading and shipping); 2. the sawmill; 3. the farming activity (to feed all the workers and company families). ✧ **ARTEFACTS** – everything housed in this museum is from diggings near Japanese and Chinese huts & from the blacksmith area.	**5 min**	
3. DRAWING – each student is to choose two artefacts that proves that there was more than one culture on this site and draw them, using coloured pencils provided – label drawings – DO NOT TOUCH ARTEFACTS.	**15 min**	
4. CRITICAL THINKING – Students observe and record in journal similarities and differences between the two objects they drew. **5. MYSTERY ITEMS** - students observe mystery items and ID in journal.	**5 min**	

ACTIVITY	TIME	EQUIPMENT
Reflection: What are the mystery items? A. chamber pot B. Chinese wok C. Axle brake Who would like to share their drawing? What are some of the similarities? Differences between the Japanese and Chinese dishes? What will you remember most from this station? YOU CAN ALSO SUPPLY STUDENTS WITH INFO AT END OF SESSION Did anyone notice that: ✧ Chinese dishes are hand painted, not Japanese ✧ Dishes are largely bowls not plates ✧ Bottles were all individually made, not mass produced, point out inconsistencies in glass ✧ Most of the bottles were for beer, some rice wine bottles ✧ Blacksmith had to make most of the tools – not available at a hardware store – they were makers, manufacturers of tools and implements needed for running machinery of Bulman Lumber Co.	**5 min**	

WOOD

✧ The reason for the Bulman Lumber Co. sawmill.

Theme: The diversity of wood and its uses
Objectives:
✧ Understand the historic importance of different wood from the forest (Different woods (maple, fir, cedar, alder, oak) have different qualities & make them suitable for different uses – relate back to the sawmill, uses of wood, etc.).
✧ Recognize different species of trees found in the Douglas-fir forest.
✧ Demonstrate safe whittling skills.
Duration: 40 min activities, 5 min reflection, 5 min to move on
(for Fernwood School, stations are 5 minutes shorter)
Additional Information: See Notes from Forest Geneticist, Dr. Jean Brouard

ACTIVITY	TIME	EQUIPMENT
Introduction: 1. Determine the collective knowledge in the group by asking them to ID trees in area. Do you know any of these trees? How would you describe the bark, the leaves, and the needles? What do the crushed needles smell like? Do same with all trees species in area.	**10 min**	**Whittling knives (10)** **Knife sharpener** **Sample woods cut as lumber and showing grain, as well as branches for each wood** **Wood for whittling – best if small green branches with bark still on – enough for all students** **Stumps for seats + sit upons (10)** **Cookies (wood cuts)** **First Aid – band aids & polysporin**
Activity: 2. In circle with students on stumps, pass around some of the different wood cookies and pieces and talk about the woods. Let students experience their smell, weight, hardness or softness. 3.set up students with knives and wood / **demonstrate whittling technique** – whittling always away from body, stick pointed down and into circle, sitting with legs apart and stick in between legs, cutting down stick with knife – everyone with own **bubble of safety**. **Students whittle** – while whittling begin with conversation or Q&A about trees and wood, wood products, etc / show different items carved from wood / leave space for quiet whittling time / can also do as a ritual, with each student speaking in turn while whittling.	**20 min**	
3. **In Journal** – list as many things as you can made from wood in and around your home– do you know which kinds of wood were used for each? i.e. floor- oak, decking – cedar. (review with students as doing)	**5 min**	

ACTIVITY	TIME	EQUIPMENT
Reflection: Going around the circle of students, ask each one to offer something new they experienced or learned at this station. Students leave with their whittled piece of wood but group leader keeps them until they leave on the bus, when it goes into a backpack – no pieces free on the bus.	**5 min**	

HISTORY OF PLACE

Theme: Local BC History
Objectives:
- ✧ Learn local history and patterns of land use.
- ✧ Navigate with a compass through history.

Duration: 35 min activities, 10 min reflection, 5 min to move on
(for Fernwood School, stations are 5 minutes shorter)
Set-up: Lay out compass course with photos, artefacts and question cards.

ACTIVITY	TIME	EQUIPMENT
Introduction: Intro to compass use. Four cardinal directions, N, S, E, W. There are also number bearings showing directions from around a circle. To use the compass, hold the compass level (flat in one hand, matching the arrow or black line on the compass to your middle finger, and hold your hand in front of you. Turn the dial on the compass to fix your number bearing to the black notch. Then move your hand (with the compass on it) so that you can "put the red in the shed." The direction your middle finger points is the direction you need to go. Sight on something far ahead, and then walk in as straight a line as possible towards it. (If working in partners, have one person stay behind focused on the object, while the other walks ahead and around obstacles). 2nd Note: For our particular use of bearings, when taking a bearing, always stand in front of the flag, unless stated otherwise.	**10 min**	**10 compasses** **big compass** **cookie tin with candies** **location sheets** **flags** **umbrellas**
Activity: Tell a story traveling from one time event to the next. **1. Imagine – 150 years ago – it's 1858** This is a time before your parents, your grandparents, and your great grandparents.	**25 min**	

ACTIVITY	TIME	EQUIPMENT
So, a long time ago, far from here in the interior mountains, someone found **GOLD**! Soon there was a gold rush happening. Men from all over came to Fort Victoria (Victoria was a fort back then, not a city). They bought supplies at Fort Victoria, and then headed off to find the gold and hopefully strike it rich. When the gold rush ended, many of the men came back this way and were offered land in the Gulf Islands, even though it was First Nations land. The area had been First Nations territory for thousands of years. Some of the settlers married First Nations brides to be permitted to stay. Eventually more and more settlers would come to the island. **What does the Gold Rush have to do with newcomers to Salt Spring Island?** (People came from all around the world for the gold and liked it here so much they wanted to stay.) **Head 100° to # 2** **2. It's 1867** How many years did it take us to get here? Look up to see the maple tree. This maple leaf is the symbol for Canada. By now ... Canada is a brand new country. There are only 5 provinces in Canada: Prince Edward Island, Nova Scotia, New Brunswick, Ontario and Quebec. BC joins four years later. Why do you think that was? **Shade in these provinces on the map, mark BC as 4 years later.** **Head 200° to # 3** **3. It's 1909** How many years did it take us to get to here? By now ... the Bulman Lumber Co. is busy here at Cusheon Cove. This building was the office: ✧ Here is where paper files and company records were kept ✧ If this building was built in 1909, how old would that make it?	**30 min**	**Coloured and laminated map of Canada** **Image of maple leaf and year of Confederation inside it.** **Image of building from book, pg. 19**

ACTIVITY	TIME	EQUIPMENT
What do you think was here when William Bulman arrived from Victoria? Imagine Cusheon Cove before it was developed: ✧ With no roads, ✧ All supplies coming by ocean, ✧ No regular ferry service, ✧ No power **Why do you think William Bulman built a sawmill at Cusheon Cove?** (deep ocean access for taking out lumber, bringing in supplies and later bringing in log booms, close to Victoria, cheap land). **Head 260° to # 4 (from the rock) – find the wagon** **4. It's 1908** Just a year before Bulman Lumber Co. started up at Cusheon Cove, elsewhere in the United States, Henry Ford produced the first Ford car. Horse-drawn wagons, like this one, are soon to be replaced by the automobile. The first car brought to the island was in 1911 by Alan Blackburn (Have any of you every heard of the name?) The 2nd or 3rd car belonged to Henry Bullock (is that name familiar to any of you?) Mouat's held the Ford car dealership. NOTE: *See Salt Spring, the Story of an Island* by Charles Khan, for story on first car on SSI. **List ways cars have changed life positively, & ways cars have changed things negatively.** **Head 10° to # 5** **5. Living conditions at the sawmill** Looking at the photo, locate where Japanese and Chinese workers lived. They would eat and sleep in these huts. Locate the bunkhouse. Workers of European origin slept in the bunkhouse.		**Image of Fords lined up in front of Mouat's** **Photo of camp**

ACTIVITY	TIME	EQUIPMENT
Why do you think the workers (European/Canadian, Japanese, and Chinese) lived separately from each other? (different language, foods, customs, religions) **Head 90° to # 6** **6. It's the 1920s** By now ... the children living at Cusheon Cove walk to Little Red Schoolhouse, then known as Beaver Point School. There were no school buses. The trail to the school is beyond the orchard through the woods. Does anyone know how long that would take to walk? (more than 1 hour) The trail also led to Patterson's Store at Beaver Point, where there were chocolates and other goodies for sale. NOTE: Have cookie tin with candies, one each for students. Look beyond the gate and see the orchard which hides the Bulman family house from our view. **Draw a happy face.** **Head to # 7** **7. It's 2006** How many years ago was that? (So we are talking about modern times today). By now ... the sawmill has been long gone. Different owners have held the land. The latest owner, Chris Hatfield, ran a salmon farm here. He has sold that (the floats from the salmon pens are still here). But by 2006 Chris has very generously offered this land at Cusheon Cove to BC Parks. This place will now be a park for all of us to enjoy, and it will continue as a natural place. **Do you know of any other gifts of land that islanders have given or protected for conservation?** (Ruckle, Drummond, Mouat, Creekside, AVNR, etc.)		**Tin with candy** **Photo p. 13 Cusheon Cove and Beaver Point (and Little Red Schoolhouse)** **Photo – fish farm**
Reflection: Review questions and write answers in journal.	**10 min**	