



**Fireweed**

*Chamerion angustifolium* (Latin)

Huk<sup>an</sup> guḡ (Northern Tutchone)

Nàkhela (Southern Tutchone)

Lóol (Tlingit)

YUKON

GRADE  
**8**

CROSS-CURRICULAR UNIT

# PLANTS & CONNECTION TO PLACE

Science | English Language Arts | Social Studies | Applied Design  
Skills and Technologies | Arts Education

**Yukon First Nations Curriculum Working Group**

November 2017

**Yukon**  
Education

## DEVELOPMENT

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## CONTRIBUTORS

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A pdf of this unit can be found at <http://lss.yukonschools.ca/planning-tools.html>



# PLANTS

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## PART 1: INTRODUCTION

### INTRODUCTION

This unit was developed by a Yukon teacher, in collaboration with the Yukon First Nations Curriculum Working Group. It is meant as a starting place to help teachers incorporate big ideas, learning standards, core competencies, and integration of Yukon First Nations (YFN) ways of knowing and doing into the redesigned Grade 8 curriculum for Science; English Language Arts; Social Studies; Applied Design, Skills, and Technology; and Arts Education.

Although the Western worldview permeates and dominates current information and education systems, there is a growing awareness of the richness of knowledge that exists within Indigenous perspectives and experiences. By integrating YFN ways of knowing and doing, this unit acknowledges the value of traditional and oral knowledge.

The unit can and should be used in conjunction with locally developed resources. Bringing YFN ways of knowing and doing into the classroom means connecting and collaborating with the local First Nations community, as there is much knowledge that is locally held. This process will result in a richer curriculum for all students.

Every YFN has people who are willing and able to visit schools and to share their knowledge and wisdom. As teachers look to connect with their local First Nations community, a good place to start is with the liaison workers in the school who can help teachers with initial contacts and to understand local protocols. There is also a helpful handbook published each year by the First Nations Programs and Partnerships Unit, *Yukon First Nations Resources for Teachers*.

The unit includes a number of suggestions for developing local inquiry based, experiential activities, and provides a variety of learning activities and resources. The activities are intended to be flexible in their use and teachers are encouraged to adapt them to their own lesson planning.



Additional support for this unit can be found in recordings of Elders and Knowledge Keepers of the Yukon First Nations Curriculum Working Group, which can be accessed at <http://lss.yukonschools.ca/planning-tools.html>

*This unit is intended in part to address the Calls to Action of the Truth and Reconciliation Commission, particularly the call to “integrate Indigenous knowledge and teaching methods into classrooms” (clause 62) and “build student capacity for intercultural understanding, empathy and mutual respect” (clause 63).*



## **RATIONALE: WHY PLANTS AND CONNECTION TO PLACE?**

Plants connect us to place. They help establish our communal identity. Most territories, provinces, and countries have their own special trees and flowers. In Yukon we enjoy a variety of different ecosystems that support a wide diversity of plant species. Each region has its own identity thanks to the particular geography, geology and climate that produce the diversity of habitats.

Knowledge about the diverse plants growing in their traditional territories was crucial for the survival of YFN people in the past. Today this knowledge is still passed on and is key to the sense of place held by YFN. Going out on the land to pick berries, to dig roots, or to gather medicinal plants, provides a connection to the land and their ancestors.

Traditional knowledge of plants is not just about the properties and uses of the plants themselves, but also the specific ecosystems in which they grow. It includes knowledge about harvesting in a sustainable manner and ways to manage the landscape to maintain or improve the products of the plants.

As with other resources, traditional knowledge views plants holistically, as a complete living organism interconnected with the rest of the world. There are many dimensions to the wealth of plant resources, such as healing, spirituality, ceremony, nutrition, and technology. These are acknowledged in the ways that YFN peoples show respect when harvesting plants. Often words are spoken, songs sung, or gifts given to a plant to thank it for its sacrifice to nourish or assist the harvester.

Today we have much to learn from the traditional knowledge of YFN. For all Yukon students, learning lessons from this traditional knowledge can have a significant impact on the growth of their personal knowledge. This unit encourages students to learn from the knowledge and understandings of YFN to develop their own positive connections with the land, plants and place.

*Place is any environment, locality, or context with which people interact to learn, create memory, reflect on history connect with culture, and establish identity. The connection between people and place is foundational to Yukon First Nations perspectives of the world.*

– adapted from the BC Ministry of Education Science Learning Standards (2016)



## CONNECTIONS TO YUKON FIRST NATIONS WAYS OF KNOWING AND DOING

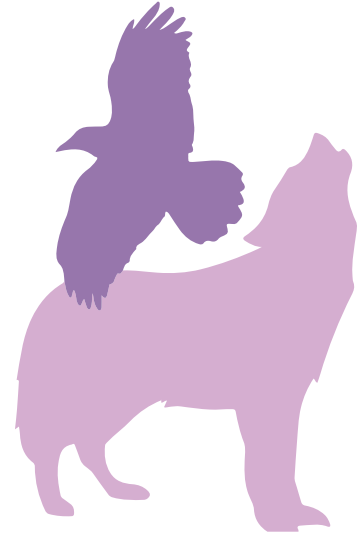
Yukon First Nations people carry scientific knowledge learned through countless generations of experiences with the land and ecosystems. Valuable lessons have been learned and built upon over the sharing of this knowledge through stories and experiences.

This unit is a cross-curricular approach designed to help Grade 8 students explore the theme of plants and connection to place. Students will learn about Yukon First Nations, medicinal plants, animal interactions, environmental safety, ethics, and protocols for harvesting in a YFN traditional territory. The guiding principles are based upon the following YFN educational visions and goals identified in *Helping Students Succeed* (Yukon First Nation Education Advisory Committee, 2008) and affirmed by the Elders and Knowledge Keepers of the Yukon First Nations Curriculum Working Group (March, 2017):

- Education is life-long learning;
- First Nation education values respect, love, sharing, caring and teaching;
- The community at large is involved in education;
- Education reflects traditional knowledge, cultural practices, histories and languages;
- Elders and their knowledge are respected as being foremost and integral to the transmission of language and culture.

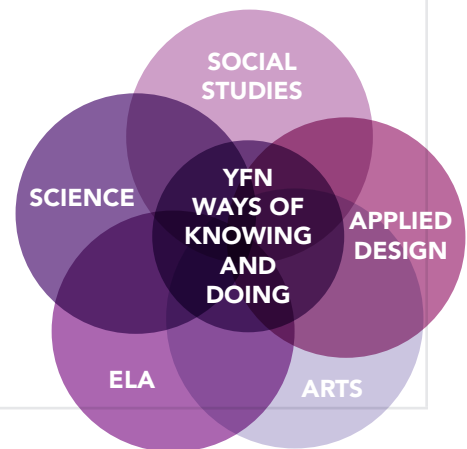
Using a cross-curricular method to learning embraces YFN traditional practices for teaching and sharing knowledge. The learning activities allow students to acquire knowledge and skills in the science; English language arts; social studies; applied design, skills and technology; and arts education curricula. Students will learn about: the place in which they live; where to harvest in specific sites; how to make medicines; land-based survival skills; respect for natural resources; and stewardship with responsibilities for land use and practices. Integrating the core competencies throughout the unit allows students to gain a deeper understanding and appreciation of YFN traditional knowledge systems.

Teachers can use this unit to integrate other subjects, to include community expertise, and to strengthen partnerships with their local First Nation. A culturally responsive assessment tool was created as part of this unit. See page 38 in the Appendix: *Learning Experiences Rubric: Yukon First Nations Assessment and Evaluation Model* (Johnson, 2017).



# CURRICULAR CONNECTIONS

SCIENCE 8	ENGLISH LANGUAGE ARTS 8
<p><b>Big Idea</b></p> <ul style="list-style-type: none"> <li>Life processes are performed at the cellular level.</li> </ul> <p><b>Content</b></p> <ul style="list-style-type: none"> <li>Characteristics of life</li> </ul> <p><b>Curricular Competencies</b></p> <ul style="list-style-type: none"> <li>Processing and analyzing data and information               <ul style="list-style-type: none"> <li>Experience and interpret the local environment</li> <li>Apply YFN perspectives and knowledge, other ways of knowing, and local knowledge as sources of information</li> </ul> </li> <li>Communicating               <ul style="list-style-type: none"> <li>Express and reflect on a variety of experiences, perspectives, and worldviews through place</li> </ul> </li> </ul>	<p><b>Big Idea</b></p> <ul style="list-style-type: none"> <li>Exploring stories and other texts helps us understand ourselves and make connections to others and to the world.</li> </ul> <p><b>Content</b></p> <ul style="list-style-type: none"> <li>Strategies and processes               <ul style="list-style-type: none"> <li>Oral language strategies</li> </ul> </li> </ul> <p><b>Curricular Competencies</b></p> <ul style="list-style-type: none"> <li>Comprehend and connect (reading, listening, viewing)               <ul style="list-style-type: none"> <li>Recognize and appreciate the role of story, narrative, and oral tradition in expressing YFN perspectives, values, beliefs, and points of view</li> <li>Develop an awareness of the protocols and ownership associated with YFN texts.</li> </ul> </li> </ul>
SOCIAL STUDIES 8	ARTS 8
<p><b>Big Idea</b></p> <ul style="list-style-type: none"> <li>Human and environmental factors shape changes in population and living standards.</li> </ul> <p><b>Content</b></p> <ul style="list-style-type: none"> <li>Social, political, and economic systems and structures, including those of at least one indigenous civilization</li> <li>Scientific and technological innovations</li> </ul> <p><b>Curricular Competencies</b></p> <ul style="list-style-type: none"> <li>Explain different perspectives on past or present people, places, issues, or events, and compare the values, worldviews, and beliefs of human cultures and societies in different times and places (perspective).</li> </ul>	<p><b>Big Idea</b></p> <ul style="list-style-type: none"> <li>Creative growth requires patience, readiness to take risks, and willingness to try new approaches.</li> </ul> <p><b>Content</b></p> <ul style="list-style-type: none"> <li>Processes, materials, movements, technologies, tools, strategies, and techniques to support creative works.</li> </ul> <p><b>Curricular Competencies</b></p> <ul style="list-style-type: none"> <li>Communicating and documenting               <ul style="list-style-type: none"> <li>Experience, document, choreograph, perform, and share creative works in a variety of ways.</li> </ul> </li> </ul>
APPLIED DESIGN, SKILLS, & TECHNOLOGY 8	
<p><b>Big Idea</b></p> <ul style="list-style-type: none"> <li>Complex tasks may require multiple tools and technologies.</li> </ul> <p><b>Content</b></p> <ul style="list-style-type: none"> <li>Computers and Communications Devices               <ul style="list-style-type: none"> <li>Design and function of digital infrastructures, from personal communication systems to wide area networks and the Internet of Things.</li> <li>Social, cultural, and economic impact of mobile devices.</li> </ul> </li> </ul> <p><b>Curricular Competencies</b></p> <ul style="list-style-type: none"> <li>Identify how the land, natural resources, and culture influence the development and use of tools and technologies.</li> </ul>	



## CORE COMPETENCIES

This unit connects to many facets of each of the three core competencies; examples are listed below, although teachers may choose other facets depending on students' needs.



### Communication

- Connect and engage with others (to share and develop ideas)
- Acquire, interpret, and present information (includes inquiries)
- Collaborate to plan, carry out, and review constructions and activities
- Explain/recount and respect on experiences and accomplishments



### Thinking

- Critical Thinking
  - Question and investigate



### Personal and Social

- Positive Personal and Cultural Identity
  - Relationships and cultural contexts
  - Personal values and choices
  - Personal strengths and abilities
- Personal Awareness and Responsibility
  - Self-Determination
- Social Responsibility
  - Contributing to community and caring for the environment

## LEARNING GOALS & SUGGESTED INQUIRY QUESTIONS



These learning goals and suggested inquiry questions are a combination of big ideas, learning standards (content and curricular competencies), core competencies, and YFN ways of knowing and doing are provided as possibilities; teachers may choose to use some or all for assessment, or create their own.

### Learning Goals

1. Develop an awareness of the protocols and ownership associated with YFN oral traditions.
  - Listen to YFN Elders and Knowledge Keepers (storytelling, land-based knowledge);
  - Develop an understanding of traditional protocols while on the land;
  - Learn about Yukon First Nations' traditional territories, Nations, and languages;
  - Work collaboratively with other students, Elders and Knowledge Keepers.



2. Use appropriate technology e.g., iPads, Global Positioning System (GPS).
3. Express and reflect on a variety of experiences and perspectives of place.
4. Recognize and appreciate the role of story, narrative, and oral tradition in expressing Yukon First Nations perspectives and points of view about plants and connection to place.
5. Engage in learning about plants and connection to place, through a Yukon First Nations oral storytelling process.

## Inquiry Questions

1. In what ways does YFN traditional knowledge about plants and their ecosystems demonstrate an understanding of the characteristics of life?
2. How do the plants growing in the local area contribute to YFN sense of place, as well as students' personal sense of place?
3. What can YFN traditional knowledge tell us about how the biodiversity of plants has changed?
4. How can we apply YFN knowledge to deal with changes in plant biodiversity?
5. What traditional plant management practices demonstrate an understanding of the survival needs of plants?
6. In what ways is YFN traditional knowledge about science evident in the ways they use plants (e.g. infusing teas and medicines, whipping soapberries)?
7. How does YFN traditional use of extraction methods demonstrate their knowledge of the properties of certain plants?
8. How does the understanding that all things are related impact the way that YFN people traditionally use plants?
9. What are some examples of ways that YFN traditionally make sure plants are used in sustainable ways?
10. How can we apply YFN understandings of sustainable use of the plants to our care of the environment today?
11. How do YFN understanding of plants illustrate their knowledge of interconnectedness?

## PRIOR KNOWLEDGE

### Know, Do, Understand

Students may have some exposure or experience with harvesting medicinal plants within a specific region or environment. It is expected that students who participate in this unit will need to know/do/understand the following:

- YFN traditional territories, cultures and lifestyles • **KNOW**
- Respect for Elders, Knowledge Keepers and seniors • **DO**
- Harvesting practices (e.g., hunting, berries, medicines, edible plants, roots, trees) • **UNDERSTAND**
- Safety practices while on a field trip • **DO**
- Knowledge and awareness of animals • **UNDERSTAND**
- Living with and respecting animals who share the resources • **KNOW, DO, UNDERSTAND**
- Familiarity of environmental conditions • **KNOW**
- Stewardship and responsibilities for caring for the environment and natural resources • **UNDERSTAND**
- Digital literacy and practical skills with tools and technologies • **DO**

## ENDURING UNDERSTANDINGS

- YFN traditional knowledge includes a respect for the interconnectedness of humans and plants.
- Natural materials have identifiable physical, biological and chemical properties that humans have made use of since ancient times.
- Plants contribute to our sense of place and well-being.

## ESSENTIAL QUESTIONS

- How can humans interact with plants in a respectful and sustainable manner?
- How have YFN used their knowledge of plants and their habitats for survival and well-being?
- How do YFN perspectives on interconnectedness and place reflect their understandings about plants and their habitats?
- How do YFN understand the place of plants?
- Why is oral history important to the sustainability of YFN traditional knowledge of plants and medicines?
- How has place-based knowledge of specific medicinal plant harvesting sites played a role in YFN cultures?
- How does digital technology shape our understanding of place and knowledge?
- What tools and technologies can we use to preserve YFN knowledge?
- How do photographs and drawings preserve YFN knowledge?

## PLANNING TO TEACH THE UNIT

The topic of traditional knowledge of plant resources provides an excellent opportunity for students to conduct a place-based inquiry sparked by their own curiosity. Some suggestions for provoking interest can be found in the suggested inquiry questions on page 9. The following *Learnings* explore specific topics that can be incorporated into these inquiries or used on their own.

### Outline

**Learning 1:** YFN Traditional Knowledge and Sense of Place

**Activity 1:** YFN traditional plant knowledge

**Activity 2:** Sense of place through traditional stories

**Learning 2:** Respecting Elders' Knowledge, Plant Life, and Animal Subsistence

**Learning 3:** Plants used by YFN – Inquiry

**Learning 4:** Plants as Indicators

**Learning 4:** Plants as Technology

**Learning 4:** Elders' Field Trip to Harvesting Site - A Plants and Place Example

**Learning 5:** Mapping Place-Based Knowledge and Land Use

**Learning 6:** Local Plants for Tea

**Learning 7:** Brewing and Blending Tea

**Learning 8:** Local Plants for Medicines - Salves



### Suggested Resources

- Local resources with information about traditional plant use
- A display with a collection of pictures, books, and real life objects which illustrate plants and plant technologies used by YFN
- Blackline Masters:
  - Wild Tea Fact Sheet
  - Blending Teas Workbook
  - Tea Testing Lab Report
  - Blending from the Land: Journal Reflection
- Assortment of teas
- Other resources as listed in the activities

## PART 2: LEARNING ACTIVITIES

### LEARNING 1

#### Yukon First Nations Traditional Knowledge and Sense of Place

YFN knowledge is place-based, language-specific, culturally sensitive, and economically shared. Traditional knowledge means that YFN have inhabited a certain regional area with other life forms and acquired knowledge from the land and its inhabitants.

Traditional practices can be similar due to economic and cultural interactions in a shared area of resources. Intermarriages between Nations were established due to the need for natural resources not located in one region or for the purposes of trade. Trails between Nations exist, although may not be currently used (e.g., Dalton Trail; Dena Cho Trail, Grease Trails; etc.). What grows or lives in one region may not be present or abundant in another due to topographic differences.

Key concepts and principles of YFN traditional knowledge for this learning experience include:

- Worldview, knowledge, and practices;
- Knowledge acquisition for practical use and sustenance;
- Intergenerational transfers of knowledge;
- Respecting the environment and peoples;
- Living with all life forms, including plants, trees, and animals.

Teachers should stress to students that the information from Learning 1 will be used throughout the rest of the unit and will prepare them for understanding how YFN interact with their local environment, respecting the land and its rich, natural resources. Discussions should include the importance of possessing traditional knowledge in preparing students to be able to use plants as medicines or food should they find themselves without any resources out on the land. Teachers could introduce the idea of the land as our “pharmacy” when we need a product to heal our ailments, especially when we do not have access to a medical doctor or Western medicines.



*Introduce the topic for Learning 1 by having students answer and discuss the question*  
**“What is traditional knowledge?”**



# L1. Activity 1

## YFN traditional plant knowledge

- A Discuss the goals** (pages 8-9) of this unit within the respective traditional territory. Discuss how students will be assessed and evaluated after completing this unit. See page 38 in the Appendix: *Learning Experiences Rubric: Yukon First Nations Assessment and Evaluation Model* (Johnson, 2017).
- B Question: “What is traditional knowledge?”** Introduce the topic for Learning 1 by having students answer and discuss the question “What is traditional knowledge?”
- Have students make a list of their answers, detailing what practices they carry out on the land. If students are not familiar with traditional knowledge, have them work in small groups.
  - When students are finished, share the answers orally and/or visually.
  - Organize the answers into: place; practices (hunting, fishing, harvesting); and plants.
- C Ask students to brainstorm** different types of knowledge YFN had to have in the past, and still know today, to be able to survive by harvesting and using plants from their territories.
- Guide students to consider aspects such as habitat, life cycles, seasons, weather, chemical and physical properties of the plant, sustainable harvesting practices.
- D Whole Group Discussion**
- In what traditional territory do you live and go to school?
  - What does the word “place” mean to you?
  - What does the word “practice” mean to you?
  - What do you know about harvesting plants, berries, or trees for medicines or food?
  - How did you come to know about where to harvest berries, plants, or trees?

Debrief and listen carefully to student responses (observations; participation). Student responses will vary according to experiences. Take mental note of students who have little knowledge and pair them with a student who does possess knowledge of harvesting practices.

- E Respect for the Land.** Use a story that illustrates the need for respect for the environment. It could be a picture book, or a traditional narrative that demonstrates what happens if people don’t respect nature. Compare the story to others about grandparents and grandchildren learning about the importance of their relationship to the land. Here are some suggested discussion questions:
- What do the Elders in each story teach the children about collecting plants from the land?
  - What protocols are practiced to show respect for the land and resources?
  - What kinds of traditional plants are collected in each story?
  - What are the teachings (or take-away messages) in each story?

## L1. Activity 2

### Sense of place through traditional stories

A sense of place is often embedded within traditional narratives and stories. This activity gives students an opportunity to find evidence of ways that stories convey a sense of place.

- A** If possible, work with the school's Education Support Worker (ESW) or Community Education Liaison Coordinator (CELC) to arrange for a local YFN storyteller to visit the class. Ensure that the Elder understands the purpose of the lesson so they can prepare a story that exemplifies the local sense of place. If this is not possible, there may be recorded versions of Elders telling local stories, or text resources. Gather published materials from your school or public library. Ensure they are authentic stories.
- B** When students read or listen to stories, ask them to locate indicators that reveal the territory of the people who told the story. Clues may be found in the type of animals and plants mentioned in the story, or physical features such as bodies of water or mountains. Other indicators may be weather or seasonal duration.
- Students may notice that there are lessons, values and types of stories that have similarities; however there are explicit characteristics within the story that localize it, making it significant to the territory to which it belongs.
  - Have students share their findings in a class discussion or journal entry. Use their responses as formative assessment opportunity to enhance their understanding of "sense of place."

### Teacher notes

**Five concepts of place have been identified, common to most Yukon First Nations (adapted from Science First Peoples, 2016):**

- Place is multidimensional. More than the geographical space, it also holds cultural, emotional and spiritual spaces, which cannot be divided, into parts.
- Place is a relationship. All life is interrelated.
- Place is experiential. Experiences a person has on the land give it meaning.
- Place is local. While there are commonalities, each YFN has a unique, local understanding of Place.
- Place is land-based. Land is interconnected and essential to all aspects of culture.

Consider having students put their lists/findings into a binder/folder to be used for assessment and evaluation: e.g., portfolio, student-led conference



## LEARNING 2

### Respecting Elders' Knowledge, Plant Life, and Animal Subsistence

For students to understand the values and principles of traditional knowledge, they must learn about the ethical protocols of working with YFN Elders. In this unit, Elders and Knowledge Keepers will be sharing their valuable traditional plant knowledge. If students will be interviewing Elders, it is important for them to ask permission and to let the Elders know how they will use the knowledge and with whom it will be shared. Elders may share information that can be shared with other community members or classmates, but not with people outside of the community. It is important to ask Elders about this.

Students must also learn about ethical protocols while harvesting on the land. Many YFN have developed their traditional knowledge guidelines, so this unit encompasses general guiding principles about harvesting or gathering. These ethical guidelines for harvesting in a YFN traditional territory include, but are not limited to:

- YFN culture, traditions, and knowledge are unique to each Nation;
- Permission should be requested in order to access a YFN site and to harvest for medicines or food;
- We show respect for the knowledge that Elders share with us by listening and not talking or asking too many questions. Although questions are good, Elders teach that we learn by doing;
- Men and women share knowledge based upon their experiences of place, for example, women hunt big and small game and harvest in certain areas; men act as protectors and gather medicines;
- Respect is to be shown to all living things in the environment;
- The environment is to be left in its natural state;
- Elders should be acknowledged with a gift;
- Ownership of intellectual property rights and copyrights belongs to the YFN.

Students must also know that the natural resources they gather or harvest for food are the same ones that other animals also harvest in preparation for winter.

## L2. Activity

### Elder in the Classroom

1. Ensure that the classroom environment is considered in preparation for an Elder's visit. Guidance with this can be found in *Working with Elders: A Checklist*, part of the *YFN Resource for Teachers*, prepared annually by the First Nations Programs and Partnerships unit (Appendix, page 32).
2. Ahead of time ask the Elder(s) if they have a story to share about the land or long-ago trade, or if they know the story about *The Two Winters*. Teacher may opt to have students watch the Carol Geddes video production, *Two Winters: Tales from above the Earth* - DVD available through Resource Services. [www.picturingtheyukon.com](http://www.picturingtheyukon.com)
3. Introduce the Yukon First Nations Elder(s) who is to share their knowledge about plants (and animals).
4. Remind the students to listen carefully to the knowledge that is being shared without interrupting the Elder(s).
5. Ask the Elder(s) if it is permissible for students to ask questions and take notes during the activity.
6. Have students record information about where people harvest berries or medicines, what types of plants or trees are used for medicines, respect for animals and the environment, and other pertinent information. If the Elder(s) give permission, then students can record the stories. Consider assigning a student to video record this storytelling session. Give a copy to the Elder when the work is completed.
7. Have students organize their notes for their reflections. The following questions may help students to organize their thoughts, ideas, and learning. Their organized notes can also be used for assessments. If time does not permit, students may do this as homework.
  - What did the Elder(s) share about the relationship with plants, trees (and animals)?
  - What did you learn about today's learning activity on traditional knowledge?
  - What land-based strategies did you learn to use when encountering animals?



## LEARNING 3

### Plants used by Yukon First Nations - Inquiry

Invite students to conduct an inquiry into some aspect of YFN traditional use of plants that interests them.

- A** Provide students an opportunity to explore possible topics by presenting a variety of resources to inspire their thoughts.
  - Set up a centre or display area of pictures, books, and real life objects.
  - Create a class list of local plants that are/were used by YFN.
  - Ask students to classify the different ways that YFN traditionally use plants: for food, for technology, for beverages and for medicines.
  - Visit a local museum or cultural centre that has information about local YFN plant use.
  - Invite an artist who uses plant materials to speak about their craft. (e.g., carver, canoe builder, basket weaver, etc.)
  
- B** Spend time discussing with students possible big ideas that could direct their inquiry. Use ideas from some of the activities in this unit to spark ideas. You could create stations with a short activity for each topic, through which students rotate.
  
- C** Work with students to generate questions about YFN use of plants.
  - The class can hold a brainstorming session where students suggest a variety of questions. They could be posted online at a class forum or wiki, if available.
  - Where appropriate, you can guide students to reformulate some questions.
  - Help to connect student ideas and questions to the curriculum.
  - Ask students, or groups, to formulate an inquiry question that they will explore.
  
- D** Guide students' exploration of their questions.
  - Discuss different ways they could find answers to their questions, such as story, scientific inquiry, asking local YFN Elders, online and print resources.
  
- E** Hold a culminating activity where students can present their findings. It could be as a presentation to invited guests, such as members of the local YFN community or another class.

## LEARNING 4

### Plants as Indicators - Understanding Nature's Signals

Plants are frequently used as indicators or signals of the timing of other events in YFN seasonal rounds. When people notice a certain flower blooming in the spring, they can reliably predict that another important event is about to happen. For example, when all the fireweed blossoms have bloomed and the flower goes to seed in a white flurry, it is said that summer is about to end.

- Have students find out some examples of plants as indicators in the local region by consulting Elders and Knowledge Keepers, as well as available print and online resources.
- Discuss with students the types of scientific knowledge and skills that are important when people use plants as indicators.
  - How does using plants as indicators demonstrate the idea of interconnectedness?
  - How do indicator plants help to create a “sense of place” for local First Nations communities?
- Students could represent their findings by designing a poster or informational brochure, “Understanding Nature’s Signals”. This could be used as an assessment tool.

## LEARNING 5

### Plants in Technology

Students can explore the many ways in which plants are used in sophisticated technologies, such as basket making; carving daily implements as well as ceremonial and sacred objects; rope; buildings; transportation; and harvesting tools.

- Students could research the properties of the wood and other plant materials that make them useful in the many different technologies that use them.
- Students could explore bending different types of wood that have been soaked in water.
  - Students can design a lab test to see how different woods do or don’t bend.
  - Hold a challenge to see who can bend a piece of wood the farthest, and get it to hold its shape.
  - Students may want to investigate how YFN artists bend wood in their work, or how canoes are made.
- If possible, arrange for students to observe or work with a weaver who uses plant materials such as bark, roots and grasses.

Discuss with students how continuing to use local plant resources for technologies is important for YFN sense of place.

## LEARNING 6

### Day Field Trip (with Elders) to Harvesting Site

#### Teacher Preparations

- A** Discuss the learning experience with the CELC/ESW, particularly YFN protocols for conducting research or harvesting. Ask them to invite an Elder(s) to attend the field trip to share knowledge with students. Consider inviting other classes, parents and community members to attend as well. Be sure to buy or make a gift(s) for the Elder(s).
- B** Complete the necessary field trip paper work as per Department of Education protocol. Send field trip forms to parents, including a notice regarding appropriate dress for the weather.
- C** Bear Safety: Arrange for a conservation officer to teach students about bear safety. If a conservation officer is not available, contact someone with knowledge about bear safety (e.g., trapper, hunter, YFN Lands and Resource Monitor). Distribute the *Be Bear Aware* brochure to students and inform the conservation offices that students have read it.

[www.env.gov.yk.ca/publications-maps/documents/Be\\_Bear\\_Aware\\_brochure.pdf](http://www.env.gov.yk.ca/publications-maps/documents/Be_Bear_Aware_brochure.pdf)

Knowing about bear safety, especially sows with cubs, requires that students understand two major YFN teachings:

- YFN do not talk about bears while they are active during the summer months; some YFN do not talk about bears at all during any season;
- Animals share the same resources and inhabit the same places as humans. Safety practices while harvesting on the land must be taught prior to the field trip.



## L6. Activity 1

### Before going out in the field/on the land

- A** Have students brainstorm and list all the plants that they know and expect to find at the harvesting site. Get them to classify the plants into as many different categories as possible (e.g., what they look like, where they grow, what they are used for, etc.)

Alternatively, prepare the list below as a handout and for students to research at home or school. As part of their research, ask students to find out the names in the local YFN language.

YUKON PLACE-BASED PLANTS AND TREES	
PLANTS	TREES OR SHRUBS
Bear root	Birch
Blackberry (mossberry) - leaves	Spruce (black)
Soapberries (buffalo berries)	Tamarack
Caribou leaves	Aspen
Puffballs	Red willow
Wild onions	Labrador (Hudson Bay) tea - leaves
Yarrow	Cranberries (high bush)
Cranberries (low bush)	Juniper
Arnica	Poplar
Stoneberries (Kinnikinnik)	
Dandelion	
Lambs Quarters (pig weed)	
Plantain	
Horsetail	
Fireweed	

Make available books or other resources on medicinal plants so that students can peruse them prior to the field trip. Good resources include:

- Beverley Gray's *The Boreal Herbal*
- *Common Yukon Roadside Flowers*  
[www.env.gov.yk.ca/publications-maps/documents/FlowersGuide-2016-web.pdf](http://www.env.gov.yk.ca/publications-maps/documents/FlowersGuide-2016-web.pdf)
- *How to Identify Labrador Tea* [www.youtube.com/watch?v=74QxSJtAhnw](http://www.youtube.com/watch?v=74QxSJtAhnw)
- *Yarrow: Harvesting and Drying* [www.youtube.com/watch?v=c6ypzfSLkp4](http://www.youtube.com/watch?v=c6ypzfSLkp4)

- B** Conduct a scan of electronic devices with which students are familiar, in order to identify what will be used on the field trip (e.g. iPod, iPad, Go-Pro, GPS, video camera, digital camera, etc.). Teachers can collaborate with an ADST teacher or Department of Education TAL consultant to do a lesson on these devices and usage prior to the field trip. Alternatively, students with limited knowledge could be paired with students who have some knowledge.



## L6. Activity 2

### The field trip - Harvesting plants, berries, or trees

- A** Have students GPS the coordinates of the harvesting site.
- B** Have students look around, examine, and use technology to record as many plants as possible. Alternatively, provide students a list of plants for students to find and photograph or video record. They should note the date, time, temperature, conditions, type of habitat that the plants are found in: moist, dry, rocky, sandy, etc.
- C** Walk with the Elder(s). Remind students that the knowledge of the Elder(s) is to be respected in all ways, including conservation, safety, and harvesting protocols. They need to listen carefully to the Elder(s) and record which plants or trees are used for medicines (one plant may have multiple parts used in a remedy [leaves, flowers, stems]). Elder(s) may also pass along other knowledge, like the seasons for harvesting.

With the guidance of the Elder(s), students should harvest what they will need for the separation of teas and salve in the activities of Learning 8 - 10 (e.g., Labrador/Hudson Bay tea, yarrow, other plants/trees as described by the Elder)

- D** Extension Activities
  - Organize a treasure hunt or a scavenger hunt.
  - Plot a 5m X 5m grid to identify plants or trees growing in the area and draw a map.
- E** Post Field Trip Summation
  - Students should transfer and record the coordinates for the mapping experience.
  - Students should download all digital files.
- F** Discussion questions:
  - What did you learn about using electronic devices on the land?
  - How do electronic devices store knowledge for future use?
  - How does an electronic device retain YFN traditional knowledge?
  - What stories did the Elder(s) share about this harvesting site?
  - What strategy could you use to remember the plants?
  - If you found yourself in a situation where you had to depend upon your land-based knowledge, what would help you to survive?

## LEARNING 7

### Technology - Mapping Place-Based Knowledge and Land Use

Place-based knowledge and land use are two key concepts for harvesting practices. Place-based knowledge means that knowledge is acquired from using its natural resources and from experiences. For example, Kluane Lake is known for “big fish” (i.e., trout) and is therefore named in the Southern Tutchone language as Lù'àn Män. This is an example of a place-based name.

Land use means that people occupy an area or they use the land for a specific purpose such as harvesting. If resources had to be located elsewhere, then trails led people together to share the natural resources. YFN have traditional territories identified on maps<sup>1</sup>. Maps of languages are inclusive of more than one community<sup>2</sup>. YFN also have place names maps and the local YFN Lands and Resources Department can provide hard copies of place names maps. The Yukon Native Language Centre has a place names map on its website<sup>3</sup>. Teachers should be familiar with these maps and conduct their research prior to teaching this learning activity.

YFN methods for storing data are based on memory and traditional knowledge. Electronic devices are newly introduced tools that are used for preserving knowledge, data, and information. Teachers can opt to use an interactive whiteboard or reserve the computer lab for this activity or to access Google Earth.

## L7. Activity

### Technology, the harvesting site, and YFN traditional territory map

#### Remind students that:

- when they use electronic devices to record information, they are also preserving knowledge;
- they are responsible for digital data and media; electronic photographs, recordings, or video footage are not to be posted on Facebook or other social media sites.

#### Materials

- iPads, iPhones, or laptops
- YFN maps, available at:

<sup>1</sup> Traditional Territories of Yukon First Nations and Settlement Areas of Inuvialuit and Tetlin Gwitch'in [www.env.gov.yk.ca/animals-habitat/documents/traditional\\_territories\\_map.pdf](http://www.env.gov.yk.ca/animals-habitat/documents/traditional_territories_map.pdf)

<sup>2</sup> YFN Languages in the Yukon [www.ynlc.ca/languages/](http://www.ynlc.ca/languages/)

<sup>3</sup> Place Names Map - Kwanlin – Whitehorse Area [www.ynlc.ca/culture/dakeyi/01whitehorse/map01/map01.html](http://www.ynlc.ca/culture/dakeyi/01whitehorse/map01/map01.html)

#### Students could:

- Find the location of the field trip harvesting site; use Google Earth, for example.
- Use a permanent pen to outline the site on the map and to record the coordinates (longitude and latitude).
- List names of plants or trees that were identified at this location.

## LEARNING 8

### Making Tea: Local Plants

Teas have medicinal properties that can help with certain body systems. This activity gives students an opportunity to make tea using the plants (e.g., Labrador/Hudson Bay tea) collected during the field trip. YFN Elders, Knowledge Keepers, traditional teachers or practitioners hold the practical skills to make tea, and it is highly recommended that they teach these activities. The school ESW/CELC may be able to help identify a YFN practitioner. Artists in the Schools may also have someone available to teach the activities.

1. Watch YouTube videos on Labrador Tea shrub  
*Labrador tea: the most powerful antioxidant*  
[www.youtube.com/watch?v=nZWFVBX1deQ](http://www.youtube.com/watch?v=nZWFVBX1deQ)

2. Preparing the Labrador tea (can store the dried shrub parts or freeze them)

If on the field trip, students were able to harvest local plants for tea making, discuss with students how the plants will be prepared. e.g., can the fresh leaves or other parts be used? does it need to be dried?

Have students prepare plants as is appropriate. For example, Labrador Tea leaves are picked fresh, and boiled briefly to make tea. The colour of the tea changes from a light colour to a reddish-orange. The tea leaves can be stored in plastic bags and kept in a freezer.



## LEARNING 9

### Brewing and Blending Tea

This activity gives students an opportunity to investigate the properties of a variety of teas and create their own personal blend. In addition to Labrador/Hudson Bay tea, other possible plants to use include: chamomile, chickweed, dandelion, mint, pine needles, pineapple weed, sage, wild rose.

- A** Preparing plants to make tea.
- From the plants harvested during the field trip, discuss with students how these plants will be prepared.
  - Have students work in groups to prepare samples of each of the teas that are available.
- B** Evaluating teas.
- See Blackline Master, *Blending Teas Workbook*, as a guide for students to carry out the activity.
  - Students should test each tea according to a number of properties: physical properties, strength of the tea, aroma, colour, astringency, and flavour.
  - Students could also carry out chemical tests, including pH, Vitamin C, and sulfite testing.
  - You could assess their ability for the science curricular competency “Choose appropriate data to collect to answer their questions.”.
  - Students could develop their own:
    - procedure to follow when making the samples;
    - criteria for evaluating the teas.
    - methods for recording their findings (see example, Blackline Master, *Tea Testing Lab Report*).
  - Research: Students can add to their lab report with information from other research, including the Blackline Master *Wild Tea Fact Sheet* and other books and resources you may have.
  - Evaluation: Students should co-create criteria for what makes a good tea, then evaluate each of the teas they have tested to decide if they are possible candidates for their tea blend, giving reasons for their decision.
- C** Blending teas. Have students work on their own to decide on their personal tea blend.
- See Blackline Master *Blending Teas Workbook*.
  - Students should decide on the proportions of the teas they are blending, and what quantity to use.
  - Encourage students to try variations of their blends (within reason depending on the supplies that are available).



- What variables could they change in subsequent trials? This could be used to assess the science curricular competency “*Decide which variable should be changed and measured for a fair test.*”
- Ask students to complete a reflection on their final blend, using Blackline Master, *Blending from the Land: Journal Reflection*.

**D** Sharing Tea blends. Decide how students will share their final tea blend. This could be a classroom sharing session, or an event where community members are invited for tea. Depending on the supplies available, students may be able to take samples of their teas home to share with their family.

**E** Packaging tea. Decide if the tea will be kept loose, or if students will make tea bags to take home.

**F** Other possible tea activities

- **Solutions and Mixtures.** Is tea a solution or a mixture? Ask students to work in groups to determine if tea is a solution or a mixture.
- **From Seed to Cup.** Students can grow plants from seeds or cuttings and pick leaves from the plant once it is grown to make tea; this will give an appreciation for the plant by nurturing it and watching it grow and being able to enjoy the tea that can be made from the leaves. Students can compare this to the harvesting of local plants by YFN and the making of traditional teas.

## LEARNING 10

### Making Medicine: Salves

Harvesting the land for salves requires that teachers are familiar with traditional Yukon plants and trees. YFN Elders, Knowledge Keepers, traditional teachers or practitioners hold the practical skills to make salves, and it is highly recommended that they teach these activities. The school ESW/CELC may be able to help identify a YFN practitioner. Artists in the Schools may also have someone available to teach the activities. If a teacher must learn to make the salve, then the following are good resources:

- *How to Make a Healing Salve* [theherbalacademy.com/how-to-make-a-healing-salve/](http://theherbalacademy.com/how-to-make-a-healing-salve/)
- *How To Make a Soothing Salve – 6 Different Healing Recipes* [selfreliantschool.com/make-soothing-salve/](http://selfreliantschool.com/make-soothing-salve/)
- *Herbal Salves* [www.butterflyexpressions.org/Herbal/Salves.pdf](http://www.butterflyexpressions.org/Herbal/Salves.pdf)
- *How to Make an Herbal Salve with Natural Herbs* [www.youtube.com/watch?v=dMWOz7T3c2o](http://www.youtube.com/watch?v=dMWOz7T3c2o)
- *Salve/Ointment* [www.youtube.com/watch?v=rPOfwNyBjAU](http://www.youtube.com/watch?v=rPOfwNyBjAU)

This activity can be done outdoors or in a classroom/science lab. Safety precautions must be considered and students informed about risks while making salve. Teachers should have a first aid kit and ice in case a student gets burned.

- Work with the Elder/practioner to ensure adequate supplies and prepare/order the equipment in advance.
- Identify the location for teaching and prepare the space for optimum Elder and student engagement.
- Ensure the safety of students and prepare the space for movement of students as they participate.
- For large groups, this activity requires more than one adult to keep students safe and to maintain continuity of instructions.

#### Typical Materials Required

- Cheesecloth
- Coconut oil or olive oil (1 cup oil to 1 ounce beeswax)
- Beeswax
- Salve jars (available at Aroma Borealis, Dollar Store, etc.)
- Essential oils
- Dried plants, herbs, or tree bark/buds

#### Possible Discussion Questions

- How does the natural environment heal our ailments or wounds?
- Why is it important to have traditional knowledge of plants, shrubs, or trees?

#### Assessment Ideas

- Video record learning experience into a media production.
- Illustrate drawings of yarrow and Labrador tea or other medicinal plants.
- Make a “Medicinal Plants” poster using poster board, electronic application or collage (processes).

## PART 3: EVALUATION

### REFLECTIONS

Create opportunities for students to reflect on the outcomes and process of the unit. Reflections are important for assessing core competencies. Students could use the “I can” statements that are part of the core competencies or write their own. A sample of student self-assessment of core competencies can be found on page 37 of the Appendix.

### EXTENSIONS

Consider ways to extend this unit to provide students with opportunities to explore deeper skills within these subject areas, or to increase cross-curricular connections with other subject areas.

The following activities can be found in *Ideas in Forests for the Future, Unit 2. Traditional Plant Knowledge of the Tsimshian* by Judy Thompson at [www.ecoknow.ca/documents/tekUnit2.pdf](http://www.ecoknow.ca/documents/tekUnit2.pdf)

- pH of Berries
- Energy stored in berries
- Testing Vitamin C content of berries

### ASSESSMENT & EVALUATION

Assessment requires the gathering of evidence of student’s learning experience and evaluation means that teachers determine what students have learned from their experiences in the unit. The Department of Education’s *Communicating Student Learning Resource and Professional Development Tool* includes a YFN Assessment Framework. Using a YFN methodology for assessment and evaluation to assess students’ learning includes: observation; practice; and mastery. See page 38 in the Appendix: *Learning Experiences Rubric: Yukon First Nations Assessment and Evaluation Model* (Johnson, 2017).

*Assessment and communication practices must integrate Yukon First Nations ways of knowing and doing.*

To embrace YFN ways of knowing and doing, the formative assessment process for assessing core competencies must include:

- anecdotal comments;
- self-assessment;
- personal learning goals;
- student conferencing.

For this unit, assessment tools that could be used include:

CONVERSATIONS	OBSERVATIONS	PRODUCTS
Student-teacher conferences	Anecdotal observations	Portfolios
Journals	Group skills	Media production
Portfolio conferencing	Engagement in learning activities	Journals – Self-reflections of learning
Self-assessments	Student-to-student dialogue	Videos
	Student-led conferences	Collage
		Maps
		Artistic mediums

Here are some suggestions for assessing the Essential Questions of the unit:

- 1 How can humans interact with plants in a respectful and sustainable manner?
  - Check students' knowledge and understanding towards respecting the environment through informal observation and questioning during activities, such as during visits by guest speakers, on a nature walk, during inquiry activities and during tea making activities.
  - During one or more of the activities, ask students to construct a cause and effect chart showing what happens during a respectful or sustainable interaction with plants, and a disrespectful or unsustainable interaction with plants.
- 2 How have YFN used their knowledge of plants and their habitats for survival and well-being?
  - As students progress through the unit, ask them to record examples of how plants contribute to survival and well-being of YFN. This could be in their journals, or on chart paper shared by the class.
  - Have students create a lesson to teach a younger class about how traditional knowledge about plants helped the local YFN survive in the past.
- 3 How do YFN perspectives on interconnectedness and place reflect their understandings about plants and their habitats?
  - Have students draw a picture or a diagram that shows how one plant is connected to other aspects of the natural world and to many parts of the lives of YFN.
  - Ask students to create a display that shows the interactions and connections between local plants and their habitats.

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# APPENDIX

## Working with Elders

**PAGE 32:** Working with Elders: A Checklist

## Blackline Masters

**PAGE 33:** Wild Tea Fact Sheet

**PAGE 34:** Blending Teas Workbook: Creating your own blend

**PAGE 35:** Tea Testing Lab Report

**PAGE 36:** Blends for the Land: Journal Reflection

## Assessment Tools

**PAGE 37:** Sample: Student Self-Assessment of the Core Competencies

**PAGE 38:** Learning Experiences Rubric: Yukon First Nations Assessment and Evaluation Model

## Working with Elders: A Checklist

Elders are highly revered and respected people; they are community mentors who provide invaluable support and guidance. In Yukon First Nation cultures, Elders play an essential role in the education of children. They pass on traditional teachings and values through their stories and are considered community role models. It is important to make effective use of local expertise whenever local cultural knowledge is being addressed in the curriculum.

When an Elder, or anybody else, speaks to your students, it is important to follow community protocol. In most communities it would be appropriate to respect Elders and knowledgeable people in the following ways:

- Contact your Community Education Liason Coordinator, Education Support Worker or Education Outreach Coordinator for support and additional knowledge on community protocols;
- Contact the Elder you wish to invite to your classroom in person;
- Allow the Elder some time to think about the offer, do not expect an answer immediately;
- If the Elder agrees, arrange a time to meet in person to explain what the topic is, and work with the Elder to find out what they want to teach and develop the plan together;
- Help your students generate questions pertaining to the topic ahead of time for the Elder;
- Call the Elder the day before to confirm;
- Arrange for a helper;
- Make sure there is transportation for the Elder;
- Open up the environment so the Elder can move freely;
- Put desks and chairs in a circle with the Elder in a comfortable chair;
- Help the Elder to sit comfortably;
- Offer tea and refreshments;
- Help your students greet the Elder respectfully and if possible in his or her language;
- Wait for the Elder to speak;
- Arrange for the honorarium to be ready when the Elder or other community members come to work with your students (honoraria are available through Cultural Inclusion funds);
- Consider ways to present all traditional stories, songs and dances in the most dynamic way possible;
- Meet the Elder in an environment outside the classroom, such as cultural camps, local cultural centres, the local community hall or homes;
- Present the Elder with a gift as a thank you. For example a card made by the students, food items or a small handmade gift.



# WILD TEA FACT SHEET

## NAMES FOR THE PLANT

Local YFN name: \_\_\_\_\_

Common name: \_\_\_\_\_

Scientific name: \_\_\_\_\_

## HABITAT

Where does this plant live?

## HARVESTING

When is the best time of year to pick it?

## BENEFICIAL PROPERTIES

What are some good health and nutritional properties?

## WARNINGS

What are some things to be careful of when using this plant?

## PICTURE OF PLANT

## PREPARATION

How can you make tea with this plant?

**OTHER USES** What are other ways this plant can be used?

# BLENDING TEAS WORKBOOK

## Create your own blend of tea

**1. TEA TASTING:** To begin, test a variety of teas to see which ones you would like to blend.

- Work with your group to prepare samples of the teas supplied to you. Follow procedures outlined by your teacher for safely preparing and tasting samples.
- Test the samples, looking for the following properties:
  - Physical properties (the look and feel of the leaves or other plant parts used)
  - Strength of the tea sample
  - Aroma
  - Colour
  - Astringency
  - Flavour
  - Chemical properties
- Research result: Add other information to your report, such as nutritional content, origin of the plant, and cultural significance.
- Record your results in your notebook or on the *Tea Testing Lab Report* handout.
- Evaluate the sample. Decide if you would consider using this plant for your tea blend, and give your reasons why or why not.

### SAFETY ALERT!

List some risks that might arise when you are making, testing and blending tea



## 2. BLENDING

- Once your group has completed testing the samples, decide which two or three teas you will use for your own personal blend.
- Decide what proportions of each tea you will use in the blend. Will you use them in equal measure, or will you make one the base?
- Tea trials: Make a test brew of your blend, then taste it. Do you like it? If not, try different proportions of the teas or change the length of time you brew it.

## 3. REFLECTION

- Once you have decided on your final blend, complete the *Blends from the Land Journal Reflection*. How did you handle the risks in this activity? Do a self-assessment.

### RECYCLE!

Make sure you put the used plant material in the compost or organic recycle so it can be returned to the land!

# TEA TESTING LAB REPORT

Plant Name: \_\_\_\_\_

<p><b>Physical Properties</b> Describe the look and feel of the leaves or other plant parts used for the tea.</p>	<p><b>Chemical Properties</b></p> <ul style="list-style-type: none"> <li>• pH</li> <li>• Other chemical test results:</li> </ul>
<p><b>Strength of tea tested</b> How strong was this tea sample?</p> <p>weak   moderate   strong   very strong</p>	<p><b>Research Results</b> What other important properties did you find out from research? e.g., nutritional content, origin of the plant, cultural significance.</p>
<p><b>Aroma</b> Describe the aroma of the brewed tea, and also the tea leaves after they have been brewed.</p>	
<p><b>Colour</b> Describe the colour of the brewed tea.</p>	<p><b>Evaluation</b> Would you use this tea in a blend? Why or why not?</p>
<p><b>Astringency</b></p> <p>none   low   moderate   high</p>	
<p><b>Flavour</b></p> <p>Bitter   Earthy   Floral   Medicinal   Sweet</p> <p>Other (describe):</p>	



## BLENDS FROM THE LAND: JOURNAL REFLECTION

**Name of blend:** (create a name that reflects the blend of ingredients and properties)

**Ingredients and measurements:**

**Properties of ingredients:**

**Harvesting practices:**

**Steeping time** (minutes):

**Served:**     Hot     Cold     Room Temperature

**Description when ready:**







**Taste:**     Bitter     Sweet     Floral     Medicinal

**Other comments:**

**What questions do I have about my blend?**

## Student Self-Assessment of the Core Competencies

These profiles contain descriptions of student progress at different stages. The profiles include the facets and they are interrelated and embedded within the profile descriptions, which are written from a student's point of view, reflecting student ownership and responsibility for demonstrating the competencies. The profiles describe how students move from novice to more complex, sophisticated, and independent stages of development.

	1	2	3	4	5	6	7	8
<b>Communication</b> 	With support I can be part of a group.	In familiar situations, with direct support, I communicate with peers and adults.	In familiar situations, with some support or guidance, I communicate with peers and adults.	I communicate with peers and adults with growing confidence, using forms and strategies I have practiced.	I communicate clearly, in an organized way, using a variety of forms appropriately.	I communicate confidently in organized forms that show attention to my audience and purpose.	I communicate effectively in well-constructed forms that are effective in terms of my audience and purpose.	I am intentional and strategic; I am able to engage and accomplish my purpose with an increasing range of audiences, including those I do not know.
<b>Creative Thinking</b> 	I get ideas when I play.	I can get new ideas or build on or combine other people's ideas to create new things within the constraints of a form, a problem, or materials	I can get new ideas in areas in which I have an interest and build my skills to make them work	I can get new ideas or reinterpret others' ideas in ways that have an impact on my peers.	I can develop a body of creative work over time in an area of interest or passion			
<b>Critical Thinking</b> 	I can explore.	I can use evidence to make simple judgments	I can ask questions and consider options, I can use my observations, experience, and imagination to draw conclusions and make judgments.	I can gather and combine new evidence with what I already know to develop reasoned plans	I can evaluate and use well-chosen evidence to develop interpretations; identify alternatives; perspectives; and make judgments; I can examine and adjust my thinking.	I can examine evidence from various perspectives to analyze and make well-supported judgments and interpretations about complex issues.		
<b>Positive Personal and Cultural Identity</b> 	I am aware of myself as different from others.	I am aware of different aspects of myself, I can identify people, places, and things that are important to me	I can describe different aspects of my identity, I have pride in who I am	I understand that my identity is influenced by many aspects of my life, I am aware that my values shape my choices, and contribute to making me a unique individual.	I can identify how my life experiences have contributed to who I am; I recognize the continuous and evolving nature of my identity			
<b>Personal Awareness and Responsibility</b> 	With support, I can show a sense of accomplishment and joy, and express some wants, needs, and preferences.	In a safe, supportive environment, I can share my ideas and accomplishments, and accept responsibility for my actions.	I can recognize my strengths and use strategies to focus, manage stress, and accomplish my goals.	I can recognize my value and advocate for my rights, I take responsibility for my choices, my actions, and my achievements	I can identify my strengths and limits, find internal motivation, and act on opportunities for self-growth, I take responsibility for making ethical decisions.			
<b>Social Responsibility</b> 	I am aware that other people can be different than I am.	In familiar and structured settings, I can interact with others and the environment respectfully.	I can interact with others and the environment respectfully and thoughtfully.	I can take purposeful action to support others and the environment.	I can initiate positive, sustainable change for others and the environment			

## Learning Experiences Rubric: Yukon First Nation Assessment and Evaluation Model *(ALYCE JOHNSON, 2017)*

Observations, Conversations, Products	Observe	Practice	Mastery
<b>Working with Elders</b>	Is aware of Elders or others while they are teaching and is respectful	Follows Elders' instructions carefully and respectfully	Highly regards Elders' teachings and adheres to traditional protocols
<b>Listening skills</b>	Maintains contact with Elder, practitioner, teacher	Is respectful and wants to learn by doing and listening	Listens attentively without asking questions or interrupting
<b>Observational skills</b>	Participation in learning activity requires watching	Remains close or near the Elder to acquire knowledge and skills	Is attentive at all times and doing-by-observing
<b>Mapping skills</b>	Participates and engages in map activity	Follows a legend, longitude-latitude, location of harvesting site	Transfers GPS and coordinates to map using Google Earth; recalls place names (if Elder shares that information)
<b>Storytelling skills</b>	Is able to reiterate parts of stories or knowledge shared	Can reiterate storytelling without prompts	Able to reiterate stories and knowledge with great detail and from memory
<b>Note-taking and documentation skills</b>	Writes minimal information for demonstrating learning	Organizational skills are good and demonstrates learning	Highly organized, detailed and neat, and transfers of learning is evident
<b>Writing skills</b>	Must be encouraged to write with detail or descriptions	Good writing skills, and may require additional information or organizational skills	Transfers all learning activities into self-reflections or journals and essays
<b>Organizational skills</b>	Materials or resources are not organized into binder or e-files; written essays or note-taking is minimal or disorganized	Organizes materials or resources and information to store knowledge or products (ie. photographs)	Cognizant of the need for organizing materials or products and written materials to represent and demonstrate learning

**TEACHER NOTE:** Highlight the strengths of each student to determine learning levels

<b>Media use:</b> GPS, Go-Pro, video camera, e-applications, iPod, iPad, iPhone	Watches other students engage in activities with minimal participation	Interested in handling electronic devices and using e-applications	Able to assist other students to use electronic devices and uses e-tools confidently
<b>Plant or tree identification</b>	Observes land-based activities, and needs to focus on activities or knowledge-keepers who are sharing knowledge	Able to identify plants or trees from land- based interactions and listens to knowledge- keepers who are sharing knowledge	Highly attentive to knowledge-keepers and able to recall plants with medicinal properties for use
<b>Illustrations, drawings</b>	Details in art require additional learning experiences	Able to transfer from one medium to another with guidance and assistance; Continued practice is essential and student is willing to redo the work	Able to transfer from one medium to another with confidence (ie. hard copy to painting or other medium); Very detailed and meticulous; Assists other students
<b>Products: teas and salve</b>	Participates and engages in learning activities with encouragement to focus	Participates and engages in learning activities to produce an end-product	Highly engaged in completing an end- product; Helps other students with their knowledge acquisition
<b>Works diligently and independently</b>	Requires focus on learning activities and needs encouragement to participate	Focuses on the learning activities and usually works independently	Is confident in his/ her abilities to work independently; Helps other students with their work without teacher prompts

**TEACHER NOTE:** Highlight the strengths of each student to determine learning levels

