



YUKON

9
GRADE

CROSS-CURRICULAR UNIT

INTERCONNECTEDNESS

Science | English Language Arts

Yukon First Nations Curriculum Working Group

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Yukon
Education



Development

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Cover photo: Government of Yukon/Joseph Bradley

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



INTERCONNECT

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PART 1: INTRODUCTION

INTRODUCTION

This unit was developed by Yukon teachers, 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 9 curriculum for Science and English Language Arts.

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, 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 INTERCONNECTEDNESS?

The atmosphere, biosphere, geosphere and hydrosphere are the four main systems that dictate life on earth. All systems are interconnected as matter and energy flow from one to another. The scientific understanding of interconnectedness of the earth's systems generally differentiates between the animate and inanimate.

A central understanding of Yukon First Nations knowledge is that everything in the universe is related. This belief in the interconnectedness of all things tends towards a different view of humans relationships with the environment than that of the long-standing Western thought in which humans are separate and often above the rest of other living things.

Stewardship and sustainability are inherent in most Indigenous worldviews. The responsibility for caring for the land and the need to ensure that resources are not depleted or diminished, but are sustained, are also important tenets in ecological sciences.

Humans, as an integral part of the Earth system, place increasingly significant pressure on the Earth's systems. At the same time as unsustainable resource use practices continue, there is a growing effort to reverse the negative impacts of humans on the environment. Scientists are acknowledging the significance of Traditional Ecological Knowledge and the Indigenous view of interconnectedness in making environmental and resource management decisions.

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 will help students explore the theme of interconnectedness from Yukon First Nations and Western scientific perspectives. Students will examine crucial interactions between diverse parts of the Earth system, to see how everything is connected.

“The land ensures our survival. You have to look after the land, you have to look after the animals. The land is our heritage: because we use it, because it is everything, everything comes from the land. Keep your land clean, keep your animal, that’s your friend. You look after them, they look after you. You look after your water, land, trees, you look after it, respect it. That’s our spirituality.”

– Percy Henry, Tr’ondëk Hwëch’in Elder, 1993

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, ultimately surviving in a sustainable and respectful way.

Yukon First Nations have survived in their unique traditional territories through their knowledge, which has enabled them to live sustainably using the resources available to them.

Yeah they travel around, they don't stay one place, one season they here, like fishing season they're here, hunting season they're somewhere else, berry time they somewhere else.

– Tr'ondëk Hwëch'in Elder Julia Morberg, 2002

Then just when the ice start running... They usually split up because those days they live off the country so you can't go as a bunch – because you eat the country out if you go with a bunch.

– Tr'ondëk Hwëch'in Elder Percy Henry, 1993

Most Yukon First Nations worldviews include the idea that everything in the universe is related. Academics sometimes call this a “kincentric belief system” and the study growing out of it kincentric ecology.

This worldview, which can be expressed as interconnectedness, includes not only plants and animals, but all parts of the universe, the rocks, lakes and stars. The oral histories of Yukon First Nations are rich with stories where plants, animals, mountains and stars are portrayed as sentient and powerful.

Viewing all aspects of the natural world as your relatives demands a respectful and caring approach to use the resources. From Yukon First Nations perspectives, the land is generously providing gifts to humans, and people have the responsibility of reciprocating this generosity.



The Gwich'in people depended on the caribou since the beginning of time so they respect the caribou. They were raised eating caribou meat and they respect the animal. It is still like that today.

– Gwich'in Elder Edith Josie

CURRICULAR CONNECTIONS

SCIENCE 9

Big Idea

- The biosphere, geosphere, hydrosphere, and atmosphere are interconnected, as matter cycles and energy flows through them

Curricular Competencies

- Make observations aimed at identifying their own questions, including increasingly complex ones, about the natural world
- Apply Yukon First Nations perspectives and knowledge, other ways of knowing, and local knowledge as sources of information
- Express and reflect on a variety of experiences, perspectives, and worldviews through place

Content

- Sustainability of systems
- Yukon First Nations knowledge of interconnectedness and sustainability

ENGLISH LANGUAGE ARTS 9

Learning about climate change can be coordinated with the Grades 9 English Language Arts curriculum. In particular, traditional narratives and texts that embed Traditional Ecological Knowledge can be used to meet the relevant curricular competencies.

Big Idea

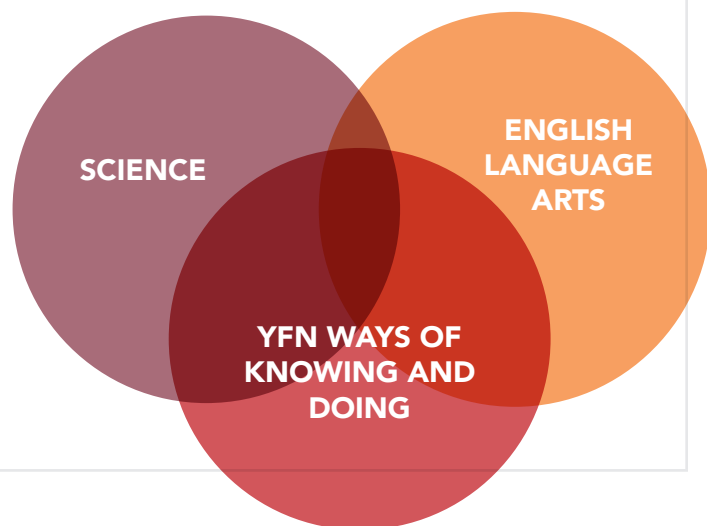
- Exploring stories and other texts helps us understand ourselves and make connections to others and to the world.
- Questioning what we hear, read, and view contributes to our ability to be educated and engaged citizens.

Curricular Competencies

- Access information and ideas for diverse purposes and from a variety of sources and evaluate their relevance, accuracy, and reliability.
- Recognize and appreciate the role of story, narrative, and oral tradition in expressing Yukon First Nations perspectives, values, beliefs, and points of view
- Use and experiment with oral storytelling processes

Content

- Oral language strategies
- Features of oral language
- Presentation techniques



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



Thinking

- Critical Thinking
 - Analyze and critique
 - Question and investigate



Personal and Social

- Positive Personal and Cultural Identity
 - Contributing to community and caring for the environment
 - Building relationships

LEARNING GOALS & SUGGESTED INQUIRY QUESTIONS

These learning goals and suggested inquiry questions are a combination of Big Ideas, Learning Standards (Curricular Competencies and Content), Core Competencies, and Yukon First Nations ways of knowing and doing. They are provided as possibilities; teachers may choose to use some or all for assessment, or create their own.



Learning Goals

1. Apply Yukon First Nations perspectives and knowledge as sources of information about interconnectedness and sustainability.
2. Express and reflect on a variety of experiences and perspectives of place.
3. Make observations aimed at identifying their own questions about interconnectedness and sustainability, including increasingly complex ones.
4. Recognize and appreciate the role of story, narrative, and oral tradition in expressing Yukon First Nations perspectives and points of view about interconnectedness and sustainability.
5. Engage in learning about interconnectedness and sustainability through a Yukon First Nations oral storytelling process
6. Develop an awareness of the protocols and ownership associated with Yukon First Nations oral traditions.

Inquiry Questions

1. How do Earth's major spheres interact?
2. How do matter and energy move through ecosystems?
3. How do Yukon First Nations view the cycling of matter and energy?
4. How would people treat the environment if they believed we are all related to everything in the natural world?
5. What can we learn from Yukon First Nations traditional knowledge about the interconnectedness of the all parts of the universe?
6. How can we apply Yukon First Nations perspectives on interconnectedness for a sustainable future?

PRIOR KNOWLEDGE

Know, Do, Understand

Before engaging in this unit, students will need to know/do/understand the following:

- What are the four main spheres of the Earth system? • **KNOW**
- What is Traditional Ecological Knowledge? • **KNOW**
- How to give and receive feedback from peers, teachers, and Elders • **DO**
(Guidance with this can be found in *Working with Elders: A Checklist* on page 22)

ENDURING UNDERSTANDINGS

- Yukon First Nations understanding and respect of Earth's spheres has allowed them to survive and live in a sustainable manner for generations.

ESSENTIAL QUESTIONS

- How do Earth's major spheres interact?
- How do Yukon First Nations view interconnectedness and the cycling of matter and energy?

PLANNING TO TEACH THE UNIT

Outline

- Learning 1:** Interconnectedness
- Learning 2:** Connecting with Nature
- Learning 3:** Connecting the Spheres
- Learning 4:** Carbon Sequestration in Trees



Suggested Resources

- Cruikshank, J. (1977). *My stories are my wealth*. Whitehorse: Council for Yukon Indians.
- Cruikshank, J. (1991). *Reading Voices = Dän dhá ts'edenintth'é: oral and written interpretations of the Yukon's past*. Vancouver: Douglas and McIntyre.
- Appendices – Page 23: The Game Mother
- Appendices – Page 24: The Giant Beaver
- Walking with the Earth - Pimohtiwín: Lessons to Support Science 10
www.stf.sk.ca/sites/default/files/unit-plans/s106_24.pdf
- Appendices – Page 25: Beaver Man makes the Yukon River
www.truhude.com/beaver-man-makes-the-yukon-river
- Yukon Map, showing water systems
- Earth's Systems Interact bit.ly/2dxPXyw
- Four Spheres Part 1 (Geo and Bio) and Four Spheres Part 2 (Hydro and Atmo)
bit.ly/2ddXDqI and bit.ly/2dq47kW
- How wolves change rivers www.youtube.com/watch?v=ysa5OBhXz-Q
- How whales change climate www.youtube.com/watch?v=M18HxXve3CM
- Carbon in the Classroom bit.ly/2dKrwB5
- Carbon Sequestration Calculation bit.ly/2dKs4H6

PART 2: LEARNING ACTIVITIES

LEARNING 1

Interconnectedness

Provide students an opportunity to understand the concept of interconnectedness as a central part of Yukon First Nations understandings of the world. Below are some suggested activities for approaching this topic with your students.

- A** Find out if there is a word or phrase in the local First Nations language that expresses the idea of interconnectedness. If you have First Nations language classes in your school, the language teacher(s) may be able to help students develop their own phrase in the language. An example in Hän is provided below:

Hän Tthëk ts'ǎ' fihè tr'uhudey <i>We all live together</i> Ninänkäk hōzō wëk'ātr'enoča <i>We take care of our land</i>	Gwitchin	Kaska
	Northern Tutchone	Southern Tutchone
Tagish	Tlingit	Upper Tanana

- B** Invite an Elder or knowledgeable Yukon First Nations speaker to discuss examples of interconnectedness in the local First Nations culture. If possible ask them to tell a story that illustrates the idea that everything is connected.

Essential question:

"How do Yukon First Nations view interconnectedness and the cycling of matter and energy?"

C Use the stories *The Game Mother* (Appendix, page 23) and *Animal Mother's Mountains* to illustrate the interconnectedness of people with the world around them. In this creation story Game (Animal) Mother gives birth to animals and guides them in their responsibility and behavior toward people. *Reading Voices = Dän dhá ts'edenintth'é* contains both stories: *Game Mother* as told by Angela Sidney, page 48; and *Animal Mother's Mountains* as told by Angela Sidney, page 29.

- Discuss with students the examples of Animal Mother's natural and social connections. Students could illustrate the connections to demonstrate their understanding.
- Read about (or visit) the Carcross Cultural Centre where the playground design was inspired by the Game Mother story.
www.earthscapeplay.com/project/carcross-yukon-playground-towers-mountain

D Use other stories, narratives and personal accounts, local ones if possible, to illustrate how Yukon First Nations understand the idea of interconnectedness and the importance of oral history, for example: *Transforming the world*, which can be found in *Dän dhá ts'edenintth'é*, page 51 and also in *My stories are my wealth*, pages 22-38 and pages 39-44

- Find local stories of how Beaver Man made the world safe for humans by reducing the giant animals to their present size. Connect these local stories to *Transforming the world*.
- Connect the oral history of Beaver Man to scientific knowledge of the history of the Yukon.
- Visit Yukon Beringia Interpretive Centre, which shows fossilized proof of a giant beaver living in the Yukon during the last ice age. (Appendix, page 24: The Giant Beaver)
www.beringia.com/exhibit/ice-age-animals/giant-beaver
Connections such as this show the significance of Yukon First Nations oral history.
- Find out the name of Beaver Man in your local Yukon First Nations language; ask the school language teacher. Five examples are shown below:



LEARNING 2

Connecting With Nature

Take students on a guided nature walk to experience a local ecosystem and observe ways that everything is connected. Ideally it would be lead by an Elder or Knowledge Keeper of the local First Nations community.

- The nature of the walk will depend on many factors – locality, season, interests of the Elder or leader. Design an experience for students that best suits your situation.
- If a Yukon First Nations Elder or Knowledge Keeper is not available, it is still possible to undertake the activity.
- Planning and preparation are essential for a successful walk. Make sure any school and community protocols are followed.
- One source to guide your planning is *Walking with the Earth - Pimohtiwini: Lessons to Support Science 10*. Although it is oriented towards Saskatchewan First Nations, it has many suggestions that can be adapted. www.stf.sk.ca/sites/default/files/unit-plans/s106_24.pdf

LEARNING 3

Connecting the Spheres

- A** Introduce or review the scientific perspectives on the interconnectedness of the earth's systems or spheres: atmosphere, biosphere, geosphere (lithosphere), and hydrosphere.
- One suggestion available online is a six minute video *Earth's Systems Interact* bit.ly/2dxPXYw
 - Videos that describe the four spheres in an engaging way (but do not talk about interconnectedness) are *Four Spheres Part 1 (Geo and Bio)* and *Four Spheres Part 2 (Hydro and Atmo)* bit.ly/2ddXDqI and bit.ly/2dq47kW
- B** Sphere stations. This activity encourages students to make connections between the spheres to demonstrate how everything is dependent on everything else.
- Around the classroom put five pieces of chart paper labelled Sun, Atmosphere, Biosphere, Geosphere, and Hydrosphere.
 - Divide students into five groups and provide each group with a different colour of sticky notes.
 - The groups will rotate through each of the stations. At each station they write on the sticky notes ways that the subject interacts with the other spheres. Add the note to the chart paper.
 - At the end, the teacher or students can read aloud some of the responses.
- C** Discuss Yukon First Nations perspectives of the spheres, using local resources, for example:
- *Oral History: Beaver Man makes the Yukon River* (page 25) as told by Martha Taylor. www.truhude.com/beaver-man-makes-the-yukon-river

- Watersheds in **Dän Dha Ts'edenintth'è**, page 32 (excerpt below)
 - Discuss how what happens in one area of the river affects what happens upstream or downstream.

Excerpt from Dän Dha Ts'edenintth'è, page 32:

The Yukon River is the dominant river crossing the Yukon Plateau, collecting runoff from about three quarters of the Territory. The Teslin, the Pelly, the Stewart, the White and the Porcupine, which are all major rivers in their own right, are tributaries of the Yukon...

These river networks also connect many lakes. The large lakes of the southwest Yukon, confined by mountains, lie near the boundary between Yukon and Alsek watersheds, where drainage patterns are still affected by glacial action...

Of all geological processes, running water must have been the greatest impact on the lives of human beings.

- D** Examine a map of Yukon showing the water systems.
- Find your location on the map.
 - What water networks connect to your community?
 - Is there human activity in your area that might affect the water systems in your community?
 - While the following resources are not Yukon publications, they may be useful:
 - How wolves change rivers www.youtube.com/watch?v=ysa5OBhXz-Q
 - How whales change climate www.youtube.com/watch?v=M18HxXve3CM

E Activity: Web of life

Use this activity to prompt students to make comparisons with a real ecosystem

Materials: ball of string; a list of organisms or prepared cards.

- Give each student the name of an organism. One can have the sun.
- Give each student a prepared card or have him or her write assigned words (organisms) on a piece of paper.
- The person holding the sun tosses the ball of string to someone else in the circle, making sure they hold onto the end of the string.
- The person who catches the string explains one way that their organism interacts with the sun.
- Students continue tossing the ball of string, holding onto their section of string so that it forms a web.
- Each person lists a way his or her organism interacts with the previous organism. If someone gets stuck, others can help out.
- Eventually a tangled web will be created.
- Discuss what would happen if one of the objects was removed from the web and ask discuss how this is similar to a real ecosystem.

LEARNING 4

Carbon Sequestration in Trees

Have students estimate the biomass and nutrient content of trees around your school and calculate the approximate carbon content. This calculation is adapted from the activity *Carbon in the Classroom* which can be found online at bit.ly/2dKrwB5.

- A** Select the area for your field study. There should be enough trees for small groups of students to each have a study tree.
- B** In the field, have students record data about their tree, for example location, species, diameter of the tree at ~1.3 m from the ground.
- C** In the class, have students calculate the approximate biomass using the calculator at the *Natural Resources Canada* website, bit.ly/2dKs4H6
 - The biomass calculator gives separate biomass readings for bark, branches, foliage and wood. Students should give the total of these figures.
 - Add to this figure the approximate biomass for the roots by multiplying by 1.26.
- D** From the rough biomass calculation, students can determine the carbon that might be stored in the tree:
 - Multiply the approximate biomass by 0.5.
 - Multiply the result by 3.7. This figure gives the approximate amount of carbon dioxide stored in the tree in kilograms.

Example calculation of carbon sequestration:

White spruce

Diameter at 1.3 m = 20 cm

Biomass calculation (from NRC calculator)

Bark = 5.42 kg

Branches = 20 kg

Foliage = 11.54 kg

Wood = 49.17 kg

Total = 86.13 kg

Biomass tree + roots = $86.13 \times 1.26 = 108.52$ kg

Approximate carbon stored in tree = $108.52 \times 0.5 = 54.26$ kg

Approximate CO₂ sequestered in tree = $54.26 \text{ kg} \times 3.7 = 200.77$ kg

E What do the numbers mean?

- Ask students to find some examples of CO₂ emissions and compare with the amount of CO₂ their trees are sequestering.
- For example, a jet flight from Whitehorse to Vancouver, about 1500 km distance, produces about 456 kg of CO₂.

F Interconnectedness of the spheres

- Ask students to discuss how this calculation illustrates the ways that the spheres are interconnected.
 - What are the main spheres involved? (i.e. biosphere, atmosphere)
 - How are the other spheres impacted?

PART 3: EVALUATION

REFLECTIONS

Create opportunities for students to reflect on the outcomes and process of the unit. Reflections are important for assessing the core competencies. Students could use the “I can” statements that are part of the core competencies or write their own. A sample of core competencies self-assessment can be found on page 26.

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.

ASSESSMENT AND EVALUATION

The learning activities in this unit lend themselves to several different assessment strategies, to provide both formative assessment (assessment for learning) and summative assessment (assessment of learning).

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 27 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 do Earth's major spheres interact?
 - Have students explain some ways that the spheres interact by creating a diagram that shows the spheres in relation to the local region.
- 2 How do Yukon First Nations view Interconnectedness and the cycling of matter and energy?
 - Ask students to work collaboratively to discover local examples of Yukon First Nations perspectives on the cycling of matter and energy.

RESOURCES

Cruikshank, J. (1977). *My stories are my wealth*. Whitehorse: Council for Yukon Indians.

Cruikshank, J. (1991). *Reading Voices = Dän dhá ts'edenintth'é: oral and written interpretations of the Yukon's past*. Vancouver: Douglas and McIntyre.

Lewthwaite, B. and McMillan, B. (2014). *Our Stories About Teaching and Learning: culturally responsive teaching in Yukon First Nations settings*. Dawson City: Tr'ondëk Hwëch'in.

Tr'ondëk Hwëch'in. (2008). *Nihe Dähch'e Sho Tr'inlay: Welcome Movie*. [Motion Picture]. Dawson City: Tr'ondëk Hwëch'in.

Walking with the Earth - Pimohtiwin: Lessons to Support Science 10
https://www.stf.sk.ca/sites/default/files/unit-plans/s106_24.pdf

Beaver Man makes the Yukon River www.truhude.com/beaver-man-makes-the-yukon-river

Earth's Systems Interact <http://bit.ly/2dxPXyw>

Four Spheres Part 1 (Geo and Bio) and Four Spheres Part 2 (Hydro and Atmo)
<http://bit.ly/2ddXDql> and <http://bit.ly/2dq47kW>

How wolves change rivers <https://www.youtube.com/watch?v=ysa5OBhXz-Q>

How whales change climate <https://www.youtube.com/watch?v=M18HxXve3CM>

Carbon in the Classroom <http://bit.ly/2dKrwB5>

Carbon Sequestration Calculation <http://bit.ly/2dKs4H6>

ADDITIONAL RESOURCES

Canadian Wildlife Federation. *Project WILD: activity guide*. (1995). Ontario: Canadian Wildlife Federation.

Jacobs, S., McLeod, R., Schinkel, C. (1993). *Trees and forests, Yukon First Nations perspective on our environment: a curriculum for intermediate level (grade 5-9)*. Whitehorse: Council of Yukon Indians.

Jacobs, S., McLeod, R., Schinkel, C. (1993). *Plants as food and medicine, Yukon First Nations perspective on our environment: a curriculum for intermediate level (grade 5-9)*. Whitehorse: Council of Yukon Indians.

APPENDIX

Working With Elders

PAGE 22: Working with Elders: A Checklist

Stories

PAGE 23: The Game Mother Story

PAGE 24: The Giant Beaver

PAGE 25: Beaver Man makes the Yukon River

Assessment Tools

PAGE 26: Sample: Student Self-Assessment of the Core Competencies

PAGE 27: 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.



The Game Mother Story

This is about game (animal) mother and our people's story of how animals came to be. Game mother was a woman who lived in this place that we now call the Yukon, near Lake Bennett amongst the mountains. She lived here with her husband and brothers. One spring, game mother was about to give birth to all of the animals. Her husband and brothers were to go to the coast, but she didn't want to go. She was getting big and tired and stayed in a camp they made for her.

First thing you know moose was born, but it had grizzly bear teeth. So she called it back and took the teeth out and showed him how to eat willow. Caribou came next and she told him to lose his horns once in a while and showed him how to eat moss. Then came grizzly bear with his great strength and need for sleep, then wolf who travels alone and is a great hunter. Beaver with his beautiful coat and teeth that never stop growing. And so came all the animals, which live in this place, they all came from game mother. With each one she teach them what to eat, how to live and how to behave. And the animals all stayed around this place with game mother.

Game mother, she wanted the animals to live across the land so she told them she was going. She made a giant hammock and hung it from the four mountains tops here in this special place where all animals came to be. The hammock had four strings – one tied to each mountain – Tekade'uch, Weji'tsay, Cheli'chele and Tatlachechi (Montana, Grey, Caribou and Nares Mountains). She invited all the animals on the hammock and they danced and sang to each other and had a great celebration. Game mother had taught them all they need to know to live. She told them it was time for them to move across the land and to look after themselves.

And so all the animals moved across this land and live amongst us now.

Source:

Cruikshank, J. (1991). *Reading Voices = Dän dhá ts'edenintth'é: oral and written interpretations of the Yukon's past*. Vancouver: Douglas and McIntyre.

The Giant Beaver

Imagine rodents the size of bears! The giant beaver was a true ice age giant. Stretching up to two metres long and weighing up to 100 kilograms, the giant beaver is the largest rodent of all time. The giant beaver is known from fossil sites all across North America, but is most common along the Atlantic coast and just south of the Great Lakes. In northern Yukon, fossil incisors the size of bananas and molar teeth of giant beavers are well known from the banks and bluffs along the Old Crow and Porcupine Rivers. Tales of the giant beaver feature prominently in the Vuntut Gwich'in of Old Crow's traditional stories of times long ago.

Contrary to popular belief, giant beavers are not just huge ancestors of today's modern beaver (*Castor canadensis*). The fossil record suggests that the last time the giant beaver and the modern beaver species shared a common ancestor was about 24 million years ago. Even so, the shapes of their bones look a lot like those of a modern beaver, only much larger. The giant beaver's hind feet were also comparatively gigantic, enabling them to efficiently paddle around ponds and lakes. The drawback was that their shortened hind limbs would have made walking on land difficult. The size and shape of their tail vertebrae suggest that the giant beaver's tail was relatively narrow, unlike the wide, flat paddle of the modern beaver.



Comparison of skulls from a giant beaver and a modern beaver. - Photo: Greg McDonald, U.S. National Park Service.

In North America, the youngest radiocarbon dated giant beaver fossil is about 12,000 years old. Like many of the ice age mammals, it is uncertain why they went extinct. There is no evidence that people hunted giant beavers. Maybe they could not adapt to the changing habitats associated with periods of rapid climate fluctuations at the end of the Ice Age. Perhaps they were outcompeted by other semi-aquatic rodents, like modern beavers or muskrats.

Source:

<http://www.beringia.com/exhibit/ice-age-animals/giant-beaver>

Beaver Man makes the Yukon River

as told by Tr'ondëk Hwëch'in Elder Mrs. Martha Taylor

One time long ago, Beaver Man he's travelling around, a-travelling and a-travelling. The sun he was real hot, and Beaver Man he get thirsty, you know, real thirsty like when you don't got even spit to swallow. He need something to drink real bad. One man he's a-travelling with, he fall down dead he so thirsty.

Beaver Man pretty soon he say to himself, "What I going to do?" And he start thinking, and pretty soon he say to the people he's a-travelling with, "I going to make you some water so you better get ready to drink."

Then Wolverine say, "There's no water. How you going to make some?" And they all get mad at him, think he's crazy, just want to make big show. Especially Wolverine, he's real mad.

Beaver Man he take and cut willow stick and he tie willow stick to his walking stick with a piece of ... [babiche]. Then he go down in a little valley, at the top end of it, and he say again, "I going to make you some water, so you better get ready to drink."

Then he stick willow into the ground. Pretty soon lot of water coming out. Lot of, lot of water from good clean spring. All these people with Beaver Man, even Wolverine, they so happy they stick their head right in the water.

After that each time Beaver Man and his people they get thirsty, he go up to top of little valley, stick in willow stick, and water come out. Lot of water.

He done this many times. Each spring it make a stream, and after long, long time these streams so many they big enough to make Yukon.

All that, it happens long time ago. That's the end of the story.









Source:

<https://www.truhude.com/beaver-man-makes-the-yukon-river>

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
Communication 	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 can get new ideas or and adults with growing confidence. Using forms and strategies I have practiced.	I can communicate clearly, in an organized way, using a variety of forms appropriately.	I can communicate confidently in organized forms that show attention to my audience and purpose.	I can 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.
Creative Thinking 	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			
Critical Thinking 	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 implications; and make judgments. I can examine and adjust my thinking.	I can examine evidence from various perspectives to analyze and make well-supported judgments about complex issues.		
Positive Personal and Cultural Identity 	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			
Personal Awareness and Responsibility 	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.			
Social Responsibility 	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
Working with Elders	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
Listening skills	Maintains contact with Elder, practitioner, teacher	Is respectful and wants to learn by doing and listening	Listens attentively without asking questions or interrupting
Observational skills	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
Storytelling skills	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
Note-taking and documentation skills	Writes minimal information for demonstrating learning	Organizational skills are good and demonstrates learning	Highly organized, detailed and neat, and transfers of learning is evident
Writing skills	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
Organizational skills	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
Works diligently and independently	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

