


# *Traditional Cultural Knowledge = Science*





# *What to think about*

- ☐ How indigenous perspectives differ from others
  - ☐ None of us can change history, but we can use it to dictate how we move forward
  - ☐ We cannot operate in silos, facilitating communication and conversation is key
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# What is Culture?

- Culture is the subconscious programming of the mind
- Culture is not stagnant






# Types of Culture

- ☐ Historic Culture
- ☐ Modern Culture
- ☐ Pan Indian Culture





# *What is Science?*

- ☐ Science is the pursuit and application of knowledge and understanding of the natural and social world following a systematic methodology based on evidence.
- 



# Indigenous ways of knowing

- Traditional culturally important knowledge
- Acquired through thousands of years of hands on experience interacting with natural resources and the landscapes in which they are found
- Examines tangible and intangible
- Different tribes will have different ways of understanding the world

*Humankind has not woven the web of life.*

*We are but one thread within it.*

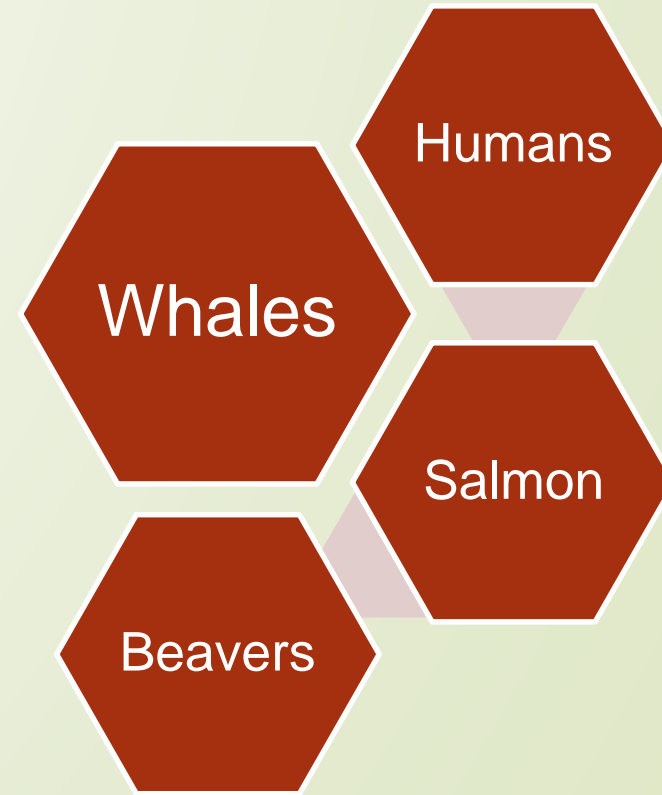
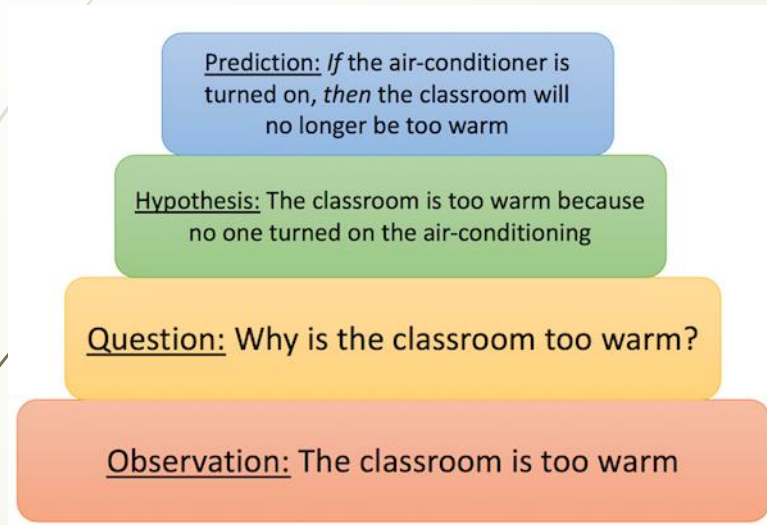
*Whatever we do to the web, we do to ourselves.*

*All things are bound together.*

*All things connect.*

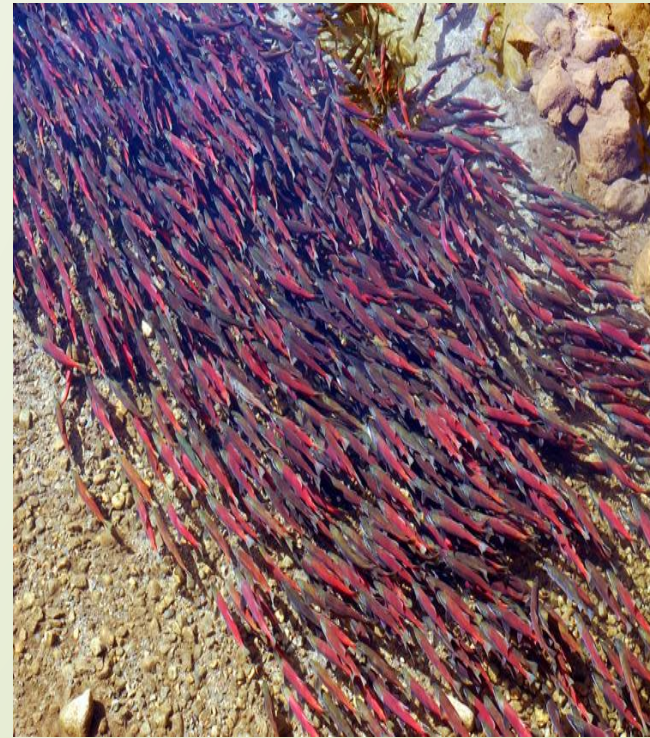
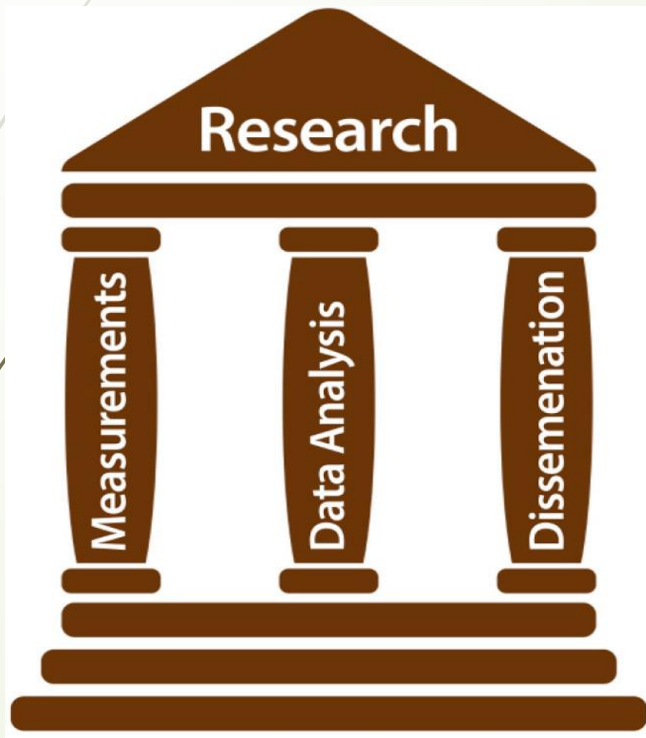
-Chief Seattle

# Different outlooks = Different Approach's





# *Compatibility Issues*





# *Example: Eltumish & Hnmulsench*





# *Example: Sloq'wa'yalqw*





# Example: Texturing on canoes



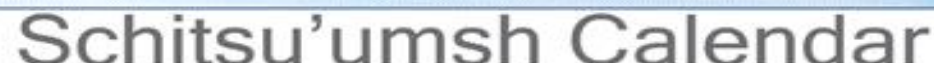
# *Cultural Resources where science can be found*

- ☐ Stories
- ☐ Knowledge
- ☐ Belief Systems
- ☐ Values
- ☐ People





si:sitkw (winter)	setqaps (spring)	'yalstq (summer)	sist'aqw (early fall)	schetap (late fall)	si:sitkw (winter)
JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP	OCT	NOV	DEC



setqaps

*Schizanthus litoralis* is a season of abundance. The background image is that of a freshly watered *Manis schizanthus* family members migrating to these areas during schizanthus where they could find important foods such as *algae* (*wharf*) (*blue-brown* - *tan*). The warmer weather and migrations of birds and fish were some of the many indications of the arrival of this season. *Schizanthus* (*agave* *brachy* *brachy*) was especially important as one of the first flowering plants of the season.

'yalstq

Taking (Shanxi) is the best season. Its background image is of a mountain lake located in the Mt. Jue National Forest. Many families made camps in the mountainside during this season to take advantage of the plants that were becoming ripe at higher elevations, especially strawberries (the blackberry). The soldiers made progress and the beginning of this season when the purple (chocolate) would ripen at lower elevations.

[www.pearsoned.com](http://www.pearsoned.com)

akhtshapke	Amur bluish-berry ( <i>Amor. caerulea</i> )
aygh	chubuk
ayghash	chubuk trout
baydashke	wild raspberries
baynape?	black-bone
beke	consuming dose
kyayshapke	cedar bark
kyayshapke	chokchok trout
myashapke	moss (gelling up)
myashapke	white fish
pekyashapke	white catfish
pekyashapke	huckleberries
qashapke	wild rose
qashapke	ocean
qashapke	Cañon's Lagoon
qashapke	raddling salmon
qashapke	bullfinch
qashapke	rake (cattail)
qashapke	black tree moss
qashapke	late Fall or Oct./Nov. moon
qashapke	oagshale buttercup or Feb./Mar. moon
qashapke	Spring feather (the season or moon)
qashapke	Waters
qashapke	arrowweed hair
qashapke	hede
qashapke	fuel hen
qashapke	Dec./Jan. moon
qashapke	Feb./Aug. moon
qashapke	savva berries
qashapke	peeling of fence moon
qashapke	moon moon
qashapke	salmon-stomach
qashapke	redfish
qashapke	ell
qashapke	hatternet
qashapke	redfish trout
qashapke	blue (brown) catfish
qashapke	huckleberries
qashapke	water potato
qashapke	blue grouse
qashapke	cottontail rabbit
qashapke	early Fall or the aglow moon
qashapke	strawberries
qashapke	huckleberries
qashapke	roiled grouse
qashapke	Jan./Feb. moon
qashapke	Summer (feather the season or moon)

Amang	wood burning
ahshahang	berry picking
ahshahangant	caracassals
ahshah	to burn
ahshah gikhwah	fire fish
ahshahng gwah kungkwahshah	N.E. Camp
ahshahng	pot cooking
ahshahng	meat/fish smoking
ahshahng gwahshah	back to the Earth
ahshahng gwahshah	break from removal
ahshahng gwahshah	back to the Classroom
ahshahng gwahshah	tool making
ahshahng gwahshah	hide tanning
ahshahng gwahshah	story telling
ahshahng gwahshah	to fish
ahshahng gwahshah	Career Fair
ahshahng gwahshah	Trading
ahshahng gwahshah	Water Pottery Day
ahshahng gwahshah	tool maintenance
ahshahng gwahshah	"counting the fish"
ahshahng gwahshah	Gathering of chiefs
ahshahng gwahshah	Gathering of resources
ahshahng gwahshah	Modern Activities
ahshahng gwahshah	Traditional Activities
ahshahng gwahshah	Water Awareness Week
ahshahng gwahshah	to swim
ahshahng gwahshah	Pink Removal
ahshahng gwahshah	Blackie the Rat

<sup>22</sup>Through Facebook users are unable to download videos from Germany. They were, however, successful in some countries where they could find the required information.

Montre

The *Schryer* family identified two monthly, named seasons (*Zalidagadachuk*) beginning in October/November. The 'names' of many of these seasons would become the basis for identifying names for the months in the modern calendar. Two months did not have identified seasons around the Harvest Month season. These months are depicted in the calendar on the very outer orange ring.

## Seasons

The Scholze family recognized 3 seasons, each with its own best nesting-spring: Spring, Young-Summer, and Late-Summer. The first season, Spring, was the best time to nest, but the second season, Young-Summer, was the best time to raise young. The third season, Late-Summer, was the best time to nest, but the second season, Young-Summer, was the best time to raise young. The third season, Late-Summer, was the best time to nest, but the second season, Young-Summer, was the best time to raise young.

## sūt-sinkw

**Sitotritus (Waters)** in the cold and lean season. The background image here is the frozen surface of Black Lake. Many families were hunkered in their permanent homes during this time of the year. Hunting, ice fishing, storing small game, and local food that had been procured from earlier in the year, helped many families get through these lean times. The unmistakable presence of snowfall was a key indicator of the arrival of this cold season.

- **nl q'esp**

Many traditional activities of the *Schijve* coast are indicated in blue text within the outer blue ring. These activities are placed in the seasons when they were most prominent. Illustrations, created by late tribal elder, Lawrence Aqpa, depict some of the traditional activities and are placed in the center of the calendar.

alcohol

The inner ring of the calendar depicts a modern calendar of events for the Schlesinger.

### Waterways and Directions

*Changfeng* (Center of the Lake) is placed at the center of the calendar and takes its place as the prominent part of the natural world but the *Shangshu* realm. Its orientation as depicted here demonstrates a traditional *Shangshu* world view, with upstream being toward the top of the calendar and downstream being toward the bottom of the calendar. The white shaded area represents the current shoreline while the blue shaded area represents the historic shoreline.

## Resources

The different natural resources important to the Scholashards are depicted by the images in the main part of the calendar. They are positioned within the approximate times of year they were harvested (certain resources, like salmon, harvested year-round). There were many different types of traditional tools used during the harvesting of the natural resources.

stagnant

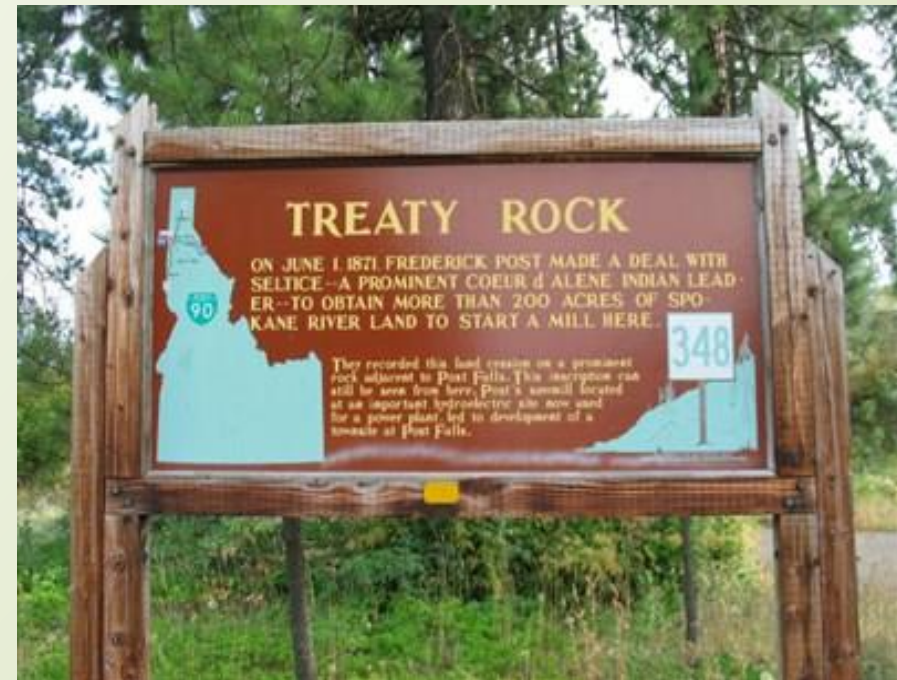
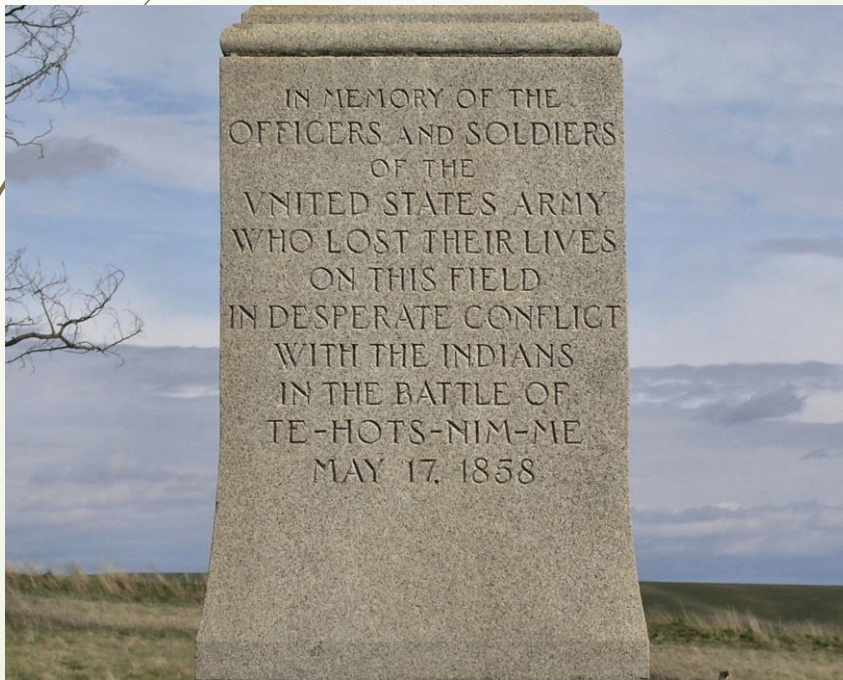
Shigapae (middle left) is the source of changing colors. The background image is of Changpae (Source of Almond Lake). In preparations of winter, many shrubs in the forest return to their greenish-brown leaves, which were typically located on the lower branches. This would resemble the time of fall but migration and late blossoming lights. For those that were on the ground, leaving the landscape (Shigapae) prepared himself for winter by eating certain foods, such as mushrooms and blackberries, was indicative for the start of this season.





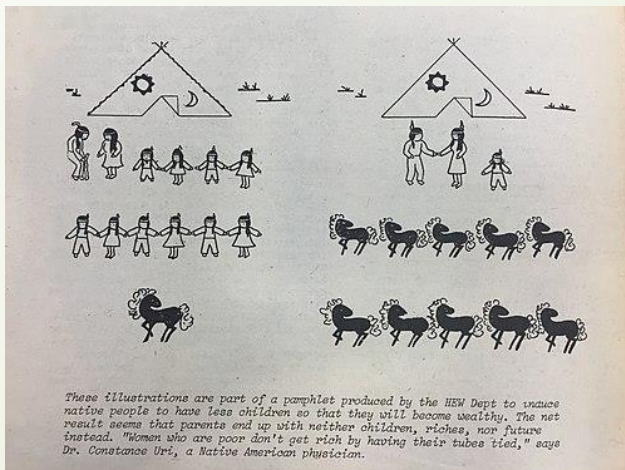
# *Why are indigenous peoples wary of "science"*

- ☐ Genocide/ Ethnocide
- ☐ Historical Trauma
- ☐ Alternative facts/ alternative History



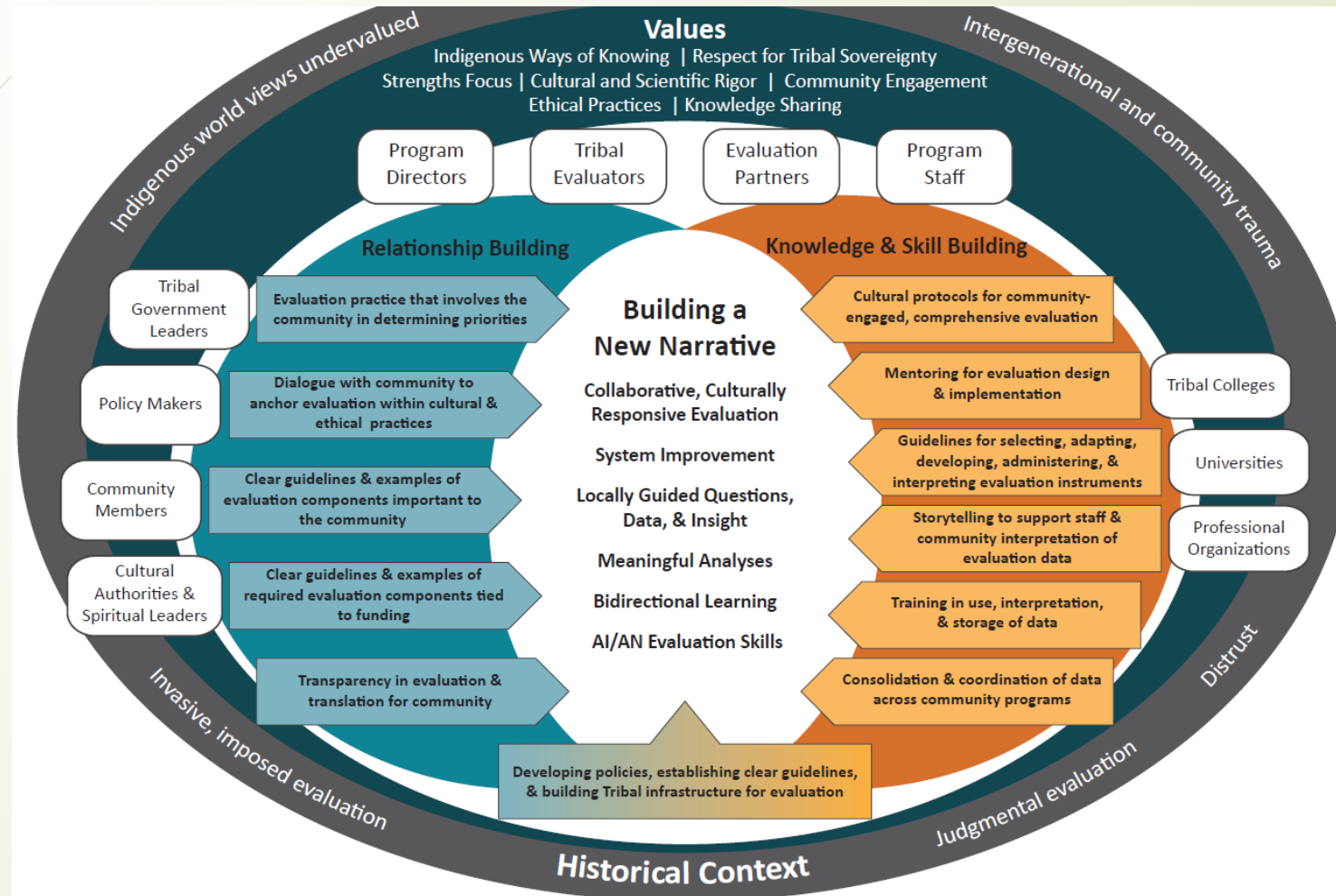
# *In the name of science*

- ☐ Archeology- “Grave Robbing”, NAGPRA
- ☐ Anthropology – Measuring of Skulls
- ☐ Medicine- Sterilization of Native American Women, Studies on Diabetes



Measuring human skulls in physical anthropology (SIA Acc. 12-492 - United States National Museum. Division of Graphic Arts. Section of Photography, Photographic Collection, 1933, Smithsonian Institution Archives)

# Tribes protecting themselves



Tribal Evaluation Workgroup. "A Roadmap for Collaborative and Effective Evaluation in Tribal Communities." Children's Bureau, Administration for Children and Families, U.S. Department of Health and Human Services. September 2013.



# Tribes protecting themselves

## Introduction:

Research is the pursuit of knowledge, and is a sacred undertaking. Thus, it is the Coeur d'Alene Tribe's expectation that research conducted within our homeland is done so with **respect** for all members of our community, including people, plants, animals, water and land; that it is done with **reciprocity**, understanding its benefits to both the researcher and our community; that the researcher does so through **relationship** in our community that embraces and upholds the five pillars; and that the researcher carries the **responsibility** of ensuring that his or her research is conducted in an ethical way **that benefits the Coeur d'Alene people**.

For researchers conducting research on the Coeur d'Alene Reservation, it is essential to understand the beliefs and vision of the Coeur d'Alene Tribal Community. Since time immemorial, the Coeur d'Alene Tribe has been guided by its core values, articulated today in the Tribe's Five Pillars:

## 1. How will this project benefit the Coeur d'Alene Tribe and its members?

*t'u'lschint: (Membership:) Capable, decent, moral, 'a good person', a good citizen in your family, tribal, local and world community. A responsible, accountable and informed citizen in all spheres of relationship. t'u'lschint can be translated as, 'capable, decent, moral, a good person.'*

*Snmiypnqwiln (Scholarship): Life-long, holistic learning with ideas rooted in tribal values, self-determination, self-government and sovereignty that produces deep knowledge to understand the world and meaningful application within the community.*

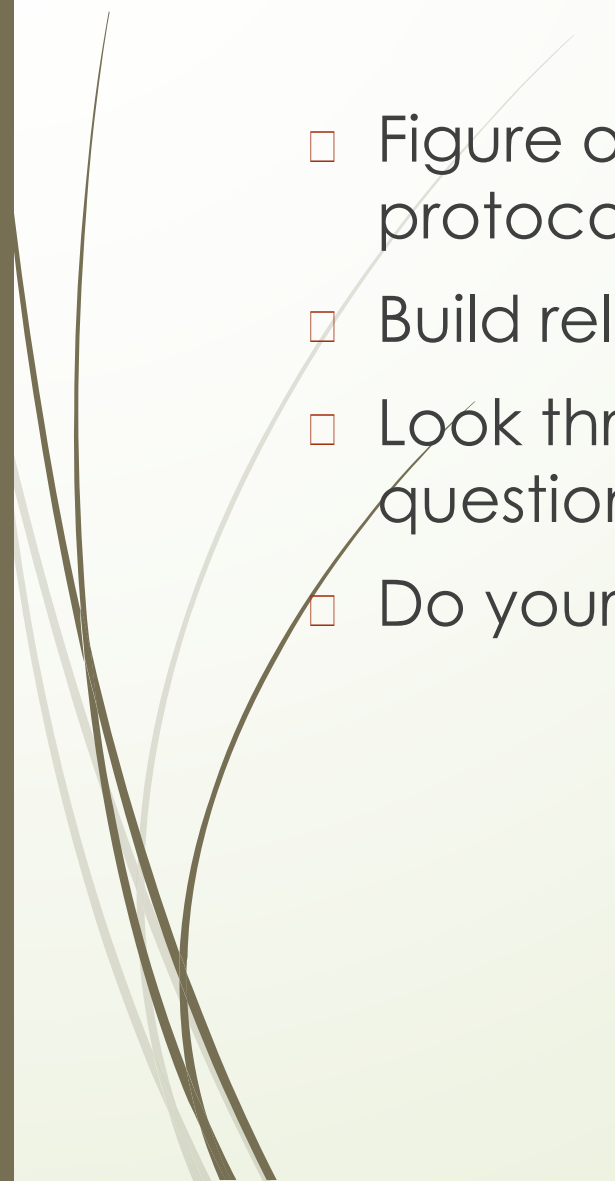
*'ats' qhnt' wesh (Stewardship): To care for all things with integrity, responsibility, accountability and social awareness in all spheres of life, human, animals, natural resources, and the cosmos, looking at each other from the heart.*

*hngwa' yqn; hnshat' qn (Guardianship): To protect our tribal ways of knowing and being through the protection, care and responsibility for our people, natural resources, culture, history, traditions, language and spirituality.*

*chsnpa'silgwesn (Spirituality): Faith from which the Creator reveals the connection between all life. It unites the space between the past, present, and future through the peoples, environment, and land; and is rooted within the ceremonies from which the Tribe celebrates those connections.*



# *What can be done?*

- Figure out the proper flow of communication and protocol
  - Build relationships
  - Look through a different lens before framing questions
  - Do your homework!
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# Resources

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- ☐ Guardian News and Media. (2021, February 23). *Beaver believers: Native Americans promote resurgence of 'nature's engineers'*. The Guardian. <https://www.theguardian.com/environment/2021/feb/23/beavers-native-american-tribes-washington-california>.
- ☐ Journal of Sustainability Education. (n.d.). [http://www.susted.com/wordpress/content/the-value-of-indigenous-ways-of-knowing-to-western-science-and-environmental-sustainability\\_2010\\_05/](http://www.susted.com/wordpress/content/the-value-of-indigenous-ways-of-knowing-to-western-science-and-environmental-sustainability_2010_05/).
- ☐ Kennedy, E. J., Schultz, D., & Mendis, P. (2019, October 14). *On Indigenous Peoples Day, recalling forced sterilizations of Native American women*. MinnPost. <https://www.minnpost.com/community-voices/2019/10/on-indigenous-peoples-day-recalling-forced-sterilizations-of-native-american-women/>.
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- ☐ Lizzie WadeApr. 19, 2021, Martin EnserinkMay. 24, 2021, María Paula Rubiano A. May. 21, 2021, Anthony KingMay. 20, 2021, Dennis NormileMay. 18, 2021, Meredith WadmanMay. 17, 2021, Robert ServiceMay. 18, 2021, Kelly ServickMay. 13, 2021, Sofia MoutinhoApr. 7, 2021, Sofia MoutinhoMar. 31, 2021, & Sofia MoutinhoMar. 26, 2021. (2021, April 19). *An archaeology society hosted a talk against returning Indigenous remains. Some want a new society*. Science. <https://www.sciencemag.org/news/2021/04/archaeology-society-hosted-talk-against-returning-indigenous-remains-some-want-new>.
- ☐ Pacheco, C. M., Daley, S. M., Brown, T., Filippi, M., Greiner, K. A., & Daley, C. M. (2013, December). *Moving forward: breaking the cycle of mistrust between American Indians and researchers*. American journal of public health. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3828980/>.
- ☐ Redman, S. (2016, March 15). *When Museums Rushed to Fill Their Rooms With Bones*. Smithsonian.com. <https://www.smithsonianmag.com/history/when-museums-rushed-to-fill-their-rooms-bones-180958424/>.
- ☐ Tribal Evaluation Workgroup. "A Roadmap for Collaborative and Effective Evaluation in Tribal Communities." Children's Bureau, Administration for Children and Families, U.S. Department of Health and Human Services. September 2013.



*Questions?*

