

**Traditional Lifeways Curriculum:
ENVIRONMENTAL HEALTH IN RURAL COMMUNITIES:
TRADITIONAL FOODS AND CONTAMINENTS**

**Upper Kuskokwim Region of Interior Alaska
Junior High - Adult**



Alan Dick, Alaska Native Clipart

Sonh tuk'a itos

Dihwztone ko tuka ighwnh

My mother is cutting fish

The fish is drying on the rack

A Culturally-based Curriculum created by
Telida Traditional Council's
Indian General Assistance Program
Environmental Protection Agency

Curriculum and Teacher Resources available at www.ukpreservation.com

TRADITIONAL LIFEWAYS CURRICULUM FOR JUNIOR HIGH - ADULT

A UNIT STUDY APPROACH

Also in the series:

FISHING

TRAPPING

GATHERING

BIRD HUNTING

MOOSE HUNTING

WATER QUALITY

ENVIRONMENTAL HEALTH FOR RURAL COMMUNITIES

SOLID WASTE MANAGEMENT FOR RURAL COMMUNITIES

A Culturally-Based Curriculum created by
Telida Traditional Council's
Indian General Assistance Program
Environmental Protection Agency

Traditional language translations (Dinak'i) by Steven Nikolai Sr.

Curriculum and Teaching Resources available at www.ukpreservation.com

These education lessons are dedicated to the next generation to help protect our traditional way of life.



Alan Dick, Alaska Native Clipart

Dina'ena tsaye ghinet tu hidinelghwts'

jija huniya deno.

*People are boiling water for tea
while they are picking berries.*

Environmental Education Lessons for Telida Village

Traditional Foods and Contaminants

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Foreword

Telida Village has developed a series of environmental health education that will keep the tribal members healthy and the environment clean for the future generations, fulfilling the Indian General Assistance Program’s objective to reduce the risk to human health and the environment.

The “Traditional Foods and Contaminants” education unit is composed of six education lessons with a total of 55 activities. The place-based lessons focus on traditional subsistence foods and world-wide contaminant patterns and activities that threaten the food resources of rural Alaska. Education activities include Elders working with students to examine and solve potential contaminant problems in the local community.

The education lessons meet the Alaska State Content Standards and Alaska Standards for Culturally Responsive Schools. The activities in the lessons are based on “Translating Standards to Practice: A Teacher's Guide to Use and Assessment of the Alaska Science Standards” developed by the Alaska Rural Systemic Initiative and “The Handbook for Culturally Responsive Science Curriculum” by Sidney Stephens.

Curriculum Development Team



Charlene Dubay (Team Leader, Contributor) is the IGAP Environmental Director for Telida Traditional Council overseeing the development of the culturally-based Traditional Lifeways curriculum. Ms. Dubay has a Master’s Degree in Cross-Cultural Studies from the University of Alaska Fairbanks and a Bachelor’s of Science Degree in Wildlife Biology from the University of Massachusetts Amherst. Charlene has been integrating subsistence and language issues into preservation and outreach programs for 10 years. She can be reached at charlenedubaya@hotmail.com.



Steven Nikolai Sr. (Native Cultural Specialist) was born and raised in the Upper Kuskokwim region and is a First Speaker of Upper Kuskokwim Athabascan (UKA). Mr. Nikolai has taught bilingual classes at the Nikolai School in the Iditarod Area School District and is an experienced subsistence hunter, trapper and fisherman. Steven Sr. also worked with the Alaska Native Language Center. Steven Nikolai Sr. was Chief of the Telida Tribal Council for many years and has a heart for economic and social development as well as preserving traditional ways of living in the U.K. region. Steven provided UKA translations in the Series.



Teresa Hanson (Researcher, Contributor) holds a Master’s Degree in Northern Studies and a Bachelor’s Degree in History from the University of Alaska Fairbanks. She currently consults curriculum development projects, as well as develops grant proposals for Alaskan cultural issues such as language preservation. Teresa homeschooled her four children and other small groups for over 18 years. Her Oral History collection Master’s thesis: “Homeschooling in Alaska” interviews are housed in the Oral History collection in the UAF Archives at Rasmuson Library. If you would like contact her about curriculum development or other educational consulting services, she can be reached at teresaconsulting@hotmail.com.



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Introduction to Traditional Lifeways Curriculum Series



Alan Dick, Alaska Native Clipart

The wisdom of any culture lies not in the monuments constructed or the books written but rather within the skills it gives to its children for their continued survival.

When a community teaches co-operation, sharing and respect for the natural world it insures that the earth will continue to provide the necessities to nurture both the body and spirit of its people. From their earliest years the children of the Upper Kuskokwim Region are taught respect for land, water and the creatures of the earth.

Young children are encouraged to watch what others are doing. In this way they are learning what to do for themselves. They are being taught to be self-sufficient and when necessary to improvise with what is at hand. This ability to make independent decisions may someday be necessary for their own survival or that of another person.

Within the Upper Kuskokwim Region subsistence is necessary for day-to-day living. Hunting, trapping, fishing, gathering and gardening are crucial activities for the majority of the native population. (State of Alaska Community Website, McGrath, Takotna, Nikolai, and Telida.) Understanding rural issues such as sanitation, healthy drinking water and responsible solid waste management are necessary for the health of the environment and the individual.

The curriculum provided is not intended to replace the training of the Elders but rather to provide a method that supports this training.

Pattern of Life (Collins, revised, 2004.)

“The people of the Upper Kuskokwim area developed a pattern of life that was determined to a large extent by their environment. There were no permanent, year-round villages in the past. People had to move seasonally to harvest food and would winter in different locations to keep from depleting the resources such as food, fur, and firewood in any given place. As with other Athabaskans who reside near the head of a river system surrounded by mountains, they share a number of environmental constraints.

The climate is that of the Alaskan Interior with cold winters and relatively warm summers. The boreal forest provides a number of micro-environments. Black

spruce and moss lie over areas of frozen ground that requires a hot fire to clear and thaw, thus allowing willow and birch to move in. The thawed ground along the rivers is covered with stands of white spruce and birch on the higher cut bank side of the river, with thick stands of willow and alder on the sandbars. Cottonwood are found along the river and aspen on the higher ground. Cross-country travel is difficult in much of the lowland area because of numerous swamps and boggy areas drained by small streams that flow into the major rivers. The rivers are the main highways for travel both in summer and winter.

Food resources vary in type, quantity and habitat. Three species of salmon ascend the Kuskokwim streams: Chinook (King), Chum (Dog), and Coho (Silver). Whereas hundreds of thousands, and even millions, of salmon enter the Kuskokwim River, but by the time they reach the headwaters only a few thousand or even a few hundred are left to spawn in any given stream.

Until the late 1800's and early 1900's moose were absent in most of the area. The large animals most harvested were Dall sheep, caribou, Black bear and Grizzly bear. Dall sheep habitat is limited to the Alaska Range. Caribou also spend much of the year in the mountains, moving down to the lowlands primarily during the winter. Today, moose is widely hunted.

Small game species such as rabbits, grouse and ptarmigan are widely dispersed but their populations are cyclic and in some years they are very scarce.

Ducks and geese pass through the area by the thousands in the spring when the headwaters of the rivers first open, but most move on to nest elsewhere. During the fall migration, when there is plenty of open water, most fly over the area without stopping except for a brief rest.

Yearly Cycle of Subsistence Activities (Collins, revised. 2004)

"A yearly cycle in one of these territories might begin with relocating to a fishing site in the late spring to take advantage of the fish runs that began moving upriver at breakup.

The original method for catching these fish was by constructing a fence and wire in a shallow side stream that was utilized for spawning. They were more difficult to catch in the main Kuskokwim River until the fishwheel was introduced in the 1900's, and large twine and nylon fish nets became available.

Nikolai and Telida were suitable sites for winter villages. Other sites that were used at times included East Fork, Big River and Vinasale. During the winter some families dispersed to trapline cabins. As trade goods and industry such as mining became more available at McGrath, Takotna and Medora, trapping began to play a bigger role in the yearly cycle.

Title: Traditional Foods and Contaminants Curriculum

Authors: Telida Village Council and the Indian General Assistance



Alaska State Education Standards

The following standards are excerpts from the Alaska Cultural and State Content Standards

Cultural Standards

- A. Culturally knowledgeable students are well grounded in the cultural heritage and traditions of their community.**

Students who meet this cultural standard are able to:

1. Practice their traditional responsibilities to the surrounding environment.

- E. Culturally knowledgeable students demonstrate an awareness and appreciation of the relationships and processes of interaction of all elements in the world around them.**

Students who meet this cultural standard are able to:

1. Recognize and build upon the interrelationships that exist among the spiritual, natural, and human realms in the world around them, as reflected in their own cultural traditions and beliefs as well as those of others;
2. Understand the ecology and geography of the bioregion they inhabit;
3. Demonstrate an understanding of the relationship between world view and the way knowledge is formed and used;
4. Determine how ideas and concepts from one knowledge system relate to those derived from other knowledge systems;
5. Recognize how and why cultures change over time;

6. Anticipate the changes that occur when different cultural systems come in contact with one another;
7. Determine how cultural values and beliefs influence the interaction of people from different cultural backgrounds; and
8. Identify and appreciate who they are and their place in the world.

Science

A. A student should understand scientific facts, concepts, principles, and theories.

A student who meets the content standard should:

14. understand

- a. the interdependence between living things and their environments (Interdependence).
- c. that a small change in a portion of an environment may affect the entire environment (Interdependence).

B. A student should understand and be able to apply the concepts, models, theories, universal principles, and facts that explain the physical world.

A student who meets the content standard:

2. will design and conduct scientific investigations using appropriate instruments.
3. should understand that scientific inquiry often involves different ways of thinking, curiosity, and the exploration of multiple paths.
6. should employ strict adherence to safety procedures in conducting scientific investigations.

C. A Student should understand the nature and history of science.

A student who meets the content standard should:

5. understand that sharing scientific discoveries is important to influencing individuals and society and in advancing scientific knowledge.

D. A student should understand and be able to apply the concepts, processes, theories, models, evidence, and systems of earth and space sciences.

A student who meets the content standard should:

2. understand that scientific innovations may affect our economy, safety, environment, health, and society and that these effects may be short-term or long-term, positive or negative and expected or unexpected.
4. A student who meets the content standard should evaluate the scientific and social merits of solutions to everyday problems.

Math

B. A Student should understand and be able to select and use a variety of problem-solving strategies.

A student who meets this standard:

3. Students will understand and be able to select and use a variety of problem-solving strategies and use computational methods and appropriate technology as problem solving tools.

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Skills and Knowledge

Traditional Foods and Contaminants

The students will:

- **Know how to listen and work with Elders to gather information that will help to solve environmental health problems with traditional foods in the community.**
- **Be able to identify the different pathways of potential contaminant sources into the community.**
- **Know how to trace the contaminant cycles from the beginning to the end in the community as the people use traditional foods.**
- **Be able to identify sources that can pollute the community's drinking water.**
- **Understand how contaminants can affect living organisms.**
- **Know about the diseases that people can catch from contaminated foods and what they can do to prevent contamination.**
- **Learn about nuclear power.**
- **Understand how world events can affect Rural Alaska**

Elders in the Classroom by Roby Littlefield

All students can benefit from inter-generational contacts. In Alaska Native cultures, grandparents were held in high regard as they contributed to the community by passing on knowledge and skills. Children learned by listening to and watching Elders and often didn't realize they were in training. Bringing grandparents in to share personal knowledge when studying subjects like nutrition, customs, plants, biology, and history can benefit the entire class.

To get started, first look to your class members. Send home a note or survey expressing your desire to include parents, grandparents, and Elders in your lessons. Get referrals for possible speakers from organizations that work with Natives and/or the Elderly.

The way to ask Native American Elders for help is different from Western customs. Initial and subsequent contact should be subtle. Visit with them, allowing time for the conversation to wander. Allow for extended pauses, giving them time to think and decide. If their hearing is poor, sit on the side of their better ear and make sure your lips can be seen. Direct eye contact should be limited. Standing or sitting at an angle can increase an Elder's comfort level. Keep your questions basic and specific.

Begin the request by telling a little story about your class and how the Elder could help. If you are not sure if the Elder is interested, hint strongly that you would like to have their help and ask if she or he knows of someone who might be willing to participate. Custom teaches that it is rude to give someone a frank "no" to a request for help, so you need to recognize that a noncommittal response might mean "no," or it might mean that the request is being considered. If at some point the Elder changes the subject more than once while you are explaining your request, you should be aware that she or he might be trying to say "no." Don't force a response; if it is clearly not a "yes," let it go, or suggest they can contact you after they've thought about it.

It is important to ask before a meeting for permission to make audio or video recordings. Don't show up with the equipment; you may force consent and cause bad feelings. Permission to listen to or tape a story or lecture does not give you any right to rebroadcast or write the story with you as author.

If an Elder has agreed to participate in a classroom, suggest an activity or topic outline so they know what you are expecting. Provide them with optional dates and the logistics. It is helpful to explain the routine, consequences for students' misbehavior, and possible options if problems come up during the lesson. It is your responsibility to ensure discipline is maintained. Be aware, however, that Elders generally do not support strict discipline in a public setting. Discuss how to make a smooth transition to help the Elder leave the class. Agree on some visual signs and ground rules.

When the Elder arrives, properly introduce her or him so the Elder understands your respect for them. The teacher should be alert for visual cues from the Elder during the visit and be prepared to give unspoken signals back. The teacher should stay in the room.

Give the Elder a chance to use traditional discipline. Be prepared to move a child to sit by an adult who can role model how to listen respectfully. If you have problems with students

degrading or ignoring an Elder, have a teacher's aide or adult Native quietly intervene. Most traditional stories are like a round, crocheted pot holder. The story teller goes round and round the subject until it all comes together and finally comes to the lesson or point. Be patient; allow the Elders to share their culture in their own way. Your students are learning how to listen. Students should refrain from interrupting to ask questions. There will be a proper time to ask questions.

As a thank-you, Elders usually appreciate students and teacher letters, pictures, and story booklets, which are treasured and shown to friends and relatives. This may also encourage other Elders to participate in classroom projects.

Sometimes you will find a resource person who is available for a wide variety of subjects and projects. If you use an Elder more than once, the school should provide some type of stipend in appreciation of the energy and knowledge the Elder is contributing. Be careful not to burn out your Elders. Whenever you make a request, be sure the Elder understands she is not obligated. Keep your lessons flexible in case the Elder can't come at the last minute. Once an Elder has agreed on a time to come into your classroom, avoid changing or postponing the visit.