Exchange for Local Observations and Knowledge of the Arctic

- ELOKA Workshop
- Boulder, CO
- Nov. 15-17, 2011
A Yupiaq Worldview

A PATHWAY TO ECOLOGY AND SPIRIT

SECOND EDITION
fine arts • storytelling • drumming • subsistence • dancing • games • cooking • dress • weather forecasting • animal behavior • navigation skills • observation skills • pattern recognition • seasonal changes/cycles • edible plants / medical knowledge • star knowledge / constellations • language / terminology/concepts • counting / measurement / estimation • clothing design/insulation • tools/technology • building design/materials • transportation • genealogy • waste disposal • fire/heating/cooking • hunting / fishing / trapping • weapons • AND MUCH, MUCH MORE . . .
Indigenous Knowledge/Western Science

**Traditional Native Knowledge**
- holistic
- includes physical & metaphysical world linked to moral code
- emphasis on practical application of skills and knowledge
- trust for inherited wisdom
- respect for all things
- practical experimentation
- qualitative oral record
- local verification
- communication of metaphor & story connected to life, values, and proper behavior
- integrated and applied to daily living and traditional subsistence practices

**Western Science**
- part to whole
- limited to evidence and explanation within physical world
- emphasis on understanding how
- skepticism
- tools expand scale of direct and indirect observation & measurement
- hypothesis falsification
- global verification
- quantitative written record
- communication of procedures, evidence and theory

**Common Ground**
- universe is unified
- body of knowledge stable but subject to modification
- honesty, inquisitiveness
- perseverance
- open-mindedness
- empirical observation in natural settings
- pattern recognition
- verification through repetition
- inference and prediction
- plant and animal behavior, cycles, habitat needs, interdependence;
- properties of objects and materials;
- position and motion of objects;
- cycles and changes in earth and sky
- discipline-based
- micro and macro theory (e.g. cell biology & physiology, atomic theory, plate tectonics, etc.)
- mathematical models
Alaska Native Educator Associations

- CIULISTET RESEARCH ASSOCIATION
- ASSOCIATION OF INTERIOR NATIVE EDUCATORS
- SOUTHEAST NATIVE EDUCATORS ASSOCIATION
- NORTH SLOPE INUPIAQ EDUCATORS ASSOCIATION
- ASSOC. OF NATIVE EDUCATORS OF THE LOWER KUSKOKWIM
- ASSOCIATION OF NORTHWEST NATIVE EDUCATORS
- ALASKA NATIVE EDUCATION EDUCATION STUDENT ASSOCIATION
- ALASKA NATIVE EDUCATION COUNCIL
- ALASKA FIRST NATIONS RESEARCH NETWORK
- CONSORTIUM FOR ALASKA NATIVE HIGHER EDUCATION
- NATIVE EDUCATORS OF THE ALUTIIQ REGION
- ASSOCIATION OF UNANGAN EDUCATORS
- SOUTHCENTRAL NATIVE EDUCATORS ASSOCIATION
- KUSPUK NATIVE EDUCATORS ASSOCIATION
- FUTURE TEACHERS OF ALASKA
SOUTHEAST TRADITIONAL TRIBAL VALUES

“OUR WAY OF LIFE”

- Discipline and Obedience to the Traditions of our Ancestors
- Respect for Self, Elders and Others
- Respect for Nature and Property
- Patience
- Pride in Family, Clan and Traditions is found in Love, Loyalty and Generosity
- Be Strong in Mind, Body and Spirit
- Humor
- Hold Each Other Up
- Listen Well and with Respect
- Speak with Care
- We are Stewards of the Air, Land and Sea
- Reverence for Our Creator
- Live in Peace and Harmony
- Be Strong and Have Courage

Developed, Adapted, and Approved at the 2004 Elders Forum on Traditional Values
Sponsored by Central Council of Tlingit and Haida Indian Tribes of Alaska, Circles of Care, SAMHSA Substance Abuse Planning Project, Elderly Nutrition Program, Johnson O’Malley Program and Alaska Rural Systemic Initiative, Alaska Association of School Boards

Tribal Family and Youth Services • Central Council of Tlingit and Haida Indian Tribes of Alaska
Alaska Standards for

Culturally Responsive Schools

Cultural Standards for:
Students
Educators
Schools
Curriculum
Communities
ACMP
Arctic Climate Modeling Program

Program Overview
Photo Albums
Science Observation Network
Classroom Lessons
Modeling Exercises
Mentor Lectures
Interactive DVD

ACMP Activities:
  Event Calendar
  Professional Development
  Youth Camp
  Ask a Scientist
Integrating Culturally-Responsive School Standards in Education

Related winter activities include trapping, hunting, dog sledding, Native dancing and potluck celebrations, storytelling, sewing parkas, mukluks, mittens, slippers, ruffs and carving with ivory, wood or bone. Sports-related activities include basketball, volleyball and wrestling. Native games include the World Eskimo Indian Olympics games such as the High Kick and Finger Pull.

Related spring activities include bear hunting, hunting out in the sea ice, drying meat, making seal oil and preparing for summer fish camp. Many hours are spent preparing and putting away dried foods.

Related fall activities include ivory carving, hunting, skin sewing, knotting, weaving grass baskets, ice fishing and preparing for the winter holidays. Some communities can practice Native dancing and children can do different sports related to the curriculum (Native games).

Related summer activities include fishing, going to fish camps to prepare dried salmon, picking various greens, picnics, putting away dried fish and meat, storing edible greens and seal oil, freeze berries for the winter. Communities have their own techniques to prepare salmon and greens—have students research that in their communities.
Effie Kokrine Charter School
Thematic Curriculum
2006–2007

Outer Ring = Themes (Values)
Spiral = Annual Cycle of Learning
INUPIAQ LEARNING FRAMEWORK

NORTH SLOPE BOROUGH SCHOOL DISTRICT
Indigenous Studies PhD Program Emphases

- Indigenous Knowledge Systems
- Indigenous Languages
- Indigenous Education
- Indigenous Leadership
- Indigenous Research
Indigenous Knowledge Systems
Graduate Coursework

- CCS 601 - Documenting Indigenous Knowledge
- CCS 602 - Cultural and Intellectual Property Rights
- CCS 603 - Field Study Research Methods
- CCS 608 - Indigenous Knowledge Systems
- CCS 610 - Education and Cultural Processes
- CCS 616 - Education and Socio-Economic Change
- CCS 611 - Culture, Cognition & Knowledge Acquisition
- CCS 612 - Traditional Ecological Knowledge
- CCS 613 - Alaska Standards for Culturally Responsive Schools
- CCS 620 - Critiquing Indigenous Literature for Alaska’s Children
- CCS 690 - Seminar in Cross-Cultural Studies
United Nations Declaration on the Rights of Indigenous Peoples

September, 2007

http://www.cwis.org/drft9329.html
Alaska Native Science
A Curriculum Guide
by Dolly Garza

Over the course of the past 15 years there has been a concerted effort by indigenous people around the world to reconceive the historical claims that have existed between the knowledge systems they have developed to sustain themselves for millennia and the knowledge and ways of knowing that have emerged under the banner of Western science. Alaska Native people have taken an active part in documenting and articulating their worldviews, particularly as they bear upon the educational processes and ways of knowing by which their traditions are passed on from generation to generation. Numerous educational resources have been developed by educators and Elders in each cultural region of Alaska to bring the local knowledge systems to the forefront to be included side-by-side with the Western curriculum in the implementation of educational programs. This curriculum handbook, and the accompanying CD from the Compan Knowledge radio series introduces the reader to the creative potential of bringing multiple knowledge systems to bear in our understanding of the world around us.
http://ankn.uaf.edu
Alaska Native Language/Cultural Regions
WGBH/ANKN/ASDN
Teacher’s Domain Lessons

ALASKA NATIVE PERSPECTIVES ON EARTH AND CLIMATE

TRADITIONAL
WAYS OF KNOWING

Spirit
Air
Fire
Water
Earth

EARTH AS A SYSTEM

Atmosphere
Biosphere
Cryosphere
Hydrosphere
Lithosphere

As the environmental, economic, and political consequences of climate change are felt in Alaska, the Arctic, and throughout the world, we have much to learn from both the traditional knowledge of Native peoples and ongoing scientific research. These two methods of observing nature and solving the challenges of survival can provide complementary perspectives on these issues. This collection looks at Alaska’s unique geology and the impact of development and climate change using both of these tools, and features Alaska Native scientists who are working toward solutions.