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ABSTRACT

The Alaska Federation of Natives, in cooperation with the University of Alaska, received funding to implement the Alaska Rural Systemic Initiative (AKRSI). Over a 5-year period (1995-2000), AKRSI initiatives are systematically documenting the indigenous knowledge systems of Alaska Native people and developing educational policies and practices that effectively integrate indigenous and Western knowledge. Program emphasis is on renewing Native pathways to education so that traditional knowledge systems, ways of knowing, and world views may be used as a foundation for learning all subject matter. Elders' councils and the Alaska Native/Rural Education Consortium provide overall guidance for AKRSI. Resources are being assembled in each of Alaska's five cultural regions (Yup'ik, Inupiaq, Athabascan, Aleut/Alutiiq, and Southeast regions) and entered into a curriculum resource collection maintained through the Alaska Native Knowledge Network and listed on the World Wide Web. AKRSI initiatives include this curriculum clearinghouse, cultural documentation by students in rural schools, development of Alaska standards for culturally responsive schools, development of village-oriented science resources, formation of Native educator associations in each cultural region, development of pedagogical processes based on Native ways of knowing, elders' academies, Native science fairs, math/science unit-building workshops, performance standards for math and science, and the Alaska Native Science Education Coalition. Charts outline the sequence of initiatives in each region. Includes contact information for program directors and regional coordinators. (SV)

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Native Pathways TO Education

Alaska Rural
Systemic Initiative

Alaska Federation of Natives
University of Alaska
National Science Foundation
Annenberg Rural Challenge

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The purpose of the AKRSI is to bring people together from throughout the state to implement a five-year series of initiatives to systematically document the indigenous knowledge systems of Alaska Native people and develop educational policies and practices that effectively integrate indigenous and Western knowledge through a renewed educational system. The emphasis throughout the program is on renewing Native pathways to education, so that traditional knowledge systems, ways of knowing and world views can be more effectively utilized as a foundation for learning all subject matter, particularly in the context of rural and Native Alaska. Overall guidance for the AKRSI is provided by a series of Elders' Councils, and the Alaska Native/Rural Education Consortium, made up of representatives of the partner organizations from throughout the state.



Alaska Native Knowledge Network

The resources that are assembled in each region through the Alaska Rural Systemic Initiative are being entered into a curriculum resource collection maintained through the Alaska Native Knowledge Network, housed in Fairbanks. The listing of resources are available on the World Wide Web at the following address: <http://www.ankn.uaf.edu>. Any inquiries or submissions regarding the ANKN curriculum resources should be directed to Sean Topkok at (907) 474-5897, or e-mail to fnfst@uaf.edu. A regular ANKN Newsletter, "Sharing Our Pathways," is being distributed throughout the state to keep everyone up-to-date on the developments associated with the AKRSI. Anyone who wishes to submit items related to indigenous knowledge systems for consideration in the newsletter should contact Lolly Carpluk at (907) 474-5086, or e-mail to ftlmc@uaf.edu.

Alaska Rural Challenge

While the initiatives funded by the National Science Foundation focus on areas related to math, science and technology, additional funding from the Annenberg Rural Challenge extends the work of the Alaska Rural Systemic Initiative to include the areas of language arts and social studies, so that the whole of the Native knowledge systems can be addressed. The emphasis of the Alaska Rural Challenge is on fostering a "pedagogy of place" focusing on the development of a sense of community and a sense of place by linking schooling to the cultural and physical environment in which the students are situated. All the initiatives of the AKRSI and the ARC are being implemented on a rotational schedule in each cultural region over the five years from 1995-2000. The clusters of initiatives and the rotational schedule are summarized in the enclosed chart.

Documentation of Traditional Knowledge Systems in Alaska

The reform strategy around which the Alaska Rural Systemic Initiative has been constructed is focused on the integration of indigenous knowledge into the curricula and pedagogy of rural schools as a stepping stone toward a more inclusive curricula in accordance with current standards.

A major component of the AKRSI therefore, is the identification of existing cultural resources that can provide a documentary base on which to build a comprehensive framework for the integration of traditional knowledge in educational programs. These resources include oral histories, video tapes, biographies, Elder's conference reports, traditional place names and maps, language materials, curriculum resources, or any other book, tape, document or persons that can provide insights into the traditional knowledge and skills utilized by Native people in their respective cultural regions. Anyone who knows of such resources and is willing to share that information is encouraged to contact any of the AKRSI staff listed in this brochure.

AKRSI Sponsored Initiatives

S.P.I.R.A.L. Curriculum Framework

The ANKN curriculum clearinghouse is identifying and cataloging curriculum resources applicable to teaching activities revolving around 12 broad cultural themes organized on a chart that provides a "Spiral Pathway for Integrating Rural Alaska Learning." The themes that make up the S.P.I.R.A.L. framework are family, language/communication, cultural expression, tribe/community, health/wellness, living in place, outdoor survival, subsistence, ANCSA, applied technology, energy/ecology, and exploring horizons. The curriculum resources associated with each of these themes can be accessed through the ANKN website at <http://www.ankn.uaf.edu>.

Cultural Documentation/Atlas

Students in rural schools are interviewing Elders in their communities and researching available documents related to the indigenous knowledge systems, and then assembling the information they have gathered into a multimedia format for publication as a "Cultural Atlas" on CD-ROM and the Internet. Documentation has focused on themes such as weather prediction, edible and medicinal plants, geographic place names, flora and fauna, moon and tides, fisheries, subsistence practices, outdoor survival and the aurora.

Cultural Standards

A set of "Alaska Standards for Culturally Responsive Schools" have been developed for students, teachers, curriculum, schools and communities that provide explicit guidelines for ways to integrate the local culture and environment into the formal education process so that students are able to achieve cultural well-being as a result of their schooling experience.

Village Science Curriculum Applications

Four volumes of village oriented science curriculum resources are being developed in collaboration with rural teachers for use in schools throughout Alaska. They will serve as a supplement to existing curriculum materials to provide teachers with ideas on how to relate the teaching of basic science and math concepts to the surrounding environment.

Native Educator Associations

Associations of Native educators have been formed in each cultural region to provide an avenue for sustaining the initiatives that are being implemented in the schools by the AKRSI. The regional associations sponsor curriculum development work, organize Academies of Elders and host regional and statewide conferences as vehicles for disseminating the information that is accumulated.

Native Ways of Knowing

Each cultural region is engaged in an effort to distill core teaching/learning processes from the traditional forms of cultural transmission and to develop pedagogical practices in the schools that incorporate these processes (e.g., learning by doing/experiential learning, guided practice, detailed observation, intuitive analysis, cooperative/group learning, listening skills).

Elders Academies

Native educators are convening with Native Elders around a science/math theme and a deliberative process through which the Elders share their traditional knowledge and the Native educators seek ways to apply that knowledge to teaching various components of the standards-based curriculum. The teachers then field test the curriculum ideas they have developed, bring that experience back to the Elders for verification, and then prepare a final set of curriculum units that are pulled together and shared with other educators.

AISES Chapters/Native Science Fairs

K-12 chapters of the American Indian Science and Engineering Society are being formed in rural districts serving each cultural region. These chapters are participating in AISES Science Camps and are sponsoring Native Science Fairs in which the projects are judged for their science content by experienced science teachers and for their cultural content by Native Elders. The winners of the regional fairs attend the national AISES Science Fair in the Spring.

Math/Science Unit-Building Workshops

Under the sponsorship of the Alaska Native Science Education Coalition, small regional teams of science teachers, Native teachers, elders and scientists (each of whom learn from the others) are assembled for a series of sessions of concentrated work and peer review aimed at building science and math curriculum units around a locally identified theme that can serve as a focus for meeting state content standards starting from a knowledge base grounded in the local environment (e.g., weather, food preservation, moon/tides, birch trees, berries, measuring systems). The units are then field tested by the participating teachers, refined and made available to teachers throughout the state as models for an on-going process of standards based and culturally grounded curriculum development.

Math/Science Performance Standards

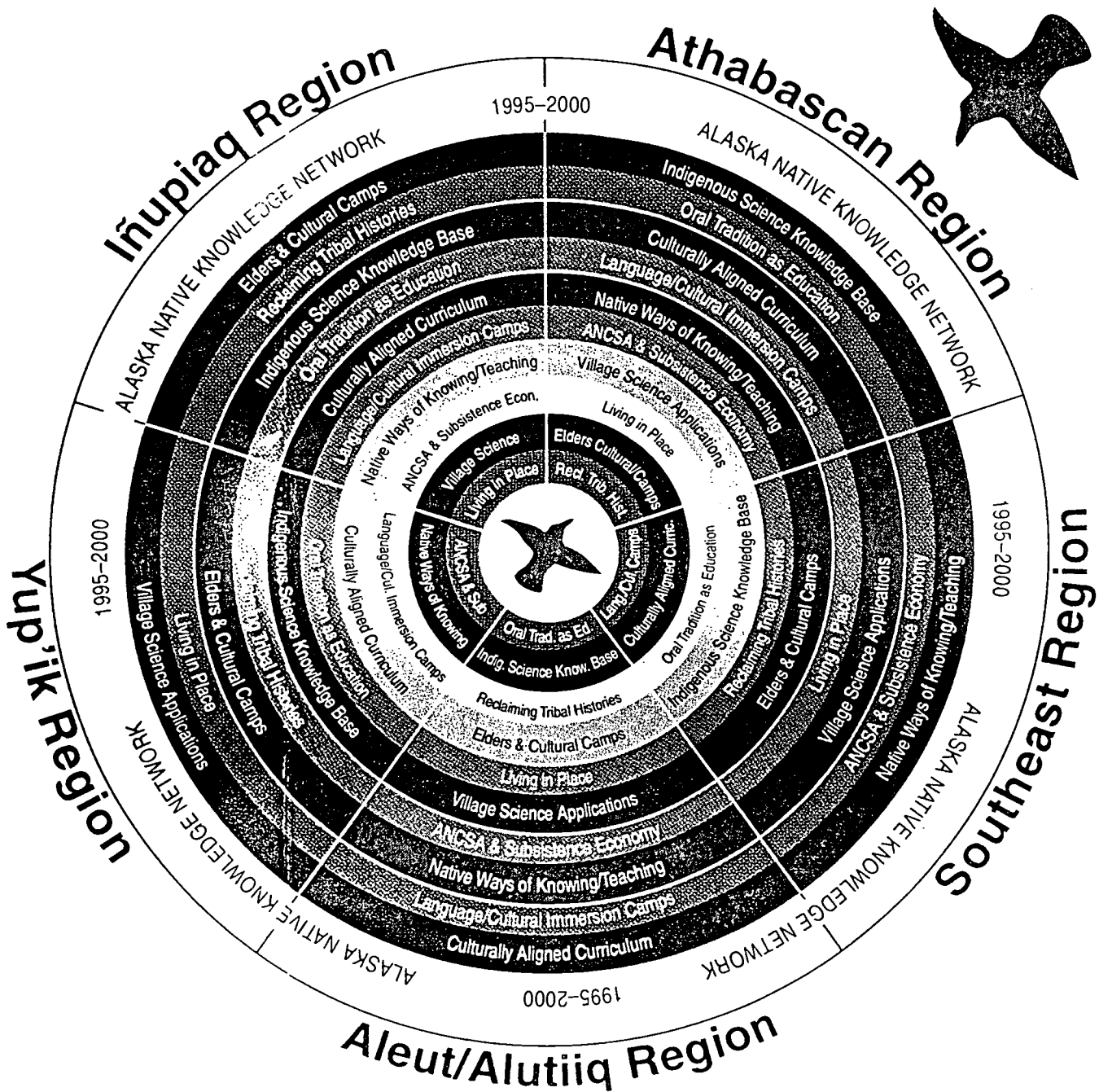
Performance standards in the areas of math and science are being developed that will serve as the benchmarks for the state assessment system in those content areas. Through AKRSI support, representation from rural/Native communities is helping to incorporate the various cultural and geographic perspectives needed to provide equity in the assessment process.

Alaska Native Science Education Coalition

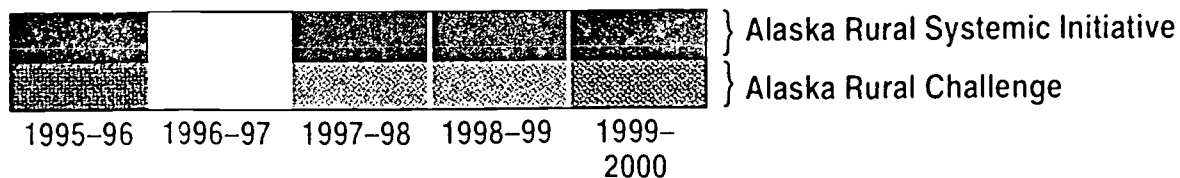
The ANSEC is made up of representatives from over 20 agencies, professional organizations and other programs that have an interest and role in science and math education in rural Alaska schools. The Coalition is seeking to bring its vast array of curriculum and professional development resources into focus around the implementation of standards/culturally-based science and math curriculum, including the incorporation of rural/cultural considerations in the Coalition members own materials and practices (e.g., Alaska Science Consortium workshops, Project Wild curriculum materials, National Park Service interpretive programs).

NSF/ARC Combined Yearly Cycle of Activities by Cultural Region

NSF						Annenberg
<u>Rural Systemic Initiative/Year</u> (1995-2000)	1995-96	1996-97	1997-98	1998-99	1999-2000	<u>Rural Challenge Initiative/Year</u> (1996-2000)
Native Ways of Knowing/Teaching	Yup'ik Region	Iñupiaq Region	Athabasca Region	Aleut/Alut Region	Southeast Region	ANCSA and the Subsistence Econ.
Culturally Aligned Curriculum	Southeast Region	Yup'ik Region	Iñupiaq Region	Athabasca Region	Aleut/Alut Region	Language/Cultural Immersion Camps
Indigenous Science Knowledge Base	Aleut/Alut Region	Southeast Region	Yup'ik Region	Iñupiaq Region	Athabasca Region	Oral Tradition as Education
Elders and Cultural Camps	Athabasca Region	Aleut/Alut Region	Southeast Region	Yup'ik Region	Iñupiaq Region	Reclaiming Tribal Histories
Village Science Applications	Iñupiaq Region	Athabasca Region	Aleut/Alut Region	Southeast Region	Yup'ik Region	Living in Place



Initiatives by Region & Year



Program Directors

For further information regarding the Alaska Rural Systemic Initiatives outlined in this brochure, contact any one of the following program directors:

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Regional Coordinators

The Regional Coordinators responsible for each cultural region and their phone numbers are as follows:

Aleut/Alutiiq Region	Leona Kitchens, Unalaska snowbank@arctic.net (907) 581-5472
Athabascan Region	Amy Van Hatten, Fairbanks fyav@uaf.edu (907) 474-0275
Iñupiaq Region	Elmer Jackson, Kiana fnej@uaf.edu (907) 475-2257
Southeast Region	Andy Hope, Juneau fnah@uaf.edu (907) 465-6362
Yup'ik/Cup'ik Region	Barbara Liu, Bethel fnbl@uaf.edu (907) 543-3457



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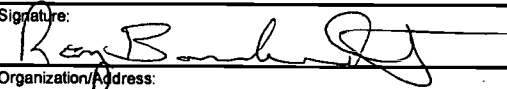
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