

Arctic Science Education Packet

History and Education Sites

Alaska Native Knowledge Network: Fairbanks, Alaska

<http://www.ankn.uaf.edu/>

The Alaska Native Knowledge Network is a resource created to share knowledge about the cultural experiences of Alaska Natives, including a section designated to Science and Mathematics Education. The section contains Alaskan and non-Alaskan links, such as to Alaska Science Forum, which provide both pictures and written explanations of various components of Alaska's environment.

Alaska Native Student Wilderness Enrichment Retreat (ANSWER Camp): Alaska

<http://www.serrc.org/AnswerCamp/>

ANSWER Camp is a two-week cultural and educational retreat for seventh- and eighth-grade students in rural Alaska. This project's goal is to enrich the mathematical and scientific skills of the students through exploration of life and have a positive impact on students' future aspirations.

Alaska Native Studies Curriculum and Teacher Development: Fairbanks, Alaska

<http://www.alaskool.org/>

The goal of the Native Studies Curriculum and Teacher Development Project (NSCTD) is to bring together all components of a community, especially its educators and elders, to develop a curriculum that educates the community of Alaska Native culture, ranging from social issues to education.

Alaska Reform in the Classroom through Technology Integration and Collaboration (ARCTIC): Marion, Ohio and Alaska

http://www.treca.org/m_home.html

ARCTIC's goal is to improve the way that teachers teach and students learn by integrating technology into the educational field. To use technology as a tool in the classroom, educators can participate in this training and support program.

Alaska Rural Systemic Initiative (RSI): Fairbanks, Alaska

<http://www.ankn.uaf.edu/arsi.html>

The focus of this initiative is to integrate the indigenous knowledge of Alaska natives into their educational programs, especially their scientific knowledge, in efforts to obtain solutions to the human problems in the arctic environment.

Hawaiian Studies Program: Waianae, Hawaii

<http://www.k12.hi.us/~waianaeh/HawaiianStudies/main.html>

The Hawaiian Studies Program seeks to help students of the Waianae high school learn more about their culture and surroundings to strengthen and promote future career skills and aspirations.

Old Minto Cultural Heritage and Education Institute (CHEI): Minto, Alaska

<http://www.ankn.uaf.edu/chei>

The goal of the Cultural Heritage and Education Institute is to share the culture of Alaska natives with the community, educate the youth about it, and restore the spirituality of the area. In order to educate the youth, as well as the community at large, programs and summer camps are available.

Rural Alaska Honors Institute (RAHI): Alaska

<http://www.uaf.edu/rahi/>

In order for rural Alaskan students to make an easier transition from high school to college, Rural Alaska Honors Institute provides an academic and social bridging program.

Education and Polar Sites

Arctic Circle: University of Connecticut, Storrs, Connecticut

<http://arcticcircle.uconn.edu/>

The goal of the Arctic Circle program is to expand knowledge about the circumpolar North to other parts of the community, including students, educators, and policy makers. A virtual classroom with syllabi, problems, and activities provides a method of integrating polar education into the science curriculum for educators.

Barrow Environmental Observatory (BEO): Barrow, Alaska

<http://www.sfos.uaf.edu/basc/beo/>

The Barrow Arctic Science Consortium (BASC) is a non-profit organization dedicated to researching Alaska's North slope and adjacent portions of the Arctic Ocean. This organization includes the BASC Educational Outreach, which provides resources for educators and students to further investigate the Arctic interact with scientists by reading journals and performing experiments.

Institute for Field Education: Boulder, Colorado

<http://www.muskox.com/>

The Institute for Field Education allows undergraduate and graduate students to explore science outdoors. Under the guidance of scientists, students gain valuable research skills and knowledge through direct experience.

LEARNZ: Christchurch, New Zealand

<http://www.learnz.org.nz/>

LEARNZ, the online education program for New Zealand students, gives educators opportunities to take field trips with their classes to experience the environment directly. These trips teach students about various components of the environment and how to preserve them.

Live From the Poles: Nationwide

http://www.passporttoknowledge.com/ptk_poles.html

This website features live broadcasts from the Poles of real scientists, their Polar experiences, and the life, land, and atmosphere of the Poles. Students can interact directly with scientists to enhance their knowledge of the Polar regions by following the scientists' work and experience.

Prince William Sound Science Center (PWSSC): Alaska

<http://www.pwssc.gen.ak.us/pwssc/pwssc.html>

The Prince William Sound Science Center conducts studies on the ecology in southeastern Alaska. It has recently expanded to educate students and the general public, offering monthly elementary education programs that include field trips, projects, and lectures.

Teachers Experiencing Antarctica and the Arctic: Nationwide

<http://tea.rice.edu>

The Teachers Experience Antarctica and the Arctic is a program that allows K12 teachers to participate in a polar expedition, where he/she works closely with scientists and researchers. The objective is to bring increased knowledge and experience into classrooms.

Toolik Field Station: University of Alaska Fairbanks

<http://www.uaf.edu/toolik/>

The Toolik Field Station (TFS) supports research and education to create a better understanding of the Arctic and its relationship to the global environment. TFS works with different levels, from high school to graduate students, to expand its educational component.

Other Sites

Ecology Curriculum Reform: Integrating innovative teaching and global change technology: San Diego State University (see also the PISCES program)

<http://www.sdsu.edu> and <http://www.sdsa.org/pisces/>

The Center for Research in Mathematics and Science Education includes links to the PISCES, Partnerships Involving the Scientific Community in Elementary Schools, program in San Diego, California and Barrow, Alaska. The goal of the center is to improve elementary science with specific activities for educators of kindergarten through eighth grade students.

Partners in Science: Fairbanks North Star Borough School District (FNSBSD), Alaska

<http://www.northstar.k12.ak.us/> and <http://www3.northstar.k12.ak.us/>

This program allows educators and classes to link to the GLOBE network, which allows students to interactively investigate science by completing activities.

Note:

-<http://www.northern.org/camp/chab.htm> and <http://globe.fsl.noaa.gov/> sites could not be found
-the Steller's Eider Science and Education Partnership: Alaska did not have a website that I could research