

Bringing in the Community

Retaining Knowledge

Community engagement ...

Collaboration...

Co-creation...

Retaining Knowledge


An aerial photograph of a snowy landscape. On the left side, there is a road and a cluster of buildings. The rest of the image is dominated by a vast, textured expanse of snow. The text is overlaid on the snow.

Bringing in the Community

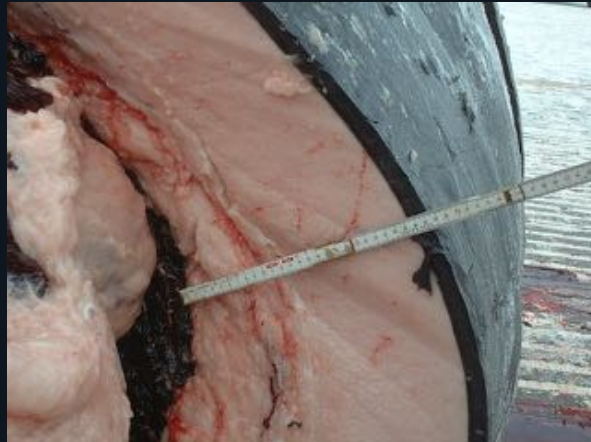
Retaining Knowledge



ARCTIC SCIENCE



**NORTH SLOPE BOROUGH
BARROW, ALASKA**



Community observations of sea ice change at Barrow

- Later fall freeze-up
- Less abundant multi-year ice
- Less stable shorefast ice in springtime
- Increased variability in ice conditions



Flat ice zone (*Igniñaq*) between shore and ridges

Salt-free Multiyear Sea Ice *Piqaluyak*

Bottom-fast Ice *Tuvaqtaq*

Pressure Ridge *Ivuniq*

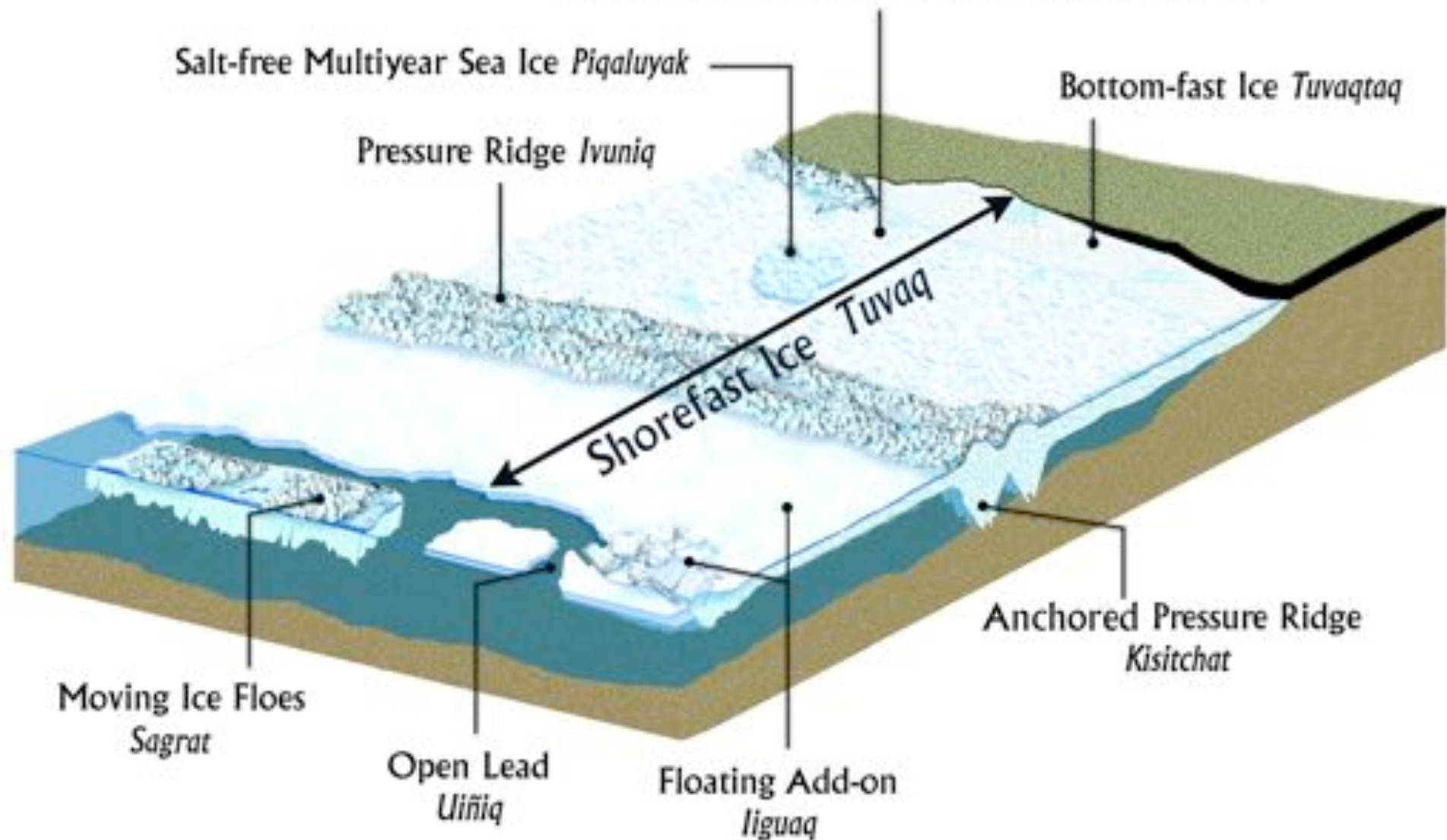
Shorefast Ice *Tuvaq*

Anchored Pressure Ridge *Kisitchat*

Moving Ice Floes *Sagrat*

Open Lead *Uiñiq*

Floating Add-on *Iiguaq*





Credit: Shari Gearheard

Warren Matumeak



Credit: Robin Higdon

Craig George

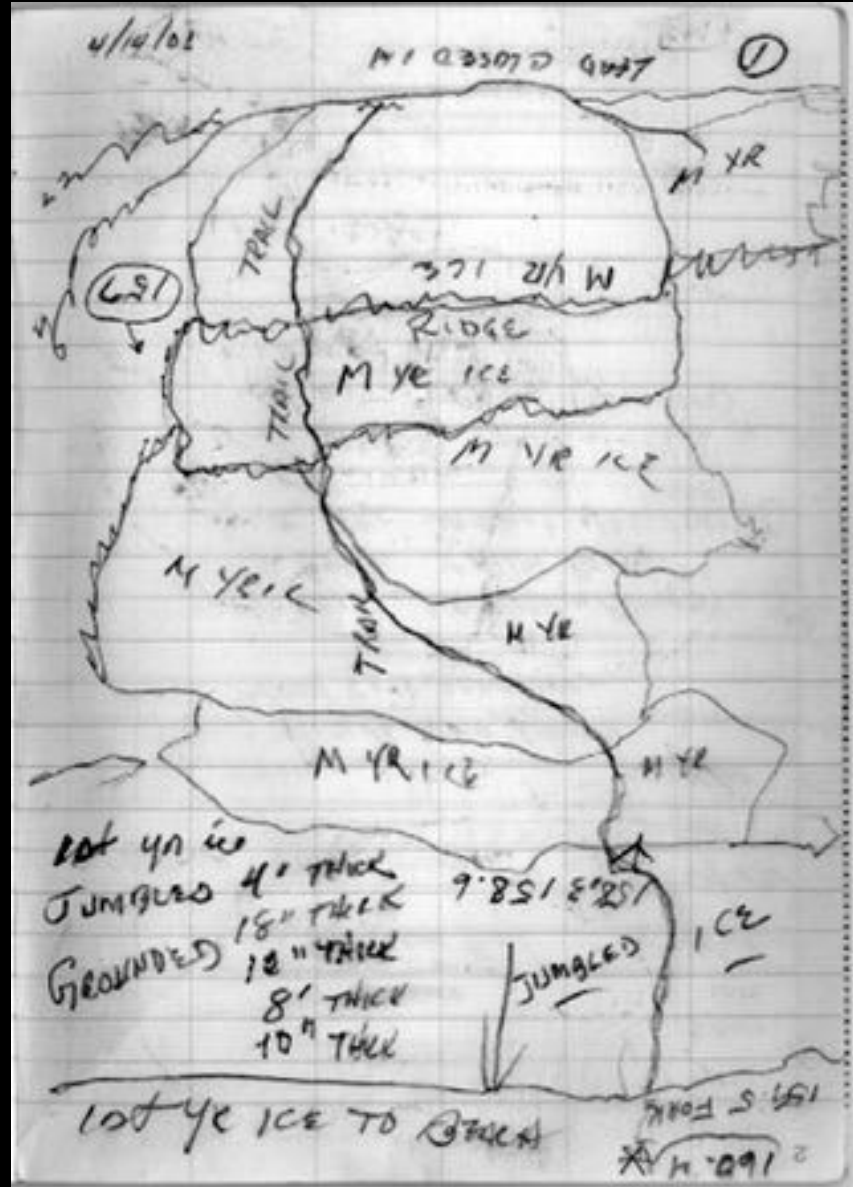
Matumeak's hand sketches of the ice trails in 2001



Credit: Shari Gearheard

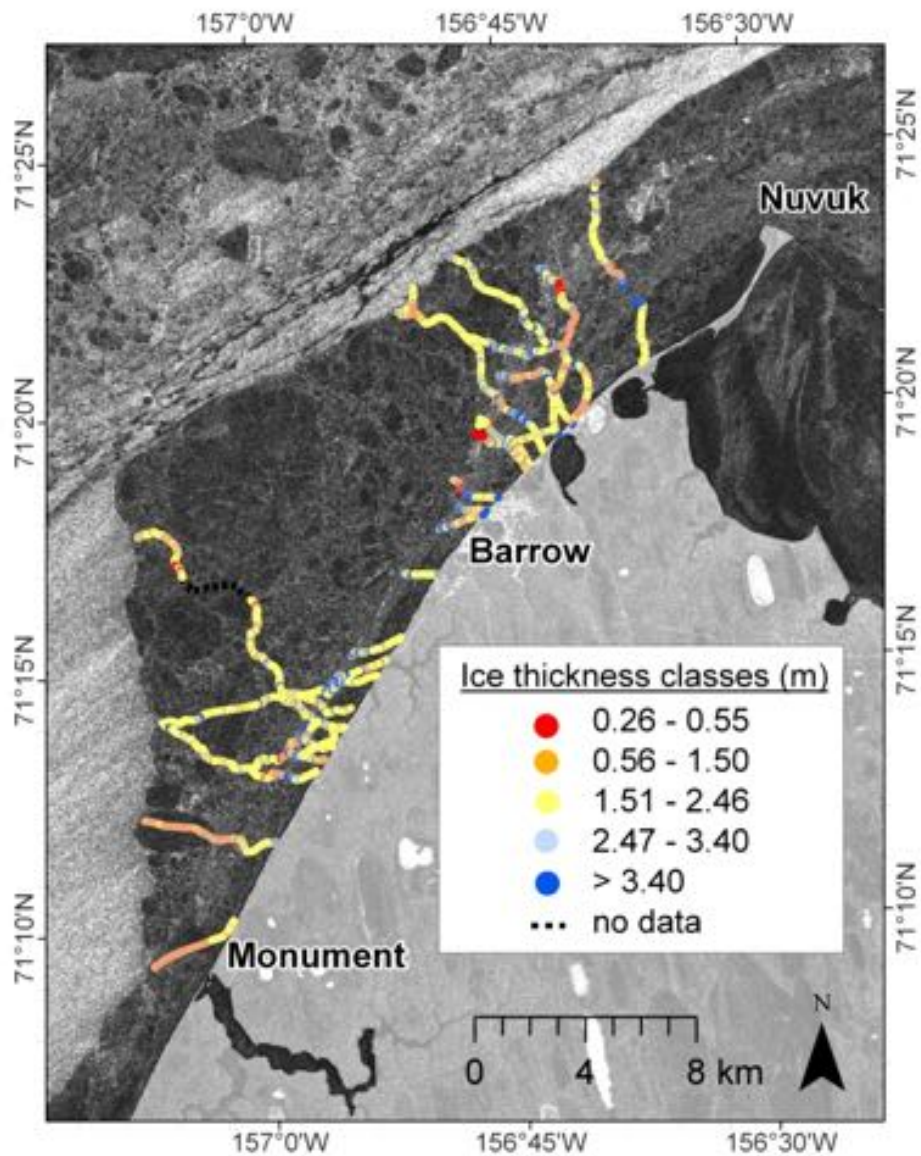
Warren Matumeak

“We had a lot more multiyear ice this year than in past years...I haven't seen this many piqaluyaq sections before.”



Credit: Warren Matumeak

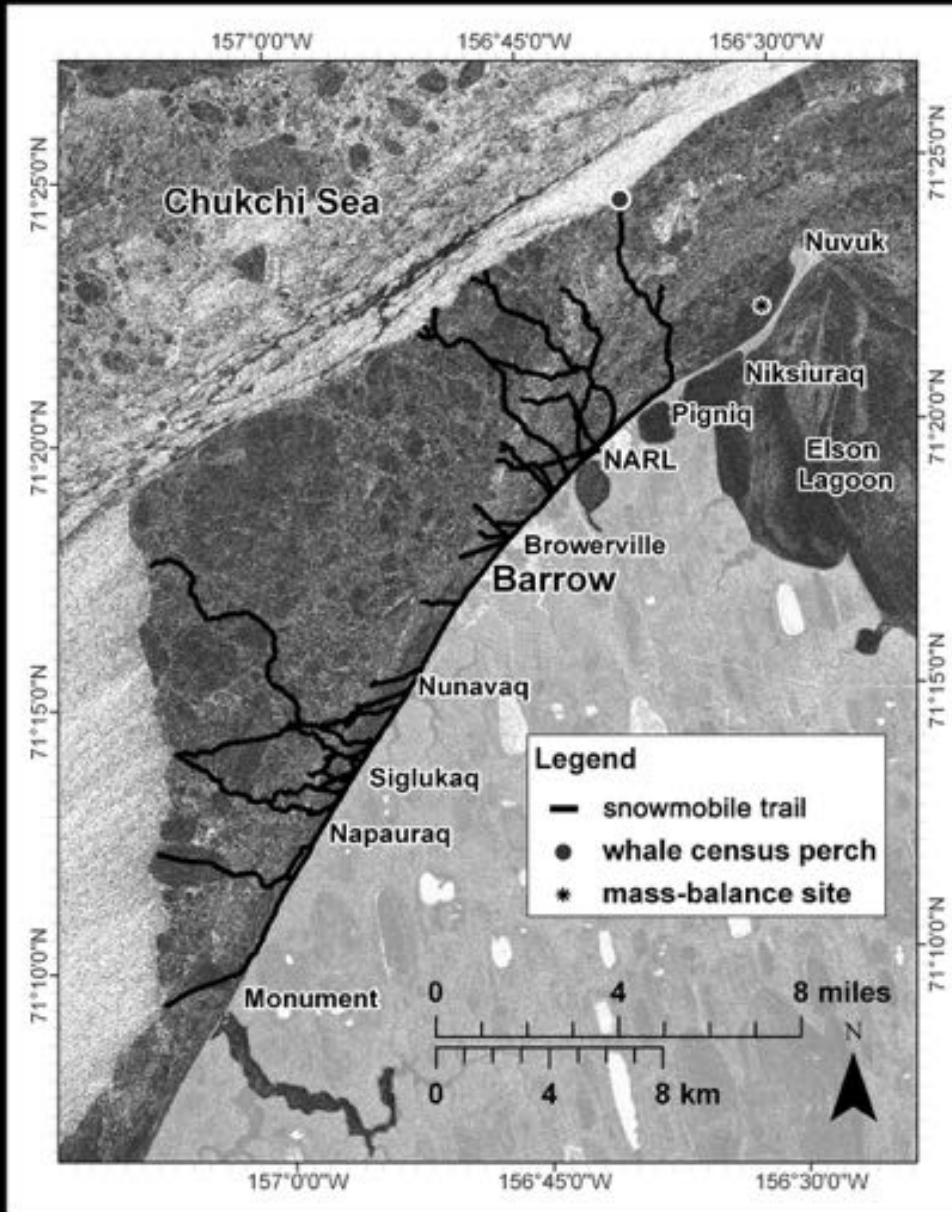
2010 ice trail map with thickness values overlaid



Trail surveys reveal types of ice used during whaling



EM-31 (with DGPS) in sled for measuring ice thickness



Trail maps provided a tool for ice type discrimination and navigation, and a resource for Search and Rescue

Maps provided a reference for interviewing hunters about ice conditions

Example ice trail map from 2010



PROJECT JUKEBOX

Digital Branch of the University of Alaska Fairbanks Oral History Program



Jacob Anagi Adams, Sr.

is an Iñupiaq elder from Barrow, Alaska. He was born in 1946, and grew up in a family of twelve children that was highly dependent upon hunting and fishing. He started whaling when he was seven or eight years old, learning from his father and his uncle.

Interview Title	Abstract	Archive #: Oral History	Project	Date of Interview
Jacob Adams, Sr., Interview 1	Jacob Adams, Sr. was interviewed on July 11, 2008 by Matthew Drucker-Miller in Barrow, Alaska. Craig George was another interviewer for part of the interview. This interview was part of Matthew's research for a Ph.D. in Snow, Ice and Permafrost Geophysics from the University of Alaska Fairbanks. For his project, he mapped the trails built by whalers to their camps at the edge of the sea ice and talked with local residents about ice conditions, whale camps, and trail building. Results of his research can be found in his dissertation <i>Alaska Shorefast Ice: Interfacing Geophysics With Local Sea Ice Knowledge and Use</i> (2011). In this interview, Jacob talks about the ice conditions, trails, camp locations and whaling in Barrow during the 2008 spring season.	2013-25-10	Sea Ice Project Jukebox	Jul 11, 2008
Jacob Adams, Sr., Interview 2, Part 1	Jacob Anagi Adams, Sr. was interviewed on November 15, 2013 by Karen Brewster in the North Slope Borough Assembly's conference room at the Borough's central office building in Barrow, Alaska. In this first part of a two part interview, Jacob talks about learning to whale as a boy from his father and uncle, and learning how to read and understand the ice for being safe out there. He also discusses the wind and currents and their effects on the ice, and the specific conditions of the Spring 2013 whaling season when his crew landed a bowhead whale in late June 2013.	2013-25-07_PT.1	Sea Ice Project Jukebox	Nov 15, 2013

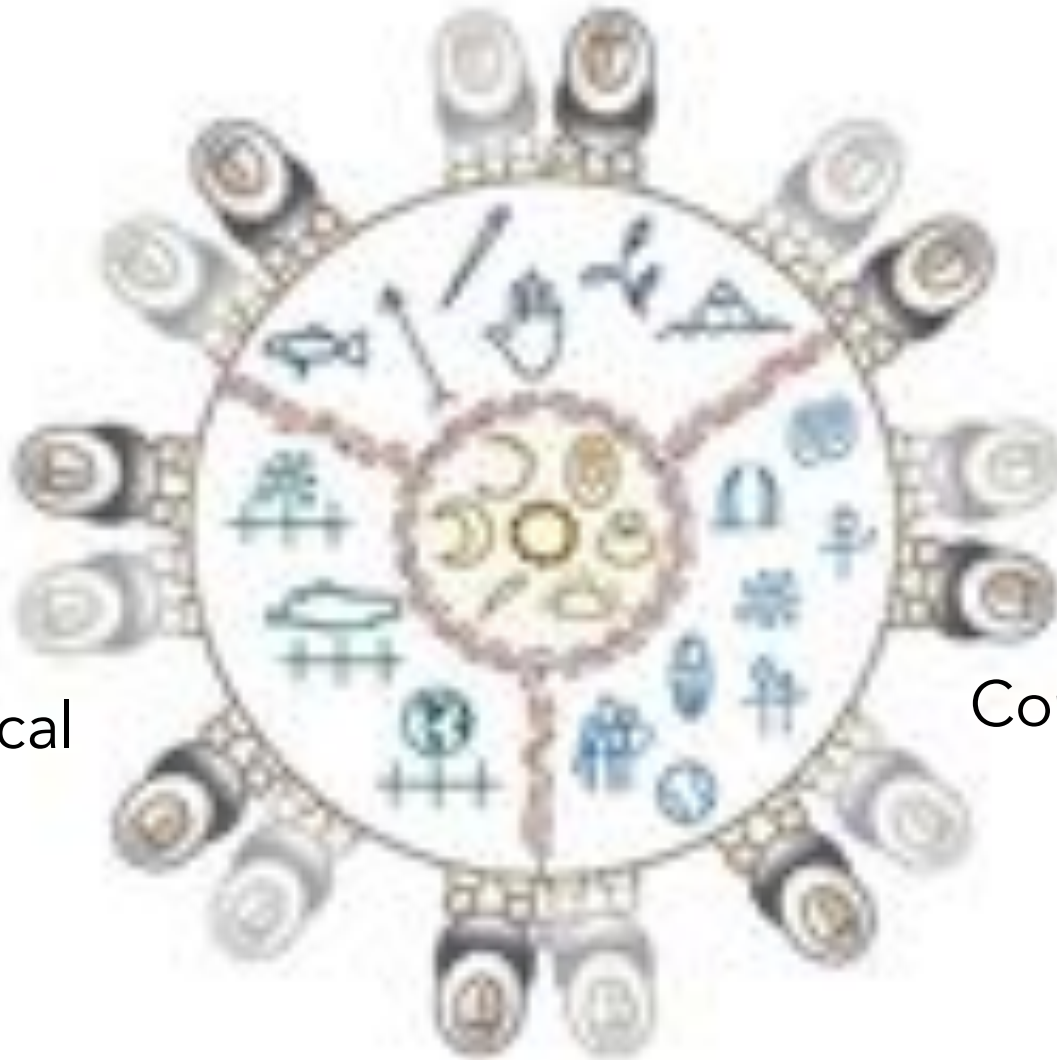
<https://jukebox.uaf.edu/>

The IÑUPIAQ LEARNING FRAMEWORK

Environmental

Historical

Community



The IÑUPIAQ LEARNING FRAMEWORK



Environmental

- Food preparation and care
- Hunting
- Sewing
- Tools
- Medicines and healing
- Environment

Individual

- Creating balance
- Leadership
- Women's roles
- Men's roles
- Values and beliefs
- Naming
- The life cycle

Community

- Elders
- Ceremonies and celebrations
- Singing and dancing
- Story telling
- Arts
- Parenting
- Games
- Relationships

Historical

- Stories of the Inupiat
- North Slope History
- Modern history & global connections

Opportunities for brining in the community are indicated by the ways communities choose to share.

Retaining knowledge is supported by being able to tell new stories that connect to science.



The Meaning of Ice

People and sea ice in three
Arctic communities

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