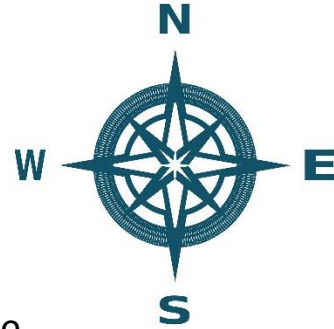


Yup'ik Star Navigation

A map of the stars!

A sky map shows how we see the stars. Some stars are perceived to be in groups and are called constellations. Different cultures might have different perceptions of the constellations. They help us remember the patterns of stars and where they are in the sky. The Yup'ik sky map comes from Yup'ik traditions. The Western sky map comes from Ancient Greek stories.



WHAT ARE YOUR FAVORITE CONSTELLATIONS? WHICH ONES DO YOU SEE THE MOST AT NIGHT?

Where should I go?

The stars can be very important for navigating and finding our way across the land. During the dark winters, the Big Dipper constellation is one of the constellations used for sky navigation. In the Yup'ik language, its name is “Tunturyuk” which means The Caribou. Caribou rotates around Polaris (The North Star), together with Cassiopeia (Yup'ik name: “Qengartarak” means The Nose with Two Nostrils). This rotation can tell a person the cardinal directions North, South, East, and West. It can be used like a compass to find your way.



IF THE NORTH STAR WAS ON A COMPASS, WHERE WOULD IT BE? LOOK AT THE YUP'IK SKY MAPS FOR A CLUE... WHY IS THE NORTH STAR SO USEFUL?

It takes practice...

Since they were children, Yup'ik Elders have listened to stories to help them remember the shapes and positions in the sky of these constellations. They have practiced ways of measuring angles, such as using hands, measuring from the horizon to find the placement of stars in the sky. Some Elders have spent their lives making careful observations of the patterns they notice in the sky. After a lifetime of practice, they can remember the positions of constellations which change depending on the time of night and time of year.



HOW CAN YOU START TO NOTICE THE CHANGING POSITIONS OF THE STARS?

YOU CAN TAKE HOME A “CARIBOU LOCATION FOR NAVIGATING” MAP OR DRAW YOUR OWN MAP BASED ON YOUR OBSERVATIONS.



CAN YOU SEE ANY STARS FROM THE WINDOWS? HOW ABOUT FROM THE FAMILY ROOM? COMPARE YOUR OBSERVATIONS BETWEEN NOW AND TOMORROW MORNING WHEN YOU WAKE UP.

Happy star gazing!

Source: Several Yup'ik elders including Frederick (Sual'pi) George of Akiachak, Alaska, have shared their knowledge on how to use constellations to navigate at night within the project - Math in A Cultural Context- developed at the University of Alaska Fairbanks. The maps displayed here are provided by the [Math in A Cultural Context: Lessons Learned from Yup'ik Eskimo Elders](#) curriculum and were graciously shared by project coordinators for education purposes at the Museum of the North.