

Elder Insights on Weather and Hunting —

Levels V-VI



Grades 9-12

Overview:

Students will learn about changes to local weather patterns, ocean ice cover, and marine mammal populations by conducting interviews with local Native Elders.

Objectives:

The student will:

- ask Native Elders a series of questions;
- take notes and ask for clarification as needed;
- write a summary of the interview; and
- present a card or small gift as a thank you to the Elder.

Materials:

- STUDENT WORKSHEET: "The Weather Reporter"

GLEs Addressed:

Science

- [9] SA1.1 The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.
- [10-11] SA1.1 The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring, and communicating.
- [10-11] SD3.1 The student demonstrates an understanding of cycles influenced by energy from the sun and by Earth's position and motion in our solar system by describing causes, effects, preventions, and mitigations of human impact on climate.

Activity Procedure:

Northern climatologists depend upon the knowledge of Eskimo Elders, who provide important eyewitness observations of their changing environment. Interviews with Yupik Eskimos indicate that winters are now warmer than in years past, resulting in a shorter hunting season, and changes in the animals they hunt. Walrus, for example, are thinner and their blubber is less nutritious than it was in years past. Satellite images of sea ice confirm that the ice is now located primarily over deeper waters, requiring walrus to dive deeper for the invertebrates and clams that make up their diets.

In this activity, students will meet with one or more Native Elders either in the classroom or individually outside of the classroom. Elders will have an opportunity to share their knowledge about sea ice and hunting and any changes they have observed over time. Students will summarize the interview or interviews to indicate changes in local weather patterns and marine animal populations.

Arrange to have one or more Native Elders come into the classroom for a classroom interview about local weather observations and hunting practices. The questions on the STUDENT WORKSHEET can be used during the interviews. Students can add additional questions to learn about weather and marine animal populations.

The following book is a good resource: *Watching Ice and Weather Our Way*, by Conran Oozeva, Chester Noongwook, George Noongwook, Christina Alowa, and Igor Krupnik, published by the Arctic Studies Center, National Museum of Natural History, Smithsonian Institution (2004) and Savoonga

Whaling Captains Association, Savoonga, AK (2004), ISBN: 0967342953.

Distribute the STUDENT WORKSHEET: "The Weather Reporter" and ask students to complete the interview and then summarize their findings. Students should thank the Elders after the interview, preferably with a small gift or card.

Answers:

Answers will vary, but the summary of the interview should include information on any changes in the local climate, sea ice, and marine animal populations in recent years.

Name: _____

The Weather Reporter

Student Worksheet (page 1 of 2)

Levels V-VI



Directions (Part 1): Interview one or more Native Elders in the village to learn about changes and patterns in the local weather and marine animal populations. Use the following questions and add additional questions to learn as much as possible. Record answers carefully and ask for clarification if needed.

Elder's full name(s): _____

a. Does the sea ice form earlier or later in the fall than it used to?

b. Does sea ice melt earlier or later in the spring than it used to?

c. Has the sea ice become thicker or thinner in their lifetime?

d. Does the sea ice cover more, the same, or less area than it used to?

e. Has the ice surface changed?

f. Have some animals or fish become more rare?

g. Have any rare animals or fish become more common?

h. Do any marine animals or birds winter farther or closer to the village than they used to?

i. Has there been a change in the stomach content of sea animals in recent years?

j. Have the sea animals gotten larger or smaller in recent years?

Name: _____

The Weather Reporter

Student Worksheet (page 1 of 2)

k. Is it more windy or less windy than it used to be?

l. Have there been any changes in visibility in winter months?

m. Has there been any change in the intensity of storms in recent years?

n. Has there been any change in the height of ocean waves in recent years?

o. Have there been any changes in sea currents and direction in their lifetime?

p. What weather conditions are good for hunting?

q. What weather conditions make hunting unsafe?

Remember to thank the Elder(s) for their time and present them with a card or small handmade gift.

Directions (Part 2): Use the information from the interview to write a summary about weather and marine animal populations in the surrounding area. Be sure to include the Elder's name(s) and answer these questions: Has the weather changed in the Elder's lifetime and if so, how? Have any marine animal populations increased, decreased, or moved? How has hunting changed, and why?
