

Arctic Peoples - Lesson Plan

Central question: How has climate shaped the past, present and future of Arctic communities?

Objectives:

- Students will explain how Arctic peoples' lives have been shaped by climate.
- Students will describe how current changes in climate are impacting Arctic peoples.
- Students will predict how Arctic communities may be impacted by future changes in climate.

Time needed: At least forty-five minutes

Grade Level: Middle School or High School

INTRODUCTION (2 minutes)

Explain to your students that almost four million people live in the Arctic today. Many distinct indigenous (native) groups continue traditional activities in much the same way their people have for thousands of years. Although many Arctic indigenous groups share some similar traits, each region and community has its own variations.

The term *Eskimo* was once used to name Arctic indigenous people. Now, however, names in native languages are preferred. *Inuit*, *Inupiat*, *Gwich'in*, *Yup'ik* and *Inughuit* are names used to refer to Arctic indigenous peoples in Alaska, Canada and Greenland.

For thousands of years these people have survived in one of the harshest environments in the world. Most of them live north of the tree-line, so traditionally the only wood to which they had access was driftwood. In most areas the growing season has been too short to raise any crops. In many areas they endure months of darkness in the winter. In many places temperatures can get very low and the wind can be very strong. This harsh environment shaped the cultures of the Arctic peoples.

ACTIVITY DESCRIPTION (5 minutes)

Explain that the class will be divided into groups of three. One set of three hand-outs will be given to each group. The first hand-out is an excerpt from the book *Wise Words of Paul Tiulana: An Inupiat Alaskan's Life* and describes the lives of the Inupiat of Alaska in the late 1920s. The second hand-out is an excerpt from the book *The Last of the Gentlemen Adventurers* and describes the Inuit of Baffin Island in the 1930s. The third hand-out is a compilation of observations from native elders and community members about climate change-related impacts to their lives.

Students should take turns reading the first two hand-outs aloud to the rest of the group. After reading the first two hand-outs, the students should compile a list of specific ways the climate and environment shaped the lives, traditions, cultures, and daily realities of the people described. Students should then take turns, within their groups, reading aloud to the rest of the group the third hand-out (observations of Arctic community members). After the group finishes reading the quotes from the elders, they should compile a list of specific ways climate change is impacting the lives and cultures of Arctic indigenous peoples.

Students should then discuss how continued warming in the Arctic might affect people living there. Students should jot brief notes of their group discussion so they can share highlights with the class.

CONDUCT THE ACTIVITY (30 minutes)

1. Divide class into groups of three and distribute the sets of hand-outs. (2 minutes)
2. Students take turns reading the first two hand-outs aloud, then compile a list of correlations between the environment and the cultures, traditions and daily realities of the people described. (10 minutes)
3. Students take turns reading the third hand-out and compile a list of ways that climate change is impacting the lives and cultures of Arctic indigenous peoples. (5-10 minutes)
4. Students discuss how continued warming would affect Arctic peoples and share their notes from their small group discussions with the rest of the class (10 minutes)

SUMMARIZE AND DEBRIEF

Here are some questions you might choose to ask to further the activity:

- The ways are very obvious that climate and environment have shaped the lives and cultures of native circumpolar peoples. Do you think, however that climate and environment have also shaped the lives and cultures of people in our home region? Why or why not. Why?
 - How does our environment influence the food we grow; the houses we build; the clothes we wear, the activities we do; the way we socialize; the way we travel; the words we use; the attitudes we have?
 - How might our lives and cultures be impacted if our regional climate changed?
- Many Arctic indigenous people say an important characteristic of their culture is adaptability and resourcefulness. They say these qualities are part of what has allowed them to survive for thousands of years in such a harsh environment. They say these same qualities will help them continue to adapt to a changing climate. How well do you think our culture will be able to adapt to climate change?
 - What aspects of our culture and society might be difficult to adapt or change?
 - What characteristics does our culture have that could help it adapt?

Notes to Teachers:

- As the students are reading the passages to each other, discussing, and taking notes, circulate between the groups and listen at each group for a few moments to gauge the progress of the groups and to make certain that students are focusing their efforts on the task.
- Before dividing the students into groups, explain the entire activity to them and let them know how much time they will have for each section of the activity.

Hand-out 1: Paul Tiulana

Paul Tiulana, an Inupiat (formerly called *Eskimo*) was born in 1921 on Ooq-Vok Island (also called *King Island*) in the Bering Sea off the Alaskan Coast. His story was written by a biographer, Vivian Senungetuk, who edited his original words only slightly.

Note: Many different groups of indigenous (native) people live in the circumpolar (Arctic) region. Although their cultures share some similar traits, each region and community has its own variations. One trait, however, that seems to be shared by all indigenous Arctic peoples is adaptability and resourcefulness. These traits are part of what made it possible for these people to survive for thousands of years in one of the harshest environments on the planet.

This is an excerpt from the book *Wise Words of Paul Tiulana: An Inupiat Alaskan's Life* (Vivian Senungetuk, 1998. pp 14 - 27):

At King Island we lived by the weather. We had certain activities every month, and we named the months according to the activities and the weather.

I will start with October. The name for October in the King Island dialect of the Eskimo language means "icy month." We call it icy month because ice starts to form among the rocks below the village at this time...

We call November "going up to the back of the island to hunt there." November is the month when the wind starts blowing really hard from the north, blowing ice up against the island on the north side and away from the island on the south side. The ice around the south side can move, so it is not safe to try to walk there. The ones who have walked there have drifted out on the young ice and never come back. They drowned out in the water when the wind started blowing hard from the north and waves crushed the ice out in the Bering Sea.

In the fall of the year we did not walk too far out on the ice in any direction unless we carried kayaks with us. November was "going up to the back of the island to hunt there" because it was safer to hunt on the back, or north, side of King Island then. We worked on our furs in the fall, so that we could have new mukluks, or boots, new seal pants, and new parkas, or coats...

December we call "dancing month." We started to dance in December because everything on King Island was ready for winter. Our houses were ready. We had put our skin boats up in racks...

The older men hunted seal and polar bear in January. When a hunter got a polar bear, an old person would tell a story while the women cleaned the skin. We cooked and ate the meat and saved the skin. We cut a hole in the ice and pushed the skin down into it. The little shrimps in the water ate the blood and excess fat from the skin. We would leave the skin down in the water for a couple of days. Then we pulled it out, cleaned it off with snow, and squeezed the salt water from the hair...

The older persons also hunted seals in January. When they got a one-year-old seal, they would use the skin for sealskin pants. The fur is a bit longer on a young seal and so the pants last longer. The skin of a female seal was used for mukluks and mittens because it is lighter. When they killed an older male seal, they...used it to make parkas...

The month of March we call "fixing our kayaks for springtime." During this month we repaired everything on our kayaks...If we did not want to change the skin on our kayaks, we applied blubber over the skins...

April is "the month for going out hunting with our kayaks." When the seals are born in the first part of April, the ice stops forming around the island...When that happened we went out [hunting] with our kayaks...

Toward the end of April we began to see some walruses on top of the ice, coming from the south. It was an exciting time. The men hardly slept—only about two or three hours at night before they woke up to go hunting. The days started to get longer in April as the sun rose earlier in the morning and set later at night...

The month of May we call "the ice starts to melt from the island." The first part of May we still tried to hunt for oograks, the big bearded seals, with our kayaks. It is easier to get the seals with kayaks, not walking...

We call the month of June "unnoticed moon." In June everything was so busy we did not have time to think what day it was. We worked on preparing our walrus meat—putting it into caves for preservation—so that we could have more meat for the next year...

July is "the month of going over the mainland." We went over to the mainland in our skin boats to see our friends there, to trade with them, and to dance...

Before we left for the mainland, we picked the wild greens and preserved them for winter use. We put our plants in seal oil; they were preserved in the oil and did not spoil. We made Eskimo ice cream with one plant. It was done like this: We made a container out of walrus hide. Then while the plant was still frozen, we pounded it with a walrus tusk. Then we mixed it with reindeer fat and seal oil. We used it when we were eating seal or oograk. Delicious!

We do not have a name for the month of August. We were still visiting on the mainland then. We could pick berries there—blackberries, blueberries, salmonberries. I call August "berry-picking month."

September we call "ready to go back to the island." We planned to go back to the island in the early fall, while the weather was good, because by October, the Bering Sea gets really rough. Also we tried to go back to the island in the month of September so that we would have time to winterize our houses...

Hand-out 2: Inuit of Pangnirtung, Baffin Island in the 1930s, according to Edward Beauclerk Maurice - Arctic Peoples

Note: Many different groups of indigenous (native) people live in the circumpolar (Arctic) region. Although their cultures share some similar traits, each region and community has its own variations. One trait, however, that seems to be shared by all indigenous Arctic peoples is adaptability and resourcefulness. These traits are part of what made it possible for these people to survive for thousands of years in one of the harshest environments on the planet.

Below is an excerpt from *The Last of the Gentlemen Adventurers*, a book published from the diaries of Edward Beauclerk Maurice, who at the age of 16 left England to become a fur trader and live among the Inuit (formerly called Eskimos) on Baffin Island. This particular passage refers to a hunting trip Edward took with two of his Inuit friends:

That evening was pretty cold so Kilabuk decided we would put up a snowhouse instead of using the tent we had brought with us for the milder nights....

When the Inuit built snowhouses for winter homes, they were often more elaborate than these trail snowhouses. Sometimes they even had two rooms, and invariably a porch, where harnesses, dog food and hunting gear could be kept, the harpoons and spears being stuck in the snow outside the house.

The inside surface of the snow was often lined with sealskin or canvas, which was held in place by thongs (leather straps) passed through the wall and fastened to toggles. This meant that the inside temperature could be kept at a higher level, since the lining intended to hold the heat, while allowing the cool air to circulate from the vent over the surface of the snow. For living purposes, one home would last a whole winter, though by the end of the season it would be getting rather dirty and smelly. If it got too bad, all the Eskimo had to do was to collect everything together and move to a fresh spot.

When our house was complete, we unloaded the sledge, spread the deerskins over the floor and stacked our gear near the door (which consisted simply of a block removed from the wall)...our little home soon warmed up.

In fact the temperature rose rather rapidly as the cooking got under way. Without any lining, walls soon started to drip, but our companion showed us that by smoothing over a handful of loose snow the water could be conducted down far enough for the drops to fall harmlessly round the edges of the house.

(2005, Harper Perennial Publishing, pp. 107 – 109)

Hand-out 3: Native Arctic peoples' observations

Note: Many different groups of indigenous (native) people live in the circumpolar (Arctic) region. Climate change affects each area in unique ways. Because of this, people living in one region of the Arctic may experience different climate-related changes than people living in other regions or communities.

Native people from across Alaska and Canada delivered a petition to the Inter American Commission on Human Rights. The petition seeks to draw attention to the climate change-related impacts to the lives of people living in the circumpolar (Arctic) region. The petition included observations from community members. Selections are reprinted below:

"One of my sons...was going to visit the next crew...and he fell right through the ice half-way out to that camp. I've seen my fellow whalers trying to go whaling break through the ice, because it's melting from the bottom, and our snow machines have fallen through the ice." Ronald Brower, Barrow, Alaska

"You need thick ice for the weight of the whale to bring it up. You need at least six feet of solid ice to bring up a whale. When it's like three, four feet, especially if somebody got a bigger whale, it's going to keep breaking up. And that reflects on the sizes of the whale that we catch, too. More so, we're trying to catch smaller whales, which are much easier to pull up on the ice. That means that we're getting a smaller share of the whales and with a quota of 22, the smaller the whale, the less [meat] the people get." Roy Nageak, Barrow, Alaska

"When I was younger, there was more ice....The seals, you had time, you had the whole summer to hunt, you had June and July..." Roy, Nageak, Barrow, Alaska

"The snow is not the same anymore. The bottom of the snow is a lot softer than it used to be. It's no good for igloos anymore. [Twenty years ago] we used to be able to stop anywhere we needed a place to sleep just to build an igloo and sleep in that igloo. And nowadays you can't just find good snow anywhere. In [those] days we used to find them anywhere. The condition of the snow is not very good...not only on the bottom but on the top as well." Lucas Ittulak, Nain, Newfoundland, Canada

"We were driving our skidoo in the Spring—early Spring—normal, I mean we knew that some areas were dangerous. We know what spots to look out for, like black spots versus ice pans, or whatever...We stopped the skidoos and we waited for my brother and his wife to come up and join us. And as we were waiting, we no sooner stopped the skidoo and were just about to start our skidoos again when the ice just collapsed underneath the skidoo and the skidoo went through the ice. And so my son fell in the water. My husband jumped off and just missed going into the water. But he fell in the water. And it just crumbled all the way. So we hadn't realized that it was a black area, because there was, well, a bit of snow on top which made it look white I guess. But, we hadn't realized that it was soft underneath. Anyway, we got him out and he was alright. He just got pretty shook up because he couldn't climb out. Every time he tried to climb out it would break off. And it would just crumble under his hands. So we managed to get him out But, we noticed that that area, which never is like that—[the ice] usually lasts quite awhile and just breaks up into pans and melts away." Heather Angnatok, Nain, Newfoundland, Canada

"[On the] overlapping of the ice packs is where polar bears normally have their hunting grounds. Because the sea ice isn't formed the way it used to be that the polar bears are coming closer, This is why we now have polar bears in the

community even before the dark season would start to come. It used to be that when it would start to get dark at night the polar bears would start to come this way, but now they're always around." Tsa Piubgituq, Clyde River, Baffin Island, Nunavut, Canada

"I can talk about the permafrost because I've got two ice cellars that I see where the changes are. They're no longer cold like they used to be. It's melting. The heat is going into the ground... So, natural ice cellars are warming up...the food you stored there is going to be no longer good to eat. They're going to get rancid, and they're going to spoil....And that's already happening....I had to go out and buy some chest freezers to try and protect [the meat] from rotting..." Eugene Brower, Barrow, Alaska

"[The ice] normally saved our beach from eroding so much more—the ice that buffers the waves. Nowadays...we don't have ice to protect our beaches anymore. Waves and storms are becoming more frequent, sometimes [we lose] fifteen feet [of shore] at a time. So if there's two or three storms, it could be fifteen feet three times. That's how much land we would lose..." John Sinnok, Shishmaref, Alaska

"My mom, before she died, used to go picking greens with us girls. We used to fill up maybe four barrels to keep for the winter and she taught us how to pack them and keep them for the winter. I can now only fill up one barrel each summer...In late June, we waited for greens to be ready to be picked but I noticed that we are starting kind of early this year because they grow up and then from too much sun and heat, they wither very fast..." Rosemond Martin, Savoonga, Alaska

"The vegetation is different. Caribous are not getting fatter quicker than they used to be. Right now, when you go out here and get a caribou, they're not fat anymore. It's almost the end of August, but when you go back thirty years by this time they should be well-fed and well fat." Ben Kovic, Iqaluit, Nunavut, Canada

"Things have changed so much it is hard to rely on what you knew traditionally anymore. What happened years ago is different than what it is today...You may ask an expert what his knowledge is but his knowledge is not going to apply to what is happening today. For example an elder might say by November 1 you are able to cross this area, it is now safe to cross this lake, but according to the way things are today, it may not be the case." Inuit elder from Baker Lake, Nunavut, Canada

"Traditionally when we do the caribou caching—this is where we would put away the meat to pick up later in the winter—we would start our caribou caching in August—the middle of August. It was safe to start your caribou caching, but now it is just too warm. Either the meat is just going to rot, or the maggots are there...[T]he month of August is very important traditionally. It has always been an important part of the summer. This is when they collect skins for clothing, and at the same time they do their caribou caching. Now people do most of their caribou caching in September. Even by the second week of September they are done their caribou caching. Inuit were very selective of when to cache the meat, because of the taste and the whole thing..." Baker Lake, Nunavut, Canada

"The skins that we do prepare are sometimes too dry now because of the climate change. In the old days, it never used to be like so. We even have to dry them now in the shade away from the sun because when you dry them out in the sun, they become too dry or very easy to tear, especially the seal skins." Annie Napayok, Whale Cove, Nunavut, Canada

"Lakes that have never dried, especially by our drying racks, that lake I don't remember ever drying up, but it's been drying up every year the last few years. The lakes around our camp, which we used to use for waste water, there's hardly any water, and the water is so brown now, we don't use it for drinking and hardly even for waste water." John Sinnok of Shishmaref, Alaska

“There’s a lot of anxieties and angers that are being felt by some of the hunters that no longer can go and hunt, We see the change, but we can’t stop it, we can’t explain why it’s changing it...our way of life is changing up here, our ocean is changing....I think it is widely felt, because you can feel it further from the folks that live in the villages outside of Barrow, where they do a lot of subsistence hunting.” Eugene Brower, Barrow, Alaska

Source: Watt-Coultier, S., & The Inuit Circumpolar Conference, et al. (2005) *Petition to the Inter American Commission on Human Rights Seeking Relief from Violations Resulting from Global Warming....*
<http://www.inuitcircumpolar.com/index.php?ID=316&Lang=En>