

Genre Narrative Nonfiction

Essential Questions

Have you ever had to persevere when helping somebody?
Why was it worth it?

The Great Serum Race

Blazing the Iditarod Trail

*by Debbie S. Miller
illustrated by Jon Van Zyle*



On a dusky January afternoon in 1925, Dr. Welch walked quickly toward the outskirts of Nome. Sled dogs howled from their yards. Outside a small cabin, a worried Inupiat Eskimo mother greeted the doctor. She led him into her home where two small children lay in bed, struggling to breathe.

“Can you open your mouth?” Dr. Welch asked the three-year-old boy.

The weak child tried to open his mouth, but it was too painful for his swollen throat. His fever was extremely high. Dr. Welch comforted the mother and children, but there was little he could do. The next day, both children died.

Soon after, another girl, Bessie Stanley, was miserable with the same symptoms. But this time, Dr. Welch could examine Bessie’s throat. He immediately recognized the symptoms of diphtheria. Poor Bessie would not live through the night.



Diphtheria. Dr. Welch had not seen a case in twenty years. This fast-spreading disease could wipe out the entire community of more than 1,400 people. Dr. Welch immediately met with the city council and recommended a quarantine. The schools and other public places were closed. Community leaders told people to stay in their homes.

There was only one way to fight diphtheria. The town needed a supply of antitoxin serum. Dr. Welch sent out a desperate plea for help by radio telegraph. The message soon reached Governor Bone in Juneau and other important officials. Newspapers across the nation picked up word that the historic gold rush town needed emergency help.



The nearest supply of serum was at a hospital in Anchorage, 1,000 miles away, across a snowbound wilderness. Officials considered flying the serum to Nome, but it was too dangerous to operate open cockpit planes in extreme-cold temperatures. In those days, planes were used only during the summer. Nome was an icebound port, so boats were not an option. The serum could travel partway by train, and then the only safe means of transport was by sled dog team.

On January 26, an Anchorage doctor carefully packed the glass bottles of serum for the long journey. The bottles had to be protected to keep the serum from freezing. He gave the twenty-pound bundle to the conductor at the train station. Soon, steam engine 66 began to chug its way north to Nenana, the closest railroad link to Nome. Nenana lay nearly 300 miles away, beyond the tallest mountains of North America.

On the frozen Tanana River, five-year-old Alfred John could hear the distant roar of the steam engine. His Athabaskan Indian family lived in a cabin near the train station in Nenana. Although it was late at night and nearly fifty degrees below zero, Alfred and his mother bundled up in their warmest caribou legskin boots and fur-lined parkas and walked to the station to greet the train.

As they waited by the tracks in the moonlight, Alfred watched the huge locomotive hiss steam into the frozen sky and slow to a screeching halt. He saw men unload the freight, and the conductor hand the serum package to Bill Shannon. Bill was the first of twenty mushers to carry the serum in a dog relay to Nome. These brave men and their best dogs would travel nearly 700 miles on a snow-packed mail trail.

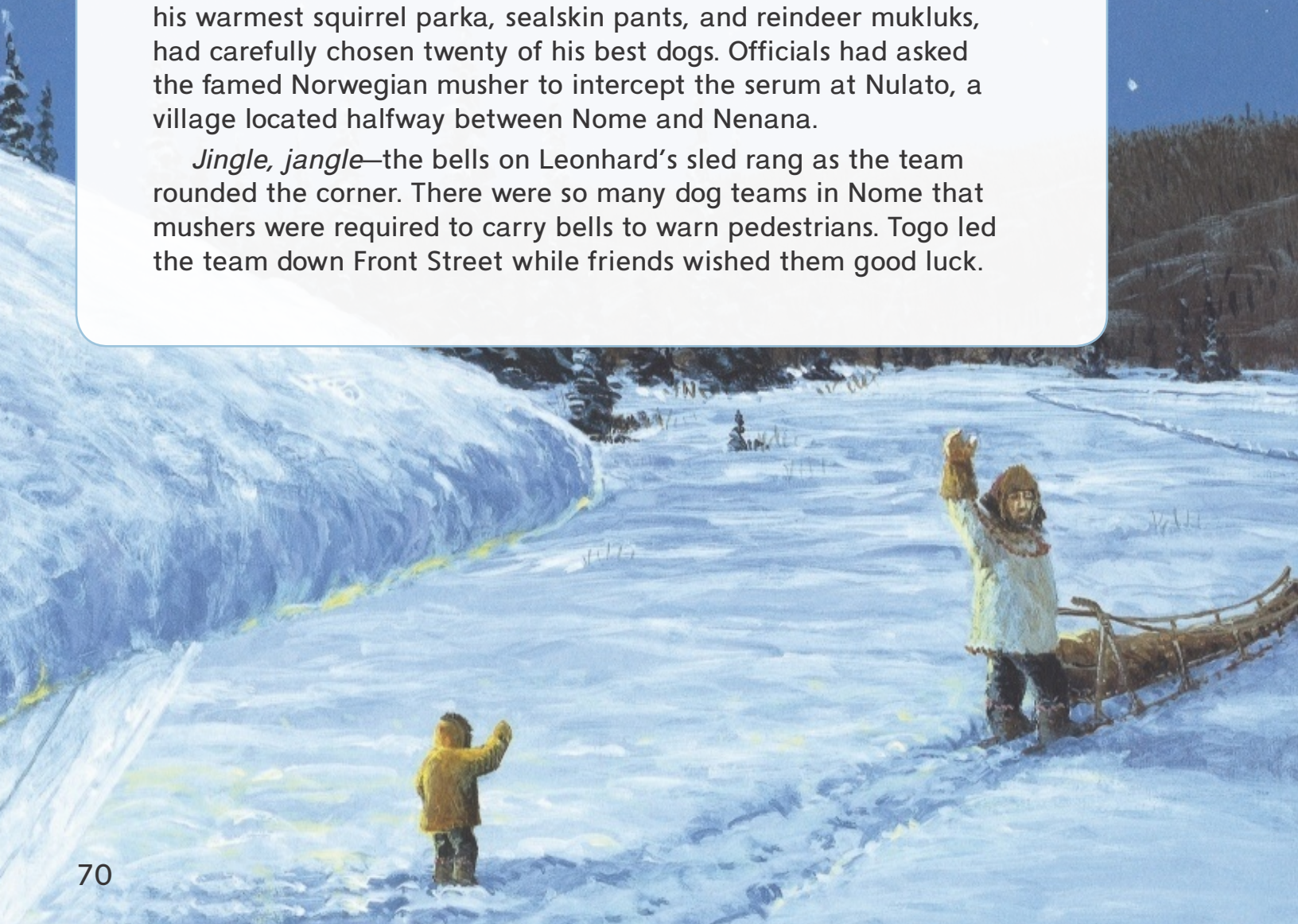


Bill covered the serum with a bear hide and lashed it to the sled. His strongest team of nine malamutes barked and were anxious to move. Just before midnight on January 27, Bill waved good-bye to Alfred and shouted to his dogs. *Swoosh!* Into the winter night, the dog team sped toward Tolovana, the first relay stop some fifty-two miles away.

Bill knew every turn of the trail. Like many of the mushers, his regular job was to transport mail and freight with his dog team. Traveling long distances in the extreme cold was a dangerous challenge. If the dogs ran too fast and breathed too deeply, they could frost their lungs. When the team reached bitter-cold stretches along the river, Bill slowed his dogs to protect them. He often ran behind the sled to keep himself warm.

Hundreds of miles away, Togo leaned into his harness and waited patiently for Leonhard Seppala to position Scotty and the other huskies. Togo, now twelve years old, was a proven leader for one of the strongest dog teams in the world. Leonhard, dressed in his warmest squirrel parka, sealskin pants, and reindeer mukluks, had carefully chosen twenty of his best dogs. Officials had asked the famed Norwegian musher to intercept the serum at Nulato, a village located halfway between Nome and Nenana.

Jingle, jangle—the bells on Leonhard’s sled rang as the team rounded the corner. There were so many dog teams in Nome that mushers were required to carry bells to warn pedestrians. Togo led the team down Front Street while friends wished them good luck.

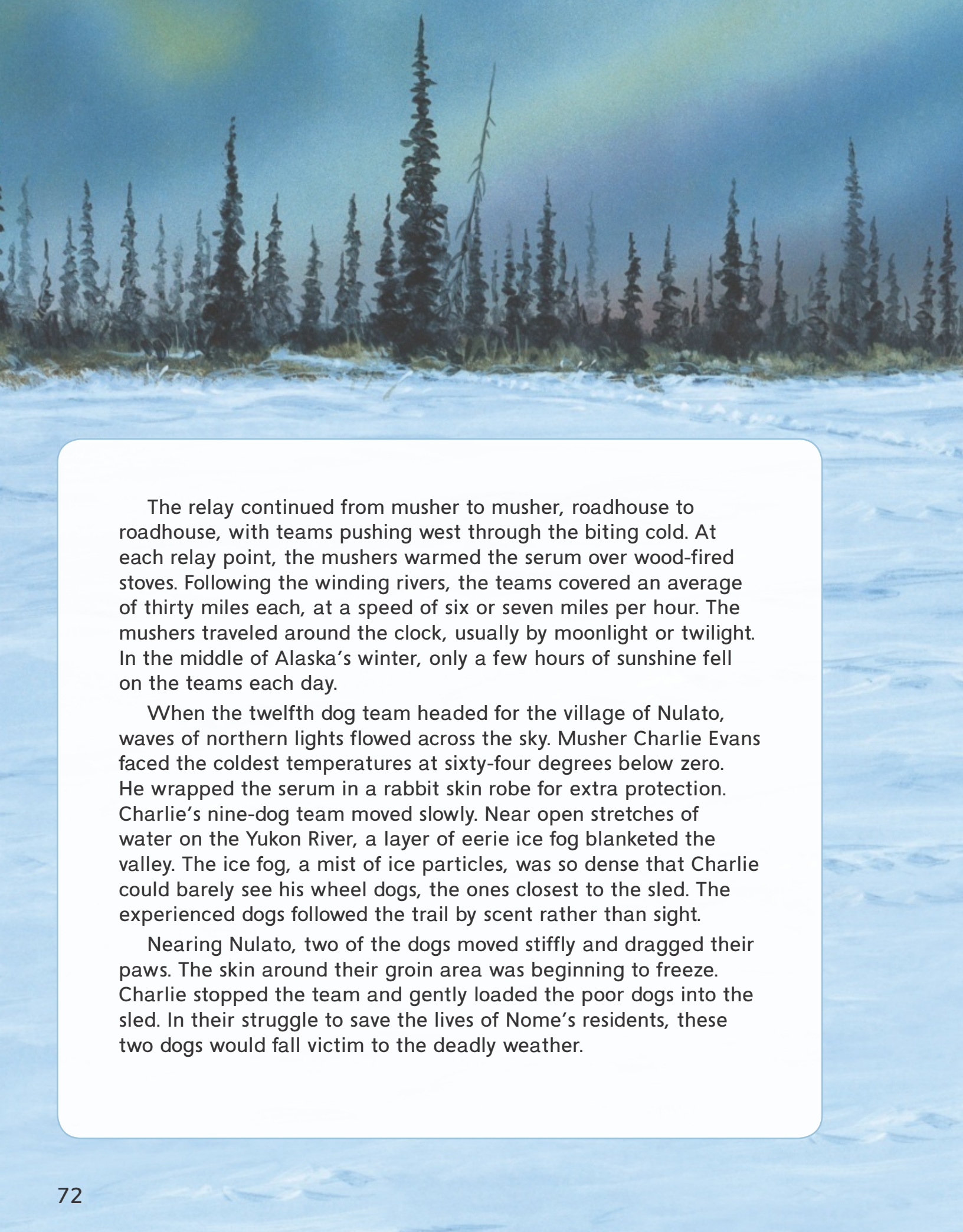




In Tolovana, Edgar Kalland, the twenty-year-old Athabaskan Indian mail driver, ate breakfast and waited anxiously for Bill Shannon. The Tolovana Roadhouse was a favorite rest stop for Edgar. Outside the roadhouse, Edgar's dogs pricked up their ears, and some began to howl. Bill's team drew closer.

The team looked exhausted when their frosted faces came into view. Two of the dogs would later die from frozen lungs. Following the doctor's instructions, Bill carefully removed the serum. He hurried into the roadhouse to warm the container and prevent the serum from freezing. As the two men talked about the weather, Edgar put on three pairs of socks and his boots.

Once the serum warmed, Edgar took off for Manley Hot Springs with his team of seven dogs. The thirty-one-mile trip to the next relay point was brutally cold. Temperatures fell to fifty-six degrees below zero. At one point the dogs had to wade through slushy overflow, a place where the river seeped through a crack in the ice. When the team reached Manley Hot Springs, the dogs could barely lift their ice-crusting legs. Edgar's mitts were frozen stiff to the sled handle. A roadhouse worker poured a kettle of hot water over the mitts to melt the ice and free Edgar's hands.

A painting of a snowy landscape with evergreen trees under a blue sky. The scene is a winter scene with a snow-covered ground and a line of dark evergreen trees in the background. The sky is a deep blue, suggesting a clear, cold day. The overall mood is serene and quiet.

The relay continued from musher to musher, roadhouse to roadhouse, with teams pushing west through the biting cold. At each relay point, the mushers warmed the serum over wood-fired stoves. Following the winding rivers, the teams covered an average of thirty miles each, at a speed of six or seven miles per hour. The mushers traveled around the clock, usually by moonlight or twilight. In the middle of Alaska's winter, only a few hours of sunshine fell on the teams each day.

When the twelfth dog team headed for the village of Nulato, waves of northern lights flowed across the sky. Musher Charlie Evans faced the coldest temperatures at sixty-four degrees below zero. He wrapped the serum in a rabbit skin robe for extra protection. Charlie's nine-dog team moved slowly. Near open stretches of water on the Yukon River, a layer of eerie ice fog blanketed the valley. The ice fog, a mist of ice particles, was so dense that Charlie could barely see his wheel dogs, the ones closest to the sled. The experienced dogs followed the trail by scent rather than sight.

Nearing Nulato, two of the dogs moved stiffly and dragged their paws. The skin around their groin area was beginning to freeze. Charlie stopped the team and gently loaded the poor dogs into the sled. In their struggle to save the lives of Nome's residents, these two dogs would fall victim to the deadly weather.



When the team reached the halfway point, conditions in Nome had grown worse. Five people had died from the disease, and more than twenty cases had been diagnosed. Another thirty people were suspected of having diphtheria. Newspapers across the country reported Nome's plight and the progress of the serum run.

The relay teams pressed onward. Togo and team worked their way east to intercept the serum. When Leonhard passed villages, he told residents about the epidemic and advised them to stay away from Nome. As the team approached the village of Shaktoolik, Togo picked up the scent of another dog team and sprinted forward. Leonhard could see a musher in the distance trying to untangle his string of dogs.

"On by!" Leonhard shouted to Togo.

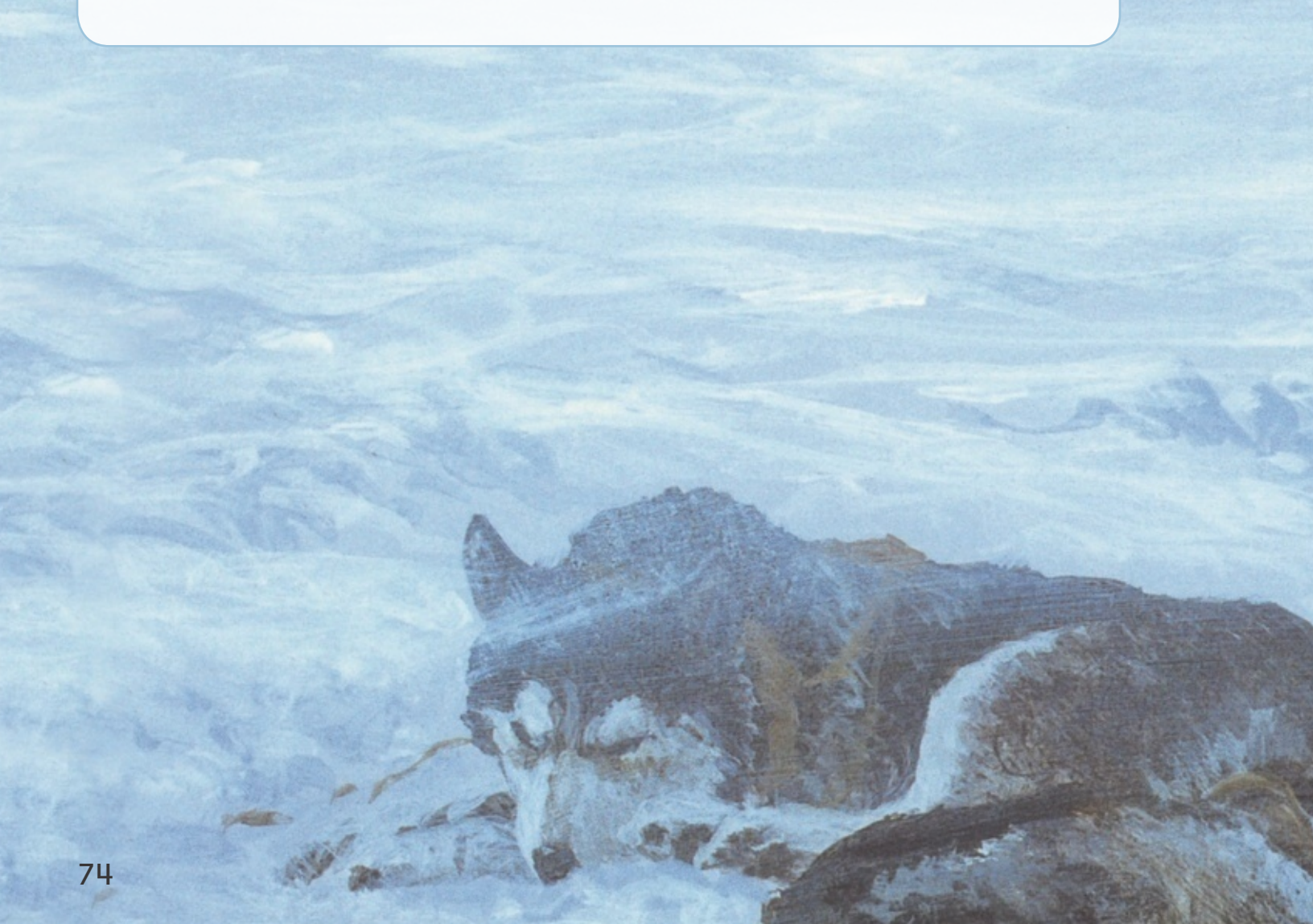
Togo followed the familiar directions and steered the team away from the confusion.

"Serum—turn back!" shouted Henry Ivanoff, one of the relay mushers.

In the howling wind Leonhard barely heard the words. Luckily, he looked over his shoulder to see the musher waving frantically at him. Leonhard was surprised to see the relay team. After he set out for Nulato, twenty more mushers were chosen to travel short relays to speed up the serum run. Out in the wilderness, Leonhard had no idea that his rendezvous point was now 130 miles closer.

"Gee!" Leonhard yelled to Togo.

Togo gradually turned right and the swing dogs helped pull the sled toward the waiting team. The two men greeted each other briefly, shouting in the gale. Within minutes Leonhard had secured the serum package to his sled and instructed Togo to head home.



Togo and his teammates had traveled more than forty miles that day with the wind at their backs. Now the fierce gale blew in their faces with thirty below zero temperatures. Blowing snow plastered the team as they approached Norton Bay. Leonhard considered the risks. If they crossed the frozen bay, the sea ice might break up in the powerful gale. They could be stranded from shore on drifting ice. If they skirted the bay on land, the trip would take much longer. Leonhard thought of the children in Nome who were suffering from the disease. He decided to take the shortest route and cross the treacherous sea ice.

Leonhard believed that Togo could lead the team across twenty miles of frozen sea. As they pressed into the wind the dogs hit slick stretches of glare ice. They slipped, fell, and struggled to move forward. But mile after mile, Togo kept his course through the wall of wind. At day's end, Togo picked up the scent of food that drifted from the Inupiat sod house at Isaac's Point. After traveling eighty-four miles, they rested for the night. The dogs devoured their rations of salmon and seal blubber.



The following morning, Leonhard discovered that the previous day's trail had vanished. The ice had broken up and drifted out to sea. Worried about the unstable conditions, Leonhard decided to hug the shoreline for safety.

Togo led the way toward Dexter's Roadhouse in Golovin, about fifty miles away. Along the coast, the wind's force became unbearable. Blowing snow blasted the dogs' faces like buckshot. Some of the dogs began to stiffen up. Leonhard stopped the sled and gently massaged the freezing muscles of Togo, Scotty, and the others. When they finally reached Golovin, the dogs collapsed and buried their ice-coated faces beneath their tails. Togo and team had traveled farther than any other relay team.

Now it was another dog's turn to lead a fresh team of seventeen malamutes to Bluff, the final relay point. With a shout from musher Charlie Olson, lead dog Jack charged off into the blowing snow. After struggling through four hours of whiteout conditions, the experienced leader faintly heard a dog barking through the gale. It was Balto.

At Bluff, Balto and Fox waited for Gunnar Kaasen to adjust the leather harnesses and secure the serum package. Then the pair of leaders heard their musher's shout through the raging wind. Balto and Fox led the strong team of thirteen huskies into the swirling snow. Mile after mile, they trotted steadily toward Nome. During the final leg of the run, the wind assaulted them. A violent gust flipped the sled over, and the dogs went flying.






Gunnar struggled to his feet against the might of the wind. After he fought to untangle the dogs, he checked the sled to make sure the serum was securely fastened. Gunnar felt the bottom of the sled in disbelief. The serum package was gone!

In the dark, he crawled around the sled. Since he couldn't see his surroundings, he took off his mitts and felt through the snow with his bare hands. After more than 600 hard-won miles and twenty teams risking their lives, could it be that the serum was lost forever?

Panicked, Gunnar ran his numb hands across windswept bumps of snow. All he could do was hope. Suddenly, he felt something hard. It was the serum! His frostbitten fingers struggled to tie the package onto the sled. Then the wind-battered team ran off.



They struggled on through the night. With less than twenty miles remaining, two of the dogs ran stiffly and appeared to be freezing. Gunnar anchored the sled and put rabbit-skin covers on the dogs to protect their undersides from frostbite.

Through the darkness, Balto and Fox smelled familiar scents. At last the exhausted team reached Nome. They drove into town as most people slept through the blizzard. When Gunnar knocked on the door, Dr. Welch greeted him with a stunned face. How could a musher and team have fought their way through such a storm?

With stiff hands, Gunnar gave the shocked but thankful doctor the life-saving serum.

Twenty brave mushers and more than 160 strong dogs traveled hundreds of miles in the worst conditions. The incredible relay took less than six days. Four dogs perished and several others grew lame because of the lethal weather. Yet their struggle saved many lives in Nome.

One month after the epidemic first began, the quarantine was lifted. The schools reopened and children hugged their old friends. The whole town celebrated by holding a dance and watching a movie at the theater. Togo, Scotty, Balto, Fox, Jack, and all the other dogs were true heroes.






Essential Question

How is perseverance like a journey?

Stopping by Woods on a Snowy Evening

*by Robert Frost
illustrated by Gerald Kelley*

A winter scene with snow-covered trees and a bright sun or moon in a blue sky. The scene is set in a forest with bare trees and a path leading through them. The sky is a deep blue, and the sun or moon is a bright, glowing orb in the upper left. The ground is covered in snow, and the trees are dark against the light sky.

Whose woods these are I think I know.
His house is in the village though;
He will not see me stopping here
To watch his woods fill up with snow.

My little horse must think it queer
To stop without a farmhouse near
Between the woods and frozen lake
The darkest evening of the year.

He gives his harness bells a shake
To ask if there is some mistake.
The only other sound's the sweep
Of easy wind and downy flake.

The woods are lovely, dark and deep.
But I have promises to keep,
And miles to go before I sleep,
And miles to go before I sleep.

You will answer the comprehension questions on these pages as a class.

Text Connections

1. Explain why the sled dog teams in “The Great Serum Race” were the only way to get the serum to Nome in the winter of 1925.
2. Explain why Leonhard took the short route across the frozen bay even though it was more dangerous than taking the longer route.
3. What do you think was the greatest challenge “The Great Serum Race” sled dogs faced, and why?
4. “The Great Serum Race” does not describe how Gunnar felt when he found the lost serum. Infer how he felt based on a time you found something important you thought was lost.
5. Describe one event from “The Great Serum Race” that proves the argument of the final stanza in the poem “It Couldn’t Be Done.”
6. How might people solve a similar problem today if there was some type of epidemic in a wintery Nome? Explain any differences between the 1925 solution and possible modern solutions.

Did You Know?

Balto, one of the lead dogs of Gunnar Kaasen’s team, became famous around the world after the serum run. He starred in a short film, became part of a traveling show, and when a man in Cleveland, Ohio, heard that Balto was being ill-treated, the city raised funds to bring Balto to their zoo to live out his days there.



Write

The mushers in “The Great Serum Race” depended on one another to complete their task. Working with others can be both challenging and rewarding. Write an opinion paragraph explaining why you prefer to work on tasks with a team or by yourself.

Look Closer

Keys to Comprehension

1. Make an inference about why animal skins were the material of choice when warming dogs, people, and serum in “The Great Serum Race.” Quote relevant details from the text to support your inference.
2. Using evidence from the text, summarize why the author describes the sled dogs as “true heroes.”
3. Using specific information from the text, describe the general relationship between the different mushers in “The Great Serum Race.”

Writer’s Craft

4. Explain what a *roadhouse* is based on the information in “The Great Serum Race.”

Concept Development

5. Describe how the illustrations in “The Great Serum Race” help you understand the terrible conditions the characters faced.
6. What text evidence in “The Great Serum Race” supports the point that the mushers traveled “in the worst conditions”?



Read this Science Connection. You will answer the questions as a class.

Text Feature

Captions explain what is happening in an illustration or photograph.

Balancing Environmental and Human Needs

Siberian huskies are a type of sled dog. They were first bred in northeastern Asia, but were eventually raised by people from many countries. In the late 1800s and early 1900s, explorers from Europe realized that these dogs would be perfect for Antarctica's treacherous environment.

Over time, people began making motorized snow vehicles. Dogs were no longer used as often, but a few sled dogs continued to help out. Even though motorized vehicles were very fast, early snow vehicles were heavy and could fall through thin ice. Many people also believed that some dogs could sense danger.

From the 1960s through the 1980s, people began to worry about the plight of the Antarctic environment. One concern was possible ecosystem changes caused by nonnative animals like dogs. The Antarctic Treaty of 1959 had promised peaceful and free scientific use of Antarctica. However, this treaty did not have any wording to protect the ecosystem. People added a few extra protections in 1964. Then, in 1991, countries adopted a thorough Environmental Protocol.

Although the Protocol's main focus was banning mining in Antarctica, one element called for the removal of all nonnative living things besides people. The dogs would have to go. People worried that dogs might have distemper. This disease's symptoms could kill seals.

Many scientists were very upset to lose the dogs. Still, everyone agreed to abide by the new protocol, and by 1994, the last dogs left the Antarctic continent. Making decisions that balance human need against the environment can be difficult. However, they are an important part of acting as stewards of the planet Earth.



Sled dogs were adapted to survive in some of Earth's coldest conditions.

1. Why were Siberian huskies useful in Antarctica in the past?
2. After you have completed the Go Digital section below, create a two-column chart contrasting the environmental reasons people in Denali and Antarctica have for using or not using huskies.



Go Digital

Research the use of Siberian huskies in Denali National Park in Alaska. In what ways do they hurt or help the environment there?