


Day 2: "The Serum Run to Nome"


Begin lesson

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	Teaching notes
	Click the "Begin lesson" button to view this lesson. Teaching notes for each slide will appear in this box.

Before the Lesson

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	Teaching notes

Anchor Text

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The Serum Run to Nome
By Michael A. Signal

A Deadly Disease Spreads

Even in most modern cities in the 1920s, diphtheria was a very dangerous and contagious disease. So when diphtheria broke out in the remote Alaskan town of Nome in 1925, it could have been devastating. Doctors knew how to treat diphtheria, and their patients would usually make full recoveries if the disease was treated in time. But the doctors needed a special serum for the treatment. When they administered the diphtheria serum to infected people quickly, it wouldn't take long for them to get better. But even the best doctors could only treat diphtheria with the right serum. If the serum wasn't available, the disease would worsen. It would start to damage important organs and become fatal. It would also spread quickly between people and kill many people.

When diphtheria hit Nome in January, there was no serum on hand. Nome's only doctor made a frantic call for serum. Other cities had serum to spare, but no way to get it to Nome. No motor vehicle of the time was a match for the brutal winter of north Alaska. Deep snow and temperatures well below zero made airplanes and automobiles useless. Ships could not pass through the frozen water, and the nearest train station was almost 70 miles away! The situation looked bleak.

Out of Options

With air, automobile, boat, and train travel out of the question, there had to be another option to get the serum to Nome. There was one other way to travel over long distances in the cold snow of harsh Alaskan winters: The governor of Alaska authorized a dog sled relay to Nome. During a relay race, teams of runners work together to run the full distance, each runner taking his or her own turn. When one runner stops, another takes over. During the relay to Nome, teams of mushers and their sled dogs would take turns traveling across the harsh Alaskan tundra toward Nome.

The relay's first musher, a man named "Wild" Bill Shannon headed himself and the 20-pound

What is diphtheria?

It's no surprise that you may have never heard of the disease diphtheria. Today, thanks to the invention of an immunization, diphtheria is extremely rare. However, not long ago it was a dangerous illness. Diphtheria infects the throat and nose. People can spread it to one another by coughing, sneezing, or by touching the same objects.

Teaching notes

Download and print copies of the anchor text for each student.

Student Notes Sheet

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Name: _____ Date: _____

Student notes for: The Serum Run to Nome

Day: 2

1. According to the glossary, what does **bleak** mean?

2. What does it mean by the phrase, "when diphtheria serum is scarce"?

3. How did the location of Nome make it difficult to transport the serum?

4. How did the weather make it difficult for the people of Nome to get serum?

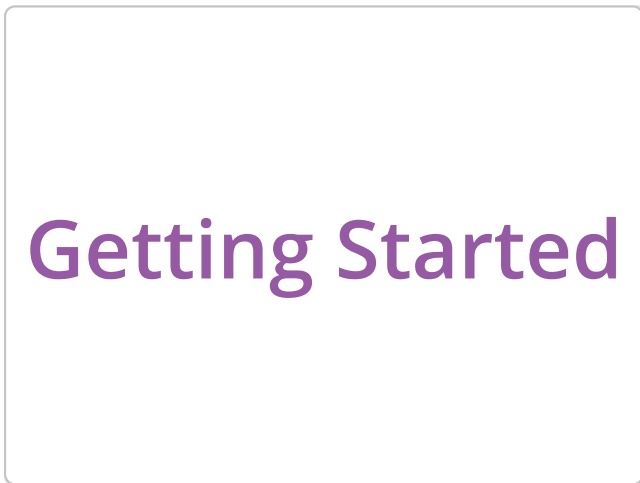
Teaching notes

- This guided notes sheet provides students with the text-dependent questions associated with this lesson, and relevant graphic organizers. You may modify these sheets as needed.
- During class, students can use these sheets to record their responses, notes, or ideas. Use the back to record responses to the focus question.

- Following class, collect student notes to use as a formative assessment.

Getting Started

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Teaching notes

Introduction 1 of 3

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The Serum Run to Nome
By Michael A. Signal

A Deadly Disease Spreads

Even in most modern cities in the 1920s, diphtheria was a very dangerous and sometimes fatal disease. In 1925, it could have been devastating. Doctors knew how to treat diphtheria, and their patients would usually make full recoveries if the disease was treated in time. But the doctors needed a special serum for the treatment. When they administered the diphtheria serum to infected people quickly, it wouldn't take long for them to get better. But even the best doctors could only treat diphtheria with the right serum. If the serum wasn't available, the disease could spread. It would start to damage important organs and become fatal. It could also spread quickly between people and kill many people.

When diphtheria hit Nome in January, there was no serum on hand. Nome's only doctor made a risky call for serum. Other cities had written letters for the right serum of north Alaska. Deep snow and temperatures well below zero made airplanes and automobiles useless. Ships could not pass through the frozen water, and the nearest town within was almost 700 miles away! The situation looked bleak.

Over the top

With air, automobile, boat, and train travel out of the question, there had to be another option to get the serum to Nome. There was one other way to travel over long distances in the cold snow of harsh Alaskan winters. The governor of Alaska authorized a dog sled relay to Nome. During a relay race, teams of runners work together to run the full distance, each runner taking his or her own turn. When one runner drops, another takes over. The relay to Nome, known as *Sanibito* and their sled dogs, would take turns traveling across the harsh Alaskan winter terrain.

The relay's first member, a man named "Old" Bill Shannon hounded himself and the 20-pound package of diphtheria serum to protect them both from the bitter cold. The temperature was 52 degrees below zero when Bill was left the serum from station just before midnight on January 27, but the temperature continued to drop as Bill and his dogs raced through the night towards the next team. The relay would continue like this, day and night. Each member would carry the precious bundle for nearly 100 miles over an even year in the hell season.

The members would not be stopped by frostbite, blinding snowstorms, or bone-chilling temperatures. A few patients had already died in Nome, and more people had been diagnosed with diphtheria. The medicine had to get to Nome—fast!

What is diphtheria?

It's no surprise that you may have never heard of the disease diphtheria. Today, thanks to the invention of an immunization, diphtheria is a thing of the past. However, not long ago it was a dangerous illness. Diphtheria infects the throat and nose. People can spread it to one another by coughing, sneezing, or by touching the same object.

- Informational article by Michael Signal
- Details the spread of diphtheria in Alaska during the 1920s

Teaching notes

Pacing: 15 minutes

Notes:

- Remind students that this week, they are reading the article, "The Serum Run to Nome" closely. This means going back and rereading the article in order to answer questions based on evidence in the text.
- Make sure that students have their copy of the

article and the student notes worksheet.

- Read the text aloud fluently. Remind students to follow along with the text as you read aloud.
- Tell students that today, they will focus on the section "A Deadly Disease Spreads", and have students reread this section independently.

Introduction 2 of 3

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THE SERUM RUN TO NOME

A Deadly Disease Spreads

Even in most modern cities in the 1920s, diphtheria was a very dangerous and contagious disease. So when diphtheria broke out in the remote Alaskan town of Nome in 1925, it could have been devastating. Doctors knew how to treat diphtheria, and their patients would usually make full recoveries if the disease was treated in time.

What is diphtheria?
It's so serious that you may have never heard of the disease diphtheria. Today, thanks to the invention of an immunization, diphtheria is extremely rare. However, not long ago it was a dangerous illness. Diphtheria infects the throat and nose. People can spread it to one another by coughing, sneezing, or by touching the same objects.



- We will focus on the section "A Deadly Disease Spreads"
- Reread that section on your own.

Teaching notes

Pacing: 15 minutes

Notes:


- Remind students that this week, they are reading the article, "The Serum Run to Nome" closely. This means going back and rereading the article in order to answer questions based on evidence in the text.
- Make sure that students have their copy of the

article and the student notes worksheet.

- Read the text aloud fluently. Remind students to follow along with the text as you read aloud.
- Tell students that today, they will focus on the section "A Deadly Disease Spreads", and have students reread this section independently.

Introduction 3 of 3

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Name: _____ Date: _____

Student notes for: The Serum Run to Nome

Day: 2

1. According to the glossary, what does **bleak** mean?
2. What does it mean by the phrase "other cities have serum to spare"?
3. How did the location of Nome make it difficult to transport the serum?
4. How did the weather make it difficult for the people of Nome to get serum?

- As we explore the text we will be asking and answering questions.
- We will find and keep track of evidence from the text to support our ideas about each question.

Teaching notes

Pacing: 15 minutes

Notes:

- Remind students that this week, they are reading the article, "The Serum Run to Nome" closely. This means going back and rereading the article in order to answer questions based on evidence in the text.
- Make sure that students have their copy of the

article and the student notes worksheet.

- Read the text aloud fluently. Remind students to follow along with the text as you read aloud.
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Exploring the Text

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Exploring the Text

Teaching notes

Supporting Question 1

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According to the glossary, what does bleak mean?

Teaching notes

Pacing: 5 minutes

Standard: RI.5.4

Purpose: Students should know what bleak means in order to use text evidence to show how the situation in Nome "looked bleak."

Answer:

- hopeless or helpless, unsolvable

Look for students....

- Finding the bold-faced word in the text.
- Using the glossary at the end of the text.
- Identifying the meaning of bleak.

Guiding questions and prompts:

- Prompt students to find the word in the text and ask, "How does the author show that this word is important?"

Additional Notes:

- Struggling readers and ELL students may benefit from a vocabulary graphic organizer, such as the Frayer Model, to help provide a thorough meaning of the word.
- This question provides an opportunity for a mini-lesson on synonyms. Discussing synonyms for the word bleak will allow students to make connections with familiar words and create mental pictures in their minds of the word's context.

Supporting Question 2

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What does it mean by the phrase, "other cities have serum to spare"?

Teaching notes

Pacing: 5 minutes

Standard: RI.5.4

Purpose: This phrase is important for students to understand because knowing that other cities had extra serum, but no way to get it to them, adds to the context of the situation being bleak.

Answer:

- Other cities had extra serum.
- There was no way to get it to the doctors.

Look for students....

- Finding the phrase in the text.
- Recognizing that the word "spare" has multiple meanings.
- Identifying that spare means 'extra,' but in this case it didn't help because they didn't have a way to transport it to the doctors.

Guiding questions and prompts:

- Prompt students to find the phrase in the text.
- Ask, "What does the word spare mean?"
- Ask, "Which meaning fits the context of this sentence?"

Additional Notes:

- This question provides an opportunity to embed a mini-lesson on dictionary skills, context clues, and multiple meaning words.

Supporting Question 3

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How did the location of Nome make it difficult to transport the serum?

Teaching notes

Pacing: 5 minutes

Standard: RI.5.1

Purpose: The purpose of this question is to help students understand that the remoteness of Nome played an important role in why the serum couldn't be transported.

Answer:

- The nearest train station was 700 miles away.
- The remoteness of Nome made it difficult for the serum to be transported.

Look for students....

- Making a connection between the remoteness of Nome and the difficulty in the serum being transported to doctors.
- Using details from the text to support answer.

Guiding questions and prompts:

- Ask students, "What does remote mean?"
- Prompt students to recall where Nome is located.

Additional Notes:

- Even though remote is one of the words in the text glossary, ELL learners may benefit from more discussion of this word, as they may have background knowledge of the word in the context of a television remote control.

Supporting Question 4

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How did the weather make it difficult for the people of Nome to get serum?

Teaching notes

Pacing: 5 minutes

Standard: RI.5.1

Purpose: The purpose of this question is to help students make a connection between the harsh weather conditions in Nome, and how those conditions contributed to the problem they faced with the diphtheria outbreak in the 1920s.

Answer:

- Deep snow hindered transportation.
- Low temperatures led to frozen water.

Look for students....

- Making a connection between the weather conditions of Nome and the difficulty in the serum being transported to doctors.
- Using text evidence as support.

Guiding questions and prompts:

- Prompt students to find the section of the text where it talks about the weather conditions in Nome.
- Ask students, "What were the weather conditions of Nome, Alaska?"

Focus Question

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**Focus
Question**

Teaching notes

Focus Question

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In the first paragraph, how does the author support his claim that the situation "looked bleak"?

Teaching notes

Pacing: 20 minutes

Standard: RI.5.8

Purpose: Students will use evidence from the text to support the author's claim that the situation looked bleak. This information provides the contextual background for the next focus question, which explores the section, "Out of Options."

Answer: The author shows that the situation in Nome looked bleak in many ways. The doctors needed medicine, but had no way of getting it. Airplanes and automobiles could not transport the serum because of the deep snow and freezing temperatures. Frozen water also made it impossible for ships to pass through. Additionally, the nearest train station was almost 700 miles away. It seemed like a hopeless situation to the people of Nome.

Look for students....

- Recognizing that the phrase in the question came from the article.
- Using the phrase in the question to locate the specific place in the text to find the answer.
- Using specific details from the article to support their answer.

Additional Notes:

- Give students time to return to the text to gather evidence. Encourage them to reread the section.
- Provide students time to write the response independently.
- This response should be in writing, so the teacher can assess each student's understanding.

After the Lesson

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After the Lesson

Teaching notes

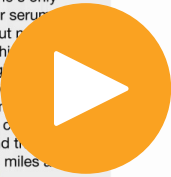
Comprehension Skill Video

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Core Lesson

Ask yourself, "What evidence is there to support this point?"

When diphtheria hit Nome in January, there was no serum on hand. Nome's only doctor made a frantic call for serum. Other cities had serum to spare, but it was hard to get it to Nome. No motor vehicles could make a match for the frigid temperatures of north Alaska. Deep snow and temperatures well below zero made airplanes and automobiles useless. Ships could not travel through the frozen water, and the train station was almost 700 miles away. The situation looked bleak.



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Visit <https://haywood.lzill.co/r/24124>

Teaching notes

Use this video as an intervention tool for students who struggle to answer the focus question. The video uses a metacognitive approach to model the targeted reading comprehension skills.