


Day 1: "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 digital 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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 LearnZillion

Name: _____ Date: _____

Student notes for: The Serum Run to Nome

Day: 1

1. According to the article, why is diphtheria a dangerous illness?

2. How would you describe the town of Nome?

3. Why did doctors in Nome need the serum?

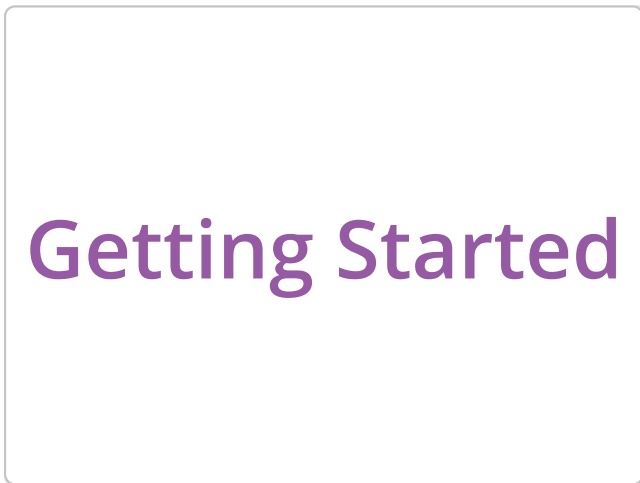
Teaching notes

- 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

Card 6 of 17

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. In some 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 survive. 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 daily call for serum. Other cities had written letters for the right serum at health fairs. Long trains and long distances were before people, airplanes and automobiles existed. Ships could not pass through the frozen water, and the nearest train station was almost 700 miles away! The situation looked bleak.

Over the ocean

With no, 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 winter 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 *Sanborn* and their sled dogs would take turns traveling across the harsh Alaskan winter terrain.

The relay's first member, a man named "Nik" Bill Shuman 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 ran through the night towards the next team. The relay would continue the run, one by one. Each member would carry the precious bundle for nearly 100 miles over the next 25 days to the next station.

The members would not be stopped by blizzards, 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!

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

Teaching notes

Pacing: 15 minutes

Notes:

- Tell students that this week they will be reading one article closely. Distribute copies of the article and student worksheets.
- Read the article aloud. Remind students to follow along with the text as you read aloud. Briefly pause

to define words in Quadrant 1. This should not interrupt the flow of the reading, or be a class discussion. Encourage students to circle other unfamiliar words as the text is read.

- Tell students that they will now go back to the section titled "A Deadly Disease Spreads" and read it closely as you ask a series of questions. Let them know that sometimes you will be talking about the questions, and writing, or taking quick notes about, the answers.
- Instead of reading the text aloud, you may show the read aloud video.

Introduction 2 of 3

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Teaching notes

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.

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

Pacing: 15 minutes

Notes:

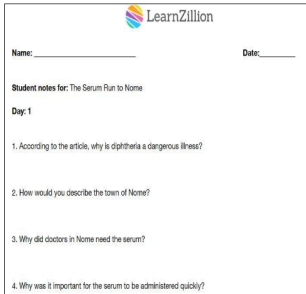
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Introduction 3 of 3

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LearnZillion

Name: _____ Date: _____

Student notes for: The Serum Run to Nome

Day: 1

1. According to the article, why is diphtheria a dangerous illness?
2. How would you describe the town of Nome?
3. Why did doctors in Nome need the serum?
4. Why was it important for the serum to be administered quickly?

- 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:

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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 article, why is diphtheria a dangerous illness?

Teaching notes

Pacing: 5 minutes

Standard: RI.5.1

Purpose: The purpose of this question is for students to use information from the text in order to understand why the lack of serum created such a problem in Nome.

Answer:

- Highly contagious
- Causes damage to organs
- Can be deadly

Look for students....

- Explaining the danger of diphtheria, using textual evidence.

Guiding questions and prompts:

- If students struggle, draw their attention to the text box beside section 1. Ask students, "What is diphtheria?"
- Ask students, "What areas of the body are infected by the disease?"
- Ask students, "How is the disease spread?"

Supporting Question 2

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How would you describe the town of Nome?

Teaching notes

Pacing: 5 minutes

Standard: RI.5.1

Purpose: This question is designed to help students understand that the town's location contributed to the problem of not being able to get the serum to doctors.

Answer:

- Snowy weather
- Freezing temperatures
- Remote region

Look for students....

- Identifying Nome as a remote region in Alaska.
- Recognizing that the word 'remote' has multiple meanings. In this case, it means far away or isolated.

Guiding questions and prompts:

- Ask students, "Where is Nome located?"

Additional Notes:

- Students will need background knowledge of the word "remote" as it is used in this article.

Supporting Question 3

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Why did doctors in Nome need the serum?

Teaching notes

Pacing: 5 minutes

Standard: RI.5.1

Purpose: This information is important to know because it provides the context for the problem of the story, which is finding a way to get the serum to Nome.

Answer:

- Doctors did not have a supply on hand.
- Disease continued to spread without the serum.

Look for students....

- Making a cause/effect connection between the doctors not having a supply of serum on hand, and the disease continuing to spread throughout the town.

Guiding questions and prompts:

- Ask students, "What is a serum?"
- Point out that diphtheria is a very contagious disease. Ask students, "What does "contagious" mean?"

Additional Notes:

- This question provides an opportunity to embed a mini-lesson on cause/effect relationships.

Supporting Question 4

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Why was it important for the serum to be administered quickly?

Teaching notes

Pacing: 10 minutes

Standard: RI.5.1

Purpose: This information is important for students to know because it provides background information to help answer the focus question.

Answer:

- Impacts how quickly a patient recovers
- Impacts how much damage is done to the patient's organs

Look for students....

- Citing evidence from the text which identifies the impacts of receiving the serum quickly.

Guiding questions and prompts:

- Prompt students to find where it talks about the serum being administered in the text.
- Ask students, "What does "administered" mean?"

Focus Question

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Focus
Question

Teaching notes

Focus Question

Card 15 of 17

Why was the outbreak in Nome potentially devastating?

Teaching notes

Pacing: 20 minutes

Standard: RI.5.1

Purpose: Students will use information from the text related to why the outbreak was such a problem for Native Alaskans as they begin to explore the underlying idea of perseverance, which comes up in the other days' focus questions, and the culminating task.

Answer:

The outbreak of diphtheria in Nome was potentially devastating for many reasons. Doctors did not have a supply of serum on hand, and the area was so remote that it was almost impossible to transport the medicine. As a result, the disease spread quickly, and the death rate continued to rise. These factors created a bleak situation for the citizens of Nome.

Look for students....

- Citing evidence to identify why the outbreak was devastating.
- Synthesizing a cause/effect relationship between the lack of serum, and the disease continuing to spread.

Additional Notes:

- This lesson provides an opportunity to embed a mini-lesson on cause/effect relationships.
- 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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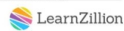
Core Lesson

Highlight the evidence found in the text and create a picture of the details in your mind.

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 small town of Nome in 1925, it could have been devastating. Doctors knew how to treat their patients would usually make full recoveries if the disease was treated quickly. They had developed a special **serum** for the treatment. When they **administered** the serum to patients, it wouldn't take long for them to get better. But in Nome, the doctors only treat diphtheria with the right serum. If the serum wasn't available, the disease would start to damage important organs and become fatal. It could also spread to other people and kill many people.

When diphtheria hit Nome in January, the town was on hand. Nome's only doctor made a frantic call for serum. Other cities had to travel a long way to get it to Nome. No motor vehicle of the time was a match for the rugged terrain of Alaska. Deep snow and temperatures well below zero made airplanes and automobiles impossible. Ships could not pass through the frozen water, and the nearest train station was almost 700 miles away! The situation looked **bleak**.



Visit <https://haywood.lzill.co/r/24105>

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.