



Working on the Transcontinental Railroad

8A

Note: Introducing the Read-Aloud may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Introducing the Read-Aloud

10 minutes

What Have We Already Learned?

5 minutes

Review content from previous read-alouds with the following questions:

- What types of transportation were used as people traveled from the crowded East farther west?
- Why were people continually designing new means of transportation and starting new ventures?
- What do you remember about Robert Fulton and the steamboat he designed?
- What do you remember about the Erie Canal?
- What do you remember about the Oregon Trail?
- Why did the Pony Express start in Missouri rather than on the East Coast? Why was it only used for about eighteen months or a year and a half?
- What do you remember about the tall-tale characters John Henry and Casey Jones?

Essential Background Information or Terms

10 minutes

Explain to students that although many people were thrilled that the Erie Canal enabled people and goods to move westward faster, others were not. For example, the people of Baltimore, Maryland, were afraid that people and goods would no longer

come through their city. They decided to build a railroad that would connect Baltimore to the Ohio River and the West. (Point to these locations on a U.S. map.) They also realized that the power of horses would not be fast enough to compete with other means of transportation, or strong enough to travel long distances through the mountains. Just as Fulton had used a steam engine to power his boat, Peter Cooper of New York designed a locomotive powered by a steam engine. [Show students Image Card 16 (John Henry) and remind students how John Henry helped build the railroad.]



← **Show image 8A-1: Locomotive**

The locomotive is the machine at the front of the train that pulls all of the other cars along the track. Before the locomotive was invented, several horses pulled a car or wagon along the rails, but the locomotive had the power of many horses in a single machine. That's why some people gave it the nickname "iron horse," because the locomotive was made of a type of metal called iron, and it had the power of many horses to pull the train cars. How did the locomotive work? Well, at the heart of the locomotive was the steam engine. The locomotive's steam engine was similar to the steam engine used in Fulton's steamboat. A coal- or wood-burning furnace produced steam, which powered the locomotive. [Show students Image Card 17 (Casey Jones) and remind students how Casey Jones drove a locomotive and his partner Sim Webb kept the steam engine burning.]

Vocabulary Preview

5 minutes

Ancestor



← **Show Image 8A-2**

1. Today's read-aloud is told by a boy named Michael, whose *ancestor* helped build the transcontinental railroad.
2. Say the word *ancestor* with me three times.
3. An ancestor is a family member who lived a long, long time ago.
4. My ancestors passed down family recipes, so we can enjoy the same food they did many, many years ago.

5. How do you think your ancestors' lives were different from yours? Do you know where your ancestors lived or what country they came from? Share your answers with your partner. Try to use the word *ancestors* when you talk about it.



Ties/Spikes

← Show Image 8A-4

1. In today's read-aloud, you will hear, "Men that were just passing through (. . .) stopped to throw dirt on the *ties*, or to drive a *spike* into the ground."
2. Say the word *ties* with me three times.
Say the word *spike* with me three times.
3. A tie is a heavy piece of wood or metal supporting a railway track. A spike is a long, thin piece of metal with a sharp point, like a very large nail.
Note: *Ties* is a multiple-meaning word with several different meanings. *Ties* are strips of cloth that some men wear around their neck. *Ties* is also the action of securing or binding together (e.g., *The boy ties his own shoes.*). *Ties* also means equal scores in a game.
4. The workers hammered the sharp spikes into the wooden ties to keep them in place.
5. [Ask for a volunteer to point out the ties in Image 8A-4. Point out where the spikes would be driven into the ties. Have two students demonstrate placing a tie on the ground and driving spikes into it.]

Purpose for Listening

Share the title of today's read-aloud. Remind students that while trains had carried passengers and goods along the East Coast for a number of years, people wanting to travel or send news to the West Coast used the Oregon Trail, steamboats, or the Pony Express.

Tell students to listen carefully to determine the main topic of the read-aloud and to learn whether train tracks were eventually built all the way from the East Coast to the West Coast.



Working on the Transcontinental Railroad

← Show image 8A-2: Michael holding a photo of his ancestor

My name is Michael, and this is a photo of my great-great-great-great-great-grandfather Ling Wei. He helped to build the **transcontinental railroad**. That’s a pretty long word, but it’s easy to understand if you split it into two parts. The first part of the word is *trans-*, which means across, and the second part is the word *continental*.¹ So, my **ancestor** Ling Wei helped build a part of the railroad that goes across the continental United States, or from the East Coast to the West Coast.²

- 1 What word do you hear in the word *continental*? That’s right, *continent*.
- 2 Ling Wei is Michael’s ancestor because he lived many, many years before Michael was born and is related to his family.



← Show image 8A-3: Map of existing and proposed railroad lines

Ling Wei began working on the railroad in 1863. By that time, there were many railroads in the United States. But they mostly went from the Northeast to the Southeast or from eastern cities like Baltimore to cities in the Midwest like Omaha, Nebraska.³ It was cheaper, more comfortable, and more **convenient** for people to travel by rail than to travel by canal or wagon. It was faster, too.⁴ Before the transcontinental railroad, people could only travel to the West by wagon or horse, or by boat on a river or canal, and the going was slow.

- 3 [Point out the red lines on the map that show railroad lines in 1863.]
- 4 If something is convenient, it is suitable for your needs, or causes the least difficulty.



← Show image 8A-4: Many workers laying tracks

Because the “**iron horse**”⁵ was faster, cheaper, more comfortable, and more convenient, many people thought it would be a great idea to have a railroad track that **spanned** the entire United States.⁶ My great-great-great-great-great-grandfather Ling Wei helped to lay those tracks that connected settlers in the Midwest near the Missouri River to settlers in Sacramento, California—all the way to the West Coast. How many people can say that about one of their ancestors?⁷

- 5 What was the “iron horse”?
- 6 or went from the eastern side of the United States to the western side. [Point to the following areas on a U.S. map as you read.]
- 7 What else have you learned about that ended in Sacramento, California?



← **Show image 8A-5: Map of the two companies laying track**

It took two separate rail companies to build the transcontinental railroad—the Union Pacific Railroad and the Central Pacific Railroad. The Union Pacific Railroad company started building from Omaha, Nebraska, and laid its tracks going west.⁸ The Central Pacific Railroad company started building from San Francisco, California, and laid its tracks going east.⁹ At first the two companies were competing against each other to see who could lay the most track. The U.S. government paid each company for every mile of track it laid, and both companies wanted to make lots of money. In the end, the government told them they had to work together and join their tracks.

8 [Point to the illustration and indicate going west.]

9 [Point to the illustration and indicate going east.]

10 Immigrants are people who come from their own countries to a new country in order to settle there and try to make a better life.

11 What is a myth? [Pause for students to respond.] So, were there really mountains of gold?

Most of the laborers who laid the track for the Union Pacific Railroad were Irish immigrants.¹⁰ My ancestor, Ling Wei, worked for the Central Pacific Railroad. Like many other Chinese immigrants during the 1800s, Ling Wei had settled in California. He and other Chinese immigrants—as well as other immigrants from all over the world—came to the United States because of the promise of gold and a better life. When people realized that the mountains of gold they had heard about were a myth, they had to find some other way to survive.¹¹ So, many Chinese immigrants worked on the western portion of the railroad while Irish immigrants worked on the eastern section. These workers laid tracks through the mountains and across rivers and deserts in the United States.



← **Show image 8A-6: Hammering the Golden Spike**

The transcontinental railroad took six years to build. And my great-great-great-great-great-grandfather Ling Wei kept journals for all of those years! Here's my favorite journal entry:

May 10, 1869. Promontory Point, Utah¹²—Only one hundred feet left to lay—that's what I thought of first thing this morning. After several years of hard work, long hours, and little wages,¹³ one hundred feet of track is all there is left to

12 [Show this location on a U.S. map. You may also wish to show image 8A-5 again to illustrate this meeting point.]

13 or low pay

14 or track

15 *Drive* means to push something with force. *Drive* also means to direct the movement of a vehicle.



complete the transcontinental railroad today. Now, it is hard to believe the work is complete. Despite the hardship I endured, I feel proud of my work. I think everyone today wanted to share in that sentiment. Wherever I looked, people tried to lend a hand in finishing the track. Men that were just passing through Utah to deliver goods stopped to throw dirt on the ties,¹⁴ or to drive a spike into the ground.¹⁵ Even the presidents of the Central Pacific Railroad and the Union Pacific Railroad took turns driving the last spike into the rails. It was a spike made of gold to mark the special occasion. They both missed on their first try, and all of us workers laughed. It's not as easy as we made it look. In fact, it was very difficult.

← **Show image 8A-7: Working through the rugged Sierra Nevada**

Day in and day out we swung those heavy hammers, driving the sharp spikes that held the wooden ties together into the solid ground. We carried heavy wooden ties in the hottest weather you can imagine. The worst days, by far, were those spent drilling tunnels into the Sierra Nevada mountains. These tunnels had to be big enough for locomotive trains to pass through. First, the stone had to be blasted with dynamite. Then we went in and worked on shaping the tunnel. No matter how hard we worked to cut into the stone, we would only move a few inches a day. I can still remember how tired my arms felt at the end of those days. It seemed like there was no end in sight, and we'd never reach the other side of the mountains.



← **Show image 8A-8: Ling Wei working in Indian country**

Other days were filled with worry as we worked through land where Indian tribes were still powerful. They did not like us building through land that had been their home for many hundreds of years.¹⁶ I do not know how the railroad will change life for them.¹⁷

16 Why do you think Native Americans did not like the building of the railroad?

17 How do you think the railroad changed life for Native Americans?

18 How do you think the transcontinental railroad changed the lives of settlers? Listen carefully to hear about some of the changes the railroad brought.



19 or exhaustion

20 [Mention a location that is roughly ten miles away from your school to give students an idea of this distance.] That was a lot of hard work!

For settlers and their families on the West Coast, I think the transcontinental railroad will change lives a great deal.¹⁸ Trains will provide a faster and cheaper method of transportation for goods and foodstuffs. People on the East Coast will now be able to get goods from the West, and people in the West can now get goods from the East more easily. Travel for people who can afford the train will be more comfortable and convenient, too. Of course, many people who cannot afford train tickets will still have to use their wagons for travel.

← **Show image 8A-9: Wei writing in his journal**

As for us workers, we felt as much excitement as we did fatigue.¹⁹ We set the record for laying the most miles of track in one day. On that day, we worked from sunrise to sunset and laid ten miles of track!²⁰ Today we've finally finished our work: we've built a railroad that connects the East and West Coasts of the United States. One day people will talk about all of the business men who dreamed of this and started the Union Pacific and Central Pacific Railroad companies. I hope they talk about my fellow workers and me, too—the men who built the railroad.

Comprehension Questions

10 minutes

1. *Evaluative* What is the main topic of the read-aloud? (the transcontinental railroad)
2. *Literal* What was the first transcontinental railroad in the United States? (a railroad system that spanned the continental United States from the East Coast to the West Coast)
3. *Inferential* Before the transcontinental railroad, how did people travel to the West? (by wagon, by horse, by boats on rivers or canals) Why did people decide to build a transcontinental railroad? (Trains were faster, cheaper, and more convenient.)
4. *Inferential* What was a nickname for the locomotive train? (the “iron horse”) Why was the locomotive called the “iron horse”? (The locomotive was made of iron and had the power of many horses in a single machine.)
5. *Evaluative* In what ways are the steamboat and the locomotive train similar? (They both have engines powered by steam that is produced by a coal- or wood-burning furnace; they are both forms of transportation; they both increased westward expansion.)
6. *Inferential* What were some of the hardships that workers faced in building the transcontinental railroad? (They felt extreme fatigue because the work was very hard; they worked long hours for very little pay; they had to work in difficult weather; the work was dangerous; etc.)
7. *Inferential* What changes did the transcontinental railroad bring? (More people moved to the West; there was more interaction between the East and the West.)

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

8. *Evaluative Think Pair Share:* Why do you think the Union Pacific Railroad and the Central Pacific Railroad were forced to join their tracks rather than be allowed to build their own separate transcontinental railroads? (This saved time, money, and effort.)
9. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

Word Work: Convenient

5 minutes

1. In the read-aloud you heard, "It was cheaper, more comfortable, and more *convenient* for people to travel by rail, more so than by canal or wagon."
2. Say the word *convenient* with me.
3. If something is convenient, it is comfortable or easy to use or easy to get to.
4. Because Margie lives close to the grocery store, it is convenient for her to go buy food whenever she needs.
5. What are some convenient things in your life that make your life easier? Try to use the word *convenient* when you tell about them. [Ask two or three students. If necessary, guide and/or rephrase students' responses: "_____ makes my life more convenient."]
6. What's the word we've been talking about?

Use a *Synonyms and Antonyms* activity for follow-up. You have heard that the word *convenient* describes something that is suitable for your needs or that causes the least difficulty. What do you think the word *inconvenient* means? What word do you hear in the word *inconvenient*? In addition to the word *convenient*, you hear the prefix *in-*. Remember, a prefix is a set of letters attached to the beginning of a word that changes the meaning of the word. For example, the prefix *in-* means “not.” The word *inconvenient* describes something not convenient, so it is an antonym, or opposite, of the word *convenient*. Now, I am going to read several sentences. If I describe something that is suitable to a person’s needs and does not cause difficulty, say, “That is convenient.” If I describe something that causes difficulty, say, “That is inconvenient.”

1. living close enough to school to walk there every day (That is convenient.)
2. having your only pencil break before finishing your homework (That is inconvenient.)
3. missing the bus (That is inconvenient.)
4. having an older brother or sister who can help you with your homework (That is convenient.)
5. finding out that the book you wanted at the library is already checked out (That is inconvenient.)
6. having an umbrella with you when it’s raining (That is convenient.)



Complete Remainder of the Lesson Later in the Day



Working on the Transcontinental Railroad

8B

Note: Extensions may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Extensions

20 minutes

↔ Multiple Meaning Word Activity

5 minutes

Sentence in Context: Drive

Note: You may choose to have students hold up one or two fingers to indicate which image shows the meaning being described, or have a student walk up to the poster and point to the image being described.

1. [Show Poster 4M (Drive).] In the read-aloud you heard, “Men that were just passing through Utah to deliver goods stopped to throw dirt on the ties, or to drive a spike into the ground.” Here *drive* means to push something with force. Which picture shows this meaning of *drive*?
2. *Drive* also means to control the movement of a car, bus, truck or other vehicle. Which picture shows this?
3. Now with your partner, make a sentence for each meaning of *drive*. Remember to be as descriptive as possible and use complete sentences. I will call on some of you to share your sentences. [Call on a few student pairs to share one or all of their sentences. Have them point to the part of the poster that relates to their use of *drive*.]

↔ Syntactic Awareness Activity

Prefix: Tele-

Note: The purpose of these syntactic activities is to help students understand the direct connection between grammatical structures and the meaning of text. These syntactic activities should be used in conjunction with the complex text presented in the read-alouds. There may be variations in the sentences created by your class. Allow for these variations, and restate students' sentences so that they are grammatically correct.

Teacher Reference Chart		
<i>tele-</i> = over a long distance		
Word	Definition	Example
telephone	a way to communicate with someone in another place	Calling and talking to our grandparents who live in a different state than we do
television	electronic equipment on which you can watch programs being filmed or broadcast a long way away	Watching the Olympic games that are being held in another country on our television in our home
teleconference	a conference or meeting that is held with people who are in another location	Using Skype or other video-chat services to have an appointment
telecommunications	communicating with people who are a long way away	Sending email messages to our friends
telemarketing	marketing or trying to sell goods or services from a long way away	When people call our homes and ask if we'd like to buy something they are selling
telescope	an instrument used for seeing objects a long way away	Looking at the stars through a telescope

1. In yesterday's read-aloud about the Pony Express, you heard about *telegraph* messages and how they changed the way people communicated.
2. Say the word *telegraph* with me.
3. The word *telegraph* begins with the prefix *tele-*.
4. A prefix is a word part added to the beginning of a word to give it a new meaning.
The prefix *tele-* means over a long distance.
5. A telegraph message is a message sent a long distance away over a wire.
6. [Choose two to three words on the chart. Say the words, putting emphasis on *tele-*, and have students guess what the meaning of the word might be. Tell students the definition. Then provide an example of the word.]
7. With your partner, make a sentence using a word that has the prefix *tele-*.
[If time allows, you may wish to have students act out the word.]

↔ Vocabulary Instructional Activity

5 minutes

Word Work: Miserable

1. In today's read-aloud, you heard about some of the *miserable* conditions of working on the Transcontinental Railroad, such as swinging heavy hammers from sunrise to sunset in very hot temperatures.
2. Say the word *miserable* with me three times.
3. If someone is miserable, he or she is very uncomfortable or unhappy. If something is miserable, it causes extreme discomfort or unhappiness.
4. The cold, wet, miserable weather caused us to stay indoors.
5. Tell your partner about a time when you felt miserable. Try to use the word *miserable* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase students' responses: "I felt miserable when . . ."]

6. What's the word we've been talking about? What part of speech is *miserable*?

Use an *Antonyms* activity for follow-up. Directions: If any of the things I say would make you miserable, say, "_____ would make me miserable." The antonym or opposite of *miserable* is *comfortable*. If the things I say would make you comfortable, say, "_____ would make me comfortable."

1. Shoveling snow for hours in very cold temperatures
2. Lying back on a big, soft pillow
3. Having a stuffy nose and a sore throat
4. Running a mile in the hot sun
5. Taking a warm bath
6. [Invite students to share one thing that would make them miserable and one thing that would make them comfortable.]

Transportation Brainstorm

5 minutes

Revisit the class Transportation Brainstorm poster. Ask students if they thought of a train or locomotive as a method of transportation. Add *train/locomotive* along with its image to the poster if it is not already there. You may wish to talk about how most trains today are different from those first used on the Transcontinental Railroad. (Today trains are mostly powered by electricity or diesel fuel instead of steam.)

Westward Expansion Map

5 minutes

Quickly review what has been filled in on the class Westward Expansion map (the large U.S. map). Locate the Transcontinental Railroad route on the map. Create a path for the Transcontinental Railroad using yellow sticker dots (or yellow marker dots).

Help students locate the Transcontinental Railroad on the legend of their map and color it in yellow. Then have students locate the Transcontinental Railroad on their map and color it in yellow.

Westward Expansion Timeline

5 minutes

Briefly review what was placed on the Westward Expansion Timeline in the previous lessons. Show students Image Card 12 (Transcontinental Railroad). Explain that this is a photograph of a reproduction of the No. 119, one of two steam locomotives that met at Promontory Summit during the Golden Spike ceremony. The Golden Spike was driven in 1869 to mark the completion of the transcontinental railroad. This took place about ten years after the Pony Express venture. Ask students where the Image Card should be placed on the Timeline, and then place it to the right of the image of the Pony Express. (Refer to the Answer Key on Instructional Master 1A-1.)

[You may want to tell students that the “John Henry” story took place around 1860 and “Casey Jones” took place in 1900, which is consistent with the timing of these events in history. Explain that the events in this domain took place over a relatively short period of time in the history of our country. You may need to explain that *relatively* means “compared to other times in history.”]

Have students add the Transcontinental Railroad to their individual Timelines. Students should include the year (1869) and a depiction of the event in writing and/or pictures.

Song: “I’ve Been Working on the Railroad” (Instructional Master 8B-1)

15 minutes



◀ Show image 8A-4: Many workers laying tracks

Ask students to describe what they see in this image. (workers, railroad tracks) Ask students what they remember about the hard work of building the transcontinental railroad. Tell students that they are going to listen to a song titled “I’ve Been Working on the Railroad.” Tell students to listen carefully to find out what is happening in the song.

Find and play a version of “I’ve Been Working on the Railroad.” See the Recommended Resources list at the front of this Anthology for suggestions.

I've Been Working on the Railroad

*I've been workin' on the railroad,
All the live-long day.*

*I've been workin' on the railroad,
Just to pass the time away.*

Can't you hear the whistle blowin'?

Rise up so early in the morn.

Can't you hear the captain shoutin':

"Dinah, blow your horn"!

Dinah, won't you blow,

Dinah, won't you blow,

Dinah, won't you blow your horn?

Dinah, won't you blow,

Dinah, won't you blow,

Dinah, won't you blow your horn?

Someone's in the kitchen with Dinah,

Someone's in the kitchen, I know.

Someone's in the kitchen with Dinah,

Strummin' on the old banjo and singin'

Fee, fie, fiddle-ee-i-o.

Fee, fie, fiddle-ee-i-o.

Fee, fie, fiddle-ee-i-o.

Strummin' on the old banjo.

After listening to the song, ask students what is happening in the song. Ask students what they notice about how the story is told in the song compared to how it is told in the read-aloud. You may wish to prompt discussion by asking some of the following questions:

- Does this sound different than the read-aloud you heard?
- Do you think Ling Wei and the character in the song had similar or different feelings about working on the railroad?

Tell students that this song is a work song that was traditionally sung by railroad workers. Ask students what other song that they learned about was also a railroad work song. (the “Ballad of John Henry” from *Fairy Tales and Tall Tales*) In what ways are the two songs alike? Compare and contrast the two characters (John Henry and Ling Wei).

Tell students that although many songs do rhyme, they do not all use rhyme as a technique. Explain that some songwriters use repetition of sounds or of words and phrases to emphasize certain things or feelings, such as the writer did in this song. Ask students what words and phrases are repeated in this song for emphasis.

You may need to read each verse or play the song multiple times. The music and lyrics may be found on Instructional Master 8B-1.

Use the echo technique to teach the song to students.

Note: If your school has a music teacher, you may want to collaborate with him/her to teach this song to students.

Westward Expansion Quilt (Instructional Master 8B-2) 15 minutes

Note: Write the main topic of the read-aloud (*Transcontinental Railroad*), and ask students to tell you important details about the main topic. Write accurate student responses on the board for students to refer to as they complete their quilt squares. Some details you may wish to list are *iron horse*, *steam engine*, *locomotive*, *across the U.S.*, *East Coast to West Coast*, *fast*, *cheap*, *convenient*, *dangerous work*, *hard work*, and *long hours*. Include any available images (or drawings) that help explain the information. If needed, model writing a sentence about the main topic using one or two of the words or phrases on the board.

Remind students that they heard about the building of the transcontinental railroad. Tell students that they are going to be adding to their quilts to help them remember some of the important things they learned about westward expansion.

Have students recall important details from the read-aloud. You may prompt discussion with the following questions:

- What was the first transcontinental railroad?
- What forms of transportation were used before the transcontinental railroad to travel to the West Coast?
- How are the steamboat and the locomotive train similar?

Tell students that they will be making one square of the quilt today using Instructional Master 8B-2. First, they should cut out the quilt square. Next, they should draw a picture representing the main topic of the read-aloud in the center diamond. (the transcontinental railroad) Then, they should write a word or short phrase in each corner, sharing facts learned about the transcontinental railroad. Next, ask students to write a sentence on the back of the quilt square, using one or more of the words they've written. Finally, students should share their drawings and writing with a partner.