

CERCA SET **Railway Infrastructure**  
English Language Arts

What factors should the U.S. government take into account when making decisions about investing in rail infrastructure?

LESSON TITLE **First Transcontinental Railroad**

CERCA QUESTION What were some of the challenges of building the transcontinental railway?

**RESOURCES**

- **Build Background Knowledge**  
<https://www.pinterest.com/thinkcerca/railway-infrastructure-cerca-set-board/>
- **CERCA Framework**
- **Vocabulary Routine**
- **Speaking and Listening Routines**

Whole group	Online
Small group	Offline
Individual activity	Activity time period
Speaking and listening activity	Audio
Available in English and Spanish	

**Introduce the CERCA Question**



Introduce the question by making sure students know the concepts *transcontinental* and *challenges*. You may choose to show a map to help illustrate “transcontinental.” Ask students to talk about what they imagine transportation was like 150 years ago. Ask them to think about why people might need to travel and how they think people got around.

**LEVEL 3-4 Expanding**

▶ **ASK: What is transportation?**

Support language acquisition with the following sentence frame:

*Transportation is \_\_\_\_\_.*

▶ **ASK: What do you think transportation was like in the 1800s?**

Support language acquisition with the following sentence frame:

*Transportation might have been \_\_\_\_\_. It was [harder/easier] than now because \_\_\_\_\_.*

**1 Connect**



Have students log in to ThinkCERCA and click into this lesson.

**LEVEL 3-4 Expanding**

Read the overview aloud and discuss vocabulary. Then read the writing prompt aloud for students before they answer.

Complete Step 1: Connect.

**Introduce Vocabulary**



Use **Semantic Webbing** to introduce vocabulary.

▶ **NOTE:** Some students will need support for additional words not listed on the student support page. Weave them into the instruction.

**LEVEL 3-4 Expanding**

Assign vocabulary words to small groups, or to partners. For small groups, assign a word and have them map it out on the whiteboard. Depending on student familiarity with the vocabulary words you can create webs for all new words, or just the most challenging words. When they are finished they can take a minute to explain it while classmates copy the map down. For partner work, have mixed ability pairs create maps for all assigned words in their notebooks.

After the routine have students add the focus words to their word notebooks.

**LEVEL 4-5 Bridging**

Have students discuss what they know or what they might imagine about the ways people may have traveled in the 1800s, and why they might have needed to do so.

**LEVEL 4-5 Bridging**

Complete Step 1: Connect.

**LEVEL 4-5 Bridging**

Have students work in pairs to write their own definition of the word in English. Next, have them brainstorm an image or mental picture to illustrate each word.

After the routine have students add the focus words to their word notebooks.

## Introduce the Summary



Remind students that this is a summary for the passage they will read. Point out the Vocabulary as you read.

### LEVEL 3-4 Expanding

Have students read the Spanish version on the student support page, if applicable, before you read the summary aloud and have students follow along.

### LEVEL 4-5 Bridging

Ask a student to read aloud the summary in English to practice their fluency.

## 2 Read



Have students read the text, using Vocabulary from the student support page as appropriate.

### LEVEL 3-4 Expanding

Read comprehension questions with students before they begin reading the passage.

Complete Step 2: Read.

Discuss comprehension questions. Point out key vocabulary words in the text, especially as they are relevant to finding answers.

### LEVEL 4-5 Bridging

Complete Step 2: Read.

Discuss comprehension questions. Point out key vocabulary words in the text, especially as they are relevant to finding answers.

## 3 Engage with the Text



**NOTE:** If you have concerns that your students are struggling with comprehension, you may wish to work with them on Step 4: Summarize before Step 3: Engage with the Text.

### LEVEL 3-4 Expanding

Model highlighting the text for students.

Complete Step 3: Engage with the Text.

Use the following sentence frames to discuss the highlights students made.

***One benefit of building the transcontinental railway was \_\_\_\_\_.***

***One difficulty of building the transcontinental railway was \_\_\_\_\_.***

### LEVEL 4-5 Bridging

Complete Step 3: Engage with the Text.

Discuss the highlighting students did. Ask students to share their highlights and notes, and use the following sentence stems to support student engagement in the conversation.

***\_\_\_\_\_ was one benefit of building the transcontinental railway. It benefitted \_\_\_\_\_ because \_\_\_\_\_.***

***\_\_\_\_\_ was one difficulty of building the transcontinental railway. It was difficult because \_\_\_\_\_.***

## 4 Summarize



Prepare students to write a CERCA by having them summarize the text.

### LEVEL 3-4 Expanding

Complete a summary of the article together using either the suggested sentence frames below or the stems in the product. Encourage students to use Vocabulary from the lesson.

Use the following sentence frames to create a summary.

**The transcontinental railroad was built in \_\_\_\_\_.**

**Building it was difficult because \_\_\_\_\_.**

**Its completion benefitted the people of the United States, who were able to \_\_\_\_\_.**

Complete Step 4: Summarize.

### LEVEL 4-5 Bridging

Complete Step 4: Summarize.

Review the summaries to ensure that all students understand the big ideas of the passage. Encourage students to use Vocabulary from the lesson.

## 5 Build Your Argument



Practice creating a CERCA together using the CERCA graphic organizer (online or offline) and the leveled frames below and on the student support pages. Remind students that some of their evidence can come from their highlighting work.

**NOTE:** You may wish to have students orally respond to the CERCA question using a Listening and Speaking Routine instead of writing a response.

### LEVEL 3-4 Expanding

Use the following sentence frames to complete the CERCA graphic organizer.

**Claim** *Some of the challenges of building the transcontinental railroad were \_\_\_\_\_.*

**Reason** *because \_\_\_\_\_.*

**Evidence** *Finishing the railroad \_\_\_\_\_,*

**Reasoning** *which meant that it was possible to \_\_\_\_\_.*

Complete Step 5: Build Your Argument.

### LEVEL 4-5 Bridging

Have students share their thoughts with the group.

Use the following sentence frames to complete the CERCA graphic organizer.

**Claim** *Some of the challenges of building the transcontinental railroad were \_\_\_\_\_.*

**Reason** *because \_\_\_\_\_.*

**Evidence** *Constructing the railroad involved \_\_\_\_\_,*

**Reasoning** *which presented challenges like \_\_\_\_\_.*

**Evidence** *Once the railroad was finished, people could finally \_\_\_\_\_,*

**Reasoning** *which meant that it was possible to \_\_\_\_\_.*

Have students complete the graphic organizer with at least one more piece of evidence and associated reasoning. Assist as needed.

Complete Step 5: Build Your Argument.

## 6 Create Your CERCA



Have students write their CERCA in the lesson online so that you can provide feedback and monitor growth.

**NOTE:** Remind students that they can use the Copy all button to move their work into the text box.

### LEVEL 3-4 Expanding

Use the responses students made in the graphic organizer to model writing in response to the CERCA question.

Have students reread their draft. Then have them submit to complete Step 6: Write Your CERCA.

### LEVEL 4-5 Bridging

Have students write their CERCA. Provide support as necessary. Remind students that they can use vocabulary words as they write.

Use this sentence frame to help students conclude their CERCA:  
***The transcontinental railroad \_\_\_\_\_ when it was finished.***

Have students add a conclusion and then reread their draft. Then have them submit to complete Step 6: Write Your CERCA.

## Complete Speaking and Listening Activities



Complete a whole group speaking and listening activity with all students who completed the grade level lesson. Prompt students to use the vocabulary from the passage in the activity.

### LEVEL 3-4 Expanding

Do the **Think-Pair-Share** activity.

### LEVEL 4-5 Bridging

Do the **Think-Pair-Share** activity.

Modify this activity by having students start with simple partner talk and then expand to small group discussion (4-6 students).

LESSON **First Transcontinental Railroad**

CERCA QUESTION What were some of the challenges of building the transcontinental railway?

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## Vocabulary

\*automobile (noun): a car

bonds (noun): a way to loan money to a government or company

\*emerged (verb): appeared

grants (noun): money given for a specific cause without needing to be paid back

idled (verb): slowed

laborious (adj.): hard; difficult

\*locomotives (noun): engines that pull trains

\*primarily (adv.): mainly

profitable (adj.): money-making

settlement (noun): a new community

stagecoach (noun): a horse drawn wagon that carried people and mail

territories (noun): regions; areas

## Vocabulary continued

time-consuming (adj.): slow; takes up time

\*transcontinental (adj.): passing or extending across the continent

\*tremendous (adj.): huge; overwhelming

## Summary

The idea of a transcontinental railroad emerged as large groups of people began to settle California and the western territories. A group of businessmen predicted that a railroad that extended across the West could be quite profitable. At first, building the railroad seemed impossible. In 1862, President Abraham Lincoln signed a bill that gave the railroad companies special land grants and government bonds to help pay for the job. Even so, the owners of the Central Pacific and Union Pacific railroad companies had to raise even more money. Both companies had tremendous difficulty getting their supplies on site and faced many challenges to complete the task. On May 10, 1869, the dream of a transcontinental railroad became a reality. Suddenly, a journey from the East Coast to California took a week instead of months. The railroad opened the door to settlers from the East and from other countries eager to make lives for themselves in California and other points in the West.

LESSON TITLE **First Transcontinental Railroad**

CERCA QUESTION What were some of the challenges of building the transcontinental railway?  
 ¿Cuáles fueron algunos de los desafíos de construir el ferrocarril transcontinental?

## Vocabulary

**English**

**Español**

<b>*automobile</b> (noun): a car	<b>*automóvil</b> (sustantivo): un auto
<b>bonds</b> (noun): a way to loan money to a government or company	<b>bonos</b> (sustantivo): una forma de prestar dinero a un gobierno o una empresa
<b>*emerged</b> (verb): appeared	<b>*surgir</b> (verbo): aparecer
<b>grants</b> (noun): money given for a specific cause without needing to be paid back	<b>subsidios</b> (sustantivo): dinero donado para una causa específica que no necesita ser devuelto
<b>idled</b> (verb): slowed	<b>marchar en neutro</b> (verbo): ir lento
<b>laborious</b> (adj.): hard; difficult	<b>laborioso</b> (adjetivo): difícil
<b>*locomotives</b> (noun): engines that pull trains	<b>*locomotoras</b> (sustantivo): motores que tiran de los trenes
<b>*primarily</b> (adv.): mainly	<b>*principalmente</b> (adverbio): sobre todo
<b>profitable</b> (adj.): money-making	<b>rentable</b> (adjetivo): que genera ganancias
<b>settlement</b> (noun): a new community	<b>asentamiento</b> (sustantivo): una nueva comunidad

## Vocabulary continued

<p><b>stagecoach</b> (noun): a horse drawn wagon that carried people and mail</p>	<p><b>diligencia</b> (sustantivo): un carro tirado por caballos que lleva a la gente y el correo</p>
<p><b>territories</b> (noun): regions; areas</p>	<p><b>territorios</b> (sustantivo): áreas o regiones</p>
<p><b>time-consuming</b> (adj.): slow; takes up time</p>	<p><b>prolongado</b> (adjetivo): lento; que requiere mucho tiempo</p>
<p><b>*transcontinental</b> (adj.): passing or extending across the continent</p>	<p><b>*transcontinental</b> (adjetivo): pasar o extenderse por todo el continente</p>
<p><b>*tremendous</b> (adj.): huge; overwhelming</p>	<p><b>*tremendo</b> (adjetivo): enorme</p>

LESSON TITLE **First Transcontinental Railroad**

CERCA QUESTION What were some of the challenges of building the transcontinental railway?  
¿Cuáles fueron algunos de los desafíos de construir el ferrocarril transcontinental?

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## Summary

**English** The idea of a transcontinental railroad emerged as large groups of people began to settle California and the western territories. A group of businessmen predicted that a railroad that extended across the West could be quite profitable. At first, building the railroad seemed impossible. In 1862, President Abraham Lincoln signed a bill that gave the railroad companies special land grants and government bonds to help pay for the job. Even so, the owners of the Central Pacific and Union Pacific railroad companies had to raise even more money. Both companies had tremendous difficulty getting their supplies on site and faced many challenges to complete the task. On May 10, 1869, the dream of a transcontinental railroad became a reality. Suddenly, a journey from the East Coast to California took a week instead of months. The railroad opened the door to settlers from the East and from other countries eager to make lives for themselves in California and other points in the West.

**Español** La idea de un ferrocarril transcontinental surgió cuando grandes grupos de personas comenzaron a establecerse en California y los territorios occidentales. Un grupo de hombres de negocios predijo que un ferrocarril que se extendiera por el oeste podría ser muy rentable. Al principio, la construcción de la vía férrea parecía imposible. En 1862, el presidente Abraham Lincoln firmó un proyecto de ley que le dio a las compañías de ferrocarriles subsidios especiales de tierras y bonos del gobierno para ayudar a pagar por el trabajo. No obstante, los dueños de las compañías de ferrocarriles del Pacífico Central y Unión del Pacífico tenían que recaudar aún más dinero. Ambas empresas tenían gran dificultad para llevar suministros al sitio y se enfrentaron a muchos desafíos para completar la tarea. El 10 de mayo de 1869, el sueño de un ferrocarril transcontinental se convirtió en una realidad. De repente, un viaje desde la costa este a California tomaba una semana en lugar de meses. El ferrocarril abrió la puerta a los colonos del este y de otros países deseosos de comenzar una vida en California y en otros puntos en el occidente.

## First Transcontinental Railroad

What were some of the challenges of building the transcontinental railway?

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### 4 Summarize

**The transcontinental railroad was built in** \_\_\_\_\_.

**Building it was difficult because** \_\_\_\_\_.

**Its completion benefitted the people of the United States, who were able to** \_\_\_\_\_.

### 5 Build Your Argument

**Claim** *Some of the challenges of building the transcontinental railroad were* \_\_\_\_\_.

**Reason** *because* \_\_\_\_\_.

**Evidence** *Finishing the railroad* \_\_\_\_\_,

**Reasoning** *which meant that it was possible to* \_\_\_\_\_.

# First Transcontinental Railroad

What were some of the challenges of building the transcontinental railway?

## 5 Build Your Argument

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**Reason** *because* \_\_\_\_\_.

**Evidence** *Constructing the railroad involved* \_\_\_\_\_.

**Reasoning** *which presented challenges like* \_\_\_\_\_.

**Evidence** *Once the railroad was finished, people could finally* \_\_\_\_\_.

**Reasoning** *which meant that it was possible to* \_\_\_\_\_.

## 6 Create Your CERCA

**The transcontinental railroad** \_\_\_\_\_  
**when it was finished.**