

Grade 8 -- Informational

The Transcontinental Railroad

The first railroads in the United States were built in the East during the 1820s. By 1850, railroads connected many cities east of the Mississippi River, but railroads were still a dream for frontier places. After California became a state in 1849, a growing number of people wanted to connect the West Coast with the rest of the country. For many years, people had traveled across the Nebraska Territory, and soon a railroad would cross it, too.

Agreeing on a Route

Building a transcontinental railway required vast stretches of land. An act of Congress was needed to obtain the land. In the years leading up to the Civil War, sectional differences between the North and the South made Congressional agreements rare. Senator Stephen Douglas wanted a new railroad built west through Nebraska to the West Coast. He first introduced a bill to build a railroad in 1844. That plan was not acceptable to southern interests, which wanted a transcontinental railroad line to go west from New Orleans. Sectional conflicts made an agreement about a transcontinental route impossible.

In 1859, Abraham Lincoln, who was then an attorney with the Rock Island Railroad, met with railroad surveyor Grenville Dodge in Council Bluffs, Iowa. They planned to make Council Bluffs the eastern terminus of the transcontinental railroad. When the Civil War erupted two years later, southern representatives stopped attending Congress. As a result, southern opposition to the proposed railroad route was removed. The Pacific Railway Act of 1862 cleared the way for railroad construction to begin.

Overcoming Challenges

The transcontinental railroad was an engineering feat. Laying railroad track great distances over difficult terrain with limited resources made the task complicated. Two companies were formed to get the work done. The Union Pacific Company started in Omaha, Nebraska, and built west. Council Bluffs, Iowa, was intended to be the eastern terminus of the railroad. However, the Union Pacific Company did not want to start the project by building an expensive bridge over the Missouri River, so construction began in Omaha instead. The Central Pacific Company began in Sacramento, California, and built east. The two companies would join their lines to form a transcontinental route.

Little progress was made by the Union Pacific during the war years. A labor shortage caused by the war was one reason for the lack of progress. Financial problems added to the challenge. The logistics of how to get materials to the right location at the right time had not been worked out. Conflicting interests tried to influence where the main railroad line would be laid. Delays and disagreements were common. When the war was over, the Union Pacific Company began to make headway, but the progress was still too slow.

Grenville Dodge took over the task of chief engineer for the Union Pacific. Dodge was a decisive leader who chose the Platte River valley as the route for the railroad. The Platte River created a natural westward route across level land. The work began to proceed at a faster pace.

Building the Railroad

Surveyors were the first workers on the construction site. Surveyors took measurements and collected data. The surveyors for the transcontinental railroad looked for the straightest, most level route. They put stakes in the ground to mark the route and recorded their findings for the engineers.

Engineers looked at the survey data and decided where the line would be laid. Engineers had to decide how to manage laying railroad track over hills, valleys, streams, and rivers. The goal was to keep the roadbed as level as possible. Low areas were filled with dirt; steep inclines were cut. Making cuts and fills took time and cost money. Level ground was best. As the line progressed west, the engineers knew less about the actual conditions of the land and the climate. Was a dry streambed ever a raging river? How high should the track be elevated to account for high water? Many times, the engineers built wooden trestles over streambeds rather than fill the area. This solution was quicker and cheaper. After the actual conditions of the streambed were known, it was either filled in with dirt or a permanent bridge was built.

Once the roadbed was ready, the workers who laid the railroad tracks came in. Wagons loaded with wooden ties—cut to a uniform size—came first. The ties were laid evenly side-by-side on the roadbed. Next, teams of workers picked up rails and laid them on the ties. Then two-person teams hammered spikes into the ties to hold the rails in place. Wooden gauges were used to space the rails properly. After the rails were nailed into place with spikes, they were bolted together with plates of steel. Finally gravel or dirt was filled in between the ties to stabilize them. This process was repeated until the job was done.

Completing the Task

The Union Pacific and Central Pacific lines were joined at Promontory Point, Utah, in 1869. At a celebration on May 10, a ceremonial spike was hammered in place to commemorate the event. Railroad lines now crossed 2,000 miles from the Missouri River to the West Coast. During the 1860s, railroad connections in the East had also increased. With the completion of this link between Omaha and Sacramento, passengers and freight could travel by railroad from New York to California.

The completion of the transcontinental railroad was a turning point in American history. It brought settlers to the West. By 1890, the U.S. Census declared that the American frontier had disappeared.

1) What is the meaning of the Latin prefix **trans** in the word **transcontinental**? (LA.8.1.5.c)

- a) across
- b) beyond
- c) against
- d) trains

2) What is the meaning of the word **trestle** in paragraph 8? (LA.8.1.5.c)

- a) an unlawful act
- b) a leveling agent
- c) an opposing force
- d) a braced framework

3) Where do the Union Pacific and Central Pacific railroad lines meet? (LA.8.1.6.a)

- a) Council Bluffs, Iowa
- b) Sacramento, California
- c) Promontory Point, Utah
- d) New Orleans, Louisiana

4) Which event occurs last? (LA.8.1.6.d)

- a) The Civil War begins.
- b) California becomes a state.
- c) The Pacific Railway Act passes.
- d) Abraham Lincoln meets with railroad surveyor Grenville Dodge.

5) Which event is the deciding factor for the location of the route of the transcontinental railroad? (LA.8.1.6.d)

- a) The Civil War begins.
- b) Abraham Lincoln is elected president.
- c) California becomes a state.
- d) Stephen Douglas is elected to the senate.

6) What is the main idea of the passage? (LA.8.1.6.d)

- a) Railroads offer a cost efficient mode of transportation.
- b) The Civil War slowed the progress on the transcontinental railroad.
- c) Despite many obstacles, the transcontinental railroad was completed.
- d) Southerners wanted a transcontinental railroad to go west from New Orleans.

7) Which organizational pattern does the author use? (LA.8.1.6.e)

- a) sequence
- b) description
- c) compare/contrast
- d) proposition/support

8) What is the genre of the passage? (LA.8.1.6.g)

- a) narrative
- b) informative
- c) descriptive
- d) persuasive

C4L Reading - Item Writing Tally Sheet

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Passage Name: Transcontinental Railroad

Gr8 Vocabulary	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
LA 8.1.5 Vocabulary: Students will build literary, general academic, and content specific grade level vocabulary.					
LA 8.1.5.a <i>Determine meaning of words through structural analysis, using knowledge of Greek, Latin, and Anglo-Saxon roots, prefixes, and suffixes to understand complex words, including words in science, mathematics, and social studies</i>	1, 2				
LA 8.1.5.c <i>Select a context clue strategy to determine meaning of unknown word appropriate to text (e.g., restatement, example, gloss, annotations, sidebar)</i>	2		2		2
LA 8.1.5.d <i>Analyze semantic relationships (e.g., figurative language, connotations, subtle distinctions)</i>	2,3				
Gr8 Comprehension	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
LA 8.1.6 Comprehension: Students will extract and construct meaning using prior knowledge, applying text information, and monitoring comprehension while reading grade level text.					
LA 8.1.6.a <i>Analyze the meaning, reliability, and validity of the text considering author's purpose, perspective, and information from additional sources</i>	3				1
LA 8.1.6.c <i>Analyze author's use of literary devices (e.g., foreshadowing, personification, idiom, oxymoron, hyperbole, flashback, suspense, symbolism, irony, transitional devices)</i>	2, 3				
LA 8.1.6.d <i>Summarize, analyze, and synthesize informational text using main idea and supporting details</i>	2, 3		1		3
LA 8.1.6.e <i>Apply knowledge of organizational patterns found in informational text (e.g., sequence, description, cause and effect, compare / contrast, fact / opinion, proposition / support)</i>	2				1
LA 8.1.6.f <i>Analyze and evaluate information from text features (e.g., index, annotations, maps, charts, tables, graphs, headings, subheadings, lists)</i>	2, 3				

LA 8.1.6.g <i>Analyze and make inferences based on the characteristics of narrative and informational genres</i>	2, 3		1		1
LA 8.1.6.j <i>Generate and/or answer literal, inferential, critical, and interpretive questions, analyzing and synthesizing prior knowledge, information from the text and additional sources, to support answers</i>	1, 2, 3				