Cobblestone

CELEBRATING CITIZENSHIP

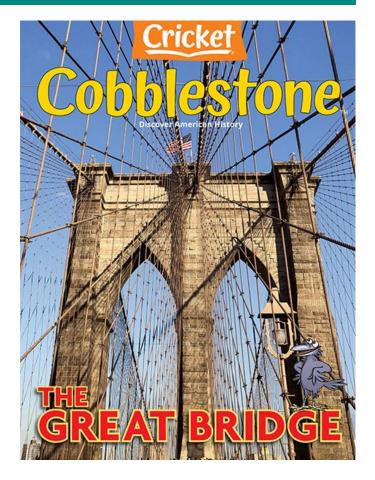
Use the articles, lessons, and activities in this Teacher Guide to help students understand the importance of the Brooklyn Bridge and how it was built.

CONVERSATION QUESTION

Why was the construction of the Brooklyn Bridge so important to the city of New York?

TEACHING OBJECTIVES

- Students will analyze John A. Roebling's qualifications for building bridges.
- Students will learn why Roebling designed a suspension bridge for the East River.
- Students will participate in a debate.
- Students will identify the steps taken to construct the bridge.
- Students will understand the risks of bridge construction.
- Students will write a journal entry.
- Students will explore the roles of women in the 1860s.
- Students will understand Emily Roebling's role in the bridge's construction.
- Students write and participate in a play.
- Students will create a timeline.



In addition to supplemental materials focused on core Social Studies skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

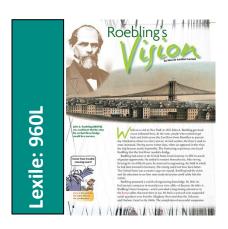
SELECTIONS

- Roebling's Vision
 Expository Nonfiction, 960L
- An American Triumph
 Expository Nonfiction, 960L
- Right Woman at the Right Time Expository Nonfiction, 1110L

Roebling's Vision

pp. 8-10, Expository Nonfiction

This article introduces John A. Roebling and explains how he planned and designed the Brooklyn Bridge.



OBJECTIVES

- Students will analyze John A. Roebling's qualifications for building bridges.
- Students will learn why Roebling designed a suspension bridge for the East River.
- Students will participate in a debate.

KEY VOCABULARY

- alternative (p. 8) a choice of something that is different from something else
- strait (p. 9) a narrow area of water that connects two larger areas of water
- intimidating (p. 9) having a frightening or threatening effect

ENGAGE

Conversation Question: Why was the construction of the Brooklyn Bridge so important to the city of New York?

Ask students to describe the biggest bridge they have ever seen. Do they know what kind of bridge it was? Did it cross over a large river, a highway, or a body of water? Discuss why bridges are so important, especially when it comes to the movement of goods and people. Ask students if they know what a suspension bridge is, and if possible, show graphics of different bridge types such as suspension, drawbridges, stone, or concrete. Ask why a suspension bridge might be a good choice for crossing a busy river.

INTRODUCE VOCABULARY

Define each word with students. Then arrange students in small groups and have them practice using two or even three of the words in a single sentence. Finally, tell students to look for these words as they read the story.

RFAD & DISCUSS

Have students read the article. Then use these questions for discussion:

- 1. John A. Roebling had a frustrating experience while in New York. How did it lead to the construction of the Brooklyn Bridge?
- 2. What were some of the challenges of building a bridge over New York's East River?
- 3. Why was a suspension bridge the best design for boat traffic?
- 4. What were John A. Roebling's qualifications for building the bridge?

CONCEPT/SKILL FOCUS: Classifying Information

INSTRUCT: Explain to students that this article describes Roebling's design for the new bridge over the East River, and how he had to convince a board of experts to agree. Then divide the class into two groups, and have each group research suspension bridges and drawbridges. Both sides will engage in a debate, with one side arguing for the suspension bridge, and the other side arguing that a drawbridge would be better.

ASSESS: Determine which side has the stronger argument, and also assess the quality of research done about each type of bridge.

FXTFND

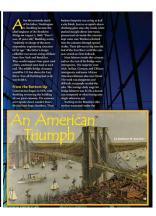
Engineering Invite students to use print and digital sources to research the design and structure of suspension bridges. Then have each student draw their own version of a suspension bridge.

An American Triumph

pp. 15-19, Expository Nonfiction

This article describes the building process for the Brooklyn Bridge, and the resources needed for its construction.





OBJECTIVES

- Students will identify the steps taken to construct the Brooklyn Bridge.
- Students will understand the risks of bridge construction.
- Students will write a journal entry.

KEY VOCABULARY

- counterbalance (p. 17) a weight that balances another weight
- pressurize (p. 16) to make the air pressure inside something, such as an airplane, to be the same as or close to the pressure of air on Earth's surface
- simultaneously (p. 18) existing or occurring at exactly the same time

ENGAGE

Conversation Question: Why was the construction of the Brooklyn Bridge so important to the city of New York?

Ask students to think about what it takes to build a huge structure like a modern bridge. What materials, machinery, and labor does it take? Now think about bridge construction in 1870. What has changed about the process? What is still the same?

INTRODUCE VOCABULARY

Define each word with students. Then, have each student create a crossword puzzle that uses the three words, as well as three other words that relate to bridge construction. Each word must have a clue. Students will trade puzzles to complete them. Finally, tell students to look for these words as they read the story.

READ & DISCUSS

Have students read the article. Then use these questions for discussion:

- 1. How did Washington Roebling get the assignment of the bridge building project? How do you think he felt about it?
- 2. What hazards did workers face when building the tall towers?
- 3. Describe a caisson and how to get inside.
- 4. Who were most of the bridge laborers? Why do you think this was true?
- 5. Why do you think Brooklyn mayor Seth Low called this "an American triumph"?

CONCEPT/SKILL FOCUS: Point of View

INSTRUCT: Explain to students that this article describes the process of constructing the Brooklyn Bridge in terms of resources like materials and knowledge. But it also mentions the importance of immigrant labor in building the bridge. Have students write a journal entry from the point of view of an immigrant working on the bridge, discussing what it is like, and how they feel about having this job.

ASSESS: Have students read their journal entries aloud to the class. Assess based on the success of the voice and information each student includes in their journal entry.

FXTFND

Social Studies Invite students to use print and digital sources to research immigration to the U.S. from other countries. What are some reasons why immigrants want to come to this country? Have students create a poster showing some of the benefits of coming to the United States.

Right Woman at the Right

Time

pp. 28-30, Expository Nonfiction

This article about Emily Roebling describes the role of American women during the late 1800s, during the time of the Brooklyn Bridge construction.



RESOURCES

Sequence of Events

OBJECTIVES

- Students will explore the roles of women in the 1860s.
- Students will understand Emily Roebling's role in the bridge's construction.
- Students write and participate in a play.
- Students will create a timeline.

KEY VOCABULARY

- prominent (p. 28) a person who is important or famous
- dignitaries (p. 29) people of high rank or office
- **succumb** (p. 30) die from the effect of a disease or injury

ENGAGE

Conversation Question: Why was the construction of the Brooklyn Bridge so important to the city of New York?

Ask students about the different roles that women have today. Can they think of something that women aren't allowed to do? Now ask them if they think that women have always been able to do whatever they wanted to, when it comes to education or careers. Can they give examples of what women could not do in the past? Then discuss what life was like for women in the 1860s when the Brooklyn Bridge was being built. What roles did they think women had at that time?

INTRODUCE VOCABULARY

Define each word with students. Have students write a short paragraph that contains all three vocabulary words. Finally, tell students to look for these words as they read the story.

READ & DISCUSS

Have students read the article. Then use these questions for discussion:

- 1. Why does the author say that "Emily Warren Roebling was not a typical Victorian-era woman"?
- 2. What did Emily do to help Washington keep his job after he became ill?
- 3. What mistaken impression did some people have of Emily?
- 4. Near the end of the bridge construction, some people tried to have Emily's husband removed as chief engineer. What did she do?
- 5. Why did Washington Roebling insist that Emily be the first passenger to cross the bridge when it was completed? What did she carry along and why?

CONCEPT/SKILL FOCUS: Sequence of Events

INSTRUCT: Explain to students that this article describes what Emily Roebling did when she took over supervision of the bridge construction from her husband, until her death. Have students create a timeline of Emily's activities, then fill in the Sequence of Events graphic organizer, listing the specific examples from the article.

ASSESS: Have students compare their organizer with the rest of the class and discuss any differences, especially what each student included in their timeline.

EXTEND

Language Arts Invite students to use print and digital sources to research the roles of women during the Victorian era in the United States. Then have them write a letter from a woman in a traditional role, to Emily Roebling, thanking her for her example and contributions to the Brooklyn Bridge.

Sequence of Events

Understanding the sequence of events helps to explain how a historical shift can develop from a single incident or circumstance. Emily Roebling's role in building the Brooklyn Bridge would contribute to a larger change in women's roles overall. Look at the chart below. Starting with Emily's marriage, create a timeline of the important events in the article, ending with her death in 1903.

	• 1843
Event	• Emily Warren was born in Cold Springs, NY.
Event	
Event	
Event	
Event	
LVEIIL	
Event	
Event	
	• Emily Roebling dies on February 28, 1903.
Event	Littily hoebiling dies on rebladly 20, 1905.