

cobblestone®

MARVELOUS BRIDGES

In this issue, students explore the social and economic problems that spurred the construction of bridges around the world.

CONVERSATION QUESTION

What social and economic issues does bridge construction help to resolve?

TEACHING OBJECTIVES

- Students will learn how technology can impact society.
- Students will identify positive and negative incentives that influence the decisions people make.
- Students will explain how economic decisions influence environments and the daily lives of people.
- Students will explain how policies are developed to address public problems.
- Students will present a multimedia report.
- Students will create a timeline.
- Students will use details from a text to write a historical narrative.



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

- **Chicago on the Move**
Expository Nonfiction, ~950L
- **San Francisco's Golden Gate**
Expository Nonfiction, ~850L
- **Lessons Learned** Expository
Nonfiction, ~850L

Chicago on the Move

pp. 19–23, Expository Nonfiction

Learn why different types of bridges were constructed in Chicago over time and the problems they helped to resolve.



OBJECTIVES

- Students will read and analyze a nonfiction article.
- Students will learn how technology can impact society.
- Students will identify positive and negative incentives that influence the decisions people make.
- Students will present a multimedia report.

KEY VOCABULARY

- **commerce** (p. 19) the activity of buying and selling, especially on a large scale
- **canal** (p. 19) an artificial waterway constructed to allow the passage of boats or ships inland
- **obstruction** (p. 20) the action of impeding or preventing passage

ENGAGE

Conversation Question: What social and economic issues does bridge construction help to resolve?

Ask students to think about why people need to construct bridges. Expand students' thinking by explaining there are both social and economic reasons for constructing bridges. Ask students to hypothesize some scenarios where bridges serve social or economic purposes.

INTRODUCE VOCABULARY

Define each word with students. Then have students work in small groups to practice using all three words in a single sentence. Finally, tell students to look for these words as they read the story.

READ & DISCUSS

Have students read the article with a partner. Then use these prompts for discussion:

- Why did Chicago need bridges?
- What different types of bridges were constructed in Chicago?
- What social and economic problems did bridges solve in Chicago?

SKILL FOCUS: Identify Incentives

INSTRUCT: Tell students that this article provides details about positive incentives that influenced people's decisions to build different types of bridges in Chicago. Have students work in groups of three to discuss and answer this question: *What positive outcomes did bridge construction in Chicago have?* Point out that there is often more than one type of incentive (i.e., social and economic) that influences decisions. Direct students to the second paragraph on page 19 and help them identify the incentives that prompted people to build bridges. (helping the city grow and making transportation easier)

ASSESS: Instruct groups to reread the article and discuss the questions in the Read & Discuss section above. Tell groups their task is to identify at least three positive incentives that influenced people's decisions to build bridges in Chicago.

EXTEND

Science Have students work in small groups to conduct research about modern bridge building. Instruct groups to identify one type of bridge and learn about its structural features. Have groups create a short, five-slide multimedia presentation to share their findings with the class.

Cobblestone® Teacher Guide: January 2019

San Francisco's Golden Gate

pp. 26–30, Expository Nonfiction

Explore the reasons why the Golden Gate Bridge was built and learn about the people who turned it from an idea into a reality.



OBJECTIVES

- Students will read and analyze a nonfiction article.
- Students will learn how technology can impact society.
- Students will explain how economic decisions influence environments and the daily lives of people.
- Students will create a timeline.

KEY VOCABULARY

- **landscape (p. 26)** all the visible features of an area of land
- **strait (p. 26)** a narrow passage of water connecting two larger bodies of water
- **piers (p. 28)** solid supports designed to withstand pressure

ENGAGE

Conversation Question: What social and economic issues does bridge construction help to resolve?

Ask students to imagine they live on a peninsula that is separated from another large area of land by a narrow body of water. Tell them that a bridge doesn't yet exist. Have them hypothesize how they could get to this other area of land and why such methods were inefficient.

INTRODUCE VOCABULARY

Write the sentences below on the board. Then ask students to use words from the vocabulary list to complete the sentences.

- The _____ of the San Francisco area is dominated by steep hills, a large bay to its east, the Pacific Ocean to its west, and a _____ that runs between it and Marin County.
- Strong _____ helped to ensure the Golden Gate Bridge was securely anchored on both sides of the _____.

READ & DISCUSS

Have students read the article with a partner. Then use these prompts for discussion:

- Before the construction of the Golden Gate Bridge, what method of transportation did people rely on to get from San Francisco to Marin County?
- What technological developments increased the need for a bridge connecting San Francisco and Marin County?
- Why did some groups oppose the construction of the Golden Gate Bridge?

SKILL FOCUS: Explain Influence

INSTRUCT: Remind students that this article provides details about how the decision to build the Golden Gate Bridge influenced the environment and daily lives of people living in the San Francisco area. Then explain that the decision to build the Golden Gate Bridge was based on the need to make transportation between San Francisco and Marin County more efficient.

ASSESS: Have students work in groups to reread the article and discuss the questions in the Read & Discuss section above. Tell students their task is to identify at least three ways that the construction of the Golden Gate Bridge affected the environment and/or the daily lives of people living in the area.

EXTEND

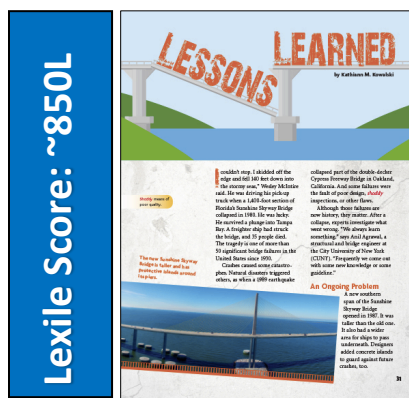
Social Studies Have students use details in the article to construct a timeline of events relating to the planning, construction, and use of the Golden Gate Bridge. Tell students they should have at least seven entries on their timeline.

Cobblestone® Teacher Guide: January 2019

Lessons Learned

pp. 31–34, Expository Nonfiction

Explore how terrible catastrophes spurred innovations that have helped to improve the safety of bridges over time.



RESOURCES

- Analyzing Problems

OBJECTIVES

- Students will read and analyze a nonfiction article.
- Students will learn how technology can impact society.
- Students will explain how policies are developed to address public problems.
- Students will use details from a text to write a historical narrative.

KEY VOCABULARY

- Federal Highway Administration (p. 32)** a government agency specializing in highway transportation
- Department of Transportation (p. 32)** an agency of the federal government responsible for helping to maintain the nation's transportation systems
- National Bridge Inventory (p. 33)** a database with information on all bridges and tunnels in the United States

ENGAGE

Conversation Question: What social and economic issues does bridge construction help to resolve?

Ask students to hypothesize reasons why a bridge might collapse. Ensure that students understand there are both design-related and environmental reasons why this might occur. Have them predict how bridge collapses in the past have influenced modern bridge construction.

INTRODUCE VOCABULARY

Together, review the vocabulary words and read them aloud. Then ask students to make predictions about the topic of the text using the vocabulary words. If necessary, help students guess the topic by revealing the title of the article.

READ & DISCUSS

Have students read the article with a partner. Then use these prompts for discussion:

- What are some examples of bridges that collapsed?
- Why did these bridges collapse?
- What state and federal rules and laws help to ensure bridge safety?

SKILL FOCUS: Analyze Problems

INSTRUCT: Tell students that this text provides several examples of bridges that have collapsed for various reasons. Inform students that public problems such as the potential of unsafe bridges are typically addressed by creating policies (i.e., rules, laws, or processes) that try to prevent the problem and putting government agencies in charge of carrying out those policies.

ASSESS: Have students work in small groups to reread the article and discuss the questions in the Read & Discuss section above. Then tell students to use the *Analyzing Problems* organizer to identify at least three different policies—rules, laws, or processes—that have been developed over time to increase bridge safety.

EXTEND

Language Arts Have students review the article to choose an event or development related to a bridge catastrophe and its aftermath. Then have students write a one-page narrative about that event or development, using details from the article.

Analyzing Problems

In the chart below, record different rules, laws, or processes that have been created to increase the safety of bridges. (**Hint:** You may have to infer some policies based on details in the article.)

Rule, law, or process	How It Helps to Increase Bridge Safety