

Teacher's Supplement

cobblestone®

Discover American History

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Man-Made MARVELS

Teacher's Guide for *Cobblestone: Man-Made Marvels*

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OVERVIEW

In this magazine, readers will learn about a variety of structures, from bridges and buildings to national monuments, that show our

*ingenuity and engineering prowess. **Dig:** **Man-Made Marvels** includes information about the political, economic, and constructional challenges that these projects faced and overcome, along with the projects' lasting legacies.*

ESSENTIAL QUESTION:

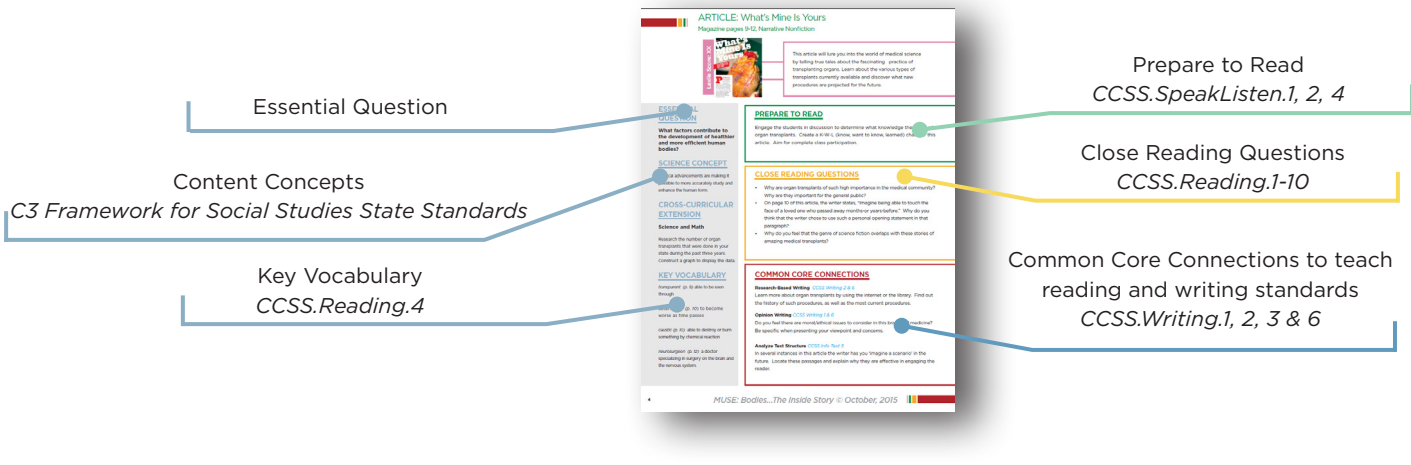
How do man-made objects reflect human values and transform how we interact with the world around us?



We invite you to use this magazine as a flexible teaching tool that is ideal for interdisciplinary learning of social studies and science content and core literacy concepts. Find practical advice for teaching individual articles or use a mini-unit that helps your students make cross-text connections as they integrate ideas and information.

READ MULTIPLE TEXTS PAGES 4 - 15

Each article in this magazine is well-suited for teaching Common Core literacy concepts and content area knowledge. For each individual article page in this guide, you'll find the following:



Essential Question

Content Concepts
C3 Framework for Social Studies State Standards

Key Vocabulary
CCSS.Reading.4

Prepare to Read
CCSS.SpeakListen.1, 2, 4

Close Reading Questions
CCSS.Reading.1-10

Common Core Connections to teach reading and writing standards
CCSS.Writing.1, 2, 3 & 6



TEACH A MINI-UNIT PAGES 17 - 19

Magazine articles can be easily grouped to make cross-text connections and comparisons. Our Common Core mini-unit guides students to read and discuss multiple articles and integrate ideas and information (CCSS.Reading.9). Discussing multiple articles (CCSS.SpeakListen.1, 2, 4) prepares students to write texts to share and publish in a variety of ways (CCSS.Writing.2).

READING

Core literacy concepts, such as the ones found in the Common Core State Standards, help students access social studies and science content. Integration of both literacy thinking and content study offers students a great way to become experts in reading informational text and literature for content knowledge. This guide provides questions to cover many core literacy concepts.

Draw Inferences (CCSS.InfoText.1)

Describe Relationships (CCSS.InfoText.3)

Analyze Text Structure (CCSS.InfoText.5)

Interpret Visual Information (CCSS.InfoText.7)

Summarize (CCSS.InfoText.2)

Determine Word Meaning (CCSS.InfoText.4)

Understand Author's Point of View (CCSS.InfoText.6)

Explain Reasons and Evidence (CCSS.InfoText.8)

FOCUS STANDARD: CCSS.InfoText.9: Integrate Ideas and Information

Have students read multiple articles on the same topic from this magazine to build knowledge and make cross-text comparisons.

SPEAKING AND LISTENING

Use the articles in this magazine to spark meaningful discussions in person and online. Encourage deeper discussions where students can become topic experts (CCSS.SpeakListen.1, 2, 4).

DISCUSSION OPTIONS—IN CLASS OR ONLINE

Article Clubs: Form small reading groups of students reading the same article. Have students discuss the content, share ideas, and critically evaluate the text.

Jigsaw Clubs: Form small reading groups of students reading *different* articles. Invite students to share information and resources with each other.

Whole Class: Launch with an essential question. Encourage students to find and share evidence from different articles to build a greater understanding of the question.

WRITING

Use the articles in this magazine to prompt **informative/explanatory writing** (CCSS.Writing.2). Have students use evidence from the texts to share information about social studies, language arts, or science content. See the **Mini-Unit** section of this guide (pgs. 17 – 19) as well as the **Article Pages** (pgs. 4 – 15) for ways to incorporate writing into your instruction.



After being stuck on a boat in the East River because of ice, John A. Roebling began to plan for a bridge between Brooklyn and New York City. Once Congress approved it, construction began. The final bridge, completed under the leadership of Roebling's son, Washington, was lauded as an object of wonder and is still in use today.

ESSENTIAL QUESTION

How do man-made objects reflect human values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Human-induced environmental changes affect cultural attitudes.

CROSS-CURRICULAR EXTENSION

Science

Research decompression sickness. What causes it, what are the symptoms, and what steps are taken to prevent it?

KEY VOCABULARY

delegation (p. 2) a group of people who are chosen to vote or act for someone else

marvel (p. 2) someone or something that is extremely good, skillful, etc.

novelty (p. 5) the quality or state of being new, different, and interesting

PREPARE TO READ

Share the images on page 4 with the students. Have them imagine what it was like to build the Brooklyn Bridge.

CLOSE READING QUESTIONS

- What arguments supported constructing a bridge connecting New York City with Brooklyn? Use details from the text to support your answer.
- Underline details in the text that explain the dangers that workers faced during bridge construction.
- What event marred the opening days of the Brooklyn Bridge?

COMMON CORE CONNECTIONS

Explain Reasons and Evidence *CCSS Info Text 8*

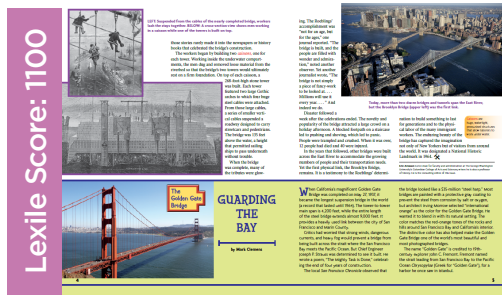
What evidence does the author provide for the popularity of the bridge? What are the sources for the evidence? Is it sufficient?

Describe Relationships *CCSS Info Text 3*

How is Washington A. Roebling introduced in the article? What is his relationship with John A. Roebling? What role did Washington and John have in the construction of the Brooklyn Bridge?

Draw Inferences *CCSS Reading 1*

What can be inferred about the connections between Brooklyn and Manhattan today? Did the Brooklyn Bridge live up to the public's expectations?



Despite concerns about the weather and ocean currents, the Golden Gate Bridge was constructed and completed in 1937. Its color matches surrounding geological features.

ESSENTIAL QUESTION

How do man-made objects reflect our values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Human-induced environmental changes may serve spatial needs.

CROSS-CURRICULAR EXTENSION

English Language Arts

Analyze the meter and rhyme scheme of the poem "The Mighty Task is Done."

KEY VOCABULARY

magnificent (p. 5) very beautiful or impressive

span (p. 5) the part of a bridge or other structure that goes across a space from one support to another

PREPARE TO READ

Discuss metaphorical meanings of the word "bridge." Consider how these meanings relate to actual bridges. Do any apply specifically to the Golden Gate Bridge?

CLOSE READING QUESTIONS

- Underline details in the text that explain the concerns some people had about the building of a bridge across San Francisco Bay.
- Why does the Golden Gate Bridge have a distinctive color? Use details from the text to support your answer.
- Explain the origin of the name "Golden Gate."

COMMON CORE CONNECTIONS

Describe Relationships *CCSS Info Text 3*

The Golden Gate Bridge is compared to a steel harp. Is this comparison effective? Why or why not?

Determine Point of View *CCSS Info Text 6*

What is the author's point of view of the bridge? Which words or phrases helped you determine that point of view?

Opinion Writing *CCSS Writing 1*

The author refers to the Golden Gate Bridge as magnificent and beautiful. Do you agree? Write an opinion explaining why or why not.



From almost the moment the American Revolution ended, there were plans for a monument to George Washington, but political changes and economic woes plagued its completion until after the Civil War.

ESSENTIAL QUESTION

How do man-made objects reflect our values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Changes in economic priorities represent examples of historical change.

CROSS-CURRICULAR EXTENSION

Math

What percentage of the monument was completed by the Washington National Monument Society? What percentage was added by the Know-Nothing Party?

KEY VOCABULARY

firm (p. 8) set, placed, or attached in a way that is not easily moved

reinforce (p. 7) to strengthen (something, such as clothing or a building) by adding more material for support

stall (p. 6) to stop progressing or developing

PREPARE TO READ

Read the main title to the students. Ask them which man it might be referring to. Why did he deserve a monument?

CLOSE READING QUESTIONS

- Underline each impediment to building or completing a monument to George Washington identified in the text.
- Create an annotated timeline of all of the dates in the article.
- Highlight details in the text that explain the procedure for constructing the monument.

COMMON CORE CONNECTIONS

Interpret Visual Information *CCSS Info Text 7*

Study the images that accompany the article. Note the specific text that each image refers to. How do the images add to your understanding of the article?

Analyze Key Concepts *CCSS Info Text 3*

How does the author demonstrate the impact of the Know-Nothing Party? Note the details used and the means for presenting them (e.g., through examples or anecdotes).

Present Arguments *CCSS Speaking and Listening 4, 5 and 6*

Create a PowerPoint presentation explaining who you believe should have a national monument and why. Be sure to include details about the person's accomplishments.

ARTICLE: A Symbol of Friendship: The Statue of Liberty

Magazine pages 9 -11, Expository Nonfiction



The Statue of Liberty was a gift to America from France and was intended to represent the lasting friendship between both countries, but its size and financial difficulties impeded its construction.

ESSENTIAL QUESTION

How do man-made objects reflect our values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Humans represent ideas symbolically.

CROSS-CURRICULAR EXTENSION

Science

Create a two-column chart listing different kinds of metals and details about how the process of corrosion affects objects made of each kind.

KEY VOCABULARY

commission (p. 9) an instruction, command, or duty given to a person or group of people. Please use this definition in the glossary as well.

critical (p. 11) extremely important

suitable (p. 9) having the qualities that are right, needed, or appropriate for something

PREPARE TO READ

Show students a picture of the Statue of Liberty. Discuss its features, including its size, clothing, and accessories, as well as the symbolism behind its position. Guide students in hypothesizing why the statue was constructed in this way.

CLOSE READING QUESTIONS

- Underline details in the text that refer to delays in construction.
- Highlight examples of symbolism in the statue.
- Make a chart of the contributions of each individual mentioned in the article.

COMMON CORE CONNECTIONS

Demonstrate Understanding *CCSS Language 5*

Locate a simile in the article. Rewrite this simile as a metaphor. How does the change impact tone and meaning?

Summarize Main Ideas *CCSS Info Text 2*

Reread the article with a partner and discuss the main idea of each paragraph and of the entire article. Use these ideas to write a summary.

Research-Based Writing *CCSS Writing 2 & 6*

Research the relationship between France and the United States in the 18th and 19th centuries. Write an expository essay detailing the major events from the time of the American Revolution up to the decision to develop the Statue of Liberty.



The Empire State Building was conceived during the boom of the 1920s but constructed during the Great Depression. Its construction created many jobs, but tenants were hard to find once it was complete. Today, it's a major tourist attraction.

ESSENTIAL QUESTION

How do man-made objects reflect our values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Changes in economic circumstances represent examples of historical change.

CROSS-CURRICULAR EXTENSION

Art

Create an art deco piece.

KEY VOCABULARY

aspire (p. 13) to want to have or achieve something (such as a particular career or level of success)

boom (p. 12) a rapid increase in growth or economic success

PREPARE TO READ

Show students an image of the Empire State Building. Then show them a panoramic image of New York City. Help students locate the structure in the panoramic image. Ask students to identify ways the building stands out in the image.

CLOSE READING QUESTIONS

- Underline features that make the Empire State Building unique.
- Why was construction able to progress so quickly? Use details from the text to support your answer.
- How did changes in the national economy impact the building's construction and use? Use details from the text to support your answer.

COMMON CORE CONNECTIONS

Analyze Text Structure *CCSS Info Text 5*

This article begins in the present and goes back in time. What is the effect of this modified chronological structure? How would a full chronology have differed? What other structures might have been used?

Interpret Visual Information *CCSS Info Text 7*

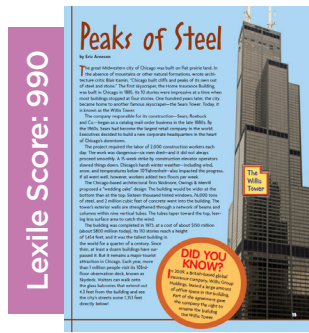
Read the definition of art deco on page 13. What features define the images on page 12 and 13 as art deco?

Narrative Writing *CCSS Writing 3 & 6*

Imagine you are a water boy participating in the construction of the Empire State Building. Write a letter to your family explaining what you see each day at work and how you help. Be sure to include sensory details.

ARTICLE: Peaks of Steel: The Willis Tower

Magazine page 15, Expository Nonfiction



In the 1960s, executives at Sears, Roebuck and Co. commissioned a skyscraper which, once completed, was the tallest in the world. Today the Sears Tower is known as the Willis Tower.

ESSENTIAL QUESTION

How do man-made objects reflect our values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Humans modify their environment for cultural purposes.

CROSS-CURRICULAR EXTENSION

Engineering

Build towers out of common household items. Which is tallest and why?

KEY VOCABULARY

attraction (p. 15) something interesting or enjoyable that people want to visit, see, or do

firm (p. 15) a business organization

PREPARE TO READ

Ask students to hypothesize why a city would want to have the tallest building in the world. Then, discuss potential challenges in constructing a skyscraper.

CLOSE READING QUESTIONS

- How did the building get its original name? Use details from the text to support your answer.
- What events slowed construction? Use details from the text to support your answer.
- Underline text that explains what tourists who visit the site may do.

COMMON CORE CONNECTIONS

Draw Inferences *CCSS Reading 1*

What can you infer about the current financial status of Sears? What information leads you to draw this inference?

Determine Meaning *CCSS Reading 4*

Explain how the phrase “wedding cake” relates to the design plan for the tower. Underline text that shows how the plan was carried out. How does it still live up to the name for the plan?

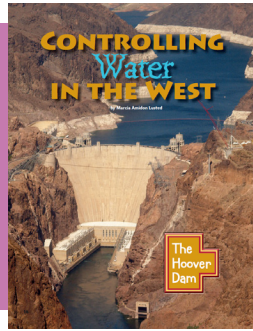
Explain Reasons and Evidence *CCSS Info Text 8*

What reasons are given for the design? Which evidence from the text supports these reasons? Is it sufficient?

ARTICLE: Controlling Water in the West: The Hoover Dam

Magazine pages 16 - 19, Expository Nonfiction

Lexile Score: 1160



The Hoover Dam provides electricity for seven states and controls the waters of the Colorado River. Building it was a complex process involving massive amounts of concrete and the building of preliminary structures, including tunnels to direct the water and housing for the workers.

ESSENTIAL QUESTION

How do man-made objects reflect our values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Humans modify their environment for economic and spatial purposes.

CROSS-CURRICULAR EXTENSION

Science

How does a hydroelectric power plant produce electricity? What are the benefits and drawbacks of this method of electrical production?

KEY VOCABULARY

ingenuity (p. 17) skill or cleverness that allows someone to solve problems, invent things, etc.

remote (p. 17) far away from other people, houses, cities, etc.

vital (p. 17) extremely important

PREPARE TO READ

Share the title of the article with the students. Discuss why humans need water and why this leads to a need to control water.

CLOSE READING QUESTIONS

- Create a chart of structures that had to be built to facilitate the building of the dam. Add each structure's purpose to the chart.
- Underline examples of hardships and dangers the workers faced.
- How are the dam and the lake used today? Use details from the text to support your answer.

COMMON CORE CONNECTIONS

Analyze Text Structure *CCSS Info Text 5*

Reread the fifth paragraph on page 17. What is the key concept of this paragraph and how does each sentence develop or refine it?

Author's Point of View *CCSS Info Text 6*

The author uses some words that have emotional impact. Locate these words and explain how they convey the author's point of view of the specific events, places, or people described.

Writing Arguments *CCSS Writing 1*

Building the dam was like building with blocks. Write an argument explaining whether you agree or disagree with this statement. Use details from the text to support your opinion.



It was hard to get backing for an Interstate Highway System until after World War II, when the Cold War loomed and Americans were on the move to the suburbs.

ESSENTIAL QUESTION

How do man-made objects reflect our values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Human-induced environmental changes may serve spatial needs.

CROSS-CURRICULAR EXTENSION

Geography and Math

Locate cities served by the Interstate Highway System on a scaled map of the United States. Measure and compare the linear and driving distances between the cities.

KEY VOCABULARY

convoy (p. 21) a group of vehicles or ships that are traveling together, usually for protection

draft (p. 21) to make a version of something, such as a document or a plan that will need more work in order to be finished

profound (p. 23) very great

PREPARE TO READ

Show students a variety of street signs and route signs from your area, including state and local routes as well as interstates. Discuss what each sign means. Continue by discussing where the routes can take you.

CLOSE READING QUESTIONS

- What gave Eisenhower the idea for a national highway system? Use details from the text to support your answer.
- Underline the benefits of a national highway system.
- Why did Eisenhower argue that a national highway system was important for defense? Use details from the text to support your answer.

COMMON CORE CONNECTIONS

Evaluate Reasons and Evidence *CCSS Info Text 6*

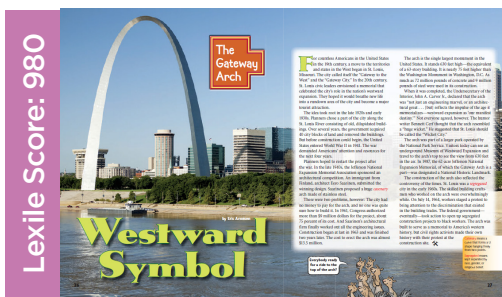
At the end of the article, the author presents two sides of an argument. What evidence is given for each side? Is it sufficient? Why or why not?

Interpret Visual Information *CCSS Info Text 7*

Study the images that accompany the text. What new information does each image add? How does each image compliment the text?

Research-Based Writing *CCSS Writing 2 & 7*

Write an expository essay explaining the process of building roads.



The idea for a memorial to westward expansion dates back to the 19th century, but the Gateway Arch wasn't completed until 1965 because of financial woes and controversy.

ESSENTIAL QUESTION

How do man-made objects reflect our values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Humans represent ideas symbolically.

CROSS-CURRICULAR EXTENSION

Engineering

Learn why arches don't collapse at the middle and build your own model of an arch.

KEY VOCABULARY

dilapidated (p. 27) in very bad condition because of age or lack of care

run-down (p. 27) in very bad condition because of age or lack of care

wicket (p. 27) any one of the series of curved wires in the ground that the ball must be hit through in the game of croquet

PREPARE TO READ

Define westward expansion and "manifest destiny." Discuss how they impacted the city of St. Louis.

CLOSE READING QUESTIONS

- Why was St. Louis considered the "Gateway to the West?" Use details from the text to support your answer.
- Underline features of the arch and the park it's part of.
- Why is the arch controversial? Use details from the text to support your answer.

COMMON CORE CONNECTIONS

Summarize Main Ideas *CCSS Reading 2*

Work with a partner to determine the main themes of the article and write a brief summary of it.

Author's Point of View *CCSS Info Text 6*

Analyze the quotations the author includes. What is their purpose? How do they impact your understanding of the topic?

Written Analysis *CCSS Writing 2 & 9*

Write an expository essay explaining what makes a person, event, or place worthy of having a monument dedicated to it. Why?



The Space Needle was constructed for the Century 21 Exposition. It fits the space theme in design, color, and the feeling you get of hovering above the city when you are in the rotating dome.

ESSENTIAL QUESTION

How do man-made objects reflect our values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Humans represent ideas symbolically.

CROSS-CURRICULAR EXTENSION

Math

Compute the area of the hole dug for the foundation.

KEY VOCABULARY

commitment (p. 29) a promise to do or give something

startling (p. 29) very surprising, shocking, or frightening

PREPARE TO READ

Imagine what it would be like to hover above Seattle in a flying saucer. Ask the students if this is something they'd like to do. Why or why not? Explain that the dome of the Space Needle is as close as they can come to this experience today.

CLOSE READING QUESTIONS

- How does the Space Needle represent the space theme? Use details from the text to support your answer.
- Create a flow chart of the steps involved in the construction of the Space Needle.
- Underline details in the text describing the features of the dome.

COMMON CORE CONNECTIONS

Determine Meaning *CCSS Info Text 4*

Look for comparisons the author makes. Determine what is being compared. Is the comparison drawn through a simile or metaphor? How does it add to the theme of the article?

Draw Inferences *CCSS Reading 1*

What inferences can you draw about the success of the Century 21 Exposition?

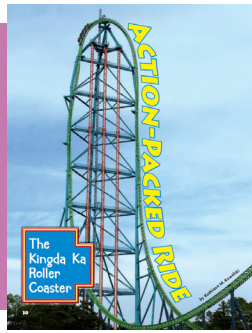
Research-Based Writing *CCSS Writing 2 & 7*

Research other innovations at the Seattle World's Fair. Select one and write an essay explaining how it impacted American culture.

ARTICLE: Action-Packed Ride: The Kingda Ka Roller Coaster

Magazine pages 30 - 32, Expository Nonfiction

Lexile Score: 940



Kingda Ka has been the tallest and fastest roller coaster in the world for ten years, but builders had to overcome structural and mechanical challenges first.

ESSENTIAL QUESTION

How do man-made objects reflect our values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Human-induced environmental changes affect cultural attitudes.

CROSS-CURRICULAR EXTENSION

Physics

Study the relationships between gravity, velocity and energy.

KEY VOCABULARY

hectic (p. 32) very busy and filled with activity

release (p. 32) a way of dealing with and getting rid of unpleasant emotions, feelings, etc.

title (p. 32) the status or position of being the champion in a sport or other competition

PREPARE TO READ

Ask the students if they've ever thought about what it takes to design and build a roller coaster. Have them imagine the biggest coaster they've been on or seen. Discuss the forces a roller coaster car has to overcome (e.g., gravity, centrifugal force) without stalling on a hill or flying off the track.

CLOSE READING QUESTIONS

- Underline details that describe Kingda Ka's path.
- Highlight the challenges that had to be overcome and the methods for overcoming them.
- Why do people ride roller coasters? Use details from the text to support your answer.

COMMON CORE CONNECTIONS

Determine Meaning *CCSS Info Text 4*

Read the quotations that accompany the text. How do they support the ideas presented in the text? Why might the author have chosen to include them?

Analyze Text Structure *CCSS Info Text 5*

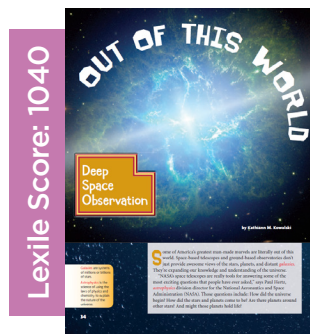
Reread the final sentence of the article. What evidence is given for this conclusion? Is the evidence sufficient to support this claim? Why or why not?

Narrative Writing *CCSS Writing 3*

The author chose not to use a chronological structure for this article. How is the text structured instead? How would the impact of the text be different if a chronological structure had been used?

ARTICLE: Out of This World: Deep Space Observation

Magazine pages 34 - 37, Expository Nonfiction



Telescopes have helped us begin to answer questions about our place in the universe and how the universe works. Larger lenses and the ability to “see” a variety of frequencies on the electromagnetic spectrum will help us expand our exploration.

ESSENTIAL QUESTION

How do man-made objects reflect our values and transform how we interact with the world around us?

SOCIAL STUDIES CONCEPT

Advancements in technology lead to changes in our understanding of our environment.

CROSS-CURRICULAR EXTENSION

Science

Explore the electromagnetic spectrum. How does each wavelength relate to the next?

KEY VOCABULARY

literally (p. 34) with the exact meaning of each individual word given

pulsing (p. 35) a brief increase in an amount of electricity, light, or sound

wealth (p. 35) a large amount or number

PREPARE TO READ

Show the students images taken by deep space telescopes. Have them hypothesize about what the images are and how they were made.

CLOSE READING QUESTIONS

- Make a chart of each space telescope's purpose and legacy.
- What is the mission of the Pan-STARRS telescopes?
- Why do the Pan-STARRS telescopes have huge digital cameras? Use details from the text to support your answer.
- Why is NASA planning to launch another telescope into space? Use details from the text to support your answer.

COMMON CORE CONNECTIONS

Evaluate Reasons and Evidence *CCSS Info Text 8*

Reread the article and look for details that support any claims the author makes. Evaluate whether the details provide sufficient support for the claims. Chart your results.

Analyze Key Elements *CCSS Info Text 3*

How does the author introduce each telescope? Underline words and phrases in the text that are used to make connections among the telescopes.

Present Research *CCSS Speaking and Listening 4, 5 and 6*

Conduct research to gather information about different telescopes created by NASA or other space agencies around the world. Create and present a PowerPoint presentation. Be sure to include details about its physical parts and capabilities and describe why the telescope was created. Include images to enhance your presentation.

CROSS-TEXT CONNECTIONS WITH MULTIPLE ARTICLES

COMPARE ARTICLES

SYNTHESIZE: Guide students to compare articles they read. Help students find the connections between pieces of information in multiple texts. Use prompts, such as the following examples, to have students work together to **Integrate Ideas and Information** (CCSS.Reading.9).

- Use information from many different articles to create a chart of each project. Include the time period, reason for development, financial sources, challenges faced, and location.
- Refer to several articles to learn about the role of immigrants in creating our man-made marvels.
- Compare the structures of the articles in the issue. How do the authors introduce their marvels? Which articles contain information on construction? How are impediments described? Do the authors use similar methods or is there a wide variation?
- Many of the projects were hindered by economic or political developments. Reread “In Memory of the Man: The Washington Monument,” “A Symbol of Friendship: The Statue of Liberty,” “A Big Idea: The Empire State Building,” and “Westward Symbol: The Gateway Arch” to learn how these challenges impacted construction or the completed work and how they were overcome.
- Use information from several articles to determine the role of governments (local, state, and national) in creating infrastructure and promoting progress. Note any laws that were passed to promote a project.

EXPLORATORY LEARNING - FLEXIBLE MINI-UNIT DESIGN

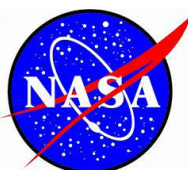
The man-made marvels in this issue represented some of America's greatest achievements at the times they were constructed. They symbolize our friendships and our march toward the future. But they aren't our only monumental accomplishments. This Mini-Unit invites students to explore other man-made structures that symbolize our past or show the strength of our present or hope for our future. They will write magazine articles about their selections and illustrate them.

ENGAGE

READ AND
COMPARE

APPLY

ENGAGE: Show the students the images and words below. Create a web showing how the images relate to each other and to the words listed below them. Have the students keep these connections in mind as they read the articles. They can add new words or images to their copies of the web.



Explore Make Friends Build Progress Symbolize

Share the essential question:

How do man-made objects reflect our values and transform how we interact with the world around us?



READ AND COMPARE ARTICLES: Begin with a focus article as a base for building content knowledge and model how to work through the text.

1) READ ALOUD: Use “A Great Enterprise: The Brooklyn Bridge” (pgs. 2-5) as a focus article, or choose a different article that works well for your teaching goals. Share the article summary on page 4 of this guide. Students can read their own copies of the article and use sticky notes to mark places they find interesting or have questions about.

2) DISCUSS THE ARTICLE: After reading, guide students to talk about the article. See the Article Pages for Close Reading Questions.

3) READ NEW ARTICLES: Help students choose additional articles to read based on their inquiry questions or what they find interesting. Refer to the Article Pages for summaries of each article within *Cobblestone: Man-Made Marvels*.

4) COMPARE ARTICLES: After students have read multiple articles, guide them to make cross-text connections. Refer to page 16 to Compare Articles using prompts that help students integrate ideas and information.

CHOOSE A PURPOSE FOR READING

DESCRIBE RELATIONSHIPS *CCSS Reading 2* Determine the main idea of each paragraph of the article and the article as a whole. Use these ideas to write a summary of the article.

CLOSE READ *CCSS Info Text 7* Look at the photographs that accompany the text. Locate specific sentences that each photo may help to illustrate. What information do the images add to your knowledge of the topic?

ANALYZE TEXT STRUCTURE *CCSS Info Text 5* Reread the last paragraph of the article. How does it relate to each preceding paragraph? What is the purpose of the final paragraph?



APPLY: MARVELOUS MAGAZINE

Students will write articles about man-made marvels that weren't included in this issue. They will present their articles to peers at the draft stage in order to strengthen their writing and be sure they've represented their topics well. Students will also illustrate their articles. They will combine their articles into a single magazine that can be shared with fellow students, family, and friends.

Before Beginning

Note: Consider how many students you have, their ability levels, and the number of pages you'd like the final magazine to be. Set word limits accordingly.

Share the issue's Essential Question with the students and discuss it in relation to the articles they have read. Use the discussion and the web you created as part of the Engage activity as a jumping-off point for brainstorming other marvels that could have been selected for the magazine. Help students select final research topics.

Research

Assist students as they research and take notes on their topics. Remind them to keep the Essential Question in mind and to look for images as well as facts. They should note setbacks as well as accomplishments.

Planning

Have students use the Topic Organizer on page 20 of this Mini-Unit to plan their articles. Students should plan and/or begin to create illustrations at this time as well.

Drafts and Revision

Circulate as students write rough drafts of their articles. Separate them into pairs or small groups to workshop their pieces. Students should ensure that readers will understand how the marvel was developed and what makes it a marvel. Ask questions and help resolve disagreements about whether a topic is truly marvelous. Help students select illustrations or finalize their own artwork.

Students may write or type their second drafts. Once these drafts are complete, have them work with new partners to correct errors in punctuation and grammar. (These instances of sharing will help students learn more about each other's topics.) Type final drafts.

Final Layout

As a group, determine the order in which articles should appear (e.g., alphabetically by author, chronologically). Assist students in using word processing software; demonstrate how to insert and resize images as well as how to format text.

Publish

Publish and distribute final copies.

NAME: _____

Mini-Unit Graphic Organizer

Key Topic

Description

Main Idea

Main Idea

Main Idea

Essential Details

Essential Details

Essential Details

So What? (What's important to understand about this?)

NAME: _____

ANALYZE GRAPHIC FEATURES

GRAPHIC FEATURE	PAGE LOCATION	HOW THIS FEATURE HELPED YOUR UNDERSTANDING

NAME: _____

CONCEPT CHART

Show how reading multiple articles developed your understanding of the essential question or your own inquiry question.

ESSENTIAL QUESTION OR INQUIRY QUESTION:

ARTICLE 1:

ARTICLE 2:

ARTICLE 3:

aspire to want to have or achieve something (such as a particular career or level of success)

*New technologies, such as advancements in steel production and the evolution of the elevator, enabled them to **aspire** to big ideas. (p. 13)*

attraction something interesting or enjoyable that people want to visit, see, or do

*But it remains a major tourist **attraction** in Chicago. (p. 15)*

boom a rapid increase in growth or economic success

*The men hoped to cash in on the real estate **boom** that was taking place in New York City toward the end of the 1920s. (p. 12)*

commission an instruction, command, or duty given to a person or group of people. Please use this definition in the glossary as well

*Bartholdi was enthusiastic about the concept, but several years passed before he was awarded the **commission** for the monument. (p. 9)*

commitment a promise to do or give something

*The Space Needle became a key symbol of the fair's motto and the nation's **commitment** to space exploration. (p. 29)*

convoy a group of vehicles or ships that are traveling together, usually for protection

*The **convoy**, consisting of 81 vehicles and 282 members of the military, departed on July 7, 1919. It covered 3,251 miles in 62 days—a “world’s record,” one military officer stated, for “total continuous distance traveled.” (p. 21)*

critical extremely important

*Contributions for that **critical** foundation were slow until Joseph Pulitzer, the New York World newspaper owner, got involved. (p. 11)*

delegation a group of people who are chosen to vote or act for someone else

*On hand were U.S. president Grover Cleveland, the mayors of the cities of New York and Brooklyn, and **delegations** of businessmen. (p. 2)*

dilapidated in very bad condition because of age or lack of care

*Planners chose a part of the city along the St. Louis River marked by old, **dilapidated** buildings. (p. 27)*

draft to make a version of something, such as a document or a plan that will need more work in order to be finished

*Some groups lobbied on behalf of greater road construction, and federal officials **drafted** reports: Toll Roads and Free Roads (1939) and Interregional Highways (1944) in particular made the case for a national highway system. (p. 21)*

firm a business organization

*The Chicago-based architectural **firm** Skidmore, Owings & Merrill proposed a “wedding cake” design: The building would be wider at the bottom than at the top. (p. 15)*

firm set, placed, or attached in a way that is not easily moved

*But the simple and solid beauty of the monument and the space it commands on the Mall make it a fitting symbol to the man who did so much to give his country a **firm** foundation. (p. 8)*

hectic very busy and filled with activity

*“They deliver controlled, safe ‘chaos’ that can be cathartic in the type of busy and **hectic** lives Americans lead.” (p. 32)*

ingenuity skill or cleverness that allows someone to solve problems, invent things, etc.

*It combined government-funded public works with private enterprise **ingenuity**. (p. 17)*

literally with the exact meaning of each individual word given

*Some of America’s greatest man-made marvels are **literally** out of this world. (p. 34)*

magnificent very beautiful or impressive

*When California’s **magnificent** Golden Gate Bridge was completed on May 27, 1937, it became the longest suspension bridge in the world (a record that lasted until 1964). (p. 5)*



marvel someone or something that is extremely good, skillful, etc.

*The bridge, one magazine claimed, “stands as one of the latest **marvels** of the nineteenth century.” (p. 2)*

novelty the quality or state of being new, different, and interesting

*The **novelty** and popularity of the bridge attracted a large crowd on a holiday afternoon. (p. 5)*

profound very great

*...the monumental government program **profoundly** changed the way Americans live. (p. 23)*

pulsing a brief increase in an amount of electricity, light, or sound

*As it changes position, Kepler has been able to capture things such as flares on stars, black holes swallowing asteroids, and even **pulsing** on the surface of the planet Neptune. (p. 35)*

reinforce to strengthen (something, such as clothing or a building) by adding more material for support

*The corps first spent four years **reinforcing** the monument’s base before completing the obelisk by 1884. (p. 7)*

release a way of dealing with and getting rid of unpleasant emotions, feelings, etc.

*“Roller coasters represent thrill and **release**,” says Kristin Siebeneicher, communications manager for Six Flags Great Adventure. (p. 32)*

remote far away from other people, houses, cities, etc.

*The location chosen for the dam, Black Canyon, was a **remote** site, so roads and railroad lines had to be built first to make it accessible for workers and materials. (p. 17)*

run-down in very bad condition because of age or lack of care

*They hoped it would breathe new life into a **run-down** area of the city and become a major tourist attraction. (p. 27)*

span the part of a bridge or other structure that goes across a space from one support to another

*The tower-to-tower main **span** is 4,200 feet, while the entire length of the steel bridge extends almost 9,000 feet. (p. 5)*

stall to stop progressing or developing

*Efforts to reach an agreement on a memorial **stalled**. (p. 6)*

startling very surprising, shocking, or frightening

*The **startling** news in 1957 that the Soviet Union had launched the first satellite to orbit Earth had begun a race to put a man on the moon. (p. 29)*

suitable having the qualities that are right, needed, or appropriate for something

*In 1874, Bartholdi visited the United States to look for a **suitable** location for a monument. (p. 9)*

title the status or position of being the champion in a sport or other competition

*It “has owned the **title** of tallest and fastest for a decade and won’t soon be forgotten,” says Siebeneicher. (p. 32)*

vital extremely important

*The 1,450-mile-long Colorado River is a **vital** waterway in the West. (p. 17)*

wealth a large amount or number

*Although it is expensive, Hubble’s legacy is a **wealth** of scientific information. (p. 35)*

wicket any one of the series of curved wires in the ground that the ball must be hit through in the game of cricket

*The humor writer Bennett Cerf thought that the arch resembled a “huge **wicket**.” (p. 27)*



“Guarding the Bay: The Golden Gate Bridge”

- <http://goldengatebridge.org/research/ConstructionStraussPoem.php>

Read the poem “The Mighty Task is Done.”

- <http://www.pbs.org/wgbh/americanexperience/features/biography/goldengate-strauss/>

Read a biography of Joseph Strauss.

“A Symbol of Friendship: The Statue of Liberty”

- <http://www.nps.gov/stli/learn/historyculture/index.htm>

Explore the history and culture of the Statue of Liberty, including the full text of “The New Colossus.”

“Connecting the Country: The Interstate Highway System”

- <https://www.fhwa.dot.gov/infrastructure/history.cfm>

Read about the history of the Interstate Highway System.

“Hovering Above Seattle: The Space Needle”

- <http://www.seattle.gov/cityarchives/exhibits-and-education/digital-document-libraries/century-21-worlds-fair>

Read a history of the fair that includes links to original documents.

- <http://old.seattletimes.com/special/centennial/september/future.html>

Read a *Seattle Times* article detailing a full history of the fair.