

Fourth Grade

DISCOVER AMERICA

Course 18 - Teacher Guide



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Fourth Grade

Teacher Guide



Key Themes

- Creative Liberty
- Community
- Risk-taking and Experimentation

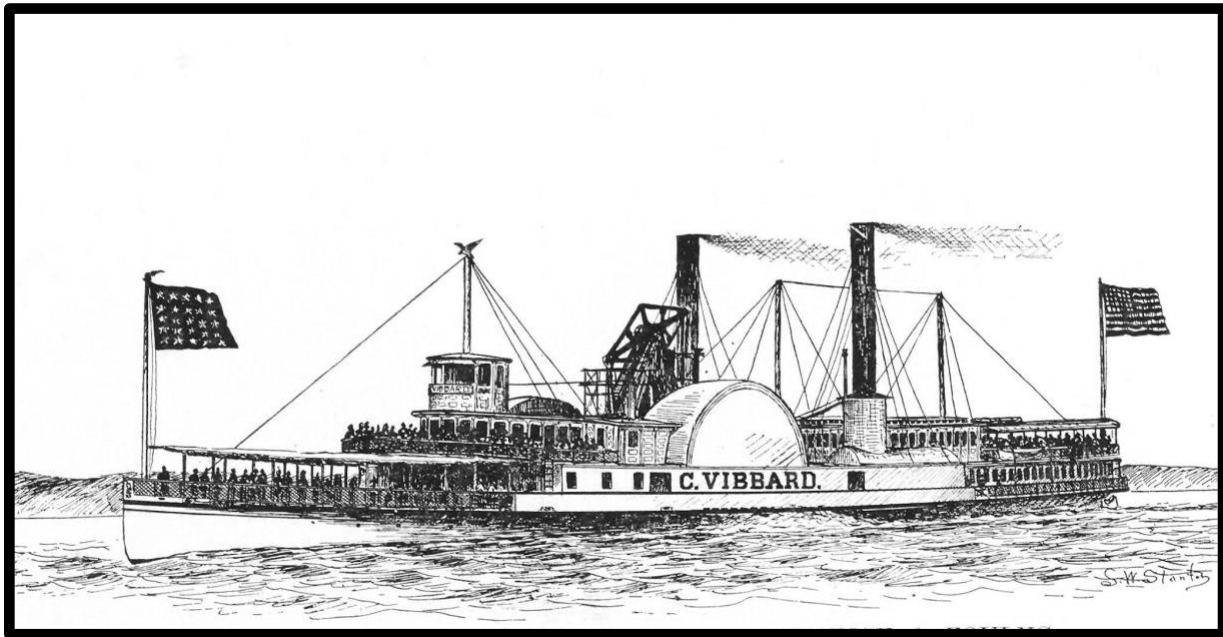
Core Values

- Community
- Life
- Liberty

Learning Objectives

Students will be able to:

- Explain the importance of creative liberty.
- Identify the value of a community that supports innovation.
- Experiment with new materials and ideas in innovative ways.
- Define teamwork.
- List two ways that the steamboat improved life for many people.
- Elaborate on the life and accomplishments of Robert Fulton.



Fulton's Steamboat - Fourth Grade

Key Terms

- 01 **inventor:(maker):** a person who creates a process or device to improve circumstances.
- 02 **visionary:(dreamer):** a person who creatively thinks about the future.
- 03 **river transportation:(boat)** a boat or ship that moves up and down rivers.
- 04 **efficient:(able)** working in a well-organized way.
- 05 **engineer:(construct)** to design items that will solve problems and make products more accessible.
- 06 **steam engine:** an engine that uses steam expansions or rapid condensation to generate power.
- 07 **innovation:(development)** a new method, idea, or product that helps the community.
- 08 **community:** a group living in an area with similar interests, ideas, attitudes, and goals.

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Introduction

TELL Students

Begin by asking students about their favorite things to play with or devices they like to use. Continue the conversation by explaining that electronic devices, bikes, sporting equipment, art supplies, and even playground equipment started as creative ideas. Guide students to understand that innovators aim to create or enhance products to make life more enjoyable or convenient for themselves and those around them. Extend the discussion by mentioning that innovators who recognize a need to create or enhance a product are often referred to as visionaries. Their ability to see the bigger picture is the reason for the name visionary. Tell students, "It's possible that some of you sitting in this class could be visionaries for your generation."

ASK Students

- Why is creativity important?
- What is a visionary?
- Why is it important to allow visionaries to pursue their goals and ideas?
- What inspires a visionary?
- How did the steamboat impact communities, industries, economy, and the future of America?

WATCH

[Star Spangled Adventures Cartoon Ep. 18: America Moves](#)

<please insert QR code to the video>

Robert Fulton's Steamboat - Fourth Grade

Lesson Guide

TELL Students

Are you a creative person or do you know someone creative? Maybe someone who can draw, paint, or play musical instruments? Creative people make our lives better by inventing things!

ASK Students

- How did Robert Fulton use his creativity to help others?
- Did Robert Fulton give up when things got tough?

(allow students to respond)

TELL Students

After America became independent from Great Britain in 1776, many people started moving to the new land. The population was growing, and new communities were forming. People were leaving their homes to explore new places, often going south and west to claim their own land. Back then, traveling was not easy. Today, we can easily visit family or go shopping by hopping into a car, taking a bus, or flying on an airplane. But in the early 1800s, it was a whole different story. [Insert Stock Image Travel in the 1800s].

ASK Students

- How would your life change if you were unable to use a car, bus or train to travel?

(allow students to respond)

TELL Students

In 1798, the Mississippi Territory was created, and in 1803, the United States bought the Louisiana Territory from France. Rivers like the Mississippi were important for moving people and goods. The problem was that it took a very long time to travel using flat-bottomed boats called keelboats. These boats could float downstream with the current, but going upstream was tough. People had to use long poles (oars) to push the boats against the current. This made it hard to transport things and stay connected with family and friends. They needed a better way to travel on the river. [Insert Image Oar].

ASK Students

- How did faster travel impact the communities near the Mississippi River?

(allow students to respond)

TELL Students

The solution came from a creative thinker named Robert Fulton. But before he became famous for his invention, he had other dreams. Robert was born on a Pennsylvania farm on November 14, 1765. His father was a farmer, but things didn't go well, so they moved to Lancaster, Pennsylvania. Unfortunately, Robert's father passed away not long after the move.

Robert was a talented artist who painted signs and worked as an apprentice with a jeweler. He painted lockets and pendants, and he even went to Europe to study art. Despite painting a portrait of Benjamin Franklin and having some works accepted by the Royal Academy in London, he didn't find lasting success as an artist.

ASK Students

- What are two difficult events that Robert Fulton had to overcome?

(allow students to respond)

TELL Students

Inspired by his friends in Europe, Robert became interested in engineering. He liked canals, shipbuilding, and the new invention called the steam engine. In 1797, he even designed a submarine called the Nautilus and tried to sell it to Napoleon and the French Navy. But they weren't interested. However, his work caught the attention of Robert Livingston, an American living in France at the time. [Insert Stock Image Canal].

Livingston was a lawyer from New York who had a big role in American history. He had been part of the Continental Congress, worked on the Declaration of Independence, and was America's minister to France. Both Roberts shared a vision: to use the steam engine to power boats efficiently. Previous steamboats had been too expensive to build and operate.

ASK Students

- How did Robert Fulton and Robert Livingston use teamwork to achieve their goals?

(allow students to respond)

TELL Students

In 1806, Fulton returned to America with an English steam engine to use in the steamboat he designed with his artistic and engineering skills. On August 17, 1807, his steamboat took its first trip on the Hudson River from New York City

to Albany, New York. This was a risky test because the boiler could explode if the pressure got too high.

Fulton later described that first trip, saying he saw his friends waiting anxiously, thinking he would fail and be embarrassed. The steamboat moved a little, stopped, but then Fulton got it moving again! The steamboat, called the Clermont, traveled from New York City to Albany in 32 hours, and the trip back took 30 hours. That was incredibly fast for those times!

The steamboat opened up a new industry and made transportation much easier. Goods could be moved more efficiently, and it led to more exploration and new settlements.

Robert Fulton took many different paths to find success. He started as a jewelry apprentice, became an artist, then an engineer who designed a submarine, and finally, he became the inventor of the steamboat. He didn't let failures stop him from contributing to America's future. You, too, can contribute to your community and your country in many ways. Don't let anything stop you from being the best you can be!

ASK Students

- What would have happened if Robert Fulton had given up on the steamboat?

(allow students to respond)

Worksheet: Feedback for Fulton

Encouraging Effective Feedback

Robert Fulton could see the anxiety on his friends' faces when first testing the Clermont. The event caused uneasy emotions not just for Robert, but for the community. Pretend you are a spectator watching the first voyage of the Clermont. How will you give Encouraging Effective Feedback? ***Feedback is information that helps you improve and grow.**

Conversation of the Crowd:

Person 1: Oh my, what if this experiment is a failure? What if it is dangerous?

Your Response: _____

Person 2: How do we know if this invention is going to benefit the community?

Your Response: _____

Person 3: Look it is not starting like he planned, I knew he was going to fail.

Your Response: _____

Person 4: Is the steamboat sputtering or running correctly?

Your Response: _____

Person 5: Wow, it is running, this just might work!

Your Response: _____

Pretend you are the mayor of a community along the Mississippi River. Your town has a steamboat port, or docking area. How will you inspire your community to get excited about faster transportation?

Fulton's Steamboat - Fourth Grade

Fourth Grade Assignment

Assignment Title: Robert Fulton - A Newspaper Reporter's Perspective

Objective:

The student will research and write a newspaper article about Robert Fulton, the inventor of the steamboat, from the perspective of a newspaper reporter.

Materials:

- Access to library resources, books, and websites about Robert Fulton
- Writing materials (notebooks, pens, or access to a computer)

Instructions:

1. Introduction:

Begin by discussing with the students the role of a newspaper reporter and how they gather information to write articles about significant events and people. Explain that they will be taking on the role of a newspaper reporter to write an article about Robert Fulton, a pioneering inventor.

2. Research:

- a. Divide the class into small groups or pairs and provide them with access to library resources or approved websites about Robert Fulton.
- b. Instruct students to gather information about Robert Fulton's life, his inventions, and his contributions to transportation and industry. Encourage them to take notes and collect interesting facts.

c. Emphasize the importance of finding accurate and reliable sources for their research.

3. Article Structure:

a. Explain the basic structure of a newspaper article, including the headline, byline (reporter's name), introduction, body paragraphs, and conclusion.

b. Provide examples of headlines and articles from newspapers to help students understand the format.

4. Writing the Article:

a. Instruct students to write their newspaper articles about Robert Fulton using the information they've gathered during their research.

b. Encourage creativity and engaging storytelling while remaining factual.

c. Remind students to include a catchy headline, their reporter byline, and to organize their article logically.

5. Peer Review:

a. After completing their articles, have students exchange papers with a partner or another group.

b. Ask them to review each other's work for accuracy, clarity, and engaging content.

c. Encourage constructive feedback and suggestions for improvement.

6. Final Draft:

a. Based on peer feedback, have students revise and edit their articles to create a final draft.

b. Remind them to pay attention to grammar, spelling, and punctuation.

7. Presentation:

a. Invite students to share their newspaper articles about Robert Fulton with the class. They can read their articles aloud or present them using visuals like posters or slides.

b. Encourage discussion and questions from their classmates after each presentation.

8. Reflection:

a. Conclude the assignment with a brief discussion about what they've learned about Robert Fulton and the importance of his inventions.

b. Ask students to reflect on the challenges and rewards of being a newspaper reporter and how they can apply these skills in their own lives.

This assignment not only helps students learn about a significant historical figure but also allows them to practice research, writing, and presentation skills in a fun and engaging way. You may incorporate this assignment into an ELAR session on research and revising.

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Resource List

"Studying the past makes it possible for us to understand the human story across time." (NCSS, 1921)

"Knowledge and understanding of the past enable us to analyze the causes and consequences of events and developments and to place these in the context of the institutions, values, and beliefs of the periods in which they took place." (NCSS, 1921)

"The study of people, places, and environments enables us to understand the relationship between human populations and the physical world." (NCSS, 1921)

"Questions related to identity and development, which are important in psychology, sociology, and anthropology, are central to understanding who we are." (NCSS, 1921)

"The study of individual development and identity will help students to describe factors important to the development of personal identity." (NCSS, 1921)

1 <https://www.sam.usace.army.mil/Portals/46/docs/recreation/OP-CO/montgomery/pdfs/10thand11th/ahistoryofsteamboats.pdf>

2 <https://education.nationalgeographic.org/resource/steamboat>

3 <http://www.southernlancasterhistory.org/robert-fulton-birthplace>

4 https://www.pbs.org/wgbh/theymadeamerica/whomade/fulton_hi.html

5 <http://www.southernlancasterhistory.org/robert-fulton-birthplace>

6 <https://lemelson.mit.edu/resources/robert-fulton>

7 https://www.pbs.org/wgbh/theymadeamerica/whomade/fulton_hi.html

8 <https://www.sam.usace.army.mil/Portals/46/docs/recreation/OP-CO/montgomery/pdfs/10thand11th/ahistoryofsteamboats.pdf>

9 <https://lemelson.mit.edu/resources/robert-fulton>

- 10 <https://www.nytimes.com/1987/11/17/opinion/l-why-fulton-achieved-steamboat-success-003087.html>
- 11 <http://www.southernlancasterhistory.org/robert-fulton-birthplace>
- 12 <https://lemelson.mit.edu/resources/robert-fulton>
- 13 <https://www.nytimes.com/1987/11/17/opinion/l-why-fulton-achieved-steamboat-success-003087.html>
- 14 <https://www.sam.usace.army.mil/Portals/46/docs/recreation/OP-CO/montgomery/pdfs/10thand11th/ahistoryofsteamboats.pdf>
- 15 <http://www.eyewitnesstohistory.com/fulton.htm>
- 16 <https://education.nationalgeographic.org/resource/steamboat>
- 17 <https://lemelson.mit.edu/resources/robert-fulton>
- 18 <https://www.sam.usace.army.mil/Portals/46/docs/recreation/OP-CO/montgomery/pdfs/10thand11th/ahistoryofsteamboats.pdf>

Notes