

Museum Visit Lesson Plan

SUMMARY

This is a sequence of three lessons to accompany a visit to the Museum and Learning Center at the Federal Reserve Bank of New York. Lesson 1 is designed to be done before students visit the Museum, to provide context for what the students will learn. Students complete Lesson 2 during their visit, and Lesson 3 summarizes the visit and asks students to reflect on their learning.

The lessons use exhibits at the Bank, as well as free resources from throughout the Federal Reserve System.

GRADE LEVEL

9-12

TIME REQUIRED

Three 45-minute class periods

COMPELLING QUESTION

Why do people trust their money?

SUPPORTING QUESTIONS

1. What do strength and stability in the financial system look like?
2. How does the Federal Reserve System support a strong and stable financial system?
3. How is the Federal Reserve System a reflection of the nation's desire for a sound financial system?



OBJECTIVES

Supporting Question 1

- State the importance of a sound financial system
- Explain the ramifications of a possible collapse of the financial system

Supporting Question 2

- State the two goals of monetary policy
- Analyze the methods used by the Fed to promote strength, stability, and security

Supporting Question 3

- Compare and contrast previous central banks created by the United States
- Assess the Fed's ability to provide safety, security, and strength to the financial system

MATERIALS

- *Banking Basics* pamphlet¹
- *The First Bank of the United States*² publication
- *The Second Bank of the United States*³ publication
- Worksheet 1: Zimbabwe Currency
- Worksheet 2: Quote Analysis
- Worksheet 3: Guided Notes Liberty Street Blog (The Panic of 1907)⁴
- Worksheet 4: Financial System Poster
- Worksheet 5: Fed Poster Reflection
- Worksheet 6: First and Second Banks of the United States
- Worksheet 7: Build the Fed
- Worksheet 8: Fed Reflection
- Worksheet A: Discount Window
- Worksheet B: CAMELS
- Worksheet C: Bedrock Samples
- Worksheet D: Fortran Disks
- Worksheet E: Guastavino Ceilings
- Worksheet F: Federal Reserve Notes
- Basic art supplies (pencils, markers, etc.)

¹Available via free PDF download from the Federal Reserve Bank of Boston
(<https://www.bostonfed.org/publications/economic-education/banking-basics.aspx>)

² <https://www.philadelphiafed.org/-/media/publications/economic-education/first-bank.pdf>

³ <https://www.philadelphiafed.org/-/media/publications/economic-education/second-bank.pdf>

⁴<http://libertystreeteconomics.newyorkfed.org/2016/11/the-final-crisis-chronicle-the-panic-of-1907-and-the-birth-of-the-fed.html>



PROCEDURES

Supporting Question 1

What do strength and stability in the financial system look like?

LESSON 1 OBJECTIVES

Students will be able to...

- State the importance of a sound financial system
 - Explain the ramifications of a possible collapse of the financial system
1. Begin the lesson by removing a paper bill from your pocket and offering it to a student. Ask if the student would accept the bill. (*The student will likely say that they would.*) Ask the student why. (*Answer will likely be related to the idea that money has value, is accepted, etc.*) Explain to students that throughout the country, whether it is paper money or electronic transactions, citizens are accepting transactions like this, and very rarely stop to think about why the system is working, or what trust they are putting in the financial system.
 2. Explain to students that they will visit the Federal Reserve Bank of New York. Their visit is part of a larger examination in which, over the next few days, students will attempt to answer the compelling question: **Why do people trust their money?**
 3. Display *Worksheet 1: Zimbabwe Currency*. Ask students to compare this picture to the type of money they normally see, or the money that was offered earlier. (*Students will respond that it is for a very large sum.*) As a follow-up, ask students what problems they would encounter using this money? (*Answers will vary. Students respond that when everything is this expensive, it becomes difficult to make basic economic transactions. Also, it can be hard to keep track of spending or to write checks. Finally, some students may comment that if prices are this high, wages must rise to keep up.*) Guide students to the understanding that without a stable monetary system, it becomes difficult for an economy to prosper.
 4. Distribute *Worksheet 2: Quote Analysis*. Remind students of their impending visit to the Fed, and divide students into three groups. To set the stage, display the quote by Daniel Webster: “A sound currency is an essential and indispensable security to the fruits of industry and enterprise.” Explain that each group will examine one piece of the Daniel Webster quote to better understand the origins of the Federal Reserve System.
 - a. Group A will examine the “sound currency” part of the quote. [Stability]
 - i. Pages 6-9
 - b. Group B will examine the “security” part of the quote. [Security]
 - i. Pages 31-33
 - c. Group C will examine the “fruits of industry and enterprise” part of the quote. [Strength]



i. Pages 18-21

5. Allow students time to complete assignments. Once each group is finished, form new groups so that one student from each of the original groups (A, B, and C) makes up each of the new groups. Have students share their responses. At the bottom of *Worksheet 2*, students summarize their findings and re-state the quote in their own words.
6. Debrief, making sure that students understand how the financial system as currently constructed provides stability, security, and strength. Ask students to reflect on why these things are important. (*Answers will vary, but students will likely talk about economic growth, the security of knowing that their money is safe, the convenience that the system provides, etc.*)
7. Using the discussion from above, ask students the counterfactual: what happens if the financial system does *not* have strength, stability, and security? At the bottom of *Worksheet 2*, ask students to make a prediction on the bottom of their worksheet.
8. Distribute *Worksheet 3: Guided Notes Liberty Street Blog (The Panic of 1907)* [abridged]. Using guided notes; students read and take notes about a financial crisis before the creation of the Federal Reserve System.
9. Allow students time to read and take notes. Debrief, using the suggested guiding questions below to check for student understanding.
 - a. What were two factors that affected the supply of money in the economy during the early 1900s?
The San Francisco Earthquake of 1906 required lots of insurance payouts which squeezed the availability of credit. In addition, the routine cycles of farming requiring more money available in the fall meant that money was particularly tight.
 - b. What would happen to a bank if all of the customers rushed to it and withdrew their money?
If all the customers at a bank withdraw their money, the bank will not have enough cash in the vaults to satisfy all depositors, and it will be forced to close.
 - c. How did the New York Clearing House help contain the bank panic?
The New York Clearing House provided emergency funds/credit/loans to banks that were going through a credit crunch.
 - d. What did the New York Clearing House do before providing emergency loans to banks? Why do you think they took this step?
The New York Clearing House did not lend money to just any bank. The bank had to demonstrate that it was reasonably solvent and would be in a good financial position to eventually pay back the loan.
 - e. What happened to the economy as a result of the Panic?
A recession occurred which shrunk the economy by almost 10 percent.
 - f. How did the 1907 Panic convince politicians that there was a need for a central banking authority?



Private bankers were acting in the role of “lender of last resort.” Congress felt that a centralized government authority, with some oversight, could play that role for banks and provide stability to the financial system.

10. Have students compare their prediction about the financial system from Step 7 to the real-world example they just read about. Give students a moment to reflect on their prediction, using the questions on the bottom of *Worksheet 3*.
11. Assessment: Distribute *Worksheet 4: Financial System Poster*. Tell students to imagine that they are a newspaper editor in 1907, and the crash is happening all around them. They want to convince readers that the financial system needs to be stronger, more secure, and more stable. Students should create a poster or advertisement that will run in their newspaper which, using visuals and limited text, conveys the need for a strong, secure, and stable financial system. Students should answer the questions at the bottom to explain the reasoning behind their choices.

Supporting Question 2

How does the Federal Reserve System support a strong and stable financial system?

Lesson 2 Objectives

Students will be able to...

- State the two goals of monetary policy (dual mandate)
 - Analyze the methods used by the Fed to promote strength, stability, and security
1. When students arrive, explain that today they will learn about the Federal Reserve Bank of New York. Ask students to recall from yesterday the role of banks and the consequences of an economic collapse. (*Students should answer how banks provide security for their money, fund businesses, and that when the financial system collapses it leads to economic recessions.*) Remind students of the quote from Daniel Webster; the concepts of strength, stability, and security will be important throughout the day.
 2. Distribute a *Worksheet* to each of the students. Explain that during the course of the day students should be looking for the particular artifact on which they are going to become an expert. Explain that each artifact represents something about the Federal Reserve System, and how the system tries to accomplish the goals of Daniel Webster (strength, stability, security).
 - a. Worksheet A: Discount Window
 - b. Worksheet B: CAMELS
 - c. Worksheet C: Bedrock Samples
 - d. Worksheet D: Fortran Disks
 - e. Worksheet E: Guastavino Ceilings
 - f. Worksheet F: Federal Reserve Notes



3. Students complete the museum tour. Questions on each *Worksheet* also scaffold students to understand how each artifact relates to the dual mandate (stable prices and maximum employment).
4. Assessment: Students should examine the posters promoting the Federal Reserve in the museum. Using *Worksheet 5*, students compare the poster they see at the museum with the poster they created the previous day. Self-reflection questions at the bottom of the page ask students to think about the similarities and differences between the two posters.

Supporting Question 3

How is the Federal Reserve System a reflection of the nation's desire for a sound financial system?

Lesson 3 Objectives

Students will...

- Compare and contrast previous central banks created by the United States
 - Assess the Fed's ability to provide safety, security, and strength to the financial system
1. Begin the lesson by reminding students of the Daniel Webster quote from the first day, which has framed our compelling question: **Why do people trust their money?** Ask students to give examples of strength, security, and stability that they have learned about in the past two lessons. (*Answers will come from the various artifacts the students saw at the museum, such as CAMELS being a symbol of financial security, the Reserve Notes representing the strength of each regional Bank, etc.*) Remind students of the museum exhibit about the creation of the First and Second Banks of the United States. Explain that today students will compare and contrast the Federal Reserve System with those institutions in order to see how views on financial systems have evolved.
 2. Distribute *Worksheet 6: First and Second Banks of the United States*. Divide students into two groups. Group 1 will read about the First Bank of the United States, and Group 2 will read about the Second Bank of the United States.
 - a. Group 1 (First Bank): pages 1-5, 9-12
 - b. Group 2 (Second Bank): pages 1-8, 12-15
 3. Allow students time to complete their initial reading. In a think-pair-share activity, create groups of two with one student who was an expert on the First Bank and one student who was an expert on the Second Bank. Have students teach their partner about the other Bank, emphasizing the strengths and weaknesses of these historical central



banks. At the bottom of Worksheet 6, students reflect on how the legacy of these central banks influenced the creation of the Federal Reserve System.

a. First Bank of the United States

i. Why was it formed?

Alexander Hamilton thought that a strong national bank, similar to the one used in Great Britain, could be used to finance government projects. Further, the Revolutionary War had seen massive public debt and a worthless currency, and the belief was that a national bank would provide stability to the fledgling nation.

ii. What were the objections to the Bank?

Many of the founders believed that a central bank was not constitutional, and was an example of over-centralized power. The Bank also attracted criticism from those who believed in an agricultural-based economy, and feared that the Bank was a tool of the wealthy to seize power.

iii. How did the Bank function?

The Bank was a public/private hybrid. Most of the shares were owned by the federal government, but private citizens could also own stock. The Bank acted as the fiscal agent of the U.S. government, selling bonds and interacting with foreign governments. It also made loans to citizens and businesses.

iv. Why did it close?

Opponents of the Bank never gave up their fight, and still believed that the Bank was unconstitutional and harmful to ordinary Americans. When the Bank's charter was up for renewal, its opponents had control of Congress and decided not to renew the charter.

b. Second Bank of the United States

i. Why was it formed?

After the War of 1812, the U.S. again found itself heavily in debt and in the middle of a recession. The lack of a national currency and the collapse of foreign trade convinced Congress that a national bank could help revive the economy.

ii. What were the objections to the Bank?

Similar objections were raised against the Second Bank. Its large size (it had tripled the capitalization) meant that it had more power over the economy. Agrarians in the south grew concerned about the power



accumulating in the hands of bankers. Further, many politicians had a distrust of paper money, believing that only gold or silver were stable currency.

iii. How did the Bank function?

The Bank was a public/private hybrid. Most of the shares were owned by the federal government, but private citizens could also own stock. The Bank acted as the fiscal agent of the U.S. government, selling bonds and interacting with foreign governments. It also made loans to citizens and businesses.

iv. Why did it close?

President Andrew Jackson made the Bank an election issue. His distrust of paper currency and banks led him to argue that the Bank was bad for average Americans. He vetoed the renewal of the charter and rallied supporters in Congress to ensure that the Bank was defeated.

4. Group Assessment: Explain to students that the legacies of these central banks have influenced the system we use today. Remind students of their trip to the Federal Reserve Bank of New York, and their examination of artifacts. Create groups of six students, such that each group has a student with a different artifact (*Worksheets A-F*). Using *Worksheet 7: Build the Fed*, students act as a “Fed architect” and build a complete picture of the Federal Reserve System. Students create a group poster and share their picture, explaining their interpretation of each of the artifacts and how they all fit together. Students should justify their choices.



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WORKSHEET 1

Zimbabwe Currency⁵



⁵ Image credit: <http://www.cnn.com/2016/05/06/africa/zimbabwe-trillion-dollar-note/index.html>



WORKSHEET 2

Quote Analysis

“A sound currency is an essential and indispensable security to the fruits of industry and enterprise.” — Daniel Webster

<p>How does the banking system provide “sound currency”? [Stability]</p>	<p>How does the banking system provide “security”? [Security]</p>	<p>How does the banking system protect the “fruits of industry and enterprise”? [Strength]</p>
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Summarize

What is Daniel Webster trying to say?

Prediction

What happens if the financial system does *not* have strength, stability, and security?



WORKSHEET 3

Guided Notes Liberty Street Blog (The Panic Of 1907)

An Earthquake, a Silent Crash, and “Perverse” Elasticity

Some financial crises stem from a single, large shock while others result from a combination of smaller shocks; the 1907 panic was the latter type. The San Francisco earthquake, which had occurred 3,000 miles away and a year earlier, in April 1906, helped set the stage for the panic. Losses from the earthquake triggered massive insurance payments from British insurers, and as gold flowed from London to the United States, the Bank of England raised its discount rate [the rate the bank charges to loan money] to stanch the flow...The tight monetary conditions were compounded by the usual autumn surge in demand for currency and credit by farmers harvesting and shipping their crops east. Absent a central bank to accommodate this seasonal surge in demand, interest rates would spike instead.

1. What were two factors that affected the supply of money in the economy during the early 1900s?

“Panic—Sheer Blind, Unreasoning Fear”

The final shock came on October 16 after a failed attempt to [make a bid and take complete control of the] United Copper Company. The main speculators were Augustus Heinze, who already owned much of United Copper and was president of a New York City bank, and Charles F. Morse, also a banker...When news of the failed [attempt to take over the entire copper market] surfaced, depositors [withdrew all of their money from] more than a dozen banks...rumored to be connected to the speculators. The run on banks sparked by “blind, unreasoning fear” was fairly quickly contained after the New York Clearing House, a [group] of private banks that functioned like a de facto central bank...provided emergency loans (conditional on the banks severing ties to Heinze and Morse).

2. What would happen to a bank in 1907 if all of the customers rushed to it and withdrew their money?
3. How did the New York Clearing House help contain the bank panic?



WORKSHEET 3 CONTINUATION

Guided Notes Liberty Street Blog (The Panic Of 1907)

As the trust panic continued into the week of October 21, J. P. Morgan assembled a small team of young bankers, including Benjamin Strong, future head of the Federal Reserve Bank of New York, to examine the books of strained trusts and provide credit to those judged solvent. Knickerbocker Trust, the second-largest trust in the country, was first to apply. After spending half a day on Knickerbocker's books, Strong's team concluded that the firm's solvency was uncertain and Morgan refused to lend. Knickerbocker Trust closed its doors on October 22... The panic of 1907 had severe and far-reaching repercussions. The recession that began in May of that year persisted until June 1908, with real GDP contracting more than 10 percent, about twice the decline experienced during the 2007-08 recession. The severity of the 1907 panic (and the many before it) convinced Congress that the country needed a long-term solution to modernize and stabilize the monetary system.

4. What did the New York Clearing House do before providing emergency loans to banks? Why do you think they took this step?
5. What happened to the economy as a result of the Panic?
6. How did the 1907 Panic convince politicians that there was a need for a central banking authority?
7. Your prediction: What do you think will be the main function of the central bank?
8. Compare your prediction from *Worksheet 2* to what actually happened in 1907. In a paragraph, answer the following:
 - a. How accurate was your prediction?
 - b. What information did you use to make your prediction?
 - c. What information would have helped you to make a more accurate prediction?



WORKSHEET 4

Financial System Poster

You are a newspaper editor in 1907, and the news outside your office is grim. Customers are lined up outside banks to withdraw their money, and there is a general sense of panic both in the financial system and among the general public. Bankers, farmers, laborers...banks affect so many people, and there is a legitimate concern that the money they put in the vault yesterday won't be there tomorrow.

Congress has begun discussing ways to create a stronger, more secure, and overall more stable financial system. As editor, you have been commissioned to create a full page poster/cartoon that will express support for this initiative.

Your poster should include the following:

- Big, bold visuals that draw attention
- Clear in meaning
- Choose symbols (at least two) that convey your message
- Limited amount of text. Your readers are scared and don't want to read a wordy editorial; you need to catch their attention!
- State the message of the importance of a strong, secure, stable financial system

Reflection: Why did you choose the symbols that you did? How do they convey the message of strength, stability, and security?



WORKSHEET 5

Fed Poster Reflection

1. Describe the general art style of the posters. How are the visuals arranged? What types of words are used? What types of symbols do you notice?
2. Using your responses from Question 1, why do you think the posters are designed in this way?
3. What is the common message across all of the posters?
4. How do these posters reflect the mood of the country following the Panic of 1907?
5. How are these posters similar in design/feel to the one you drew in class?
6. How are these posters different in design/feel from the one you drew in class?



WORKSHEET 6

First and Second Banks of the United States

First Bank of the United States

1. Why was it formed?
2. What were the objections to the Bank?
3. How did the Bank function?
4. Why did it close?

Second Bank of the United States

1. Why was it formed?
2. What were the objections to the Bank?
3. How did the Bank function?
4. Why did it close?

Similarities between the two Banks:

Differences between the two Banks:

Reflection: How did the legacies of these two Banks influence the structure and functions of the Federal Reserve System?



WORKSHEET 7

Fed Architect

During your visit to the Federal Reserve Bank of New York, you examined an artifact and used it as a guide to learn about how the Federal Reserve System is designed to provide strength, security, and stability to the financial system.

Each person in your group looked at a different artifact during the visit to the museum. As was discussed, each one of these artifacts reflects something about the Federal Reserve System. Your task is to put them all together.

In groups, create a poster similar to the one you created independently on the first day. The poster should meet these criteria:

- Creatively incorporate all of the artifacts from your group
- Convey the ways the Federal Reserve System attempts to maintain the strength, stability, and security of the financial system.



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WORKSHEET A

Your artifact is...THE DISCOUNT WINDOW! Somewhere in the museum, be on the lookout for the DISCOUNT WINDOW. What is this item?

Draw the object:



How does this item relate to the concepts of:

- Strength:

- Stability:

- Security:

How does this object relate to the Fed's dual mandate?

- Stable prices:

- Maximum employment:



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WORKSHEET B

Your artifact is...CAMELS! Somewhere in the museum, be on the lookout for CAMELS.

What is this item?

Draw the object:



How does this item relate to the concepts of:

- Strength:
- Stability:
- Security:

How does this object relate to the Fed's dual mandate?

- Stable prices:
- Maximum employment:



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WORKSHEET C

Your artifact is...BEDROCK SAMPLES! Somewhere in the museum, be on the lookout for BEDROCK SAMPLES. What is this item?

Draw the object:



How does this item relate to the concepts of:

- Strength:

- Stability:

- Security:

How does this object relate to the Fed's dual mandate?

- Stable prices:

- Maximum employment:

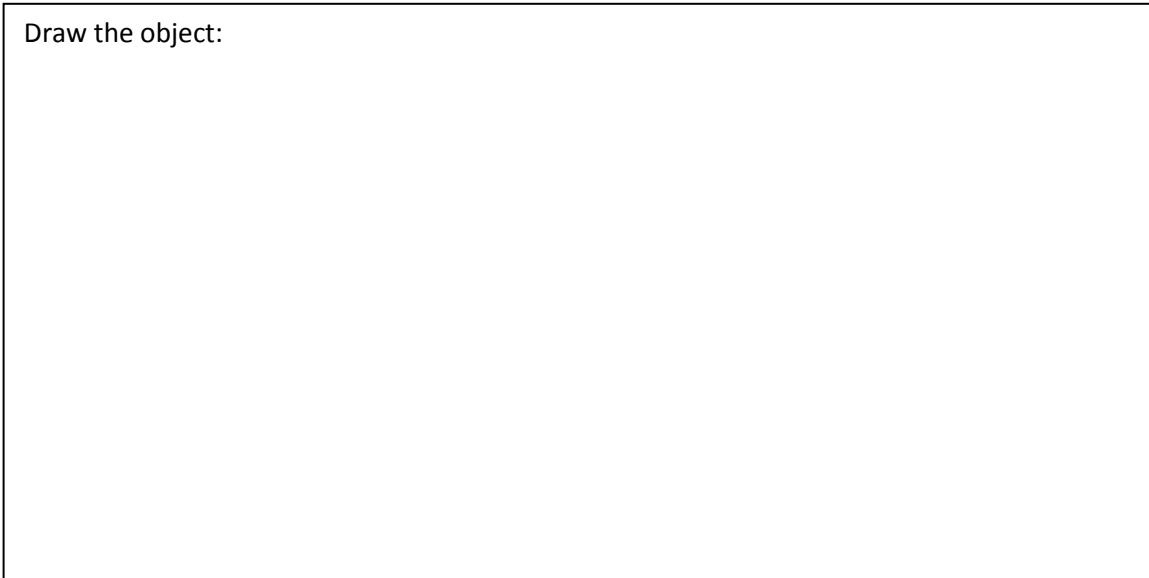


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WORKSHEET D

Your artifact is...FORTRAN DISKS! Somewhere in the museum, be on the lookout for FORTRAN DISKS. What is this item?

Draw the object:



How does this item relate to the concepts of:

- Strength:

- Stability:

- Security:

How does this object relate to the Fed's dual mandate?

- Stable prices:

- Maximum employment:



WORKSHEET E

Your artifact is...GUASTAVINO CEILINGS! Somewhere in the museum, be on the lookout for GUASTAVINO CEILINGS. What is this item?

Draw the object:



How does this item relate to the concepts of:

- Strength:

- Stability:

- Security:

How does this object relate to the Fed's dual mandate?

- Stable prices:

- Maximum employment:



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WORKSHEET F

Your artifact is...MONEY (AKA FEDERAL RESERVE NOTES)! Somewhere in the museum, be on the lookout for FEDERAL RESERVE NOTES. What is this item?

Draw the object:

How does this item relate to the concepts of:

- Strength:
- Stability:
- Security:

How does this object relate to the Fed's dual mandate?

- Stable prices:
- Maximum employment:

