



TEACHER INTRODUCTION:

The Federal Reserve System is the Central Bank for our nation. It is composed of twelve regional Federal Reserve Banks and twenty-four Federal Reserve Bank branches. Its three main functions are establishing and implementing monetary policy (actions that change the money supply in order to influence the country's economy); regulating and supervising banks (so they operate safely and are financially sound); and operating a payments system (so banks have the right amount of cash on hand and have their checks and electronic payments processed.) The Federal Reserve Bank is also the bank for the U.S. Government.

It is important that students understand how the Federal Reserve Bank helps to control the growth of the U.S. money supply. The supply of money can be measured by two indicators, M1 and M2. M1 consists of currency in circulation and checking accounts at banks and other depository institutions. M2 consists of savings accounts as well as all M1 funds. The Fed works to keep the relationship between M1 and M2 stable so that the economy grows at a steady rate. If the supply of money grows too quickly, it can cause inflation, which is a general rise in all prices. If the supply of money grows too slowly, it can cause recession, which is a decline of goods and services produced. The Fed uses tools to help influence the growth of the money supply. These tools include reserve requirements, the discount rate, and open market operations.



CONCEPTS: Federal Reserve Bank, money supply, fractional reserve banking system, reserve requirements, money multiplier, monetary policy, inflation, interest rates, discount rate, open market operations



CONTENT STANDARDS:

National Economic Standards—Content Standard 10, 11, 20
Kansas Economic Standard: Benchmark 4B
Missouri Economic Standards—Content Standard 4
Missouri Personal Finance Standards: Benchmark 2, 3
Nebraska Economic Standards—Content Standard 12.3
Oklahoma Economic Standard—Content Standard 4, 5, 10, 11
Colorado Economic Standard—Content Standard 2.3
New Mexico Economic Standard—Content Standard 4B
Wyoming Economic Standard—Content Standard 3



LESSON DESCRIPTION:

Students will learn how the money supply in the U.S. economy increases and decreases. They will use the concepts of reserve requirements and money multiplier to calculate potential money creation from a deposit. Students will be introduced to the Federal Reserve Bank and its three basic functions.



OBJECTIVES:

Students will be able to:

1. Define the money supply as currency and coin in circulation and balances held in checking accounts.
2. Describe how the money supply in circulation increases when banks make loans, and how it decreases when loans are paid off.
3. Discuss the purpose of reserve requirements.
4. Use the money multiplier to calculate potential money creation from a starting deposit.
5. Give reasons for the establishment of the Federal Reserve Bank and explain its three basic functions.



MATERIALS:



TIME REQUIRED: 60 minutes

Visual 1 (picture of currency/coin) transparency
Visual 2 (picture of checkbook/debit card) transparency
Visual 3 (reserve requirements) transparency
Visual 4 (money creation) transparency
Visual 5 (Federal Reserve Bank functions) transparency
Visual 6 (Money Mania score sheet) transparency
Activity 1 (Deposit Dollars), cut apart
Activity 2 (Money Multiplier Scenario), 1 for each student
Activity 2A (Money Multiplier Scenario Answers), for teacher
Activity 3 (Money Mania Questions/Answers), cut apart
Calculators, 1 for each student
Overhead marking pen



PREPARATION:

1. Produce and cut apart Activity 1 dollars.
2. Produce and cut apart Activity 3 question cards. Mix up cards previous to playing “Money Mania” game.



PROCEDURE:

1. Introduce the topic of the money supply by showing a transparency of Visual 1, or actually holding up samples of currency and coin. Ask students if they know where these examples of money were produced. *(Student responses may vary, but the correct answers are Bureau of Engraving and Printing for currency, and U.S. Mint for coin.)*
2. Show transparency of Visual 2, or actually hold up samples of a check and checking debit card. Ask students where these materials came from. *(Student responses will vary, but may include banks, savings and loan institutions, and credit unions. All of these are correct.)*
3. Tell students that the money supply in our country is made up of currency, coin and checking accounts balances. The total of this money is referred to as M1 funds. (Savings accounts are not included in this total, but are added to M1 in a larger category referred to as M2 funds.) The M1 fund total in our country helps us judge how our overall economy is doing.
4. Ask students what banks do with M1 money that customers have deposited. *(Student responses will vary, but may include loaning the money to other customers, or keeping the money in their vaults as reserves. Both are correct statements.)*
5. Discuss the following questions:
 - a. Why would customers want a bank loan? *(Student responses will vary, but could include to buy a car, house, pay tuition, or pay bills.)*
 - b. Why would banks be willing to loan to customers? *(Student responses will vary, but could include to develop customer relationships or to receive interest on the loan payments. Both are correct statements.)*
 - c. What is **interest**? *(Interest is money paid regularly and at a set rate, for the use of borrowed money.)*
 - d. How do banks make money? *(Banks make money from the interest that borrowers pay on loans.)*
6. Explain that when banks loan money to people and businesses, the overall money supply increases because there is more money in circulation. The borrowers, in turn, will

spend their loans on goods and services. This flow of money helps to keep our economy running smoothly. When borrowers pay off their loans to banks, the supply of money in circulation decreases and fewer goods and services are purchased overall. This helps to balance the flow of money.

7. Ask students if they know what would happen if customers tried to withdraw all the money from their bank accounts at the same time. (*Student responses will vary, but may include the idea that banks would run out of money, or that banks would be unable to pay out on all accounts.*) Tell students that this situation happened earlier in our history, but that today banks have policies in place that will keep money safe and available.
8. Introduce the concept of a **fractional reserve banking system**. With this concept, banks are required to hold a specific fraction of their deposits available for withdrawal by depositors. They are prohibited from lending this percentage of deposits out to customers. The percentage, currently ten percent of banks' holdings, is referred to as the **reserve requirement**. The reserve requirement assures customers that banks will have money on hand to meet their withdrawal needs.
9. Ask students if they would like to learn how banks "create money". Tell them that they will participate in a banking simulation to visualize how this can happen. Choose three students to play roles in the simulation as depositors and borrowers. Choose one student to act as bank teller.
10. Give Depositor A \$200 to deposit in her checking account. Teller should use Visual 3, column one, to record the deposit after taking the money. Ask students what the teller should record for the reserve requirement of ten percent of this deposit. (*\$20*) Teller then records that amount in column two. Ask students how much money from the deposit is left over to loan out to other customers. (*\$180*) Teller then records that amount in column three. Ask students how much money is still in Depositor A's account. (*\$200*)
11. Ask Borrower A to visit the bank for a loan of \$180. Teller should pay out the money and record on Visual 3, column three. Ask students how much money the bank has left for loans from the original deposit. (*0*) Borrower A then visits Depositor B's store to purchase video game equipment for \$180. Depositor B takes the money from Borrower A and then goes to the bank to deposit it. The teller should take the money and record \$180 in column one for Depositor B. Ask students what the teller should record for the reserve requirement of ten percent. (*\$18*) Teller then records that amount in column two. Ask students how much

money from the deposit is left over to loan out to another customer. (\$162) Ask students how much money is still in Depositor B's account. (\$180)

12. Ask the teller to add the deposits in column one for a total. (\$380) Ask students if this is a correct amount. *(Student responses will vary. Some will say "no" because part of the money has been counted twice; some will say "yes" because the deposit balances still show \$200 in A's account and \$180 in B's account.)* Explain that \$180 has been added to the money supply or "created" because some of the same dollars are being used twice. However, Depositor A still has a total of \$200 available, and Depositor B still has a total of \$180 available.
13. Hand out Activity 2 and ask students to read the deposit scenario and complete the math, subtracting a ten percent reserve requirement for each deposit. Use calculators as needed. Check answers together, using Activity 2A.
14. Introduce the **money multiplier effect**. Tell students that we can calculate the growth of the money supply by calculating how money can multiply. Show Visual 4 and explain the formula for calculating the money multiplier: $\text{Money Multiplier} = 1 / \text{divided by/ Reserve Requirement}$. Discuss money multiplier examples using this formula on Visual 4.
15. After students understand this concept, introduce the formula for potential money creation on Visual 4: $\text{Potential Money Creation} = \text{Money Multiplier} \times \text{Initial Deposit}$. Discuss money creation examples using this formula on Visual 4. Explain the fact that the reserve requirement holds the money supply in check to help keep the economy stable.
16. Ask students if they know which institution is in charge of controlling the growth of the money supply in our country. *(Student responses will vary, but the correct answer is the Federal Reserve System.)* Show Visual 5 to introduce the Federal Reserve and its functions.
 - Discuss the **monetary policy** function as the Federal Reserve's ability to control the money supply, increasing the number of dollars when more money is needed by the public for spending, and decreasing the number of dollars when money is not needed. The tools of monetary policy include reserve requirements, the **discount rate** (the interest rate for banks to borrow from the Federal Reserve), and **open market operations** (buying and selling securities or bonds that offset changes in bank reserves, and keeping the money supply stable.)
 - Discuss the supervision/regulation function as the Federal Reserve's ability to supervise that banks do business properly, lend reserves to banks when they are low on funds, and take in reserves from banks when funds are not needed.

- Discuss the payments system function as the Federal Reserve’s ability to distribute currency and coin to banks, and to process checks, credit and electronic payments throughout the country.
17. Briefly discuss the background of the Federal Reserve System, noting that the institution was established in 1913 by Congress to counteract banking panics, in which people raced to the bank to withdraw their deposits. The establishment of the Federal Reserve helped stabilize the nation’s money supply. The institution has since expanded its mission into fostering a healthy economy. The Federal Reserve System is composed of twelve regional facilities and twenty-four branch offices throughout the country.
 18. *Teacher note: Use this step only if your class is taking an actual field trip to the Kansas City Federal Reserve Bank. If you are not participating in the field trip, continue with the “Closure” discussion below.* Tell students that they will be taking a field trip to a regional office, the Kansas City Federal Reserve. Students will be touring the Money Museum to see the “Trust and Confidence” exhibit. They will be learning more about the Federal Reserve System through exploring the three Federal Reserve functions in teams and will be teaching each other important economic and personal finance concepts from the displays.



CLOSURE:

Discuss the following questions as review.

1. What makes up the money supply in the U.S. economy? *(The money supply is made up of currency and coin in circulation, along with checking account balances. This total is referred to as M1 funds.)*
2. Explain how the money supply can increase and decrease. *(When banks loan money to people and businesses, the overall money supply increases because there is more money in circulation. When these loans are paid back to the bank, the money supply decreases because there is less money in circulation. The Federal Reserve helps control the overall growth of the money supply.)*
3. Why do banks have reserve requirements? *(Banks have reserve requirements to assure depositors that there will be enough money on hand to meet their withdrawal needs.)*
4. Describe how the money multiplier effect can create additional money. *(After a deposit is made, the depositor has that amount available for spending in his account. The bank will then keep the reserve requirement (currently 10%) from that deposit, and may loan the*

balance to another customer. This customer can deposit the balance in her account and use it for spending purposes, even though the original depositor still has access to the full amount of his deposit. Additional money has been created from the original deposit.)

5. Why was the Federal Reserve Bank established? *(The Federal Reserve was established in 1913 by Congress to counteract banking panics and stabilize the money supply nationally.)*
6. Explain the three basic functions of the Federal Reserve Bank. *(The three basic functions include implementing monetary policy, which are actions that change the money supply in order to influence our country's economy; regulating and supervising banks, which includes making sure banks do their business safely and properly; and operating the nation's payments system, which consists of supplying banks with currency and coin, and processing checks, credit and electronic payments throughout the country.)*



ASSESSMENT:

Use prepared questions from Activity 3 to play “Money Mania” as a review of information on the money supply, reserve requirements, and the Federal Reserve Bank. Divide the class into two teams to play the game. The teacher should read questions aloud and students on each team should take turns answering individually. Teacher should use Visual 6 to keep track of each team’s score, giving one point per correct answer to each question. Discuss any incorrect answers to make sure students understand all money concepts.



TEACHER INTRODUCTION:

The Kansas City Federal Reserve Money Museum gives information about the three missions or functions of the Federal Reserve System: implementing monetary policy (actions that change the money supply to influence the country’s economy); operating the nation’s payments system (so banks have the right amount of cash on hand and have their checks and electronic payments processed); and regulating and supervising banks (so banks operate safely and are financially sound.) These three functions will be the basis for the students’ tour and collection of important facts. It is recommended that the teacher divide students into three “specialist teams”, one for each Federal Reserve Bank function. Each team will follow a pathway to look at exhibits specific to their function (see Visual 7) and to complete “Review and Reflect” sheets with pertinent information on their exhibits (see Activity 4). Each team will later teach the facts learned about their specialty area to the other two specialist teams, as well as compose quiz questions/answers based on those facts. Use of the Visitors’ Center gallery guide will help students identify each display and move through the exhibits easily.



LESSON DESCRIPTION:

Students will be divided into three teams to tour the Federal Reserve Bank exhibits. Each team will be assigned a function of the Federal Reserve Bank (monetary policy, payments system, or regulation and supervision of banks) as their specialty focus. Teams will visit the display areas associated with their function to complete “Review and Reflect” sheets on each exhibit. They will use these reviews to teach classmates about their team’s Federal Reserve Bank function during a post-visit debriefing.



MATERIALS:



TIME REQUIRED: 60-90 minutes

- Visual 7 (Exhibit Correlation to Federal Reserve Bank Functions), 1 per student
- Visual 8 (Economic and Personal Finance Concepts), optional, 1 per student
- Activity 4 (Review and Reflect sheets), 8 per student
- Activity 4A (Review and Reflect sample sheet), optional, 1 per student
- Kansas City Visitors’ Center gallery guide, 1 per student
- Clipboard, 1 per student
- Pen or pencil, 1 per student



PREPARATION:

1. Teacher-prepared list of students divided into three specialist teams



PROCEDURE:

1. Before beginning the tour, review the three functions of the Federal Reserve System: monetary policy, actions that change the money supply to influence the country's economy; payments system, distributing currency and coin to banks and helping to process checks and electronic payments; regulation and supervision of banks, examining and watching over banks so that they operate safely and are financially sound. Tell students that they will be divided into teams and assigned a Federal Reserve Bank function as their specialty area. Read prepared team assignments.
2. Gallery guides should be picked up by each student for an overview of the displays. Hand out Visual 7 and discuss the pathway of exhibits for each team. They are responsible for visiting each exhibit in their specialty area, and choosing one additional exhibit from the following options: Bank Heritage Case, Truman Coin Collection, or "The Fed and You" Media Wall.
3. Hand out Activity 4 and discuss completion of "Review and Reflect" sheets for each pathway exhibit. (Use Activity 4A as a sample of a completed "Review and Reflect" sheet if you feel your students will need more guidance.) Tell students they need to write three interesting facts about each exhibit to summarize its importance. Teams also need to list two economic or personal finance concepts presented through each display. (Teacher may give copies of Visual 8 to students who are not familiar with these concepts so that they will have key words to look for in each display.) Finally, teams need to compose one quiz question with an answer based on the information they have summarized for each exhibit. Explain that students will be using their team reviews to teach their specialty to the class during the post-visit lesson, and also to help develop a quiz to be given later. After finishing their exhibit pathway reviews, students may look at other display areas and complete additional reviews for extra credit if they would like.
4. Review the rules of behavior for touring the Money Museum exhibits:
 - Walk at all times while on the exhibit tour.
 - Be respectful to other visitors by using quiet voices.
 - Treat the exhibits with care.
 - Taking photos is not allowed in the cash viewing area.
 - Eating is not allowed in the museum.

5. Tell all students they will begin their tour at the exhibit title display, “Trust and Confidence”. After discussing this display, they will split into three teams to visit the introductory exhibit of their specialty for an overview (either Monetary Policy; Payments; or Supervision and Regulation.) Teams will then follow the pathway for their specialty using Visual 7, reviewing each exhibit and writing one quiz question and an answer. Teams should turn in all review sheets to their teacher upon completion.



TEACHER INTRODUCTION:

An understanding of inflation in the U.S. economy is necessary in order to proceed with the post-visit lesson. This lesson includes an auction simulation with a gradual increase in the money supply to see the effect on auction prices. Teachers can define inflation as an increase in the average price level of goods and services over a period of time. Inflation results when there is too much money and credit in the economy in relation to the goods and services available. When people have more money to spend and the amount of goods and services doesn't increase as quickly, business owners find they can raise their prices and sell as much as they did before.

Inflation can be detrimental because it reduces the value of people's savings when price increases are larger than the interest rates that people receive on their savings accounts. Because the savings value is reduced, it gives people the incentive to spend rather than save. By discouraging savings, inflation can harm the U.S. economy. The economy needs a supply of savings to provide the funds for people and businesses to borrow so that they can help the economy grow.

Inflation can have other undesirable effects. Increases in prices can hurt people whose incomes rise less than the inflationary rate, or not at all. Retired workers with fixed pensions have less discretionary income. Business owners have a harder time planning for future production because of the uncertainty of price increases. Inflation can feed on itself. When workers see the prices they pay going up, they'll push for higher salaries. If their employers raise their salaries, the employers will have to increase prices for their products to cover the increased expense. This spiraling effect creates economic and social instability.



LESSON DESCRIPTION:

In Part I, students will participate in an auction that simulates inflation in the economy. In Part II, teams will present their Federal Reserve Bank function to the class, using a webbing map technique to show the connection of related concepts within their specialty area. Student assessment will be a 15 item quiz based on the questions that teams composed from their exhibit display information.



OBJECTIVES:

Students will be able to:

1. Define inflation as it relates to the U.S. economy.
2. Explain how interest rates affect inflation.
3. Discuss the Federal Reserve Bank's role in controlling inflation.
4. Present key exhibit information on their team's Federal Reserve Bank function.



MATERIALS:



TIME REQUIRED: 60 minutes

Auction items (such as candy or food), 3 items
 Activity 4 (Review and Reflect), completed from all students
 Activity 5 (Auction Dollars), 6 sheets
 Visual 9 (Auction Results), transparency
 Visual 10 (Federal Reserve Bank Web Map), transparency
 Visual 10A (Teacher Explanation for FRB Web Map)
 Visual 11 (Sample Monetary Policy Web)
 Visual 12 (Sample Supervision/Regulation Web)
 Visual 13 (Sample Payments System Web)
 Writing paper for team web planning
 Poster paper (3) for team web presentations
 Markers for web presentations, 3 or more per team
 Teacher-prepared quiz on Review and Reflect questions
 Overhead pens
 Pens/pencils, 1 per student



PREPARATION:

1. Read completed “Review and Reflect” sheets from students and highlight key information.
2. Choose 15 questions from “Review and Reflect” sheets for assessment quiz. Make transparency or hand-out with these quiz questions.
3. Produce six copies of Activity 5 and cut apart for auction simulation.



PROCEDURE:

Part I:

1. Ask students if they have ever participated in an auction. *(Student responses will vary.)* Ask a volunteer who is familiar with the auction process to describe it for students. *(The volunteer should include the following information: an auction is a way to sell goods or services. Auction items are shown to participants, who then offer money, or bid, for the item if interested. The bidding continues to increase until no participant offers more money for the item. It is then sold to the highest bidder.)* Tell students that they will be participating in a class auction for candy, which will be held in three rounds. They will be given auction dollars to bid with for each round, and the same type of candy will be auctioned each time.

2. Hand out auction one dollar bills in random amounts to students. (Make sure everyone receives at least one dollar.) These dollars represent the classroom money supply and can only be used for the auction. Use Visual 9 to record the total number of dollars handed out under the “class money supply” total for round one on the chart. Start round one of the auction, selling the first candy bar to the highest bidder, by using the process described above. Collect the money from the highest bidder, and record the sale price of the candy on the chart in the column labeled “winning bid” for round one. Give out candy.
3. Expand the classroom money supply by handing out auction five dollar bills in random amounts to students, making sure all receive at least one bill. Use Visual 9 to record the total number of dollars handed out for round two, plus the total from round one, minus the amount paid by the first winner. This is the new total for the class money supply. Start round two of the auction, selling the second candy bar to the highest bidder. Collect the money from the winner, and record the sale price of the candy in the column labeled “winning bid” for round two. Give out the candy.
4. Add to the money supply again by handing out auction ten dollar bills in random amounts to students, making sure all receive at least one bill. Use Visual 9 to record the total number of dollars handed out for round three, plus the previous totals for rounds one and two, minus the amount paid by both winners. This is the updated total for the class money supply. Start round three of the auction, selling the candy bar to the highest bidder. Collect the money from the winner, and record the sale price of the candy in the column labeled “winning bid” for round three.
5. Discuss the auction results, using Visual 9, with the following questions:
 - a. What was the total class money supply for round one? Round two? Round three?
(Answers will vary.)
 - b. Why did the money supply increase each round? *(The teacher added new bills to the money supply each round, and only one person spent their money on candy each time.)*
 - c. How much did the winning bidder pay for the candy in round one? Round two? Round three? *(Answers will vary.)*
 - d. Why did the sale price for the candy increase in each round? *(The students had more money to bid with each time, and they were willing to bid higher amounts in order to win the candy.)*
6. Tell students that they have just experienced the effects of inflation with the increased prices of the candy. Explain that there was an expanding money supply, but there was still the same amount of goods. The amount of money alone had no impact on the amount of goods

available, only on the price of the goods. Define **inflation** as an increase in the average price level of goods and services in the economy over a period of time. Inflation occurs when an increase in the money supply greatly exceeds an increase in the number of goods and services available.

- Review the **monetary policy** function of the Federal Reserve Bank as the implementation of changes in the money supply to influence the country's economy. Tell students that when the money supply increases, it is important that the growth is at an appropriate rate, not too fast or too slow. The Federal Reserve Bank can help to keep the growth in check by increasing or decreasing interest rates, which are the prices paid for loans (that expand the money supply) in our economy. When the Federal Reserve Bank lowers the interest rate, more loans are processed for businesses and consumers, and the overall money supply increases. When the Federal Reserve Bank raises the interest rate, fewer loans are processed for businesses and consumers, and the overall money supply decreases.



CLOSURE:

Discuss these questions as review:

- How would you define inflation? (*Inflation is an increase in the average price level of goods and services in our economy over a period of time.*)
- What are interest rates and how do they affect inflation? (*Interest rates are the prices paid for loans. If interest rates are lowered, businesses and consumers want to borrow money, so more loans are processed and the overall money supply increases. If the money supply greatly exceeds the amount of goods and services produced, inflation may result.*)
- What is the Federal Reserve Bank's role in controlling inflation? (*Through its monetary policy function, the Federal Reserve Bank has the ability to influence the economy by raising and lowering interest rates to help keep inflation and the growth of the money supply in our economy in check.*)



PROCEDURE:

Part II:

- Announce that students will be meeting in teams to prepare Federal Reserve Bank presentations after watching a teacher demonstration which uses the model for their presentations. Tell students that presentations will be done by using a "webbing map", in which main topics are written inside web ovals in the middle of the visual, with subtopics connected by lines and added in smaller ovals around each related topic.

2. Show students Visual 10 and present a brief overview of Federal Reserve Bank structure, using Visual 10A to help explain the relationship of each oval on the map.
3. Ask students to meet with their teams in three different areas of the classroom. Hand back “Review and Reflect” sheets with key information highlighted. Give each team writing paper, a large sheet of poster paper and several markers. Teammates should first decide on key information to present, draw and organize these facts in a web on writing paper, and then transfer the web to poster paper for the presentation.
Give approximately 10 minutes for this activity.
4. Ask teams to present their completed webbing maps to the group, following the model that was demonstrated by the teacher. As each team shares information, the group should take notes or draw their own webbing maps to remember facts and prepare for the quiz. (Teacher may use Visuals 11, 12 and 13 for reference in noting important facts given in the exhibits that should be included in student presentations.)



ASSESSMENT:

Give quiz based on “Review and Reflect” sheet questions and presentations, using teacher-prepared overhead or hand out.

EXAMPLES OF CURRENCY AND COIN



CHECK
AND
DEBIT CARD

BIG BUCKS BANK NO. 131138

PAY TO THE ORDER OF Uncle Sam \$ 1,000.00

One Thousand Dollars and ^{no}/100 DOLLARS

MEMO _____ Ima Citizen



RESERVE REQUIREMENTS

	Deposit Dollars	10% Reserve Requirement	Loan Dollars
Depositor A			
Borrower A			
Depositor B			
Total Dollars			

HOW TO CREATE MONEY

Money Multiplier Formula:

Money Multiplier = 1 /divided by/ Reserve Requirement

Examples:

Reserve Requirement	Money Multiplier
10%	1 /divided by/ .10 = 10
20%	1 /divided by/ .20 = 5
25%	1 /divided by/ .25 = 4

Potential Money Creation Formula:

Potential Money Creation = Money Multiplier x Initial Deposit

Examples:

Deposit	Reserve Requirement	Money Multiplier	Potential Money Creation
\$1,000	10%	10	10 x \$1,000 or \$10,000
\$1000	20%	5	5 x \$1,000 or \$5,000
\$1000	25%	4	4 x \$1,000 or \$4,000

THE FEDERAL RESERVE SYSTEM HAS THREE MAIN FUNCTIONS:

- Establish and implement monetary policy
- Regulate and Supervise banks
- Operate the nation's payments system



FEDERAL RESERVE BANK *of* KANSAS CITY

MONEY MANIA SCORE SHEET

Team 1	Team 2

DEPOSIT DOLLARS 1	DEPOSIT DOLLARS 1
DEPOSIT DOLLARS 1	DEPOSIT DOLLARS 1
DEPOSIT DOLLARS 1	DEPOSIT DOLLARS 5
DEPOSIT DOLLARS 10	DEPOSIT DOLLARS 20
DEPOSIT DOLLARS 20	DEPOSIT DOLLARS 20
DEPOSIT DOLLARS 20	DEPOSIT DOLLARS 100

MONEY MULTIPLIER SCENARIO

Sarah Saver goes to Investors National Bank and deposits \$1,000 that she earned from her summer job. She now has a checking account with a balance of \$1,000 from which she can write checks. What will Investors National Bank do with this newly deposited money? Well, if there is a 10 percent reserve requirement, the bankers will put \$100 in their vault and lend out the rest to people who need loans. Say Ernie Entrepreneur walks into Investors National wanting to borrow \$900 to start his new catering business. If the bankers decide that his project is worthwhile and he meets their criteria for a loan, they will give him the \$900. If Ernie puts the \$900 in his checking account, he can then write checks for that amount. There is now \$1,900 of money available (\$1,000 in Sarah's checking account and \$900 in Ernie's) to be spent. In other words, \$900 of new money has been "created". If Ernie deposits a profit of \$500 from the grand opening of his business, the money supply grows some more. The process now continues when Vera Vacationer comes into Investors National to borrow for her trip to Hawaii. The bank lends out _____ of Ernie's deposit, while putting _____ in reserves and thus "creates" more money. If Vera deposits \$200 after her trip, the money supply again grows. Finally, Stan Student walks in to borrow for his college textbooks. The bank lends out _____ of Vera's deposit and put _____ in reserves, creating additional money once again.

Our fractional reserve banking system leads to this multiplier effect on money.

MONEY MULTIPLIER SCENARIO ANSWERS

Sarah Saver goes to Investors National Bank and deposits \$1,000 that she earned from her summer job. She now has a checking account with a balance of \$1,000 from which she can write checks. What will Investors National Bank do with this newly deposited money? Well, if there is a 10 percent reserve requirement, the bankers will put \$100 in their vault and lend out the rest to people who need loans. Say Ernie Entrepreneur walks into Investors National wanting to borrow \$900 to start his new catering business. If the bankers decide that his project is worthwhile and he meets their criteria for a loan, they will give him the \$900. If Ernie puts the \$900 in his checking account, he can then write checks for that amount. There is now \$1,900 of money available (\$1,000 in Sarah's checking account and \$900 in Ernie's) to be spent. In other words, \$900 of new money has been "created". If Ernie deposits a profit of \$500 from the grand opening of his business, the money supply grows some more. The process now continues when Vera Vacationer comes into Investors National to borrow for her trip to Hawaii. The bank lends out \$450 of Ernie's deposit, while putting \$50 in reserves and thus "creates" more money. If Vera deposits \$250 after her trip, the money supply again grows. Finally, Stan Student walks in to borrow for his college textbooks. The bank lends out \$225 of Vera's deposit and puts \$25 in reserves, creating additional money once again.

Our fractional reserve banking system leads to this multiplier effect on money.

MONEY MANIA

<p>Name the legislative branch that established the Federal Reserve System and the year it was established.</p> <p><i>(Congress, 1913)</i></p>	<p>Why was the Federal Reserve Bank established?</p> <p><i>(to counteract banking panics and to stabilize the money supply)</i></p>	<p>How many regional Federal Reserve Bank offices are there?</p> <p><i>(12)</i></p>
<p>Which Federal Reserve function has to do with controlling the money supply?</p> <p><i>(monetary policy)</i></p>	<p>Which Federal Reserve function has to do with operating banks safely?</p> <p><i>(supervision and regulation)</i></p>	<p>Which Federal Reserve function has to do with distributing currency and coin to banks?</p> <p><i>(payments system)</i></p>
<p>What are reserve requirements?</p> <p><i>(a percentage of deposits that banks are required to hold and not lend out)</i></p>	<p>Why are reserve requirements necessary?</p> <p><i>(to keep deposit money available for withdrawal by customers)</i></p>	<p>If the reserve requirement is 20%, and a \$1000 deposit is made, how many dollars of the deposit can banks lend out to customers?</p> <p><i>(\$800)</i></p>
<p>If the reserve requirement is 20%, and a \$1000 deposit is made, how many dollars must the bank hold in required reserves?</p> <p><i>(\$200)</i></p>	<p>If the reserve requirement is 20%, and a \$1000 deposit is made, what is the money multiplier?</p> <p><i>(5)</i></p>	<p>What is the current reserve requirement for banks?</p> <p><i>(10%)</i></p>
<p>What is a fractional reserve banking system?</p> <p><i>(a policy where banks are required to hold a specific fraction of their deposits available for withdrawal)</i></p>	<p>What part of the money supply is considered M1 funds?</p> <p><i>(currency, coin and checking account balances)</i></p>	<p>What organization prints U.S. currency?</p> <p><i>(Bureau of Engraving and Printing)</i></p>
<p>What organization makes U.S. coins?</p> <p><i>(U.S. Mint)</i></p>	<p>When customers take out bank loans, does the money supply in circulation increase or decrease?</p> <p><i>(increase)</i></p>	<p>When customers pay back bank loans, does the money supply in circulation increase or decrease?</p> <p><i>(decrease)</i></p>
<p>How do banks make money?</p> <p><i>(from interest that borrowers pay on loans)</i></p>	<p>Why are banks willing to loan money to customers?</p> <p><i>(to receive interest on loan payments; to develop customer relationships)</i></p>	<p>If the reserve requirement is 25%, and a \$1000 deposit is made, how many dollars can banks lend out to customers?</p> <p><i>(\$750)</i></p>

EXHIBIT CORRELATION TO FRB FUNCTIONS

Monetary Policy Exhibits

Monetary Policy
Economic Stability
Cost of Inflation
FOMC
Regional Reserves Bank
Crisis Management

Supervision and Regulation Exhibits

Supervision and Regulation
Changing Nature of the Financial System
How Banks Build Wealth
Banker to the Banks
Why You Can Trust Your Bank
Keeping The Money Moving

Payment Exhibits

Payments
Counterfeits
The Changing Ways People Pay
Personal Financial Choices
Currency
Electronic Payments
Cash Processing And The Vault Video

Optional Exhibits: (Pick one to review)

Bank Heritage Case
Truman Coin Collection
"The Fed and You" Media Wall

ECONOMIC AND PERSONAL FINANCE CONCEPTS

economic stability	monetary policy	financial services
stock market	discount rate	supervision/regulation of banks
federal funds rate	credit	Federal Open Market Committee
direct-deposit	borrowers	automated clearinghouse payments
cash processing	financial institution	Bureau of Engraving and Printing
U.S. Mint	counterfeit	electronic payment services
ATM card	bank account	Federal Reserve Note
credit score	interest rate	credit history
median earnings	compound interest	online banking
debit card	credit union	automatic bill payments
bank failures	greenbacks	fractional currency
Treasury Dept.	security features	U.S. Government securities
funding shortfall	consumer loan	collateral
liquidity	branch offices	depository institutions
banking laws	loan application	tax revenue
creditworthy	capital funds	building wealth
goods/services	reserves	Board of Governors
recession	profit	inflation
hyperinflation	consumer	Consumer Price Index
consumption	investment	Gross Domestic Product
net exports	money supply	M1/M2
mutual funds	bank examiners	certificates of deposit

REVIEW AND REFLECT

Name:

FRB Specialty Area:

Display Title:

Write 3 interesting facts to summarize this display:

List 2 economic or personal finance concepts covered in this display:

Compose 1 quiz question based on this display:

Answer:

REVIEW AND REFLECT- SHEET EXAMPLE

Name:

FRB Specialty Area: *Monetary Policy*

Display Title: *Trust and Confidence*

Write 3 interesting facts to summarize this display:

- *The FRB promotes financial stability and economic growth.*
- *The twelve regional Federal reserve Banks, along with the Board of Governors in Washington, D.C., make up the Federal Reserve System.*
- *The Federal Reserve System is the nation's Central Bank.*

List 2 economic or personal finance concepts covered in this display:

- *monetary policy*
- *financial services*

Compose 1 quiz question based on this display:

What are the three missions or functions of the Federal Reserve Bank?

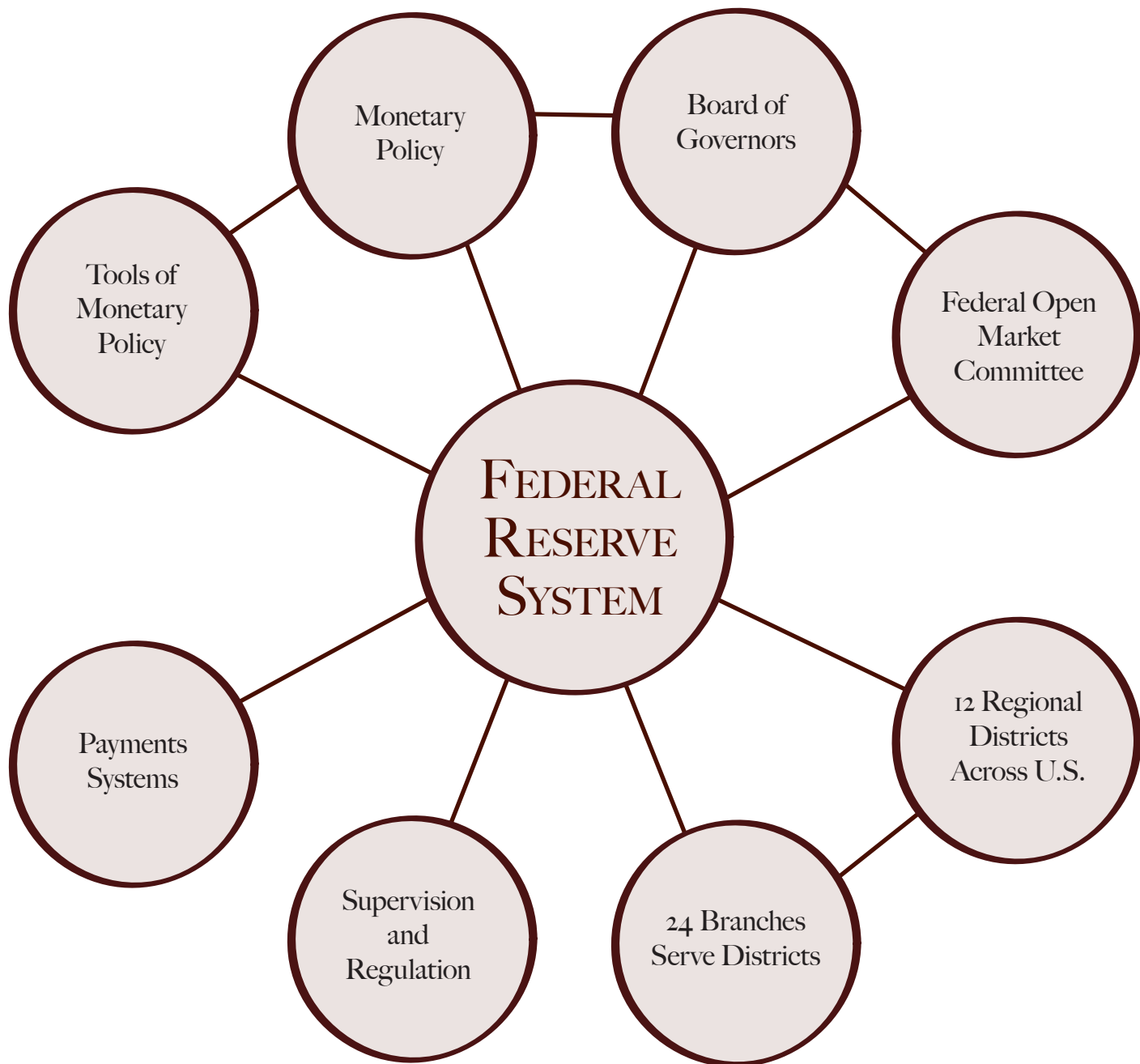
Answer:

(monetary policy, financial services/payments system, supervision and regulation of banks)

AUCTION RESULTS

	Classroom Money Supply	Winning Bid
Round One:		
Round Two:	+ _____ - _____	
Round Three:	+ _____ - _____	
Totals:		

FEDERAL RESERVE BANK WEBBING MAP



TEACHER EXPLANATION FOR FEDERAL RESERVE BANK WEBBING MAP

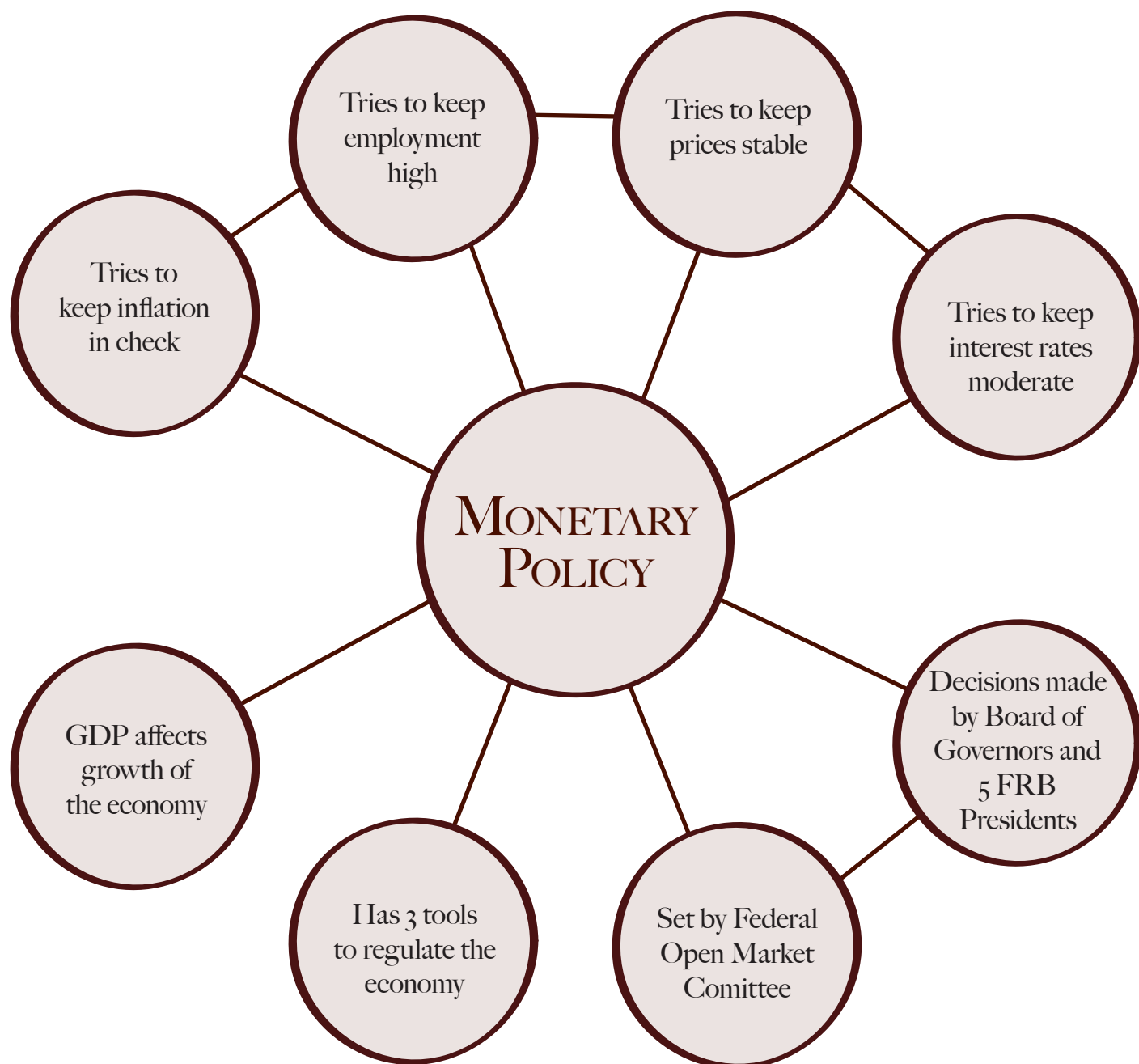
The Federal Reserve System is the overall topic for this web, so it is written in the center oval.

- The Federal Reserve System has three main functions, each with its own oval:
 - Monetary Policy, which includes the actions that the Federal Reserve Bank takes in order to influence the money supply;
 - Supervision and Regulation of Banks, which is the ability to supervise and examine banks to make sure that they do business properly and safely;
 - Payments System, which is the ability to distribute cash, and process checks, credit and electronic payments.
- The Tools of Monetary Policy are the methods used to influence the growth of the money supply. This oval is connected to the Monetary Policy oval as well as the center oval. (The specific tools are open market operations, reserve requirements and the discount rate. These could be included in three ovals connected to the Tools oval, if space allowed.)
- The Board of Governors (along with selected Federal Reserve Bank presidents) set monetary policy through the Federal Open Market Committee or FOMC. These two ovals are connected to each other as well as to the center oval.
- The Federal Reserve System is made up of twelve district banks across the country. There are twenty-four branches of these banks throughout the various districts. These two ovals are connected to each other as well as the center oval.

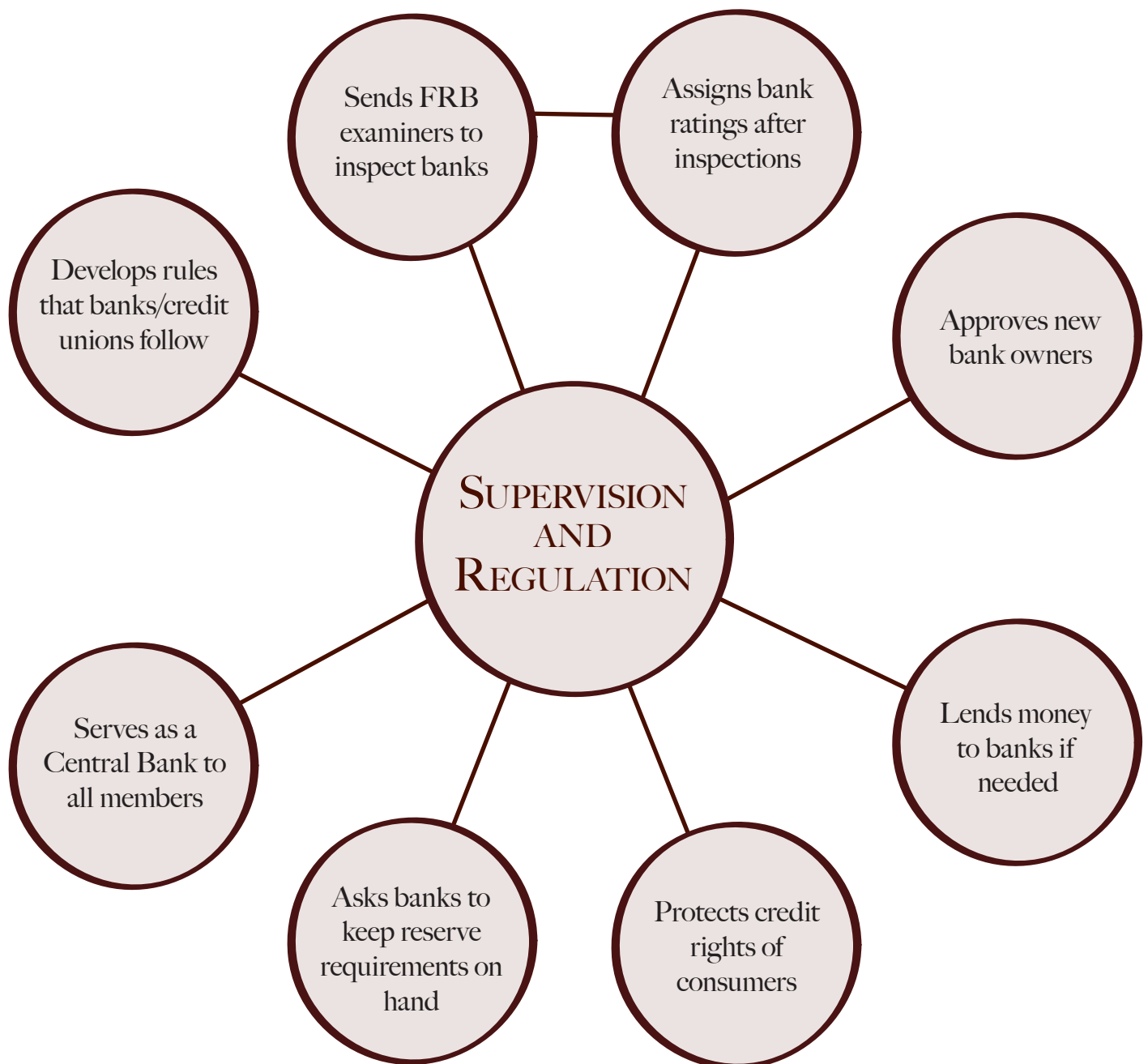


FEDERAL RESERVE BANK *of* KANSAS CITY

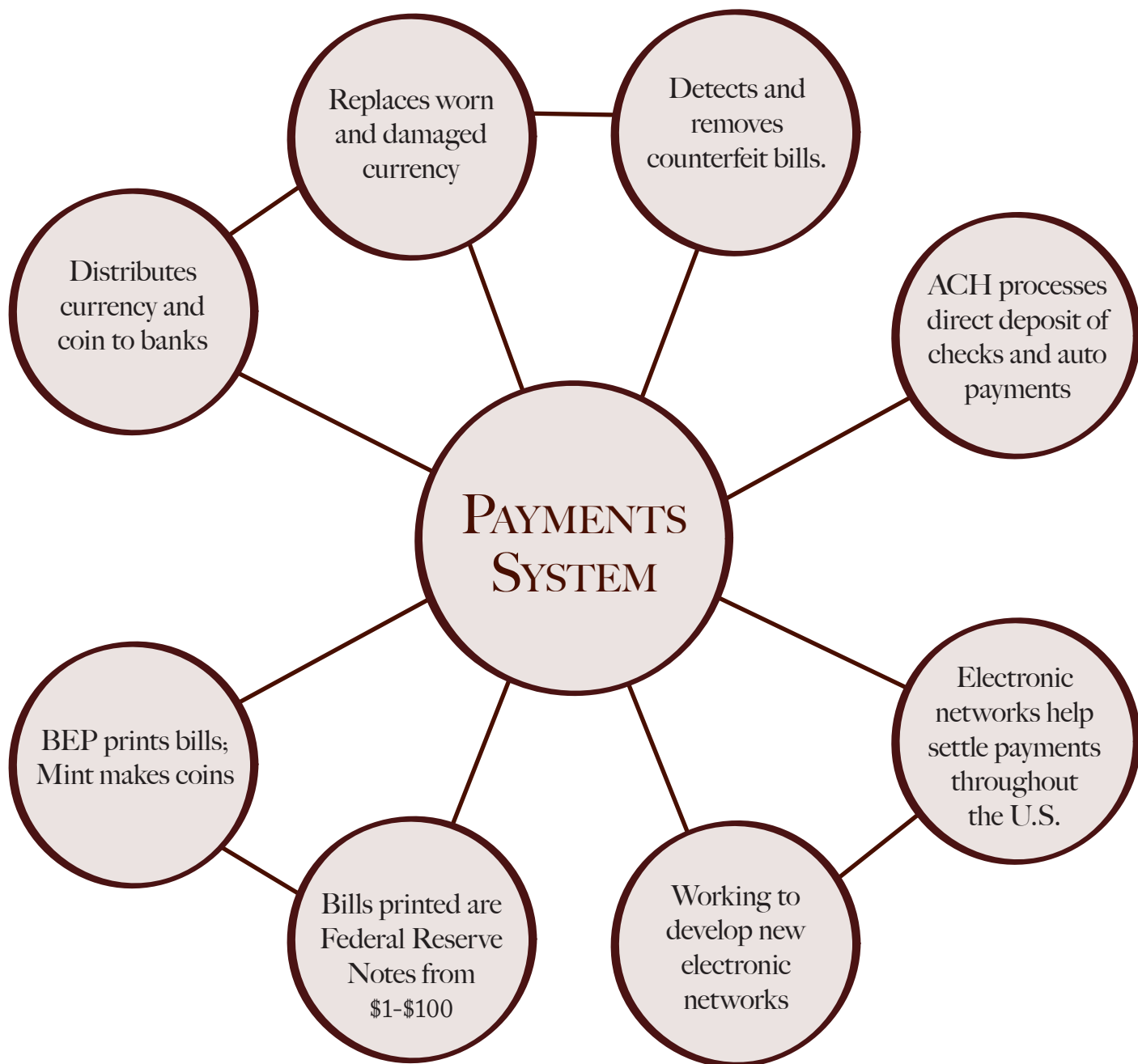
MONETARY POLICY WEB



SUPERVISION/REGULATION WEB



PAYMENTS SYSTEM WEB



AUCTION DOLLARS 10	AUCTION DOLLARS 10
AUCTION DOLLARS 5	AUCTION DOLLARS 5
AUCTION DOLLARS 5	AUCTION DOLLARS 5
AUCTION DOLLARS 1	AUCTION DOLLARS 1
AUCTION DOLLARS 1	AUCTION DOLLARS 1
AUCTION DOLLARS 1	AUCTION DOLLARS 1