Examples of Currency and Coin

MONEY MUSEUM

Focus on the Fed

Grades 9 - 12

Visual One

Examples of Currency and Coin

[Image of a $50 bill and various coins]

[Image of a $10 bill]
**Check and Debit Card**

**Big Bucks Bank**

NO. 131138

Pay to the Order of **Uncle Sam** $1,000.00

One Thousand Dollars and 00/100 Dollars

Memo ____________________________

Ima Citizen

---

**Debit Card**

Big Bucks Bank

3485 8374 9832 8304

VALID FROM 09/07 GOOD THRU 09/12

IMA CITIZEN
# Reserve Requirements

<table>
<thead>
<tr>
<th></th>
<th>Deposit Dollars</th>
<th>10% Reserve Requirement</th>
<th>Loan Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depositor A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borrower A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deppositor B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Dollars</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How To Create Money

Money Multiplier Formula:
Money Multiplier = 1 /divided by/ Reserve Requirement

Examples:

<table>
<thead>
<tr>
<th>Reserve Requirement</th>
<th>Money Multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>1 /divided by/.10 = 10</td>
</tr>
<tr>
<td>20%</td>
<td>1 /divided by/.20 = 5</td>
</tr>
<tr>
<td>25%</td>
<td>1 /divided by/.25 = 4</td>
</tr>
</tbody>
</table>

Potential Money Creation Formula:
Potential Money Creation = Money Multiplier x Initial Deposit

Examples:

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Reserve Requirement</th>
<th>Money Multiplier</th>
<th>Potential Money Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,000</td>
<td>10%</td>
<td>10</td>
<td>10 x $1,000 or $10,000</td>
</tr>
<tr>
<td>$1000</td>
<td>20%</td>
<td>5</td>
<td>5 x $1,000 or $5,000</td>
</tr>
<tr>
<td>$1000</td>
<td>25%</td>
<td>4</td>
<td>4 x $1,000 or $4,000</td>
</tr>
</tbody>
</table>
The Federal Reserve System has three main functions:

• Establish and implement monetary policy
• Regulate and Supervise banks
• Operate the nation’s payments system
**Money Mania Score Sheet**

<table>
<thead>
<tr>
<th>Team 1</th>
<th>Team 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>DEPOSIT DOLLARS</td>
<td>DEPOSIT DOLLARS</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>$1</td>
<td>$1</td>
</tr>
<tr>
<td>$1</td>
<td>$1</td>
</tr>
<tr>
<td>$1</td>
<td>$5</td>
</tr>
<tr>
<td>$10</td>
<td>$20</td>
</tr>
<tr>
<td>$20</td>
<td>$20</td>
</tr>
<tr>
<td>$20</td>
<td>$100</td>
</tr>
</tbody>
</table>
**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.
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

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

<table>
<thead>
<tr>
<th></th>
<th>Classroom Money Supply</th>
<th>Winning Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Round One:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Round Two:</strong></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Round Three:</strong></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Totals:</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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.
MONETARY POLICY WEB

- Tries to keep inflation in check
- Tries to keep employment high
- Tries to keep prices stable
- Tries to keep interest rates moderate
- GDP affects growth of the economy
- Has 3 tools to regulate the economy
- Set by Federal Open Market Committee
- Decisions made by Board of Governors and 5 FRB Presidents

MONETARY POLICY
**Supervision/Regulation Web**

- **Supervision and Regulation**
  - Serves as a Central Bank to all members
  - Asks banks to keep reserve requirements on hand
  - Protects credit rights of consumers
  - Lends money to banks if needed
  - Approves new bank owners
  - Sends FRB examiners to inspect banks
  - Assigns bank ratings after inspections
  - Develops rules that banks/credit unions follow
**Payments System Web**

- Distributes currency and coin to banks
- Replaces worn and damaged currency
- Detects and removes counterfeit bills
- ACH processes direct deposit of checks and auto payments
- BEP prints bills; Mint makes coins
- Bills printed are Federal Reserve Notes from $1-$100
- Working to develop new electronic networks
- Electronic networks help settle payments throughout the U.S.