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.

7. 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:

1. 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.)*

2. 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.)*

3. 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:

1. 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.)

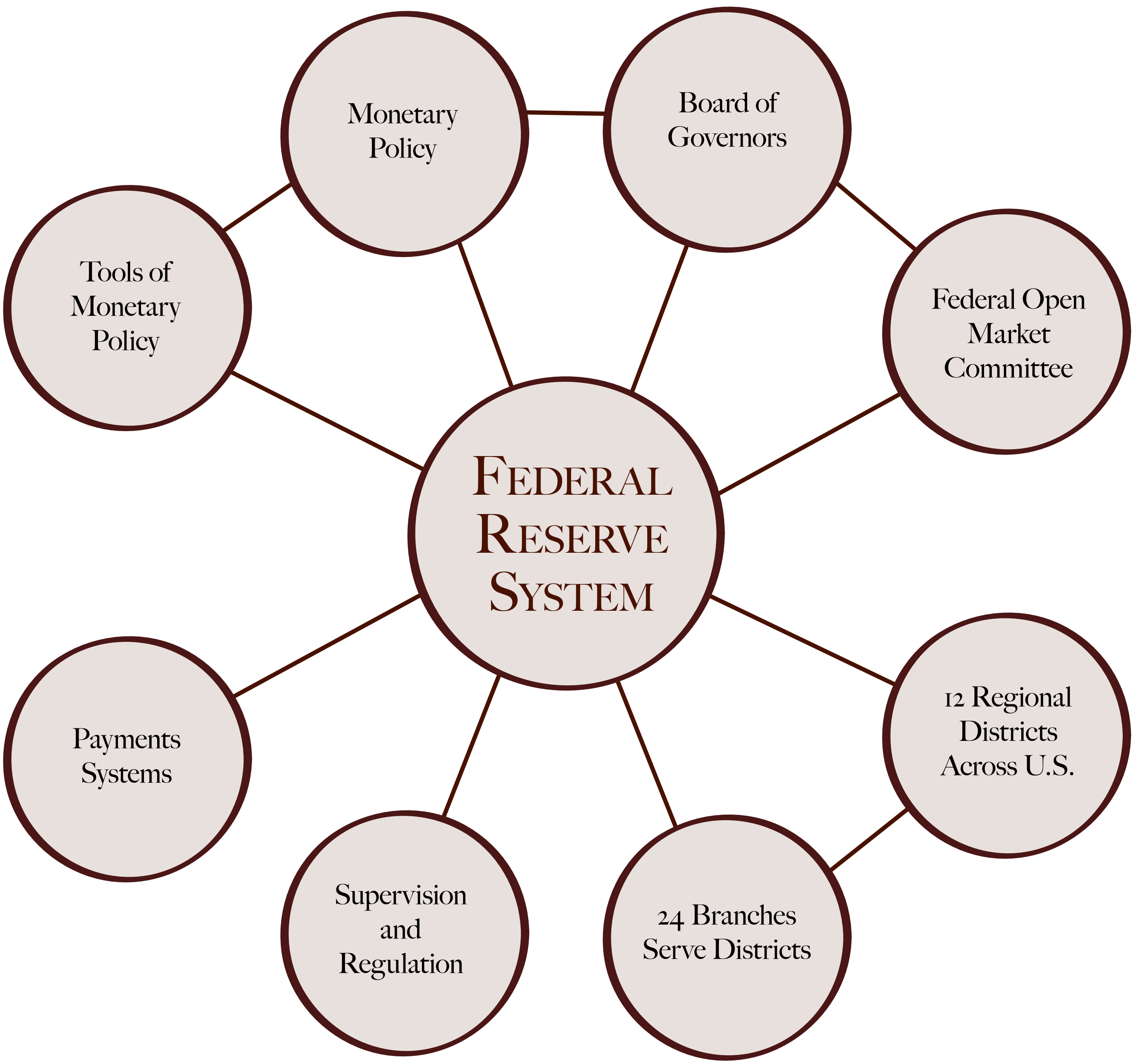
Assessment:

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

AUCTION RESULTS

	Classroom Money Supply	Winning Bid
Round One:		
Round Two:	+ ____________ – ____________	
Round Three:	+ ____________ – ____________	
Totals:		

FEDERAL RESERVE BANK WEBBING MAP

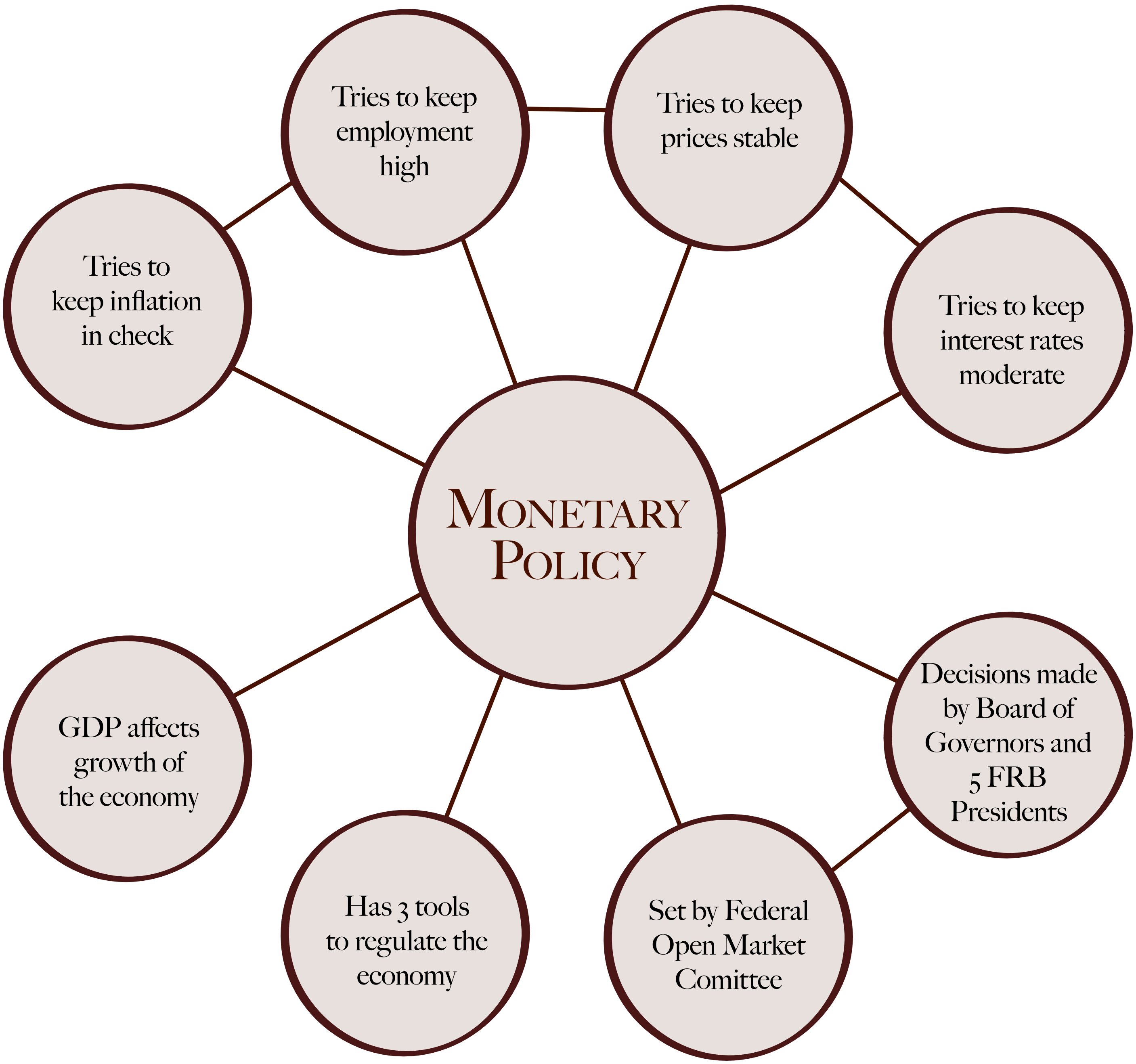


Teacher Explanation for Federal Reserve Bank Webbing Map

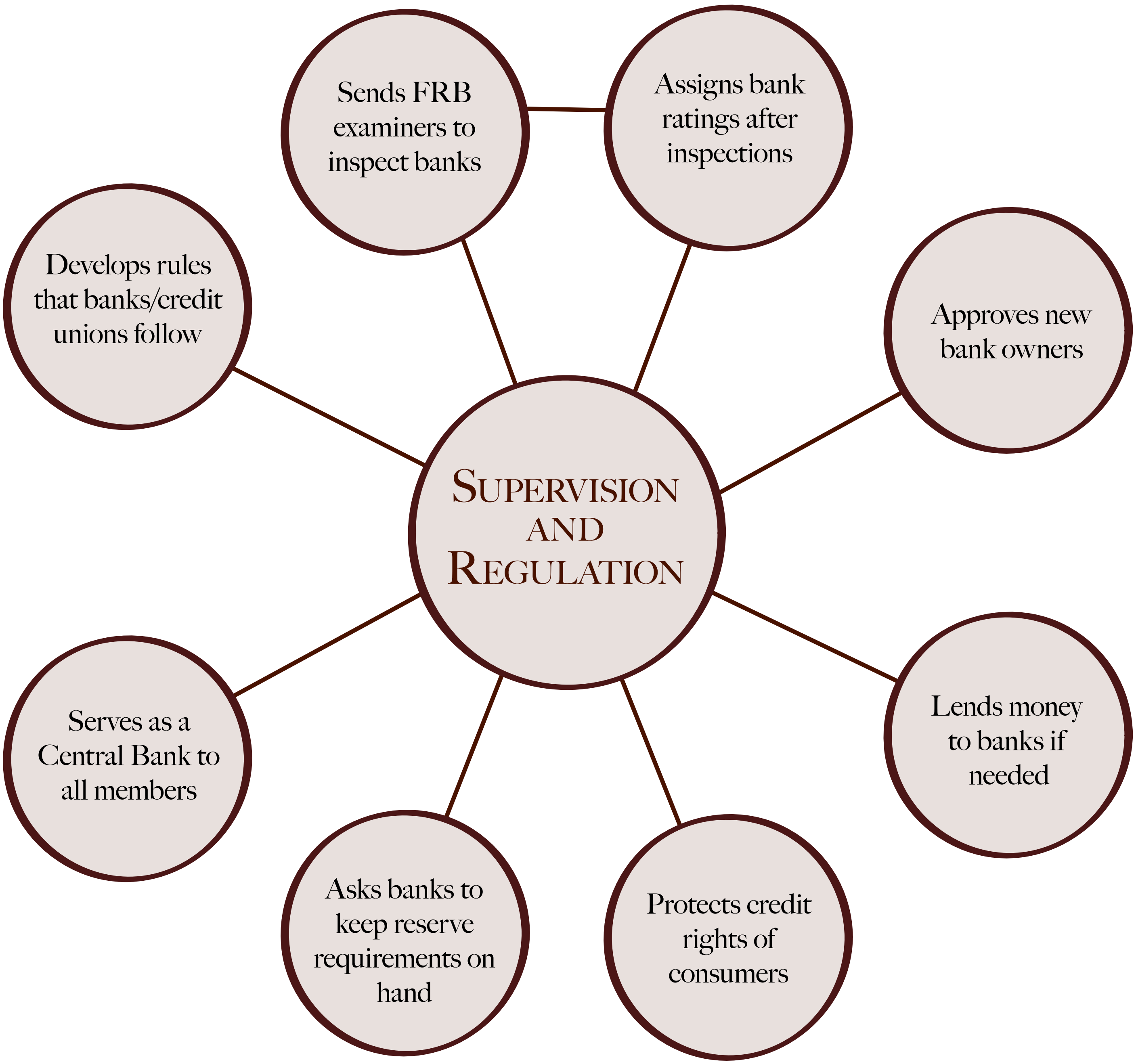
The Federal Reserve System is the overall topic for this web, so it is written in the center oval.

- 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 and the twelve regional Federal Reserve Bank presidents discuss monetary policy at the Federal Open Market Committee (FOMC) meetings. Monetary policy is set by the Board of Governors and the five voting Federal Reserve Bank presidents as a result of this discussion. 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.

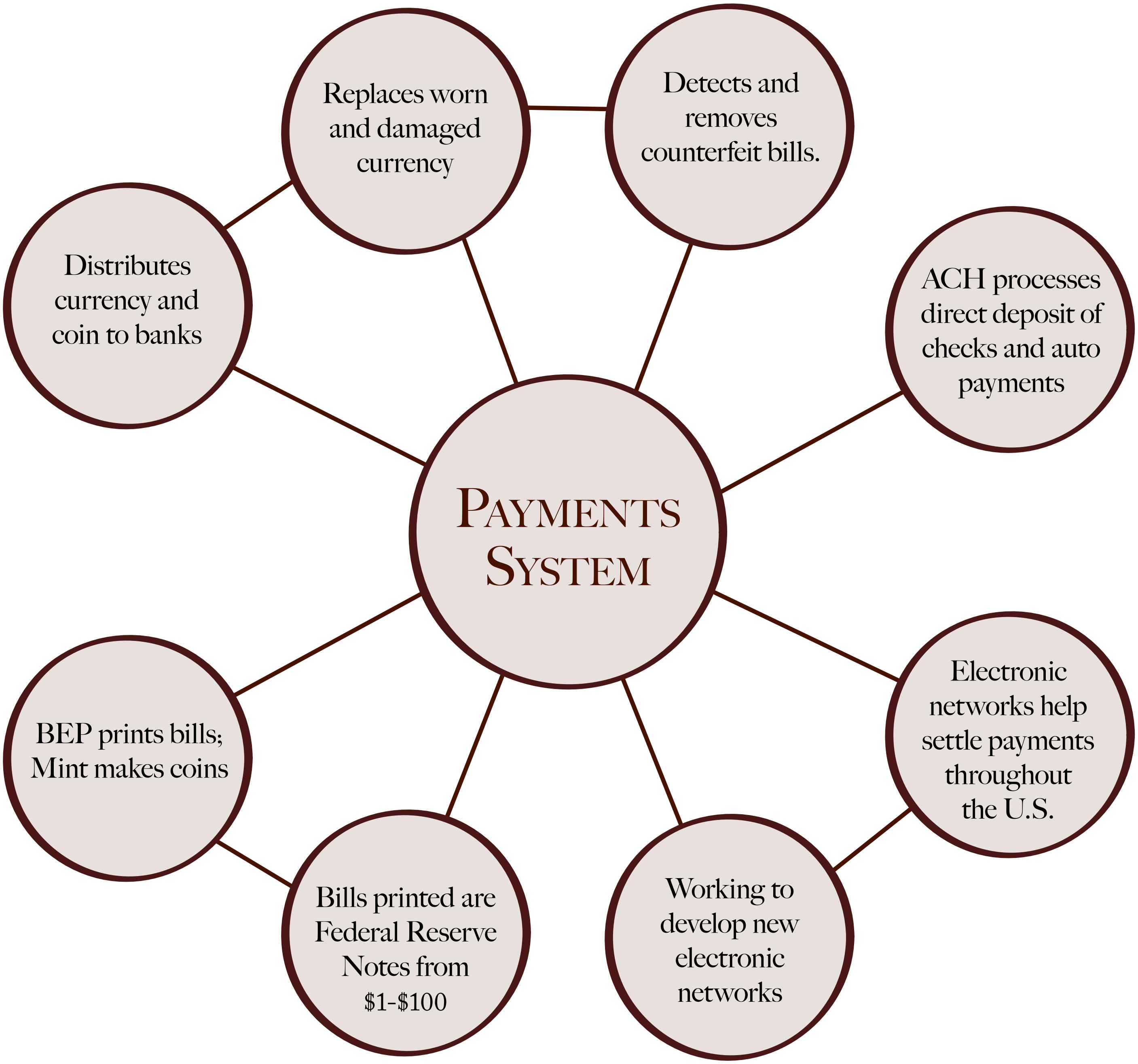
MONETARY POLICY WEB



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