Inflation Activity

Lesson Description

Students frequently ask the questions, " If people don't have enough money, why doesn't the government just print more and give everyone enough to buy what they need?" or "Why doesn't the government just print money to pay bills so people and businesses don't have to pay taxes?" In this lesson students will participate in a simulation to demonstrate what happens to the value of a dollar and to prices when the amount of money in circulation increases.

Concepts

- Inflation: an increase in the overall price level in an economy.
- Contractionary fiscal policy: a decrease in government spending and/or an increase in taxes designed to decrease total demand in the economy and control inflation.
- Expansionary fiscal policy: an increase in government spending and/or decrease in taxes designed to increase total demand in the economy, thus increasing real output and decreasing unemployment.

Objectives:

Students will:
1. determine the effect of increasing the amount of money in circulation on prices.
2. determine what happens to the value of money when prices of goods and services increase.

Content Standard

- A nation's overall levels of income, employment, and prices are determined by the interaction of spending and production decisions made by all households, firms, government agencies, and others in the economy. (NCEE Content Standard 18)

CLG: 4.1.4 The student will evaluate the effectiveness of current monetary and fiscal policy on promoting full employment, price stability, and economic performance.
Measures of economic performance include Gross Domestic Product (GDP), Consumer Price Index (CPI), and unemployment rate.

PERSONAL FINANCE LITERACY
2.12.A.1 Evaluate how education choices, interests, skills, career choices, economic conditions and entrepreneurship affect income.
5.12.B.6 Explain the relationship among buying power, interest rates, and inflation.

Materials:

6-8 cans of soda/juice, 6-8 small candy bars or 6-8 of any other desirable item.
Copies of either purchased Dollar Bill Play Money or the Dollar Bill Worksheet (This can be found in *High School Economics Second Edition,* Lesson Thirteen

Procedure:

1. ***Display two cans of soda for the class. Give each student one dollar bill. Explain:*** Our classroom represents the country called The Land of the Thirsty (or The Land of the Hungry or some other name that reflects the items you will be auctioning off). This year, our GDP is two cans of soda. In our mixed market economy, we auction off our products; that is, the auction is our market mechanism and our marketplace.

2. Proceed by auctioning off the cans of soda, one at a time. Collect "money" and distribute the two cans to the two highest bidders. Note: If students "pool" their money to bid, allow them to do so. It will not affect the lesson's purpose.

3. Create the following chart on the chalkboard, flip chart or overhead.

Year	***Price of Can 1***	***Price of Can 2***	***Average Price of a Can of Soda***
Year 1			
Year 2			
Year 3			

4. ***Display two additional cans of soda. Explain:*** Because some people in Year 1 didn't have enough money to buy a soda, we are raising everyone's income from 1 to 5 dollars! ***(Allow those with money left from Year 1 to keep their money, to use in Year 2.) Give each student 5 additional dollars.***

5. Auction off Year 2's output of two cans of soda, one can at a time. Distribute the two cans of soda and collect the price from the two highest bidders.

6. Record Year 2's information on the chart and calculate the average soda price in Year 2.

7. ***Explain:*** In Year 2, income increased to 5 times what it was in Year 1. However, output (GDP) (# of cans of soda) stayed the same.
Ask: What happened to price? Was the population better off; that is, did people's standard of living improve?
Help students conclude that, if the money supply grows at a faster rate than output grows, prices rise and inflation results**.**

8. Display the last two cans of sodas. (Allow students with leftover dollars from Year 1 and/or Year 2 to keep them for Year 3.) Explain that because the country still has citizens wanting products but not able to afford them, everyone will receive 10 dollars in Year 3. Give each student 10 additional dollars.

9. Repeat auction for Year 3, distribute soda and collect dollars, record the results, and calculate the average price in Year 3.

10. ***Explain:*** In Year 3, income doubled over Year 2 and was 10 times the Year-1 level.
Ask: What happened to price? Was the population better off? Did more inflation occur? Why?

Note**: As an option, you may want to have one or two extra cans of soda available. If, after the Year 2 auction, students point out that output doesn't usually stay the same, but instead, usually grows each year, then add the one or two cans of soda to the Year-3 auction. If you add one can (to make a total of 3 cans to auction, a 50% increase in output) or two cans (to make a total of 4 cans, a 100% increase in output), the increase in the money supply is still doubled from the Year-2 level and increased ten-fold from Year 1; thus, inflation will still occur, at least between Year 1 and Year 3. (If output and the money supply both double from Year 2 to Year 3, i.e., from 2 to 4**

cans of soda and 5 to 10 dollars, it is possible, <u>though</u> <u>unlikely</u> that the average price could stay the same in Year 3 as in Year 2.) Alternatively, if you want to be sure to illustrate the point, if you use 4 cans of soda in Year 3, increase the dollar allocation 15 per student in Year 3.

11. Have students read "Money and Inflation."

12. For U.S. Government or History pose the following questions to the class:

1. Why doesn't the government just print more money and give everyone some?
2. What would be likely to happen if the government (or Bill Gates) gave every family in the United States a million dollars?
3. What factors (other than monetary or fiscal policy action) could affect the level of inflation that would result? (the availability of products from other countries to help meet the demand and how much of the new wealth is saved, for example).

13. For Financial Literacy, pose the following questions to the class:

1. If you had a spending plan, how would inflation affect that plan?
2. What effect would inflation have on the buying power of your savings? In order to preserve the buying power of your savings how would the interest rate you receive on those savings have to change?
3. What changes might people make in their investing plans in order to deal with inflation?
4. If you have loaned money at a fixed rate during a period of inflation what is true of the buying power of the money you have received in payment? What will happen to the rates for borrowing money during a time of inflation?

<u>Variations and Extensions</u>

1. ***You can add a fourth year, keeping the output the same as in Year 3, but collecting an income tax on the class citizens prior to beginning the auction to determine the effect of income taxes on spending and, thus, indirectly on prices if the government chooses to use the tax increase to purse contractionary fiscal policy and, thus, doesn't spend the tax revenues on goods and services.***

2. ***You can add a fourth year, keeping output the same as in Year 3, but distributing a different number of dollars to different students in the class. First, collect all dollars from all students. Then redistribute the as follows. (This assume a class of 30 students. Adjust accordingly for a class with a different number of students.) Five students each might receive 25 additional dollars, 15 students each might receive 10 additional dollars and ten students each might receive one additional dollar. After the auction, focus discussion on how differentiated income levels affected purchasing power and prices. (Prices***

   Then add a fifth year, keeping output the same as in Years 3 and 4. Do not distribute any additional dollars. Instead, tax the " wealthy" citizens and redistribute the dollar tax to the "poor" citizens. (Citizens holding more than 25 dollars would pay a 10-dollar tax; citizens holding between 15 and 24 dollars would pay a 5 dollar tax; and citizens holding less than 15 dollars would receive a 5-dollar payment.) After the auction, focus discussion on how a system of taxes and transfer payments affected purchasing power and prices.

PRICE RECORD

Year	Price of Item 1	Price of Item 2	Average Price

Money and Inflation

Money gets its real value from its purchasing power or what it can buy. The health of the economy is measured not by how much people earn, but by how much their money buys. The different kinds and amount of goods and services your money lets you buy is called your standard of living.

You as a person want to earn as much money as you can. The national economy can actually have too much money. When the amount of money grows faster than the speed goods and services are produced the result is inflation. In the activity we just did the candy or soda represented the goods and services you were able to buy. By the third round it took more money to buy the same amount as you bought in the first round.

So how can inflation affect you? Say you want a new pair of jeans, for examples. Last year, they cost $20, but this year the same pair costs $23. If the prices of most other goods have also risen, then you are probably dealing with inflation. There is too much money in circulation. Prices have inflated and your $20 buys less than it did. People have to earn more money just to stay even.

Adapted from Money and Banking, Federal Reserve Bank of Dallas