Gross Domestic Product - Lesson Plan

Overview:

The gross domestic product is a measure of the size of a nation's economy.

Objectives:

Students will be able to:

- ❏ Define gross domestic product
- ❏ Explain why GDP growth is desirable
- ❏ Name the largest industries in the country
- ❏ Recognize that the relative sizes of industries change over time
- ❏ Explain how recessions affect the GDP

Background and Information:

Gross domestic product: The sum of all goods and services produced in the country in one year. ("Gross" refers to the total amount, before any deductions.)
GDP: The abbreviation for gross domestic product.
Gross national product: The sum of all goods and services produced in the country and abroad in one year.

Time:

45 Minutes

Materials:

- ❏ iPad
- ❏ **Gods of Money** app
- ❏ Gross Domestic Product worksheets

Educational Goals:

- ❏ To develop an increased understanding of how the U.S. economy works
- ❏ To understand what the gross domestic product is
- ❏ To understand why GDP growth is important and desirable
- ❏ To understand that falling GDP is called a recession and is very undesirable

Activity

I. LECTURE *10 minutes*

A. The “Gross Domestic Product” is the sum of all goods and services produced in the country in one year.
    1. “Gross” refers to the total amount, before any deductions.
    2. “Domestic” means within the borders of the U.S.
    3. “Product” refers to the value of all the things made and services provided.
B. “Gross Domestic Product” is abbreviated “GDP.”
C. GDP is calculated and reported 4 times per year by the U.S. government.
D. Every country has its own GDP.
E. What are some examples of products and services that contribute to GDP?
    1. Remember, only things that are produced in the U.S. are part of GDP.
    2. Almost all smartphones and tablets are not manufactured in the U.S., so they are not included in the GDP of the U.S.
    3. But transporting the phone from the dock to a wholesaler, storing it in a warehouse, transporting it to a retail store, and retail store operations are all part of GDP.
    4. The manufacture of imported goods is not included in GDP, but some items that many people assume are imported are actually manufactured in the U.S. One example: Toyota builds full-size pickup trucks at its plant in San Antonio, Texas.
F. GDP is often used as an indicator of living standards. When real GDP increases, the standard of living (usually) increases as well.
G. “Standard of Living” is the general level of wealth and comfort experienced by people.
H. Since the end of World War II, GDP has grown an average of 6.6% per year.
I. A stagnant or falling GDP is bad because it means the standard of living will fall.
J. When GDP decreases for 6 months or more, the economy is said to be in a recession.
K. A “Recession” is a general slowdown in economic activity: people make less money, so they spend less money, so businesses make less money, and more people lose their jobs.

II. DEMONSTRATION *15 minutes*

A. On the iPad, open the **Gods of Money** app.
B. Tap ‘Start’ Gods of Money.
C. Tap ‘Watch’ historical data.
D. Set the Start Date to Jan 1968.
E. Tap ‘Start >’.
F. When the budget appears, tap the checkmark.
G. Tap the date in the upper right to pause the app.
H. Double-tap on the businesses box to expand it.

I. The businesses box represents the yearly output of all businesses in the U.S. The size of this box represents the gross domestic product for the year. Gross domestic product, or GDP, is the total of all goods and services produced in the country in one year. The 15 major industries are shown with their sizes proportional to their contribution to GDP. In 1968 the largest industry was manufacturing which comprised 25.17% of GDP, while mining, which includes oil and gas production, made up 1.45% of GDP. The dollar values are in billions.

J. Create a matrix (on a whiteboard, e.g.) of 5 columns and 17 rows. Fill in the names like this:

GDP	1968	1969	$ Change	% Change
Manufacturing				
Finance				
Government				
Retail				
Wholesale				
Professionals				
Construction				
Transportation				
Information				
Education & Health				
Agriculture				
Services				
Entertainment				
Utilities				
Mining				
Total GDP				

K. Record the values for each industry (manufacturing, finance, etc.) for 1968.

L. Tap the checkmark to close the expanded view.

M. Resume the simulation by tapping the date.

N. Let the simulation run until Jan 1969.

O. When the budget for 1969 appears, tap the checkmark.

P. When the game date is Jan 1969, pause the app by tapping the date.

Q. Double-tap on the businesses box to expand it.
R. Record the values for each industry for 1969.
S. Calculate the dollar change for each industry by subtracting the 1968 value from the 1969 value. E.g.: $ Change for manufacturing = $228 - $210 = $18.
T. Calculate the percent change for each industry by dividing the dollar change by the 1968 value and multiplying by 100. E.g.: % Change for manufacturing = $18 / $210 * 100 = 8.57%.
U. The matrix should now look like this: (Dollar amounts are in billions)

GDP	1968	1969	$ Change	% Change
Manufacturing	$210	$228	$18	8.57%
Finance	$119	$129	$10	8.40%
Government	$118	$132	$14	11.86%
Retail	$65	$72	$7	10.77%
Wholesale	$54	$59	$5	9.26%
Professionals	$40	$44	$4	10.00%
Construction	$38	$42	$4	10.53%
Transportation	$33	$36	$3	9.09%
Information	$29	$31	$2	6.90%
Education & Health	$28	$31	$3	10.71%
Agriculture	$23	$24	$1	4.35%
Services	$23	$25	$2	8.70%
Entertainment	$23	$26	$3	13.04%
Utilities	$18	$19	$1	5.56%
Mining	$12	$13	$1	8.33%
Total GDP	$833	$846	$78	9.36%

V. Discussion questions:
    1. How much did GDP change from 1968 to 1969? (It grew by $78 billion, or 9.36%.)
    2. What industry grew the most by dollar amount? (Manufacturing at $10 billion.)
    3. What industry grew the most by percentage? (Entertainment at 13.04%.)
    4. Did any industry become smaller from 1968 to 1969? (No.)

5. What industry grew the least by dollar amount? (Tie between agriculture, utilities, and mining: $1 billion each.)
6. What industry grew the least by percentage? (Agriculture at 4.35%.)
7. Emphasize the importance of making comparisons by the percentage change, not the dollar value.
8. The calculated total GDP value may not exactly match the GDP and Businesses values displayed in the app due to rounding errors and synchronization issues.

III. IN-CLASS ASSIGNMENT *20 minutes*

A. Pass out the GDP Worksheets, one per student.
B. Have students follow the instructions on the worksheet:
    1. Start and run **Gods of Money** to find and record the GDP and industry values for 1980 and 1990.
    2. Calculate the dollar value change and the percentage change for each industry and total GDP.
    3. Use the values to answer the worksheet questions.

IV. HOMEWORK ASSIGNMENT *20 minutes*

A. Assign students to complete the homework assignment on the worksheet.