UNIT 8 - HOW DOES THE HEALTH OF THE ECONOMY AFFECT YOU? (6 Days)

Changes in national levels of economic activity have a profound effect on students' future welfare, their job opportunities, the level of their prospective earnings, and the prices they will pay for things they buy. It is important, therefore, for students to understand possible causes of changes in these levels and how such changes can produce economic problems (such as unemployment and inflation) or opportunities (such as increased employment). Understanding these forces equips students to predict the economic consequences of proposed government policies and to make informed choices among alternative public policy proposals.

EPF.5 The student will demonstrate knowledge of a nation's economic goals, including full employment, stable prices, and economic growth, by

a) describing economic indicators, such as gross domestic product (GDP), consumer price index (CPI), and unemployment rate.
(BUS6120.038)

Days 1 and 2 What are the nation's economic goals and how do we measure them?

EPF.5 The student will demonstrate knowledge of a nation's economic goals, including full employment, stable prices, and economic growth, by
b) describing the causes and effects of unemployment, inflation, and reduced economic growth.
(BUS6120.038)

Days 1 and 2 How do unemployment, inflation and reduced economic growth affect us?

EPF.5 The student will demonstrate knowledge of a nation's economic goals, including full employment, stable prices, and economic growth, by
c) describing the fluctuations of the business cycle.
(BUS6120.038)

Day 1 The business cycle: a picture of the economy over time

Evaluation Day

<u>EPF.5 The student will demonstrate knowledge of a nation's economic goals, including full employment, stable prices, and economic growth, by</u>

a) describing economic indicators, such as gross domestic product (GDP), consumer price index (CPI), and unemployment rate.

Days 1 and 2 - What are the nation's economic goals and how do we measure them?

Content Knowledge

A nation's overall levels of income, employment, and prices are determined by the interaction of spending and production decisions made by households, firms, government agencies, foreign markets, and others in the economy.
Economic goals include

- full employment, which is measured by the unemployment rate
- stable prices, measured by indices such as the Consumer Price Index and
- economic growth, measured by real gross domestic product (GDP). [1]

Vocabulary
Inflation - A rise in the general or average price level of all the goods and services produced in an economy. Can be caused by pressure from the demand side of the market (demand-pull inflation) or pressure from the supply side of the market (cost-push inflation).
Gross domestic product - The market value of all final goods and services produced in a country in a calendar year.
Real gross domestic product - GDP measured in dollars of constant purchasing power. The measure is obtained by adjusting nominal GDP (GDP measured in current prices) by an appropriate price index, usually the implicit price deflator. Often used as a measure of economic activity.
Consumer price index - A price index that measures the cost of a fixed basket of consumer goods and services and compares the cost of this basket in one time period with its cost in some base period. Changes in the CPI are used to measure inflation.
Unemployment - The number of people without jobs who are actively seeking work.
Unemployment rate - The number of unemployed people, expressed as a percentage of the labor force.
Intermediate good - A good that is used in the production of final goods and services

Virginia Board of Education Framework
Gross domestic product (GDP) is a basic measure of a nation's economic output and income. It is the total market value of all final goods and services produced in the economy in one year.

Nominal GDP is measured in current dollars; thus an increase in GDP may reflect not only increases in the production of goods and services, but also increases in prices. GDP adjusted for price changes is called real GDP. Economic growth is measured by real gross domestic product.
Real GDP per capita is a measure that permits comparison of material living standards over time and among people in different nations. It is calculated by dividing real GDP by the population.

The potential GDP for a nation is determined by the quantity and quality of its natural resources, the size and skills of its labor force, and the size and quality of its capital resources.

The consumer price index (CPI) is the most commonly used measure of price-level changes. It can be used to compare the price level in one year with price levels in earlier or later periods. (It is an imperfect measure because the market basket of goods included cannot reflect everyone's spending, and it does not take into account improvements in those products.)

The unemployment rate indicates the level of unemployment in the country. The unemployment rate is the percentage of the labor force (not population) who are not working and are actively seeking paid work. The labor force includes persons over age 16 who are working for pay or actively seeking paid work.
The unemployment rate is an imperfect measure because it does not (1) include workers whose job prospects are so poor that they are discouraged from seeking jobs or (2) reflect under-employed people such as part-time workers who are looking for full-time work.

Teaching Tips

1) What makes a healthy economy? The economy is growing—producing more goods and services for its citizens than the year before. Nearly everyone who wants to work has a job. Prices are stable—not rising or falling very much.

2) Why do you want a healthy economy? If you are looking for a job—a healthy economy is growing and creating jobs. If you have a job—a healthy economy will help your company grow and keep your job secure. A healthy economy will have stable prices so you can plan, and your money will maintain its purchasing power.

3) Explain that just as a doctor needs a thermometer to see if you have a temperature, economists need ways to measure things to see how the economy is doing.
Economic growth is measured by the gross domestic product—GDP. This is the sum of the prices of all of the final goods and services produced in the country in one year.

Explain that intermediate goods are not included—things like tires on a new car. To count both the value of the new car and the value of the tires on it would lead to double counting. So, only final goods are included. Unpaid work—such as housework and yard work done for no pay are not included. Things produced in previous years and re-sold—such as homes—are not included because they weren't produced this year. However, the money earned by the real estate agent is included. GDP can be calculated by adding up the things that are produced, or by adding up the spending that pays for them. The latter is calculated C+I+G+(X-M) = GDP—which means spending by consumers, plus spending by businesses on investment, plus spending by government for goods and services plus net exports (which is exports minus imports).

NOTE: Measuring productivity using GDP is covered in Unit 2. If done there, calculating GDP and what it means need only be refreshed here to the extent necessary.

4) The teacher may wish to show or assign this youtube video on GDP: http://www.youtube.com/watch?v=yUiU_xRPwMc

5) Economic growth is generally considered positive because when we produce more as a country, we can consume more. And more production generally leads to more jobs—and a growing population needs more jobs each year.

When inflation pushes prices up, GDP may give the illusion of growth—even when the same amount is being produced. Thus, it is important to remove the effects of inflation. When GDP is adjusted for inflation, the number that remains is called "real GDP'.

6) The economic indicator for full employment is the unemployment rate. The unemployment rate tells the percentage of people in the labor force (not the population) who are looking for a job and can't find one. The labor force consists of everyone who has a job and everyone who is trying to get a job. Some people in the population are not in the labor force perhaps because they do not wish to work, they are too old or too young, they are in prison, or they are unable to work. The formula for the unemployment rate is
# of people seeking jobs divided by the labor force.

7) The economic indicator for stable prices is the Consumer Price Index (CPI). The CPI measures inflation in consumer goods. Inflation is an increase in the overall price level—sometimes referred to as an increase in the cost of living. Inflation is not when gas prices rise or coffee prices rise—it is when prices in general are rising.

Monetary inflation results from a money supply that is growing faster than gross domestic product. There is a direct relationship between the growth of money, the growth of output and the price level. If money supply grows faster than output, prices rise. If money supply grows more slowly than output, prices fall.

The Consumer Price Index is calculated using a market basket of items considered typical of consumer purchases. It includes categories such as housing, transportation, medical, food (home and restaurant) and recreation. The cost of the items in the market basket in the base year is set equal to 100. If the CPI increases by 10% in the following year, the new CPI will be 110. The CPI, then, tells the percentage increase in consumer prices since the base year. A CPI of 140 would be saying that prices have risen by 40% since the base year.

8) The New York Times interactive below is a very good (although somewhat dated) graphic that can help students see what items are in the CPI and their relative importance. Have students examine the graphic and explain what products or services in the CPI either don't apply to them or their family, or that they think may be weighted differently (either heavier or lighter representing more or less use) for their family.

9) Suppose news reports are giving the CPI, the Unemployment Rate and the percentage change in the GDP. How will you know if it is good news or bad news?
Have students, in groups, write down all three and guess what a healthy rate would be for each. Have them write their answers for each in large print on a piece of paper and when you ask what would be a good rate for the CPI—have them hold up that answer. It's likely that answers will vary considerably. For the CPI, a rate of 3% or less is considered acceptable. If prices are rising more than that, the government and the Federal Reserve Bank will be worried about inflation—and perhaps take action. (This subject is addressed in greater depth in Unit 9 on monetary and fiscal policy). For the GDP, a rate in the 3-3.5% range is considered good. If GDP growth is less than that, the economy is not creating enough jobs to provide work for the new people entering the labor force. If GDP growth is greater than that, there may be concerns about inflation—if the economy is operating at full employment. For the unemployment rate, the economy is said to be operating at full employment when the unemployment rate is 5-6%. There will never be 0% unemployment because there will always be some people between jobs (called frictional unemployment), and some people whose skills are no longer needed –for example, typewriter repair (called structural unemployment). When people can't find jobs because the economy is growing too slowly, it's called cyclical unemployment.

10) Assign students to look up current rates and discuss whether these indicate a healthy economy. Current data for these economic indicators and an explanation of what they mean and how they are calculated can always be found on the EconEdLink website set out here and below. http://www.econedlink.org/economic-resources/focus-on-economic-data.php

11) Teachers may want to use an activity that compares GDP of various nations to GDP of the various United States. A recent example can be found at the Economist site listed here.http://www.economist.com/blogs/dailychart/2011/01/comparing_us_states_countries

10. GDP per capita is the measure most often used when talking about standard of living. Have the students divide the GDP by the population to arrive at a basic measure of standard of living – per capita GDP. (What each person's share would be if divided equally.) Explain that the country with the highest GDP may not have the highest standard of living. A country with a GDP of $500,000 and 500 people would have a GDP per capita of $1,000. Whereas a country with a GDP of $1,000,000 and a population of 2,000 would have a GDP per capita $250.

Lessons and Resources

Focus High School Economics Lesson 18: Economic ups and downs

Civics and Government: Focus on Economics Lesson18: Economic Indicators for Informed Citizens

AP Macroeconomics Lesson 2: Macroeconomic Goals and GDP and Lesson 3: Price Indexes and Inflation; and Lesson 4: Unemployment

Capstone Lesson 31: Measuring Unemployment: A Labor Market Mystery; and Lesson 33: Gross Domestic Product (GDP) and How to Measure

Online
EconEdLink.org Unemployment Data: Is the Economy Healthy?
https://www.econedlink.org/resources/unemployment-data-is-the-economy-healthy/

New York Times interactive graphic on the CPI:
http://www.nytimes.com/interactive/2008/05/03/business/20080403_SPENDING_GRAPHIC.html

EconEdLink data on indicators:
https://www.econedlink.org/resources/focus-on-economic-data-the-federal-reserve-and-monetary-policy-march-20-2015/

Activity comparing GDP of various nations:
http://www.economist.com/blogs/dailychart/2011/01/comparing_us_states_countries

PBS Commentator Paul Solman video clip, Tracking Inflation: How Fast are Prices Rising? https://www.econedlink.org/resources/making-sene-with-paul-solman-tracking-inflation-how-fast-are-prices-rising/

Econedlink lesson: How is our economy doing?
https://www.econedlink.org/resources/how-is-our-economy-doing/

St. Louis Federal Reserve graphs and data.
https://fred.stlouisfed.org/

Video
Unemployment: http://www.yadayadayadaecon.com/clip/39/

Cartoons
Inflation: http://www.dilbert.com/2008-09-15/

Music about unemployment
Paperback Writer – The Beatles
The River – Bruce Springsteen
Take This Job and Shove It – Johnny Paycheck
Spinning Wheel – Blood, Sweat and Tears
That's Just the Way It Is – Bruce Hornsby and the Range

Music about inflation
Pain in the Gas – Billy Ray Cyrus

EPF.5 The student will demonstrate knowledge of a nation's economic goals, including full employment, stable prices, and economic growth, by
b) describing the causes and effects of unemployment, inflation, and reduced economic growth.

Days 1 & 2 - How do unemployment, inflation and reduced economic growth affect us?

Content Knowledge

Inflation and unemployment are costly to individuals and affect economic growth and standards of living. Some aspects of inflation and unemployment can be addressed with public policies. Various political leaders and parties often have different ideas about which policies should be followed to deal with inflation and unemployment, however. The controversial policies, and the fact that almost everyone is affected by unemployment or inflation, explain why these two problems and alternative approaches to combat them are so widely reported in the news media, and why understanding them is important to people in a democratic political system.

Unemployment imposes costs on individuals and the overall economy. Inflation, both expected and unexpected, also imposes costs on individuals and the overall economy. Unemployment increases during recessions and decreases during recoveries.
Students will be able to use this knowledge to make informed decisions by anticipating the consequences of inflation and unemployment.[2]

Vocabulary
Unemployment - The number of people without jobs who are actively seeking work.
Unemployment rate - The number of unemployed people, expressed as a percentage of the labor force.
Deflation - A sustained decrease in the average price level of all the goods and services produced in the economy.
Discouraged worker - Unemployed people who have given up looking for work and are therefore not counted as part of the labor force.
Inflation - A rise in the general or average price level of all the goods and services produced in an economy. Can be caused by pressure from the demand side of the market (demand-pull inflation) or pressure from the supply side of the market (cost-push inflation).
Recession - A decline in the rate of national economic activity, usually measured by a decline in real GDP for at least two consecutive quarters (i.e., six months).

Virginia Board of Education Framework

When total demand is greater than the value of a nation's output of final goods and services, GDP rises, inflation occurs, and/or employment rises. When desired expenditures for consumption, investment, government spending, and net exports are less than the nation's output of final goods and services, GDP decreases and inflation and/or employment decreases.

Unemployment imposes costs on individuals and nations. Unexpected inflation imposes costs on many people and benefits some others. In the long run, inflation results from an increase in a nation's money supply that exceeds an increase in its output of goods and services.

Unemployment rates differ for people of different ages, races, and gender. This reflects differences in work experience, education, training, and skills.
Unemployment can be caused by people changing jobs, seasonal fluctuations in demand, changes in the skills needed by employers, or cyclical fluctuations in the level of national spending. Unemployment has costs for society as well as for individuals. When unemployment is high, the economy will not produce as much as it could.

Inflation is an increase in the general level of prices. It reduces the value of money. When people's incomes increase more slowly than the inflation rate, their purchasing power declines. Cost-push inflation occurs when businesses raise prices to cover increasing costs, such as higher oil prices or rising wages. Demand-pull inflation occurs when demand for goods and services is greater than the supply. This can occur when people, anticipating higher prices, buy more in the present and push for higher wages, causing a wage-price spiral. Inflation also results from increases in a nation's money supply that exceeds increases in its output of goods and services.

The costs of inflation are different for different groups. Unexpected inflation hurts savers and people on fixed incomes; it helps people who have borrowed money at fixed rates of interest. It can help those who own tangible resources that increase in value (e.g., homes, land).

Deflation is a decrease in the general level of prices. It increases the value of money and decreases the value of tangible assets such as homes. Deflation is generally accompanied by rising unemployment. Consumers, worried about the future, reduce spending, causing more unemployment. The process can become a downward spiral.

Teaching Tips

1) In the previous day's lessons students learned about inflation, unemployment, economic growth and how they are measured. Now students will learn what causes each and how they can affect them.

What are the causes and costs of unemployment? Unemployment is caused by a slowdown in the economy. When people are unemployed, a cost to society is that the economy produces less than it might otherwise. Unemployed people may also receive

unemployment benefits to help tide them over until they get a job—this is a cost to taxpayers. There are many costs to individuals who are unemployed. In addition to a loss of income, which may cause the loss of a home and other possessions, there is stress on the individual and the family. Divorce and violence in households increase.
The person who has lost his/her job has likely lost health insurance benefits as well. And the unemployed person may find his/her skills becoming less strong if unemployment lasts for many months.

3) At this point the teacher may want to show either of the two Paul Solman videos below on unemployment among '99ers and calculating unemployment.

4) Causes of unemployment—Some people are unemployed because they have quit one job and are looking for another. This is called frictional unemployment and economists do not worry about this type of unemployment. Some people are unemployed because the skills they have are no longer needed. This is called structural unemployment and is of more concern. The government may implement training programs to help people gain skills that will make them employable. When people are unemployed because the economy has slowed down it is called cyclical unemployment. (The name comes from the idea that they are unemployed because of a downturn in the business cycle—discussed later in this unit.) In this case, the government works to get the economy going and hopes the people who were laid off will be hired back. Some people are unemployed because their work is seasonal—farm workers, workers at amusement parks. Thus the causes of unemployment can be different—but the costs to society and the individual are the same.

5) As we previously learned, inflation is a rise in the general price level—not an increase in food, or oil or health care. When prices rise it takes more money to buy things than it did before. Thus, economists say money loses some of its "purchasing power." Inflation can be caused by the availability of too much money in the economy. For example, in Germany after WWI, the government ran the printing presses to pay its bills. As a result the value of the money fell. Inflation can be worsened as people buy more things because they fear they will cost more later. This is called demand pull inflation. Workers demand wage increases to pay the rising prices of goods and services. This increases the cost of production and pushes up prices. This second kind of inflation is called cost-push inflation.

6) What are the effects of inflation? Some people are helped by inflation while others are hurt. People who are on fixed incomes are hurt because they are receiving the same amount of money and the things they are buying cost more. Businesses are hurt because the cost of the resources they must buy is rising so it costs more to produce their good or service—and they may not be able to raise their price to consumers to cover that increase. Businesses are also hurt because the uncertainty caused by inflation makes it difficult to plan. Savers are hurt by inflation because the money they have saved will not buy as much as it used to.

Other people are helped by inflation. People who own tangible assets such as houses and land will see the value of those assets rise with inflation. (Although cars are tangible assets, they depreciate with time…unless they are antiques.) People who borrow money and pay back at a rate of interest that is less than the rate of inflation will benefit from inflation.

7) What is deflation? Deflation is the opposite of inflation—it is falling prices.
What are the effects of deflation? The value of people's assets will fall—sometimes they will owe more on the asset than the asset is worth (called being upside down). When the value of people's assets fall, they feel less wealthy and do not spend; this can slow the economy more.

8) What are the causes and effects of reduced economic growth? The economy grows when more is produced. That can happen when more workers are added or more resources become available. Generally it happens because of increased productivity. In the 20th century the US economy grew because of increased productivity due to innovation and mechanization. Nearly 90% of the workforce was involved in farming in 1900. By the end of the century only 3% of the labor force grew the food for the nation. This increase in productivity was largely the result of improved farming practices and improved equipment. Other industries increased productivity as well. Toward the end of the century, computers and the internet greatly increased productivity. When the economy grows it generally produces more jobs.

Market economies tend to go through cycles where the economy expands and then contracts. When the growth slows, fewer goods and services are produced, unemployment increases and the economy contracts.
Growth is fueled by the spending of consumers, businesses, government and foreign buyers (exports). When total spending by these groups goes down, the economy will slow and will not expand again until total spending by these groups increases. In fact, when the economy is slow, people worry about the future and save more, rather than spend. This causes the economy to slow even more. Consider viewing "The Paradox of Thrift" listed below.

9) Consider using the online lesson "What's happening in the new economy."

Lessons and Resources

Capstone Lesson 32: The Effects of Inflation

Focus: Middle School Economics Lesson 6 - Inflation

Playful Economics - Lesson 14 -Inflation - When All Prices Rise (Demonstrating inflation using play-doh.)
Teaching Financial Crises Lesson 4 - The Japan Comparison. (A lesson about deflation.)

The Trial of Ms. Ann Flation   A copy can be found here.
http://economicsondemand.weebly.com/uploads/4/0/5/0/40509201/unit_3_-_lesson_-_infaltion_-_debate_-_duke.pdf

Online
Seinfeld clip on unemployment:
http://www.yadayadayadaecon.com/clip/39/
Paul Solman video: Many left uncounted in the unemployment rate
https://www.econedlink.org/resources/making-sene-with-paul-solman-many-left-uncounted-in-official-jobless-rate/
Paul Solman video: Unemployment takes toll on 99'ers
https://www.youtube.com/watch?v=JmC16-sWX4Q
Paul Solman video: Realities of the Recession
https://econedlink.org/resources/making-sene-with-paul-solman-realities-of-the-recession-and-changing-workforce/
Paul Solman video—Freelancers lack safety net when jobs are scarce
https://www.econedlink.org/resources/making-sene-with-paul-solman-freelancers-lack-safety-net-when-jobs-are-scarce/?view=student
Paul Solman video—In a slumping economy, a shift in shopping habits
https://www.econedlink.org/resources/making-sene-with-paul-solman-in-slumping-economy-a-shift-in-shopping-habits/
r

EPF.5 The student will demonstrate knowledge of a nation's economic goals, including full employment, stable prices, and economic growth, by
c) describing the fluctuations of the business cycle.

Day 1 - What's a business cycle?

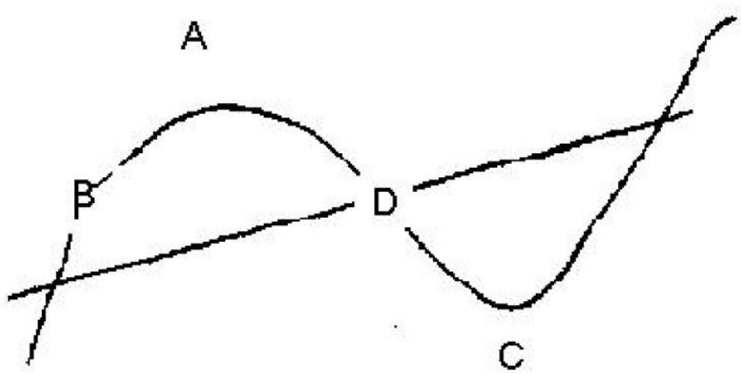
Content Knowledge

Fluctuations in 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. Recessions occur when overall levels of income and employment decline. Students will be able to use this knowledge to interpret media reports about current economic conditions and explain how these conditions can influence decisions made by consumers, producers, and government policy makers.

Changes in national levels of economic activity have a profound effect on students' future welfare, their job opportunities, the level of their prospective earnings, and the prices they will pay for things they buy. It is important, therefore, for students to understand possible causes of changes in these levels and how such changes can produce economic problems (such as unemployment and inflation) or opportunities (such as increased employment). Understanding these forces equips students to predict the economic consequences of proposed government policies and to make informed choices among alternative public policy proposals.[2]

Vocabulary
Business cycle--Fluctuations in the overall rate of national economic activity with alternating periods of expansion and contraction; these vary in duration and degrees of severity; usually measured by real gross domestic product (GDP).
Expansionary phase—phase of the business cycle where economic growth is increasing and unemployment is falling
Contractionary phase—phase of the business cycle where economic growth is decreasing and unemployment is rising
Peak—point in the business cycle where growth peaks and begins to slow, often characterized by inflation and/or low unemployment
Trough—point in the business cycle where growth hits its low point and has not started to improve, often characterized by high unemployment and low inflation

Virginia Board of Education Framework
The business cycle is the pattern of alternating periods of expansion (growth) and contraction (slowdown) in the economy. The model of the business cycle looks like a roller coaster going up and down but trending upward over time.



The business cycle has several phases. When the business cycle is moving upward it is in the *expansionary phase* (B), with unemployment decreasing and growth increasing. Ultimately, the economy will reach a *peak* (A), likely to be characterized by low unemployment and inflation. The economy will eventually begin to slow and enter a *contractionary phase* (D), with unemployment rising and growth slowing. Finally, the economy will bottom out in the phase known as the *trough* (C), where growth will be slow, prices low, and unemployment high. A prolonged contraction is called a recession; if it is especially long and severe it is called a depression. At some point, the economy will begin to grow again and enter the expansionary phase.

Classical economists like Adam Smith believed the economy to be self-correcting in the long run. During the Great Depression, British economist John Maynard Keynes famously said, “In the long run we’re all dead,” and recommended government action to stimulate demand and get the economy going again.

Teaching Tips

1) Draw a picture of the business cycle on the board. Ask students what it looks like. More than likely they will say it looks like a roller coaster. Explain that it is a model called the business cycle. It is a picture of economic growth over a period of time. Like on a roller coaster, people are optimistic as it’s going up, sometimes forgetting that at some point it’s likely to turn down.

2) A business cycle involves fluctuations of real GDP around its potential level. (The straight line through the middle represents its potential level.) Fluctuations of real GDP around its potential level occur when overall spending declines, as in a recession, or when overall spending increases rapidly, as in recovery from a recession or in an expansion. When real GDP rises above its potential, there is a tendency for inflation to rise. When real GDP is below its potential (as in a recession), there is a tendency for inflation to fall and unemployment to rise.

4) Be sure that students can draw and label a business cycle, and that they know what economic conditions are likely to exist at points A, B, C and D.

5) The roller coaster shaped business cycle is just a sample. Sometimes, the economy pops right back up, and the shape between the contraction and the expansion is a “V”.

Sometimes the economy stays in the trough a long time and that trough is a "U" shape. Sometimes the economy does a double dip: it starts back up and then goes back down, and looks like a "W". The government often pursues policies to stimulate the economy in hopes the trough will bounce right back and look like a "V."

Lessons and Resources

AP Macroeconomics Unit 2: Lesson 5: Business Cycles

Focus: High School Economics Lesson 18: Economic Ups and Downs

Online
Paul Solman video, W, V, U or L: How Is the Economic Recovery Shaping Up, Literally? https://www.econedlink.org/resources/making-sene-with-paul-solman-w-v-u-or-l-how-is-the-economic-recovery-shaping-up-literally/?view=student

MJM Foodie video: Business cycles: http://www.youtube.com/watch?v=jGP-vPEHRRE&feature=bf_next&list=PLF2A3693D8481F442&lf=plcp

EVALUATION DAY