

The Teacher Notes were developed to help teachers understand the depth and breadth of the standards. In some cases, information provided in this document goes beyond the scope of the standards and can be used for background and enrichment information. Please remember that the goal of social studies is not to have students memorize laundry lists of facts, but rather to help them understand the world around them so they can analyze issues, solve problems, think critically, and become informed citizens.

TEACHER NOTES
HIGH SCHOOL ECONOMICS
FUNDAMENTAL ECONOMICS CONCEPTS UNIT

Purpose of Fundamental Economics Standards Domain

This domain focuses on basic economic concepts and skills: scarcity and opportunity cost, supply and demand as it relates to scarcity, factors of production, marginal costs and benefits, different economic systems, productivity, the allocation of resources, and the role of government in economic systems.

Fundamental Concepts Resource Links:

http://www.gcee.org/workshops/register_for_workshops.asp - Georgia teachers are fortunate to have a very active council. The Georgia Council on Economic Education is a non-profit organization devoted to helping teachers teach economics. The council provides workshops and materials to teachers at no financial cost to the teachers or schools. In most cases, the council will fund the cost of a teacher's substitute teacher while they are attending a workshop. This link takes you to the webpage where you can register for a workshop.

<http://www.genirevolution.org/index.php> - This free, web-based video game takes students through 15 economic missions all tied to the Georgia Performance standards in Economics. Missions two and three connect with the Fundamentals standards through opportunity cost and rational decision making. Teachers can create classes and have students register for their class. Teachers can track student performance and mission completion within their own account. The game is challenging, so it is a good idea for the teacher to complete the missions personally before assigning them to students.

<http://www.khanacademy.org> - Khan Academy provides free, online tutorials in a wide range of economic topics. On the main page, scroll down to the Microeconomics links. There you will find production possibilities curves, opportunity costs, and marginal analysis.

Although blocked at most public schools, www.youtube.com has many wonderful videos for use in Economics class. You can request to have videos from YouTube uploaded to www.teachertube.com which can be accessed from most school computers.

<https://www.georgiastandards.org/standards/Pages/BrowseStandards/SocialStudiesStandards9-12.aspx> - This link takes you to the page where you will find the Economics Course Frameworks document providing a variety of assessment options, materials, and performance tasks for each economics unit.

SSEF1 The student will explain why limited productive resources and unlimited wants result in scarcity, opportunity costs, and tradeoffs for individuals, businesses, and governments.

Overview: The intent of this standard is for students to be able to explain why scarcity is the basic economic problem faced by society and how the study of economics helps individuals, businesses, and countries deal with the problem of scarcity. Students will be able to use their understanding of scarcity to describe the difference between limited and unlimited resources, differences between economic wants and economic needs, the importance of and characteristics associated with land, labor, and capital resources, and the role of entrepreneurs in production and distribution in society.

<p>a. Define scarcity as a basic condition that exists when unlimited wants exceed limited productive resources.</p> <p>EU – Scarcity</p>	<p>Students are expected to be able to define a <i>scarce</i> resource (factor of production) as something that is both <i>limited AND desirable</i>.</p> <p>Students are expected to be able to recognize that human <i>wants are unlimited</i>, but items used to produce goods and services (<i>factors of production</i>) are <i>limited</i>.</p> <p>Assessment Suggestion: Students should be able select the correct definition for scarcity, determine the item that is limited or unlimited from a list of choices, and identify scarcity as the fundamental problem facing individuals, businesses, and countries. This element may be assessed by using a short example of an individual who is forced to make a choice because a resource is limited.</p> <p>Activity Suggestion: Give students a list of items. On the list, include examples that are both limited AND desirable as well as some things that are either NOT LIMITED or NOT DESIRABLE. Examples: Water is both limited and desirable. Garbage is not desirable. The air we breathe is not limited. Ask students to categorize the items.</p>
<p>b. Define and give examples of productive resources (factors of production) (e.g., land (natural), labor (human), capital (capital goods), entrepreneurship).</p> <p>EU – Scarcity</p>	<p>The student should be able to define productive resources as things used to produce goods and services.</p> <p>The student should be able to recognize land resources as gifts of nature like trees, corn, cows, farmland, and coal.</p> <p>The student should be able to recognize labor resources as the physical abilities and time of human beings available to produce goods and services.</p> <p>The student should be able to recognize capital resources as the tools, machines, and skills/knowledge/training of human beings. The tools and machines are known as physical capital and the skills/knowledge/training of human beings is called human capital.</p>

The student should be able to recognize entrepreneurship as someone who takes a risk to start a business by bringing together the other three factors of production in an innovative way.

Assessment Suggestion: Give students a scenario in which an entrepreneur is using various factors of production to run his/her business. The question will ask the student to identify the category into which the resource falls.

Activity Suggestion: Ask students to brainstorm a list that includes at least five examples of each factor of production: land, labor, capital, and entrepreneurship. Ask them to list them in random order. Have students swap papers and put the factors of production in a chart similar to the one below:

Land	Labor
Capital	Entrepreneurship

c. List a variety of strategies for allocating scarce resources.

EU – Interdependency

The student should be able to identify the main allocation strategies available to make decisions about resource use. The following is a list and description of the primary allocation strategies:

- **Supply and Demand (Prices/Auction):** This allocation strategy allows rationing of a resource based on who can afford the price set by the market. The more desirable and relatively scarce the item, generally, the higher the price. This method is efficient because one can easily tell whether or not the resource can be allocated based on their willingness and ability to pay the price. However, this method will exclude people from markets if they lack the money to pay the price.

- **Authority:** This allocation strategy allows for quick action because a person or a group of people in power can make and implement the decision quickly. In countries where the government makes and carries out decisions by force, economic changes can happen quickly because the government decides how to distribute resources and enforces the decision through military/police power.

- **Random Selection (Lottery):** This allocation strategy can be handled quickly and gives everyone who wants the resource equal odds of receiving it. This strategy can be inefficient because it may allocate the resource to a purpose or person who does not need it or know how to produce using it. If the government randomly selects individuals to receive farmland, the land may go to someone who has no knowledge of farming techniques and the resource

may be underutilized.

- **First Come, First Served:** This allocation strategy allows people to receive a resource if they are the first one in line for it. Many concert and sporting events use this method in addition to price. Rather than set all prices extremely high because there are people willing to pay it, many events offer lower price tickets so that all fans will have a chance of purchasing an affordable ticket. This can be an inefficient strategy because fans will spend time they could have used at work or school to camp out at the ticket window or endlessly refresh their online browser as the ticket outlet's servers are overwhelmed.
- **Personal Characteristic:** This allocation strategy allows resources to be distributed based on need or merit. Ideally, the person who gets the scholarship or the job is the one best qualified for it. However, personal characteristics can also be used negatively such as when one does not get a job due to discrimination against a personal characteristic of the individual.
- **Contest:** This allocation strategy can distribute the resource to the person who wins. The "winning" could be based on running a race (who is fastest), in academics (valedictorian has the highest GPA), or in a test of knowledge/skill (Jeopardy contestant or chess champion). This strategy can be inefficient on a day to day basis. You don't want to run a race to see who gets the last slice of pizza in the cafeteria. It would take too long.

Assessment Suggestion: Give students a scenario in which an individual, business, or country has to make a decision about how to use a scarce resource. Based on the scenario, the student should be able to select the correct allocation strategy described in the scenario.

Activity Suggestion: Divide students into small groups. Give them one desirable item such as a snickers bar. Instruct them to decide who in their group should receive the snickers bar using the allocation strategies. It is helpful to give them a decision matrix to record the names of group members and the criteria used under each strategy. Example:

	Price: Who is willing to pay \$1 for the snickers?	Contest: Who can hold their breath for 40 seconds?	Personal Characteristic: Who is wearing blue?	Lottery: whose name got pulled from a hat?	Authority: Who does the teacher say should get the snickers?
Name 1					
Name 2					
Name 3					
Name 4					
Name 5					

d. Define opportunity cost as the next best alternative given up when individuals, businesses, and governments confront scarcity by making choices.

EU – Scarcity

The student should be able to define opportunity cost as the value of the next best alternative given up when making a choice.

Although trade-offs are not discussed until SSEF2, students should recognize that trade-offs are all the possible alternatives while the opportunity cost is only based on the next best alternative to what was selected. For example, students can choose among thousands of colleges so these are all the possible trade-offs. If a student applied and got into only two colleges, University of Georgia and their local Community College, their opportunity cost would be the value of the college they gave up in their choice.

The student should recognize that every decision they make involves a cost. Economics always adheres to the principle of “TINSTAAFL”. There is no such thing as a free lunch!

The student should be able to explain that scarcity is the reason we are forced to make choices. We cannot have everything we want in life. Even Bill Gates with all his financial power faces limits to how many people he can serve in his fight against Malaria, HIV, and Polio.

Assessment Suggestion: Give students a situation in which an individual, business, or country has to choose one option over another. The student will need to correctly evaluate what was given up to get the benefits of the selected option.

Activity Suggestion: GA DOE Frameworks Balanced Assessment Unit 2: Future Choices Four Corners Activity. This activity can be found in a PDF at: <https://www.georgiastandards.org/Frameworks/GSO%20Frameworks/Economics%20Unit%202.pdf>

Sample Test Questions: SSEF1a

The fundamental problem of economics is:

- A. to establish an equitable system of personal and business taxation.
- B. to establish a democratic political framework for the provision of social goods and services.
- C. the scarcity of factors of production relative to the unlimited wants of humans.*
- D. to achieve a more equitable distribution of money income in order to mitigate poverty.

Sample Test Questions: SSEF1b

Which of the following is an example of an investment in human capital?

- A. A company builds a new factory.
- B. A state puts in a new highway.
- C. A business trains a new employee.*
- D. A country builds new bridges.

Sample Test Questions: SSEF1c

On Wednesday afternoon, Sophie stopped by the store on her way home from work. She got a parking spot near the door, she paid \$1.50 for a large drink, and bought a lottery ticket for \$1.00. Later that evening, Sophie found out she won \$10,000 in the lottery. The allocation strategies associated with Sophie on Wednesday include:

- A. authority, price, and personal characteristic
- B. first come/first served, price, and random selection*
- C. price, random selection, and personal characteristic
- D. personal characteristic, random selection, and authority

Sample Test Questions: SSEF1d

The opportunity cost associated with going to college instead of taking a full-time job for \$20,000 per year includes:

- A. The alternative use of the money used to buy books.
- B. The alternative use of the money used to pay tuition
- C. \$80,000 of income while attending college for four years.
- D. All of the above.*

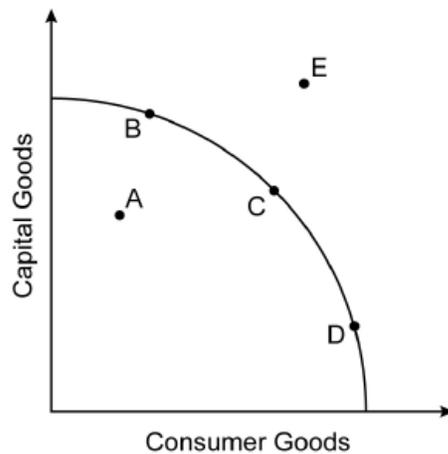
SSEF2 The student will give examples of how rational decision making entails comparing the marginal benefits and the marginal costs of an action.

Overview: The intent of this standard is for students to be able to use economic models like production possibilities curves, marginal cost/marginal benefit tables, and production graphs to identify trade-offs, opportunity cost, and rational decision making criteria.

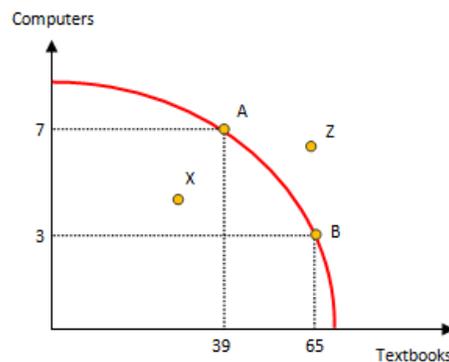
a. Illustrate by means of a production possibilities curve the trade-offs between two options.

EU – Interdependency

The student should be able to draw a production possibilities curve graph and analyze the information provided by the curve. The student should know the following information about the curve:



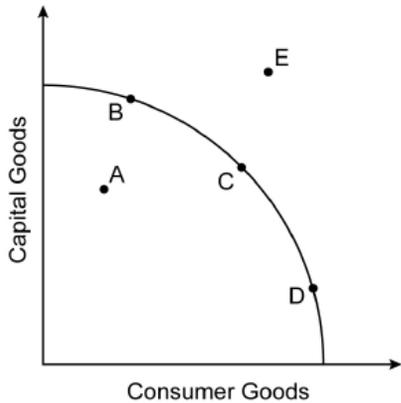
1. On the graph to the left, students should be able to identify points B, C, and D as efficient production combinations of capital goods and consumer goods.
2. On the graph to the left, students should be able to identify point A as an inefficient production combination of capital and consumer goods. This point also represents unemployed resources and/or recession in the economy.
3. On the graph to the left, students should be able to identify point E as an unattainable production combination of capital and consumer goods because there are not enough factors of production to produce at this point.



4. The graph to the left could be used by a school to look at the trade-offs between choosing textbooks and computers. The student should be able to identify the opportunity cost of the school moving from point A to point B as 4 units of computers. The marginal benefit of moving from point A to point B is 26 textbooks.

	<p>Activity Suggestion: GA DOE Frameworks Unit 2: My Time PPC assessment. This is found in a PDF at https://www.georgiastandards.org/Frameworks/GSO%20Frameworks/Economics%20Unit%202.pdf.</p> <p>Assessment Suggestion: Have students interpret a graph similar to the ones shown above. The student could be asked to identify the significance of any point on the graph or to give the opportunity cost/marginal cost/marginal benefit of moving from one point to the next.</p>
<p>b. Explain that rational decisions occur when the marginal benefits of an action equal or exceed the marginal costs.</p> <p>EU – Scarcity</p>	<p>The student should be able to explain why the field of economics is concerned with what happens at “the margin”. The “margin” in economics refers to “small changes” or “additional” amounts. Rather than thinking in totals, economists look at the “additional” costs or benefits when making a choice.</p> <p>For an economist, it is not rational to choose an option where the marginal cost of a choice exceeds the marginal benefit. Rather, it is rational to select an option where marginal benefit is equal to marginal cost. For businesses, this is said to be their “profit maximizing” point.</p> <p>Example from the EOCT Study Guide: Imagine a hungry woman standing underneath a tree filled with ripe peaches. It makes sense to reach up, grab a nearby peach, and eat it. The cost (in this case, the energy required to reach out and pluck the fruit) is small, and the benefit (reducing hunger) is high.</p> <p>After the first peach, the woman reaches up and takes another peach. This time, the peach is a little farther away, so the cost is a bit higher. Also, she’s not as hungry as she was before, so the benefit of eating the second peach isn’t as great as the first.</p> <p>Now imagine the woman has eaten five peaches. The sixth peach is high up in the tree (high cost), and the woman is feeling pretty full (low benefit), so she decides to stop eating peaches. For her the marginal cost—the cost of procuring one more item—outweighs the marginal benefit—the benefit associated with that one additional item. Therefore, the woman makes a rational economic decision to stop at five peaches.</p> <p>Assessment Suggestion: Give students a scenario such as the woman with the peaches. If given such a scenario, students will most likely have to answer “how many peaches will the woman pick?” and answer “until the marginal benefit of picking another peach is equal to the marginal cost of picking an additional peach.” Students may also be given a graph and have to identify the point where marginal revenue (benefit) is equal to marginal cost.</p>

Sample Test Questions:

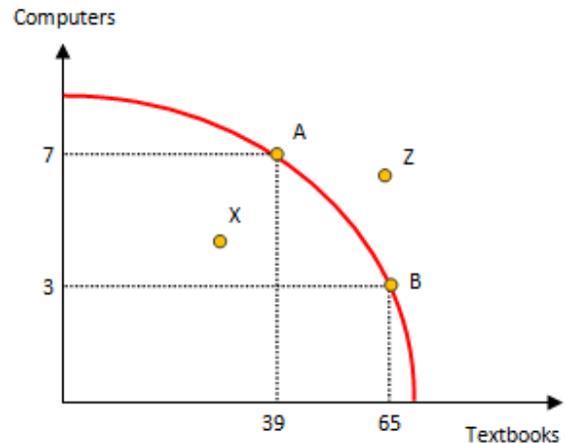


1. In the graph above, point C represents:

- A Unemployment
- B Inefficiency
- C Unattainable
- D Efficient Production*

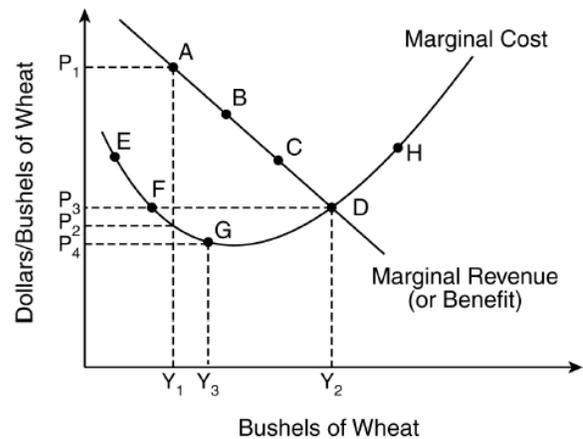
2. In the graph above, point E is:

- A Unemployment
- B Inefficiency
- C Unattainable*
- D Efficient Production



3. The opportunity cost of moving from B to A is:

- A 7 units of computers
- B 39 units of textbooks
- C 4 units of computers
- D 26 units of textbooks*



4. In the graph above, the ideal price and level of output for this farm is:

- A P1 and Y1
- B P3 and Y2*
- C P4 and Y3
- D P3 and Y1

SSEF3 The student will explain how specialization and voluntary exchange between buyers and sellers increase the satisfaction of both parties.

Overview: The intent of this standard is for students to be able to explain how specialization and voluntary exchange are beneficial to individuals, businesses, and countries. Students should recognize that producing everything one's self (being "self-sufficient") severely limits access to goods and services. It also fails to use the individual's special skills and talents efficiently. By focusing on the things we do well, we can produce more and then trade our surplus to someone else so we can consume other goods too. When we willingly exchange goods with someone else both parties benefit. This is why economists believe everyone benefits from free, voluntary trade.

a. Give examples of how individuals and businesses specialize.

Students should be able to define specialization as concentrating on a single activity or an area of expertise. In economics, specialization is important because it boosts the overall productivity of a business or country. Students should be able to explain the reasons for and significance of specialization. They should also be able to identify and analyze examples of specialization.

EU – Gain from Trade

For example, a firm might use specialization by creating division of labor in the production of a good or service. At a fast food restaurant, one employee may take drive-thru orders while another employee makes the food. Both employees get better at their tasks through repetition and can do the task more quickly with fewer errors.

This is also the basis for students pursuing a particular major in college. The further into their college years, the more specialized their classes become. A business major may start out taking courses in economics, marketing, and management, but ultimately focus in the field of accounting and become an accountant. The student with specialized training in accounting will often be able to perform accounting tasks more quickly and with fewer errors than someone trained in another field.

Assessment Suggestion: Give students a scenario in which two people are doing two different jobs. Ask the student to determine how to best allocate the time of each person based on the concept of specialization.

NOTE: Although not required under this standard/element, many teachers choose to introduce the concept of comparative advantage when teaching specialization. Comparative advantage belongs to the person, business, or country that can perform a task or produce a good at a lower opportunity cost than another person, business, or country. The entity that has the lowest opportunity cost should specialize in the production of that good and trade with the other person. This is why specialization leads to higher productivity.

Activity Suggestion: Divide students into small groups. Groups should be composed of different numbers of students. Choose a simple product for the groups to produce. If you

have a copy of CEE’s Virtual Economics, there are several production lessons including one making pizzas and one making many books. Another good idea is small paper footballs. Be sure to use scrap copy paper from your school recycle bin if possible. The students will work to produce the product individually in round one (unit production) and then use division of labor (mass production) in the subsequent rounds. Students should see their productivity increase with greater specialization. The chart below can be used to record the group productivity data.

	Sample	Round 1	Round 2	Round 3
1. Production Method	Unit Production	Unit	Mass	Mass
2. Number of Footballs Produced	6			
3. Number of Footballs Accepted	4			
4. Cost of Materials (\$.25/football)	\$1.50			
5. Number of Workers	4			
6. Wages (\$1.00/worker)	\$4.00			
7. \$2.00 rent for Factory (desks)	\$2.00			
8. Investment in capital goods (\$.25/pen)	\$1.50			
9. Total Costs	\$9.00			
10. Cost per Football (average cost): Total cost (line 9) ÷ accepted footballs (line 3)	\$9.00/4 = \$2.25			
11. Total time worked: 3 minutes X number of workers	12 min			
12. Output per minute worked: number of footballs accepted (line 3) ÷ total time worked (line 11)	4/12 = .333			

b. Explain that both parties gain as a result of voluntary, non-fraudulent exchange.

EU – Gain from Trade

Students should be able to explain why exchanging goods and services, voluntarily, provides benefits to all parties engaged in the trade. Economists view trade as a way for individuals, businesses, and countries to improve their overall satisfaction as it relates to the consumption of goods and services. Students should be able to explain the reasons for and benefits of voluntary exchange.

Assessment Suggestion: Ask students what is most likely to happen if two individuals, businesses, or countries produce specific goods and then trade with each other. The answer is that the two entities will be able to consume more than they could before trade and will have a greater overall level of satisfaction than before the trade occurred.

Activity Suggestion: (This activity is similar to a lesson found in the Council For Economic Education’s *Globalization* publication). Make small cards with the names of goods or

services on them. There should be three different colors of cards for the class. Goods and services should reflect a wide range of preferences (hiking boots vs. surfboard) and there should be some that are gender specific such as “sundress”. Hand out the cards keeping all the same color in a certain area of the room. Ask students to look at their cards and rate how satisfied they are with their card on a scale from 1 to 5 with 5 being the highest satisfaction. Use the chart below to record their ratings under beginning satisfaction.

Ratings	Beginning Satisfaction	Round 1	Round 2
5			
4			
3			
2			
1			

	Round 1	Round 2
Number of People who Traded		

Now, tell students they may trade with people who are the same color card as they are. Allow a few minutes for trade to take place. After they are finished, count how many students made a trade (be sure to ask if anyone traded more than once and count those additional trades in the number).

Now ask the students to rate their satisfaction with the good or service on their card. Record the ratings. You should see that satisfaction has increased. Now allow students to trade one more time with any color card. It is enlightening to exclude one group color from trading (used to symbolize a country that has severe limits on it trading options like North Korea or Cuba). This group will often show no increase in satisfaction while other students will.

Repeat the process for counting trades and satisfaction. Discuss the benefits of trading with the class, noting that as the number of trades increased, so did the overall satisfaction of the people.

Sample Test Items:

1. **An assembly line can increase a factory’s productivity because it allows workers to**
 - A. diversify their skills
 - B. focus on a specific task***
 - C. put in overtime hours on the job
 - D. use a wide range of knowledge
2. **Alex and Dylan mow and trim lawns. Currently, each man mows and trims a lawn by himself, but the process takes a long time. They would MOST likely improve their efficiency if**
 - A. Alex and Dylan mow a lawn and then trim it together
 - B. Alex mows a lawn while Dylan trims the same lawn***
 - C. Alex trims Dylan’s lawn while Dylan trims Alex’s lawn
 - D. Alex and Dylan reduce the number of lawns they mow and trim

SSEF4 The student will compare and contrast different economic systems and explain how they answer the three basic economic questions of what to produce, how to produce, and for whom to produce.

Overview: The intent of this standard is for students to be able to compare market, command, and mixed economic systems in terms of their structures, the roles of producers, consumers, and government within them, how supply and demand affect production and distribution, and the role of competition and profit within them.

a. Compare command, market, and mixed economic systems with regard to private ownership, profit motive, consumer sovereignty, competition, and government regulation.

EU – Scarcity

Students should be able to compare the two major types of economic systems: command and market. They should be able to identify the advantages and disadvantages associated with each system. They should also understand that these two systems are models and do not exist in their pure form in the real world. Real world economies are “mixed”. They are a combination of the two extremes, market and command. Countries may lean toward one or the other on a spectrum.

Students should be able to explain why private ownership, profit motive, consumer sovereignty, and competition are essential elements for economies that lean toward a market system.

Private ownership allows people in a market economy to start and operate their own business, sell goods and services, and accumulate wealth.

Profit motive acts as an incentive for entrepreneurs to start businesses because they can keep the money left over after paying for expenses.

Consumer sovereignty references the power of the consumer in a market economy. If businesses produce goods and services that consumers do not like, the business will fail. Business must listen to the desires of consumers when choosing what to produce.

The force of competition among businesses in a market makes businesses produce efficiently and keeps costs low. In a market economy, one of the most important functions of government is to promote competition in markets.

Government regulation is most associated with command economies. Government uses regulation to promote competition in a market economy, but in a command economy government may regulate large parts of economic activity. This could include collecting taxes and redistributing wealth from the rich to the poor, setting prices and wages, issuing worker and product safety guidelines, setting output quotas, and operating government monopoly.

Activity Suggestion: Students create a children’s storybook exploring life in either a market or command economy. Ask students to choose one of the economic

	<p>systems, pick an area of interest like a sport or hobby they like, and a main character that is connected to the area of interest.</p> <p>For example, the story may be about John who wants to play football in a command economy. The story would take John through the characteristics, advantages, and disadvantages of a command economy as he attempts to become a football player.</p>
<p>b. Evaluate how well each type of system answers the three economic questions and meets the broad social and economic goals of freedom, security, equity, growth, efficiency, and stability.</p> <p>EU – Scarcity</p>	<p>Students should be able to identify the three basic economic questions as “what to produce, how to produce, and for whom to produce”. When examples from different real world economies, students should be able to determine how the economy answers the questions and evaluate the economy’s position on a spectrum between market and command. In general, command economies have all three questions answered by government or central planners. In a market economy, “what” is decided by consumers, “how” is decided by producers, and “for whom” is determined by the price system. Here are some examples of real world economies from the seventh grade teacher notes on Southwest Asia written in 2009.</p> <p>Israel</p> <p>(1) What to produce? A large portion of Israel’s GDP comes from high tech manufacturing, financial services, and agriculture.</p> <p>(2) How to produce? Israel has substantial government ownership of business, but is gradually privatizing companies.</p> <p>(3) For whom to produce? The private sector produces goods and services for domestic and international markets based on the market price system.</p> <p>Place on the continuum: Israel would fall slightly to the market side of center on the continuum.</p> <p>Saudi Arabia</p> <p>(1) What to produce? Saudi Arabia is the world’s leading producer of oil. The Saudi government continues to invest in industrial production. They are a leader in petrochemicals, mining, and refining.</p> <p>(2) How to produce? Over 95% of the oil industry in the country is operated by the government. Most other major industries have significant government involvement. Saudi Arabia relies heavily on specialized labor from other countries. Estimates are that a third of the labor force falls in this category. Since the 1980s, the Saudi government has been trying to increase private ownership of business and encourage more joint ventures with private foreign</p>

companies.

(3) For whom to produce?

One third of Saudi Arabia's GDP is based on exports to other countries. (This is due to the economy's reliance on the oil sector.)

Place on the continuum: Saudi Arabia would fall to the command side of center on the continuum.

Turkey

(1) What to produce?

Turkey has a diversified economy with large service, manufacturing, and agricultural sectors.

(2) How to produce?

Since the late 1980s, Turkey has gradually moved from a government directed economy to more private enterprise.

(3) For whom to produce?

One fifth of Turkey's production is exported. The remainder is consumed by domestic consumers and the government.

Place on the continuum: Turkey would fall between Saudi Arabia and Israel on the market side of the continuum.

Students should also be able to define each of the social economic goals and find examples of how different economies pursue each goal. A great way to implement this with students is to watch or read sections of a Presidential State of the Union Address and identify which proposals pursue which goals.

Economic freedom refers to the ability of consumers, producers, and workers to make their own decisions about consumption, production, and distribution of goods and services. The more these decisions are left to individuals and businesses, the more economic freedom there is. Market economies tend to have a great deal of economic freedom while command economies may limit economic freedom in favor of more equal distribution of wealth.

Economic equity refers to fairness within the economy. There is a lot of debate in public policy about what is fair. Some people define fairness as equal access to jobs, goods, and services. Others define fairness on the basis of outcomes. For example, if someone works hard to start a successful business, many believe that it is "fair" for that individual to keep the profit from that business.

Economic security has to do with protecting individuals and businesses from risk. In a market economy, individual workers and business owners are usually responsible for themselves during challenging economic circumstances. They protect

themselves through insurance available in the private market or by saving money for the future. In command economies, the government provides security through government insurance programs, guaranteed jobs, and housing/food allowances.

Economic growth is increasing production of goods and services over time. This occurs through increases in factors of production or new technological innovations. Most countries measure growth through calculating GDP which is the total value of all final goods and services produced within a nation in a given time period. Although both command and market economies are capable of growth, command economies are capable of growing rapidly when guided by a central planner. Market economies may grow more slowly, but growth tends to be more sustainable because it is based on supply and demand within markets instead of arbitrary targets.

Economic efficiency has to do with how well factors of production are allocated to uses desired by consumers and how they are used in production to keep costs low. Market economies tend to be very efficient due to competition among firms. Supply and demand allow price to ration factors of production, goods, and services at

Activity Suggestion: Locate a video or transcript of a Presidential State of the Union address. These speeches are usually full of social economic goals. Let students watch the speech and/or read the transcript. Split the speech up into different sections and divide students into groups. Have each group analyze a part of the speech for social economic goals. Ask the students to prepare a short presentation outlining the policies proposed, the social economic goals addressed, and the potential outcomes of the policies should they be legislated. Ask students to evaluate the policies and determine whether the priorities move the country more toward market or more toward command.

Sample Test Items:

1. **With which term is a command economic system MOST closely associated?**

- A. entrepreneurship
- B. absolute advantage
- C. perfect competition
- D. governmental regulation*

2. **The nation of Welton needs to build a new dam to control flooding near its largest city. If Welton is a pure market economy, then these new improvements will MOST likely be left up to**

- A. the government
- B. the individuals who are willing to pay for the new dam*
- C. anyone who would benefit from the dam
- D. the owners of the property on which the dam would be built

3. **A headline reads: "Consumers demand new cell phones with greater functionality." What basic economic question is being addressed in this headline?**

- A. for whom to produce
- B. how to produce
- C. what to produce*
- D. when to produce

4. **In a command economy, all people usually have access to public goods such as education and health care. Providing public goods and services is an example of how a command economy pursues the broad social and economic goal of:**

- A. freedom
- B. equity*
- C. efficiency
- D. stability

SSEF5 The student will describe the roles of government in a market economy.

Overview: The intent of this standard is for students to be able to describe how government plays a role in the economy even when the economy leans toward a market system. The students will understand public goods and their purpose in the economy, the arguments in favor of government redistributing income, the importance of property rights, the types of market failures and government’s role in correcting them, and historical examples of government increasing or decreasing regulations in the economy.

a. Explain why government provides public goods and services, redistributes income, protects property rights, and resolves market failures.

EU – Scarcity/Interdependency

Students should be able to explain why government provides public goods. They should be able to explain the types of government goods and services provided at the local, state, and national levels. They must be able to describe the advantages and disadvantages associated with government provided goods and services, government transfer payments in a market economy.

Level of Government	Public Goods and Services	Purpose
Local & State	Public Education	Produce productive workers for the economy
Local, State, and Federal	Courts	Mediate Disputes, prosecute criminal cases to protect public safety
Federal	National Defense	Secure the borders of the country, protect citizen safety

Public goods are only produced in economies that lean toward a market system when the private market is unable or unwilling to produce the goods. These public goods are paid by using tax dollars.

There are two main characteristics of purely public goods. They include “shared consumption” goods also known as “non-rival” good. This means the consumption of the good by one person does not diminish the satisfaction enjoyed by another consumer who consumes the exact same good. For example, a public interstate highway can be used by any licensed driver without decreasing the benefits another driver enjoys by driving the same road. A non-example would be an ice cream cone which most people are unlikely to enjoy sharing with another person. The other characteristic is non-exclusion. Non-exclusion means that it is difficult or impossible to keep a person who is unwilling to pay from enjoying the benefits of the public good. For example, national defense is provided for everyone who resides in a country regardless of whether they pay to be protected. (They become in economic terms, a “free-rider”. A free-rider enjoys the benefit of a good without incurring the cost of paying for it.)

A non-example would be an ice cream cone because a person can be required to pay before receiving the ice cream cone.

When pursuing the social economic goal of equity, a government may choose to redistribute income. This involves taking tax money from those who make a higher income and giving it to lower income citizens through transfer payments. Transfer payments include things like social welfare payments to low income citizens, unemployment compensation to those laid-off during a recession, or Social Security payment made to retirees. These payments subsidize the income of recipients to allow the consumption of necessities.

In a market economy, the protection of private property rights is essential. If consumers and businesses are uncertain of their ability to retain property, they are less likely to purchase goods or invest in and expand their businesses. Property rights can be protected by intellectual property laws such as copyrights and patents, legal documents like deeds for real estate or titles for cars, and business licenses or corporate charter recognize the legal owner of a business. In an economy that protects private property rights, the court system is available to hear property dispute and settles them based on an impartial “rule of law”.

Market Failures occur when the private market is unable to produce goods and services in a way that the marginal benefit to society from the production of the good is equal to or greater than the marginal cost to society for producing the good. Market failures include externalities and market power.

Externalities can be both positive and negative. They occur when a third party other than the consumer or producer of a good is hurt or benefits from the production or consumption of that good. For example, some industries cause air pollution while producing a product. If this pollution causes a local resident to get sick there is a negative externality. If your new roommate at college plays their iPod full of all your favorite singers/bands you get to enjoy it even though you did not purchase the songs, this is a positive externality. The government attempts to correct negative externalities like pollution through increasing taxes or regulations on the polluting industry. This makes it more expensive to produce the good and reduces the amount of production. In the case of a positive externality producing industry like colleges and universities, the government will provide subsidies to the institutions and to their students so there is an increase in amount supplied to the market.

Market power refers to a market failure resulting from the formation of monopoly and oligopoly market structures. Monopoly market structures are markets controlled primarily by one seller of a good or service, an oligopoly market is one controlled by several large firms. Under anti-trust laws, monopolies, and oligopoly firms who work together to fix prices or restrain competitors, can be prosecuted and in some cases broken up into smaller

companies. Economists are divided over the dangers of market power. Many believe that market power is alright as long as prices are reasonable and new competitors are not barred from the market by unfair practices.

Activity Suggestion: (This lesson idea is similar to one found in the Council for Economic Education’s AP Microeconomics publication). Give students a list of goods and services. Include goods that are purely private (ice cream cone), semi-private (movie at a movie theater), and purely public (17th Street Bridge). Ask the students to place the goods and service in the proper place on the chart below:

	Cannot Share Consumption	Shared Consumption
Can be excluded		
Cannot Be Excluded		

Goods and services placed in quadrant one are pure private goods and those placed in quadrant four are pure public goods.

b. Give examples of government regulation and deregulation and their effects on consumers and producers.

EU –
Scarcity/Interdependency

Students should understand and be able to give examples of government regulation in the economy as well as discuss historical instances of deregulation. In both cases, students should be able to explain how the changes in government regulations affected consumers and producers within the economy.

Government regulation takes many forms. Overall, the goal of the government is to provide for the health and safety of its citizens and its businesses. Some regulations protect citizens from corporate abuse. Other government regulations help businesses recover from external problems by offering money to help offset an unforeseen disaster.

Example of Increased Regulation:

The **Sarbanes–Oxley Act of 2002** was a response to major problems with the accounting practices of large public companies. In the wake of corporate bankruptcies like Enron, Tyco, and WorldCom, Congress passed the act to regulate the way public companies handle their accounting. The purpose of the act was to increase the responsibility of the corporate board of directors for

published financial records and to protect investors from financial loss due to deceptive accounting practices.

Example of Decreased Regulation:

The **Banking Act of 1933 or Glass-Steagall** included many provisions connected with the U.S. banking system. Many believe, although there are those who disagree, that Glass-Steagall did not permit commercial banks to be involved in investment banking activities. In 1999, Congress repealed the parts of Glass-Steagall that many believed prevented commercial banks from acting as investment banks. This increased competition among financial institutions in the investment banking industry. However, some believe this increased risk-taking contributed to the Subprime Mortgage Crisis and Great Recession of the late 2000s.

Note to Teacher: Regulation and deregulation is usually handled well within other units of economics. For example, increased or decreased regulation on a particular industry will shift the supply curve for that industry to the left or right respectively. You would handle this during your classroom discussion of supply determinant during the microeconomics unit. Also, if the regulated/deregulated industry is one that impacts a large part of the economy such as energy producing industries, the increase or decrease in regulation will shift the aggregate supply curve to the left or right respectively.

Activity Suggestion: Make a list of well-known cases of regulation or deregulation of industries in the economy. Ask students, individually or in groups, to research the cases and explain the intended and unintended consequences of the legislation. Ask them to evaluate the choices of policy makers and determine if the marginal benefits exceeded the marginal costs. This would be a great activity for integrating primary sources and informational text into your course. This integration will help you support the Common Core literacy standards. You can find information about different acts on government websites. For example, the Securities and Exchange Commission at <http://www.sec.gov/about/laws.shtml> has a great break down of all securities laws passed in the United States.

Sample Test Items:

1. What are governments MOST LIKELY attempting to do when they increase unemployment benefits, implement more welfare programs, and rearrange tax brackets? A. protect property rights B. resolve market failures C. redistribute income* D. invest in technology

2. When governments tax polluting companies and subsidize college education, they are serving the role of

A. protecting property rights.

B. resolving market failures.*

C. redistributing income.

D. providing public goods.

3. In Georgia, the Public Service Commission regulates the rates charged to customers by GA Power to ensure:

A GA Power gets enough money to make a profit.

B GA Power does not profit from the sale of electricity in Georgia.

C consumers are protected from sharp price increases by a monopoly.*

D consumers are protected from power plant pollution.

SSEF6 The student will explain how productivity, economic growth, and future standards of living are influenced by investment in factories, machinery, new technology, and the health, education, and training of people.

Overview: The intent of this standard is for students to be able to explain how investing in physical capital, human capital, and new technology can help business increase productivity and help countries experience economic growth. If the rate of economic growth exceeds the population growth rate, then individuals within the country may experience an increase in their standard of living.

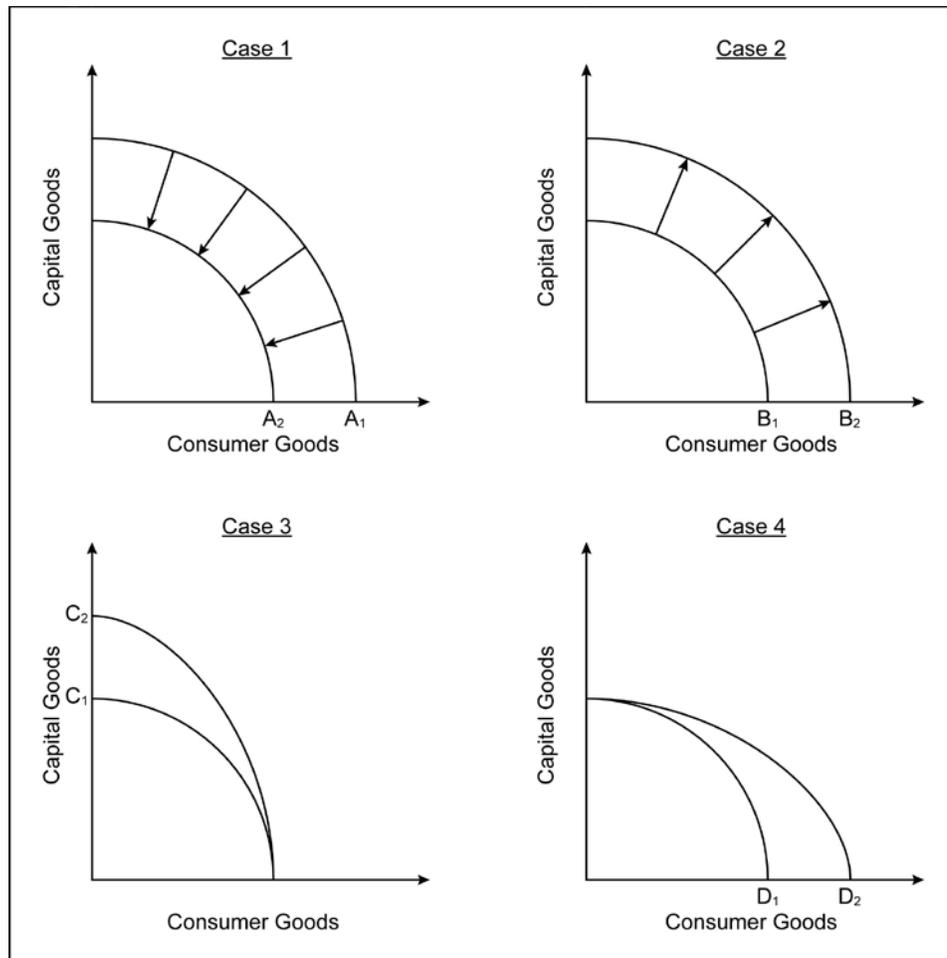
<p>a. Define productivity as the relationship of inputs to outputs.</p> <p>EU – Scarcity/Incentives</p>	<p>The students should be able to define productivity, explain how productivity is measured, and recognize when productivity has improved. Productivity looks at the relationship between inputs and outputs.</p> <p>An input is something that goes into making a good. For example, to make a cookie, a bakery must have ingredients like flour and sugar that come from natural resources like wheat and sugar cane. The baker must have capital resources like ovens and mixers to process the cookie dough. The baker needs labor resources to run the machines and serve the customers. If the baker is the owner of the bakery, he himself is the entrepreneurial resources who must choose to take a risk and decide how best to run the business.</p> <p>An output is the amount of a good or service produced. In the case of the baker described above, the cookie is the output. The baker wants to produce the right amount of output at the right price so he can make a profit.</p> <p>Increases in productivity occur when producers can produce more output with fewer inputs. This could occur because an entrepreneur finds ways to use his inputs more efficiently. Examples might be trying a different recipe that uses less sugar, rearranging the production line to be more efficient, having current labor resources specialize and become efficient at a task, reducing the amount of inputs that are wasted in the production process, adding new, more efficient machinery or technology, or finding ways to motivate labor resources to do their jobs better.</p> <p>Activity Suggestion: This can be taught using the lesson suggestion found under SSEF3a. As students participate in each round of production, keep track of their output/minute and their cost/unit. If output/minute is increasing and/or cost/unit is decreasing, they are increasing productivity. Ask groups with improving productivity statistics to share the reasons for their improvement.</p>
<p>b. Give illustrations of investment in</p>	<p>Students should be able to give hypothetical as well as real world examples of investment in human capital, physical capital, and new technology as ways increase economic growth. They should also be able to illustrate changes in capital and</p>

equipment and technology and explain their relationship to economic growth.

EU – Scarcity/Incentives

technology on the production possibilities curve.

For example, the United States experienced economic growth when the country invested in the interstate highway system in the 1950s. Interstates allowed for the movement of factors of production and goods from one place to another more rapidly. The adoption of computers by businesses and the development of business websites in the 1990s led to a huge increase in productivity for businesses because they could produce their goods and services much more quickly with fewer inputs.



The graphs above show various changes to a country's production possibilities curve. These graphs and the following information are from the Economics EOCT Student Study Guide.

A natural disaster such as a hurricane has the effect of Case 1 on a local economy. Here, both capital (buildings and equipment) and labor are lost due to the calamity. Since the region's production inputs are reduced, so too is its PPC, moving from A₁ to A₂. The region may recover over time, but the immediate effect of the disaster is to move the entire PPC inward.

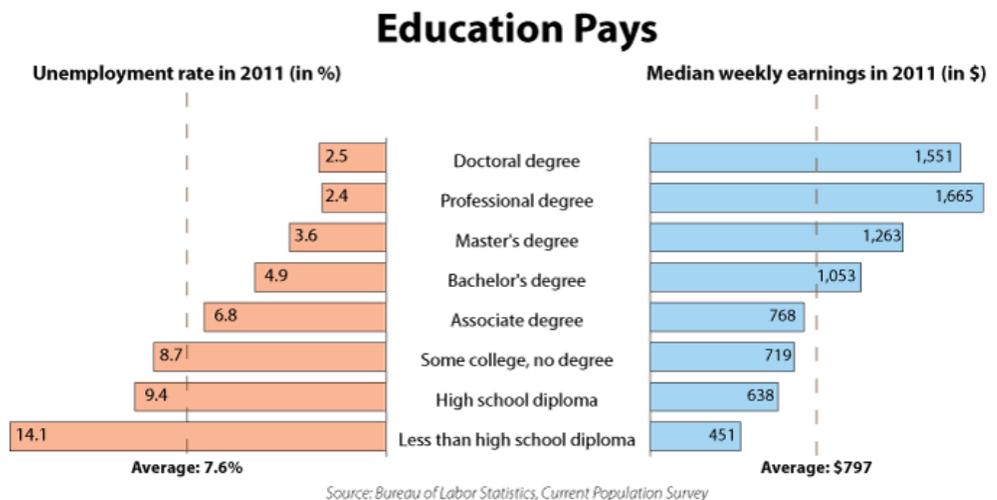
Conversely, consider a local area with a booming economy; people are moving there in droves (providing labor), and businesses are investing in the area to take advantage of the increased number of consumers and potential employees. This would lead to a condition illustrated in Case 2, where the entire PPC shifts outward.

Now imagine a small town has just received a large economic development grant from the federal government. The amount of capital available to this economy has greatly increased while its labor pool remains unchanged, so a movement like that shown in Case 3 occurs. The new PPC, C2, shows how the investment will create an enhanced ability to produce capital goods. Lastly, increases in labor inputs (such as a higher number of college graduates) will lead to Case 4. Here, the boost to the labor force allows the PPC to shift from D1 to D2.

c. Give examples of how investment in education can lead to a higher standard of living.

EU – Scarcity/Incentives

Student should be able to explain how investing in one’s education can lead to a higher standard of living. According to the chart below provided by the Bureau of Labor Statistics, there is a correlation between education level and weekly earnings. Also, those with higher levels of education are less likely to experience unemployment.



Activity Suggestion: The free, web-based game Gen I Revolution offers two missions (Missions 2 & 3) about the link between education and standard of living. Students will be asked to read and interpret various charts on this concept.

Sample Test Items:

- When a country’s businesses invest heavily in new capital goods and new technology, which of the following is most likely to occur?
 A. supply and demand. B. opportunity costs. **C. economic growth.*** D. economic freedom.
- When Claire graduated from high school, she found a job doing office work for \$25,000 a year. Over the next six years, Claire went to college at night and earned a degree in accounting. Upon graduating, she was offered a job with her company making \$60,000 a year. Which of the following best describes what happened to Claire?
 A. Claire got promoted after being at her job for six years which allowed her to improve her standard of living.
B. Claire invested in her human capital which allowed her to improve her standard of living.*
 C. Claire invested in her physical capital which allowed her to improve her standard of living.
 D. Claire was lucky to find a job with a company that was willing to pay her so much money

TEACHER NOTES
HIGH SCHOOL ECONOMICS
MICROECONOMICS CONCEPTS UNIT

Purpose of Microeconomics Standards Domain

This domain focuses on microeconomics concepts and skills dealing with human behavior and choices as they relate to relatively small units – an individual, a business firm, or a single market. These concepts and skills include the circular flow of goods and services in a market economy, production and distribution, supply and demand, competition, and types of business organizations in the U.S. economy.

Microeconomics Concepts Resource Links:

http://www.gcee.org/workshops/register_for_workshops.asp - Georgia teachers are fortunate to have a very active council. The Georgia Council on Economic Education is a non-profit organization devoted to helping teachers teach economics. The council provides workshops and materials to teachers at no financial cost to the teachers or schools. In most cases, the council will fund the cost of a teacher's substitute teacher while they are attending a workshop. This link takes you to the webpage where you can register for a workshop.

<http://www.genirevolution.org/index.php> - This free, web-based video game takes students through 15 economic missions all tied to the Georgia Performance standards in Economics. Missions twelve connects with the Microeconomics standards through application of supply and demand. Teachers can create classes and have students register for their class. Teachers can track student performance and mission completion within their own account. The game is challenging, so it is a good idea for the teacher to complete the missions personally before assigning them to students.

<http://www.khanacademy.org> - Khan Academy provides free, online tutorials in a wide range of economic topics. On the main page, scroll down to the Microeconomics links. There you will find

<https://www.georgiastandards.org/standards/Pages/BrowseStandards/SocialStudiesStandards9-12.aspx> - This link takes you to the page where you will find the Economics Course Frameworks document providing a variety of assessment options, materials, and performance tasks for each economics unit.

<http://titanpublic.ja.org/home.php> - JA Titan is an online, interactive simulation game allowing students to create teams and compete in a simulated product market. All microeconomics concepts can be discussed using this simulation. This game is the basis of the performance task described in the Microeconomics Frameworks found at www.georgiastandards.org. The game can be offered free of charge using the public edition available to everyone or as an official class through Junior Achievement of Georgia. The classroom addition is also available at no charge for the teacher, but does require a Junior Achievement business volunteer to meet with the class. The classroom edition has the additional benefit of classroom lesson plans to accompany the simulation.

SSEMI1 The student will describe how households, businesses, and governments are interdependent and interact through flows of goods, services, and money.

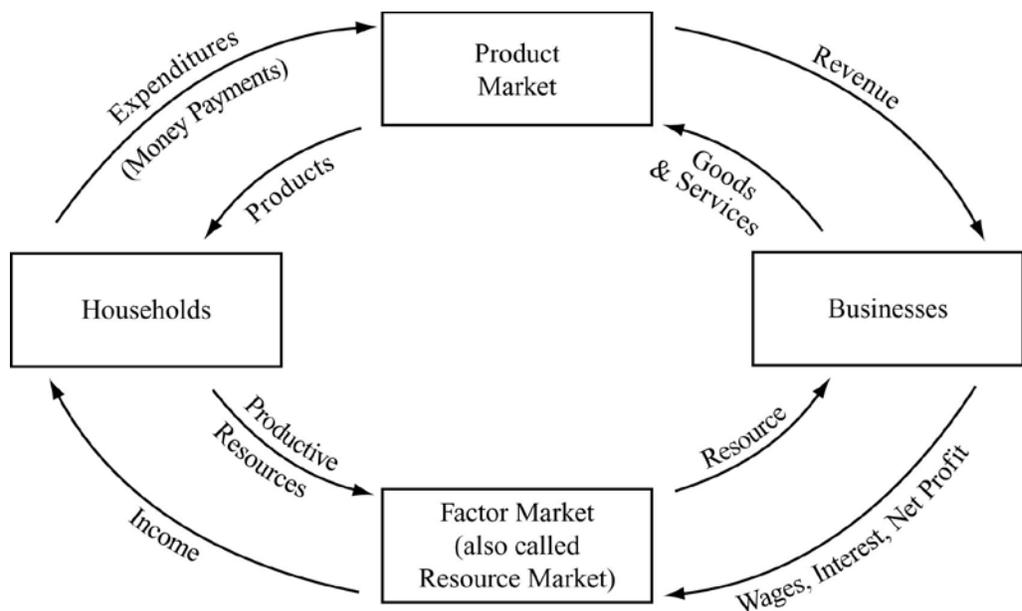
Overview: Students will describe how each sector of the economy (households, businesses, and government) interacts with one another in markets. They will explain how each sector is both consumer and producer in order to create a circular flow of goods and services.

a. Illustrate by means of a circular flow diagram, the Product market; the Resource (factor) market; the real flow of goods and services between and among businesses, households, and government; and the flow of money.

EU – Gains from Trade

Students will be able to read and interpret circular flow charts that show the characteristics of and relationships that exist among households, businesses, and governments. They will examine the product market and the resource market and explain how money acts as a medium of exchange within markets.

The circular flow diagram illustrates the interactions between buyers and sellers in different markets. There are many versions of the circular flow diagram. The most basic circular flow diagram is the “two-sector” circular flow diagram. An example taken from the Economics EOCT Study Guide is shown below.



Households, in the Factor Market, are the owners of the productive resources (factors of production) in the circular flow model. They sell their land, labor, capital, and entrepreneurship to businesses (firms) in the Factor Market (Resources Market) in exchange for income payments. Households are represented by the supply curve in a Factor Market.

Households, in the Product Market, are consumers of goods and services in the circular flow model. They buy goods and services from businesses. They spend the

income they earned in the Factor Market to buy these goods and services. Their spending is called “expenditures” which is just a fancy word for spending. Households are represented by the demand curve in the Product Market.

Income payments are money payments earned by households in exchange for their productive resources. Rent is the income payment earned by providing land to businesses. Interest is the income payment earned by loaning money for capital purchases by businesses. Wages and salaries are the income payments earned by selling labor and human capital to businesses. Profits are earned by households that act as Entrepreneurs in the economy.

Businesses (firms) in the Factor Market are the consumers of the productive resources (factors of production) in the circular flow model. They purchase the use of land, labor, capital, and entrepreneurship from households in the Factor Market (Resources Market) using the revenue they earned in the product market. Businesses are represented by the demand curve in a Factor Market.

Businesses (firms) in the Product Market are producers of goods and services in the circular flow model. They sell goods and services to households. They earn revenue in exchange for their goods and services. Businesses are represented by the supply curve in the Product Market.

Revenue is a money payment to businesses by households in exchange for the goods and services households purchase. Revenue is equal to the price of the product times the quantity of goods and services sold at that price. All businesses that sell goods and services earn revenue. Revenue is not the same as profit.

Profit is a payment to entrepreneurs if there is any revenue remaining after all costs of production/operation have been paid. Profit is equal to Total Revenue minus Total Costs. There are two types of profit discussed in microeconomics: Accounting (Normal) Profits and Economic Profits. Accounting profit is equal to Total Revenue minus “out of pocket” (or Explicit) costs for the business. Economic profit is equal to Total Revenue minus explicit costs plus opportunity costs. For example, if James left his job as a chef in a restaurant to open his own restaurant, an economic profit would not exist until he had covered his new restaurants expenses plus his old salary as a chef in someone else’s restaurant.

Government is the third sector mentioned in this element of Standard One. Although the EOCT resources do not show a circular flow model with government included, the element suggests that students will need to know the government’s role in the model.

Government is a consumer in both the factor and product markets and is represented by the demand curve in both markets. It makes income payments to household in exchange for productive resources and it pays businesses revenue in

exchange for their goods and services. The government makes these money payments using tax dollars collected from both household and businesses. The government may sometimes borrow funds to make purchases. In addition to purchases of resources and products, the government uses tax dollars to provide **Public Goods and Services** to households and firms as well as **Transfer Payments**.

Public Goods and Services are provided by the government at little or no direct charge to households and businesses. They are usually provided by government because there is little or no profit incentive for businesses to produce them in the free market. Examples of public goods would be roads and national defense. Review fundamentals standard five element (a) for more on public goods.

Transfer Payments are money payments made by governments to households and/or businesses without receiving any goods, services, or factors of production in exchange. For households, transfer payments may include social security payments, unemployment compensation, welfare payments, etc. For businesses, they may take the form of subsidies to farmers so they can compete in world markets at a lower price or as an incentive to become more energy efficient.

Why is the **Circular Flow Model** a circle? The model is a circle because households must earn income before they can purchase goods and services. Businesses rely on households to make purchases of goods and services to receive revenue. Income earned by households in the factor market becomes revenue for firms in the product market.

Important Note about Circular Flow Diagrams: Make sure you show your class many different versions of the circular flow diagram. The markets and the sectors can be in different places on different versions. The key issue is the arrow labels. They must place the correct labels on the arrows no matter where they are located. A Google image search will usually result in several variations of circular flow diagrams.

Suggested Activity: This activity suggestion is based on a simulation found in the CEE Focus: High School Economics Book. If a teacher has Virtual Economics 3 or 4, they can find it under this publication. It is the lesson entitled "Econoland". Teachers can receive Virtual Economics 4 at no charge by attending this workshop offered by GCEE. You can enroll in the workshop at www.gcee.org.

Divide the class in half, making one half households and one half businesses. Give each "business" a badge that says "business" and ten \$100 bills. Create resource cards that say land, labor, and capital. Randomly distribute resource cards to the households, making sure that each household has 15 cards. Tell the businesses to use their money to purchase resources from households. The businesses and households will negotiate their own prices. Businesses want to buy a minimum of one land, one labor, and one capital card in order to "produce" of product. Designate one area of the room as the product factory and give your product a name like "widget" that represents all possible consumer goods and services. Make the businesses bring one of each resource to the factory to exchange for one widget. Tell them to go back into the market and sell the widget to the households at a profit. This process continues until the households all have widgets and the businesses all have money

again. The winning household will be the one with the most widgets at the end. The winning business will be the one with the most money at the end. Emphasize that they have to have more than \$1000 at the end to have made a profit.

After the simulation, use the experience to create the circular flow model on the board and tell students to remember the simulation to help them answer questions about circular flow.

b. Explain the role of money as a medium of exchange and how it facilitates exchange.

EU – Incentives

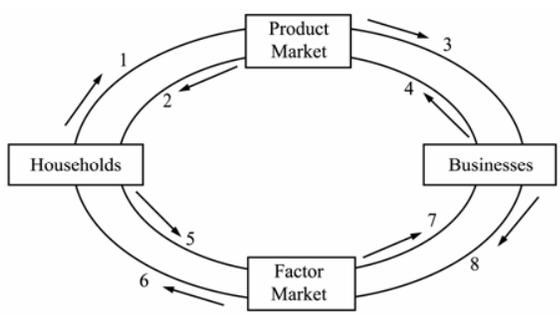
Student will be able to explain how money is a medium of exchange and why its role as a medium of exchange helps to facilitate trade in the economy.

Money in the United States economy primarily refers to the coins, currency, and checkable (demand) deposits available to consumers and producers to make purchases. This is known as the M1 definition of money which is the definition of money used for the money function “medium of exchange”. When we use money as a medium of exchange, we are using it to facilitate transactions. Households and businesses are willing to accept money as payment for resources and goods because they believe they will be able to use it for purchases in the future.

It is important for students to understand that the money we use as a medium of exchange in the United States has no intrinsic value of its own. The money has value because we have faith in the stability of the U.S. economy. If people believed the U.S. dollar lacked stable value and could not be used for future transactions, people would cease to accept it as payment.

Suggested Activity: Ask students to brainstorm ways to obtain something they want without using U.S. dollars. Students will most likely say trading (bartering) one good or service for another. Ask students why using dollars is usually better than bartering. They will most likely say it is difficult to have an item of just the right value that someone else wants (double coincidence of wants) or that it is easier to carry money than a stack of items around with them. Emphasize to students that money provides a more efficient, convenient, and uniform way of transacting.

Sample Test Items:
1. Study the information below and use it to answer the question that follows.



- The flow of goods and services to consumers is illustrated by**
 A. 4 to 2* B. 8 to 6 C. 2 to 5 D 6 to 1
- The payments for land, labor, capital, and entrepreneurial ability respectively are**
 A rent, profit, wages, and interest
 B profits, wages, interest, and rent
 C rent, wages, interest, and profit*
 D wages, rent, profit, and interest
- When the U.S. government purchases a submarine from a company, the government has made a major transaction in the**
 A. factor market
 B. public market
 C. product market*
 D. foreign exchange market

SSEMI2 The student will explain how the Law of Demand, the Law of Supply, prices, and profits work to determine production and distribution in a market economy.

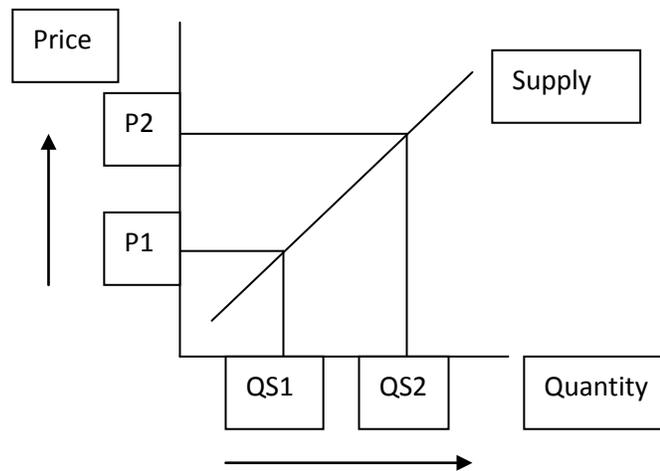
Overview: Students will be able to define the law of demand and the law of supply. They will be able to explain the slope of the demand and supply curves using the laws of demand and supply. Students will use supply and demand curves to identify and explain the equilibrium price and quantity in a market.

a. Define the Law of Supply and the Law of Demand.

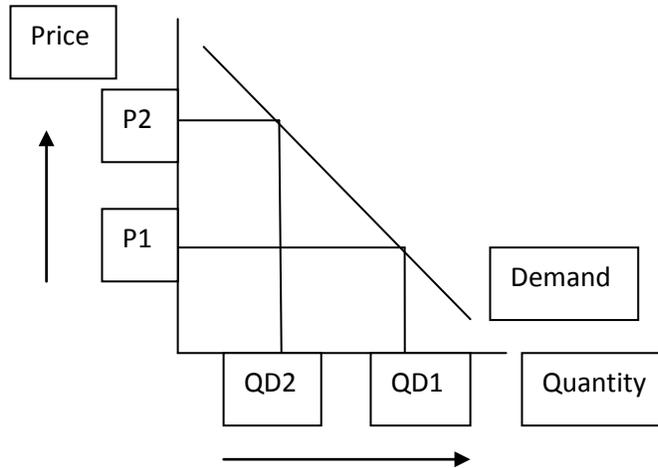
EU – Incentives

The student will be able to define the Law of Supply and the Law of Demand.

The **Law of Supply** states that producers will be motivated to sell more goods and services at higher prices than at lower prices. In short hand, as price increases, the quantity supplied increases. Therefore, there is a *direct* relationship between price and quantity supplied on the supply curve in a market. Students can remember that the supply curve is upward-sloping by remembering that supply has the word UP in it. (example: sUPply) On the sample supply curve below, you can see how the quantity supplied increases as the price increases.



The **Law of Demand** states that consumers will be motivated to buy more goods and services at lower prices than at higher prices. In short hand, as price increases, the quantity demanded decreases. Therefore, there is an *inverse* relationship between price and quantity demanded on the demand curve in a market. Students can remember that the demand curve is downward-sloping by remembering that demand starts with the letter **D** for **Downward-sloping**. On the sample demand curve below, you can see how the quantity demanded decreases as the price increases.



Activity Suggestion: Choose a product students would be interested in buying such as soda, candy, fast food item, MP3 player, etc. For the purpose of this example, I am going to choose a fast food burger (in class you could actually name a brand so they will be more interest). Create a chart like the one below on the board:

Price of Burger	Quantity of Burgers Demanded
\$.25	
\$.50	
\$.75	
\$1.00	
\$1.25	
\$1.50	
\$1.75	
\$2.00	
\$2.25	
\$2.50	
\$2.75	
\$3.00	
\$3.25	
\$3.50	
\$3.75	
\$4.00	
\$4.25	
\$4.50	
\$4.75	
\$5.00	

Ask students to raise their hands if they would be willing to purchase a fast food burger for \$.25. (You may want them to use their fingers to hold up the number they would purchase at that price up to five burgers.) Record the total number students

would want to purchase at that price on the chart. Continue the process until no one is willing to purchase at the price on the chart. Ask the students why they were willing to purchase so much more at lower prices than at higher prices. Their responses are likely to include:

- a. There is a lower opportunity cost for the purchase when the price is low. When it is high, we have to give up too much of something else to buy.
- b. When price gets higher, we can find other food items that are cheaper to substitute for the burger.

Tell the students that they have just demonstrated how the law of demand works.

If you can think of a product that students might sell at your school, you could conduct the same informal survey using a supply schedule.

b. Describe the role of buyers and sellers in determining market clearing price.

EU –
Interdependency

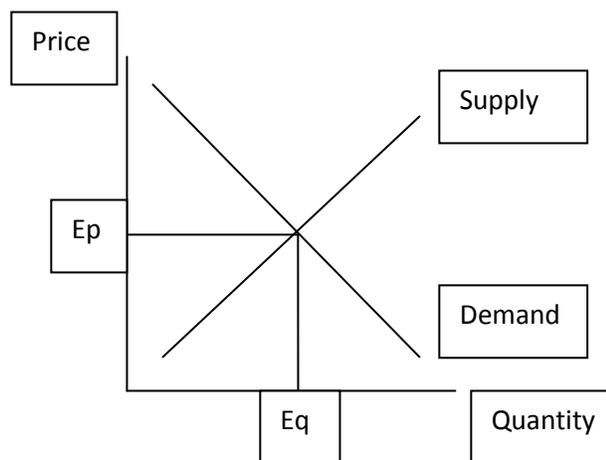
The student will be able to describe how buyers and sellers determine market clearing (equilibrium) price.

The buyer's demand curve in a market is determined by adding together all the quantities consumers are willing and able to purchase at each price in the market.

The seller's supply curve in a market is determined by adding together all the quantities producers are willing and able to sell at each price in the market.

The market clearing or equilibrium price is found at the intersection of the market demand and supply curves. This is the point at which the quantity demanded by consumers is equal to the quantity supplied by producers.

On the graph below, the equilibrium price is shown at E_p and the equilibrium quantity is shown at E_q .



Equilibrium price and quantity can also be determined by looking at demand and supply schedule charts. Here is an example using the burger chart from the last element with the quantities supplied and demanded included:

Price of Burger	Quantity of Burgers Demanded	Quantity of Burgers Supplied
\$.25	120	0
\$.50	110	5
\$.75	100	10
\$1.00	90	15
\$1.25	80	20
\$1.50	70	25
\$1.75	60	30
\$2.00	50	35
\$2.25	40	40
\$2.50	30	45
\$2.75	20	50
\$3.00	10	55

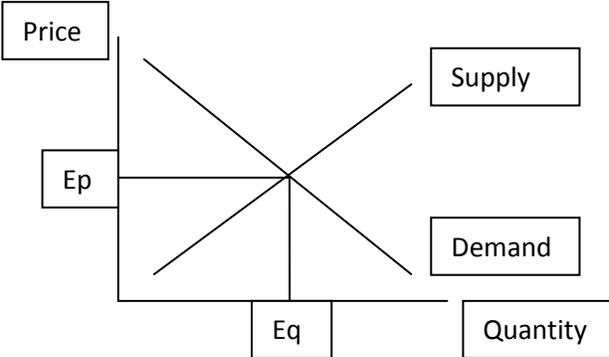
In the schedule shown above, the market clearing price (equilibrium price) is \$2.25 because this is the price at which the quantity supplied equals the quantity demanded in the market.

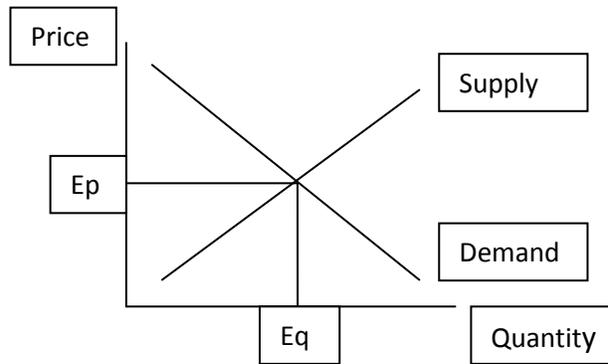
Suggested Activity: This activity suggestion is based on a simulation found in the CEE Focus: High School Economics Book. If a teacher has Virtual Economics 3 or 4, they can find it in this publication. It is the lesson entitled “A Market in Crude (or wheat in some versions)”. Teachers can receive Virtual Economics 4 at no charge by attending a workshop offered by GCEE. You can enroll in the workshop at www.gcee.org.

In this activity, half the students in your class will act as buyers and the other half will act as sellers of a commodity such as barrels of crude oil or bushels of wheat. It is important to sell an identical product so there is no product differentiation interfering with price. Through three, three minute rounds of buying/selling their product, an equilibrium price will begin to emerge.

If you do not have the CEE resource, you can following these steps:

1. Create buyer and seller cards for your students. You will prices that go from \$24 per barrel to \$44 per barrel. Buyer cards will have many willing to buy at low prices and few willing to buy at high prices. The seller cards will reverse this pattern with more sellers willing to sell at high prices and few willing to sell at low prices.
2. Split the class in half and give each student who is a seller, a seller card, and each buyer, a buyer card. You will need about twice as many cards as you have students because they must trade them in after each transaction.
3. Set a timer for three minutes and tell the students to make as many trades as they can during that time period. Each time a buyer and seller make a deal, they must come and get a new card.
4. Ask students to record all their transactions. The teacher or a student should

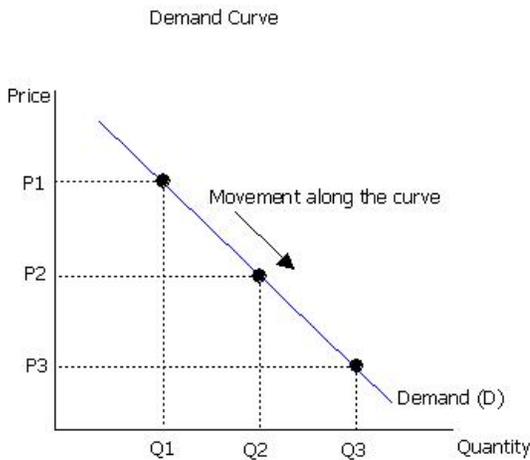
	<p>record the transaction prices of the students on the board.</p> <ol style="list-style-type: none"> 5. Run two more rounds after the first using the same procedure. 6. After all rounds are complete, reward the top buyer and the top seller for the simulation. 7. Debrief the simulation by discussing how the students demonstrated the laws of supply and demand. Ask the students to look at the transaction price data from the three rounds of trading. The price data should have shown a trend toward a price of about \$34. Ask students why they think this happened and discuss.
<p>c. Illustrate on a graph how supply and demand determine equilibrium price and quantity.</p> <p>EU – Incentives</p>	<p>The students will be able to draw a market graph illustrating the demand and supply curves for a particular good or service. The student will be able to identify the equilibrium price and quantity on the graph. They will find the equilibrium price and quantity at the intersection of the market demand and market supply curves.</p> <div style="text-align: center;">  </div> <p>Students should be able to create and explain a graph similar to the one pictured above.</p> <p>Activity Suggestion: One way to make graphing more enjoyable for students and get a better idea of how well they are graphing, is to have individual white boards for students. Some schools already have classroom sets. Teachers could also have small whiteboard “slates” cut from a large piece of board available at home improvement stores. The students could then graph from teacher provided supply and demand schedules and hold up their illustrations for the teacher to spot check.</p>
<p>c. Illustrate on a graph how supply and demand determine equilibrium price and quantity.</p> <p>EU – Incentives</p>	<p>The students will be able to draw a market graph illustrating the demand and supply curves for a particular good or service. The student will be able to identify the equilibrium price and quantity on the graph. They will find the equilibrium price and quantity at the intersection of the market demand and market supply curves.</p>



Students should be able to create and explain a graph similar to the one pictured above.

Activity Suggestion: One way to make graphing more enjoyable for students and get a better idea of how well they are graphing, is to have individual white boards for students. Some schools already have classroom sets. Teachers could also have small whiteboard “slates” cut from a large piece of board available at home improvement stores. The students could then graph from teacher provided supply and demand schedules and hold up their illustrations for the teacher to spot check.

Sample Test Questions:



1. The movement from P1 to P2 along the curve shown above is called a(an):

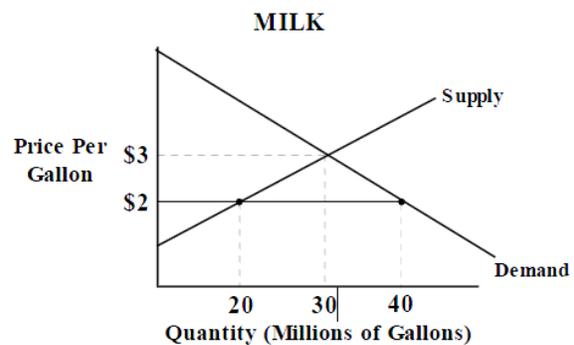
- A. Decrease in demand
- B. Decrease in quantity demanded
- C. Increase in demand
- D. Increase in quantity demanded*

2. As the price of a good rises in a market, it acts as a signal:

- A. to consumers that they should buy a greater quantity of the good.
- B. to producers that they should supply a greater quantity of the good.*
- C. to consumer that they should increase their demand for the good.
- D. to producers that they should increase their supply of the good.

3. The law of demand states that

- A. consumers demand a larger quantity of a good when price is low.*
- B. consumer demand increases when price is low.
- C. sellers supply a larger quantity of a good when price is high.
- D. sellers increase supply when price is high.



4. In the graph above, the equilibrium price and quantity is:

- A. \$2; 20
- B. \$3; 30*
- C. \$2; 30
- D. \$3; 40

SSEMI3 The student will explain how markets, prices, and competition influence economic behavior.

Overview The student will differentiate between inelastic demand and elastic demand and inelastic supply and elastic supply, read and interpret supply and demand curves, tell how price floors and price ceilings are established and their effects on markets, explain how price acts as a market incentive, and explain market competition and its effects on demand, supply, and price.

a. Identify and illustrate on a graph factors that cause changes in market supply and demand.

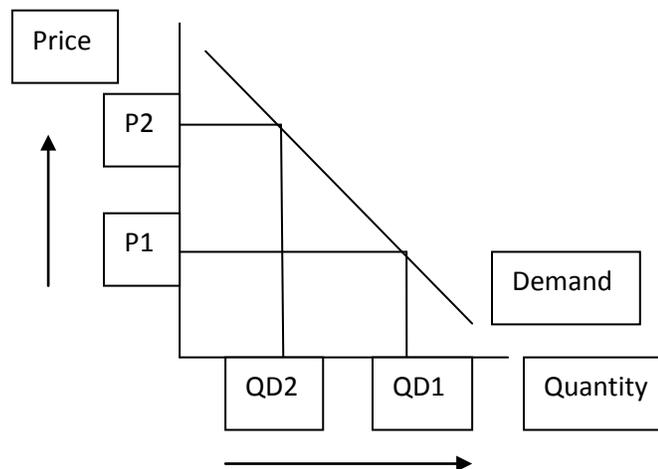
EU – Interdependency

Students will be able to identify and graph factors that change the market supply or demand for a good, service, or factor of production. These factors are usually called the “determinants of demand” and the “determinants of supply”.

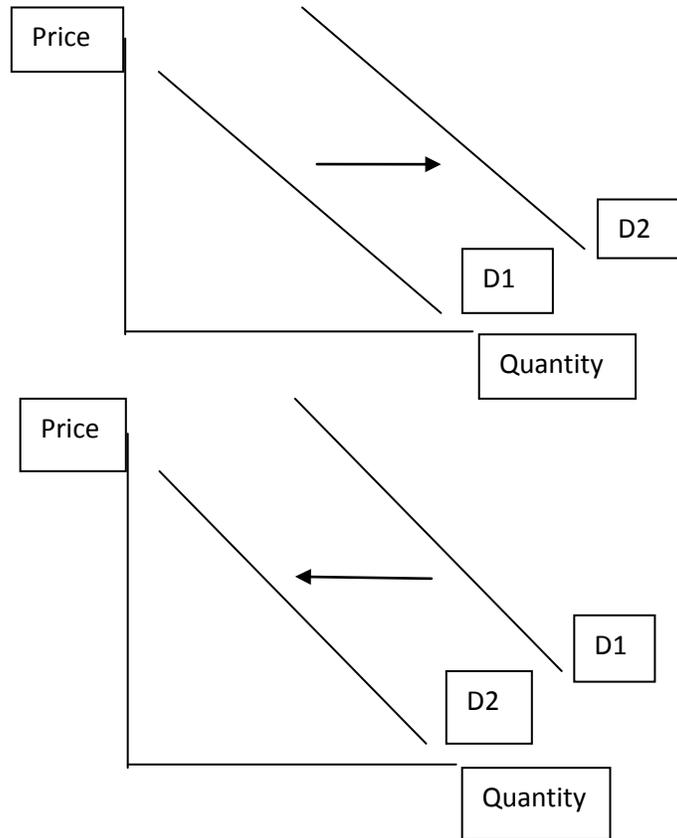
Changes in Demand

Before teaching the determinants of demand, the teacher needs to review a graph of the demand curve. Remind students that DEMAND refers to all of the prices and quantities of consumers in the market for a good. Also remind them that a change in the price of a good, service, or factor of production causes “a movement along the demand curve” also known as a “change in quantity demanded”. The price change causes a movement along the demand curve showing a different quantity consumers will purchase at the new price. This is DIFFERENT from a change in demand which SHIFTS the entire curve.

The graph below shows a change in quantity demanded and is caused by a price change NOT a determinant of demand:



The graphs below show changes in demand. The first shows an increase in demand while the 2nd shows a decrease. Increases always go to the right while decreases always go to the left.



The factors which shift the entire demand curve are called **determinants of demand**. There are **SIX** main determinants of demand.

- 1. Change in Consumer Income:** When a large number of consumers in the market for a good experience a change in income, the entire demand curve in that market may shift. For example, if the United States is experiencing a severe recession, a large number of consumers in the market for automobiles will experience a decrease in income as companies reduce their work force. This will cause the demand curve for automobiles to decrease, shifting it to the left. In contrast, if the United States is experiencing a major period of economic growth, employers will have to compete with one another for workers and wages of consumers will rise. Therefore, the demand for automobiles will increase, shifting the demand to the right. (Although your students are unlikely to encounter this idea on some assessments, teachers should know there is an exception to the determinant of consumer income. There are some goods known as *inferior goods*. By definition, these goods are those for which demand will increase as

consumer income decreases. For example, in a recession when consumer income is falling, the demand for groceries at a specialty organic grocery chain may decrease as expected, but there is an increase in demand for groceries sold at warehouse style discount stores.

- 2. Change in Consumer Taste:** When a large number of consumers experience a change in preference toward or away from a good, the demand for the good will change. For example, as more information became available and marketing campaigns targeted the obesity problem in the United States, more and more consumers began to reject high fat, high calorie foods. This change caused a decrease in demand for many fast food items, shifting the demand for certain types of fast food to the left.
- 3. Change in the Price of a Substitute Good:** Based on the law of demand, we know that when the price of a good rises, consumers will buy a smaller quantity of the good. However, when there is a substitute available for the good with the higher price, the demand curve for the substitute good will increase, shifting it to the right. For example, let's assume that doughnuts and bagels are substitutes. As the price of doughnuts rise, consumers buy a smaller quantity of doughnuts, but they also buy more bagels at all prices, shifting the demand curve for bagels to the right.
- 4. Change in the Price of a Complementary Good:** Based on the law of demand, we know that when the price of a good rises, consumers will buy a smaller quantity of the good. Many goods have what economists call a complementary good. This is a good that is consumed with the original good. For example, peanut butter and jelly are often consumed together so they are called complementary goods. When the price of peanut butter rises, consumer respond by buying a smaller quantity of peanut butter. Since jelly is a complementary good to peanut butter, consumer buy less jelly at all prices, shifting the demand curve for jelly to the left.
- 5. Change in Consumer Price Expectations:** Sometimes, consumers predict that market prices for a good or service are going to change in the future. When consumers believe the price for a good will go lower in the future and they can delay their purchase until that time, the demand for the good will decrease now, shifting the demand curve to the left. If they believe prices will go up in the future, they will buy more of the good now before the price increase occurs, shifting the demand curve to the right. For example, during the Great Recession of 2008-2009, house prices in many markets around the United States fell drastically. The low prices would usually act as a signal for consumers to purchase a larger quantity of the properties. However, because many economists predicted a large number of foreclosures were still on the way, the entire demand curve for houses decreased because of the expectation that prices would fall even more in the months to come.

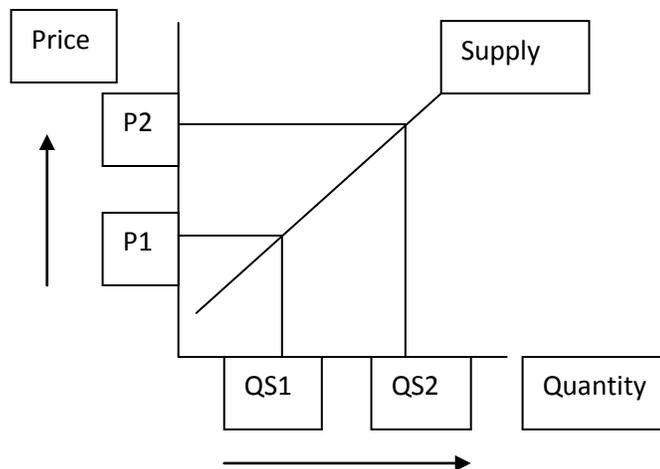
Consumers delayed their purchases because of an expected decrease in prices.

- 6. Change in Number of Consumers in the Market:** The demand for a particular good may increase or decrease due to more or less people in the market for the good. For example, before the advent of ecommerce (using the world wide web to buy and sell), most businesses sold products to people who lived in their area of the country or who ordered products from their mail order catalogs. As people began to use online shopping in greater numbers, many businesses with little or no web presence probably experienced a decline in consumers of their products due to increased competition from online businesses while businesses who quickly and effectively adapted to the ecommerce model probably saw an increase in consumers of their products.

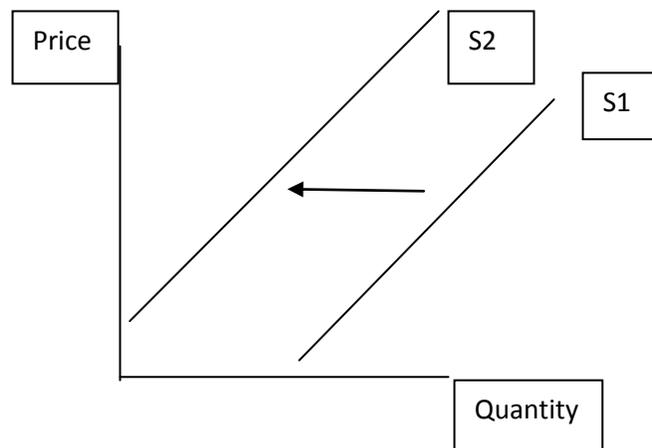
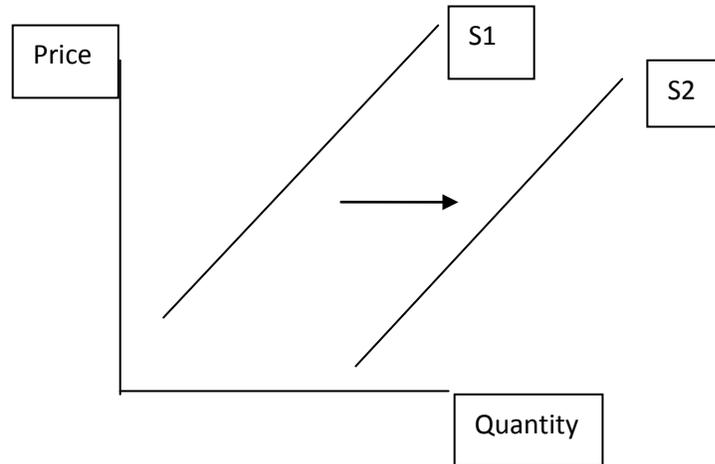
Changes in Supply

Before teaching the determinants of supply, the teacher needs to review a graph of the supply curve. Remind students that SUPPLY refers to all of the prices and quantities of sellers in the market for a good. Also remind them that a change in the price of a good, service, or factor of production causes “a movement along the supply curve” also known as a “change in quantity supplied”. The price change causes a movement along the supply curve showing a different quantity sellers wish to sell at the new price. This is DIFFERENT from a change in supply which SHIFTS the entire curve.

The graph below shows a change in quantity supplied and is caused by a price change NOT a determinant of supply:



The graphs below show changes in supply. The first shows an increase in supply while the 2nd shows a decrease. Increases always go to the right while decreases always go to the left.



The factors which shift the entire supply curve are called **determinants of supply**. There are **FIVE** main determinants of supply.

- 1. Change in Cost of Factors of Production (Change in input prices):** When producers make goods and services, they incur costs for producing those goods and services. The things they must buy to make their products are called the factors of production or inputs. When input prices rise, producers must spend more of their revenue to buy the inputs and therefore are forced reduce their supply of the good due to the greater expense associated with the input. When input prices become cheaper, then sellers can increase their supply because it is cheaper to produce their product. For example, producers in the market for candy must have a way to sweeten their product, usually sugar from sugar cane or corn syrup from corn. If the

price of sugar rises, the producers of candy will have to spend more to buy the sugar input and will supply less candy to the market.

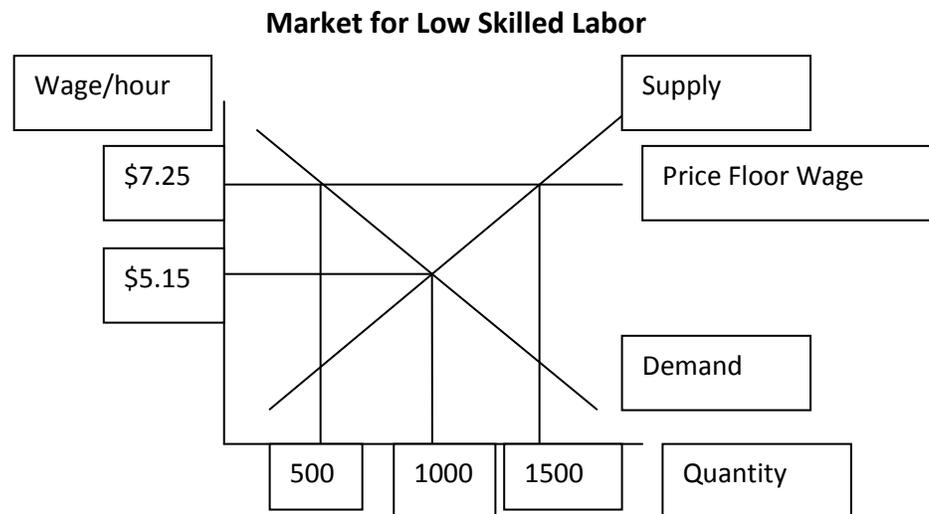
- 2. Change in Profit Opportunities:** Many producers of goods and services have factories or businesses that are somewhat flexible. When producers see that there is more profit to be made from the production and/or sale of another good, they will increase the supply of that good while reducing the supply of the original good. For example, at some point in the past, most producers of consumer electronics made VCRs for consumers who wanted to watch movies at home. At some point, consumer taste began to shift in favor of DVD and/or Blue Ray players. Electronics producers began to increase their supply of the DVD/Blue Ray players while decreasing the supply of their VCRS.
- 3. Change in Producer Price Expectations:** Sometimes, producers predict that market prices for a good or service are going to change in the future. When sellers believe the price for a good will go lower in the future and they can increase their supply now, they will sell all they can before the price decreases, shifting the supply curve to the right. If they believe prices will go up in the future and they can delay the sale of their goods, they will supply less of the good now and wait for the price increase, shifting the supply curve to the left now. For example, if suppliers of gasoline expect prices to rise in the summer due to many people traveling by car for family vacations, they may reduce their supply of gasoline to the market in the spring, waiting for the higher summer prices. This would cause the supply curve for gasoline to shift to the left in the spring.
- 4. Change in Number of Sellers in the Market:** The supply of a particular good may increase or decrease due to a change in the number of sellers in the market for the good. Using our ecommerce model again, we can see how this would occur. Before the World Wide Web, someone in a small town might only have access to one seller in the market for baseball equipment. With the growth of ecommerce, the person in the small town can now choose to order baseball equipment from a list of hundreds of sellers found through a brief search engine query and have it delivered to their doorstep.
- 5. Change in Technology:** Technological improvements in the tools or processes used to make goods and services increases the supply of those goods and services because the new technology eventually makes production cheaper. For example, imagine businesses before computers. All records would have been handwritten or typed on a typewriter. Large numbers of filing cabinets would have been needed to hold carbon copies of letters and records. Imagine the time, money, and space saved by being able to make small edits to originals instead of retyping the whole thing and storing your documents on a server or in the cloud instead of big filing

	cabinets in your office building.
<p>b. Explain and illustrate on a graph how price floors create surpluses and price ceilings create shortages.</p> <p>EU – Interdependency</p>	<p>The student will explain why governments sometimes view the equilibrium price in a market as too high or too low. They will be able to explain that government price controls include price floors and price ceilings. They will be able to graph government price controls and explain why they create shortages and surpluses in markets.</p> <p>Government price controls occur when a local, state, or national government decides to set a legal maximum or legal minimum price in a market for a good or service.</p> <p>Price Floors: A price floor is a legal minimum price for a good, service, or factor of production. Charging or paying a price below the price floor is illegal and can carry a penalty under the law. The most familiar price floor is the minimum wage. In the United States, it is illegal to pay workers less than \$7.25 per hour. There are some classifications of workers who may not be subject to this requirement, but most are. Price floors create a surplus in the market. The government’s argument for a minimum wage stems from a belief that the market wage is not high enough to provide a reasonable standard of living for low skilled workers.</p> <p>Surplus: A surplus occurs when the quantity supplied of a good is greater than the quantity demanded of the good. Price floors typically create a surplus because the government price is set above the equilibrium price in the market and consumers do not want to pay a price higher than what they think the good is worth.</p> <p>Price Ceilings: A price ceiling is a legal maximum price for a good, service, or factor of production. Charging or paying a price above the price ceiling is illegal and can carry a penalty under the law. The most familiar price ceiling is the rent control. In some cities, the equilibrium rent is viewed as too high for lower income people. In order to ensure that some housing is available to lower income people, the city designates some housing units as rent control units. Owners of these units cannot legally rent the units at price higher than the price ceiling. Price ceilings usually create shortages in the market.</p> <p>Shortage: A shortage occurs when the quantity supplied of a good is less than the quantity demanded of the good. Price ceilings typically create a shortage because the government price is set below the equilibrium price in the market and sellers do not want to sell at a price lower than what they think the good is worth.</p> <p>Problems with price controls: Price controls will often create underground markets. If the price floor minimum wage is truly too high for the market to bear, both workers and employers will choose to trade in the underground market. This is bad for government because it will not collect taxes on that income earned and it will have to spend resources to enforce the price floor. If the price ceiling rent is</p>

truly too low for the market, tenants will cheat by illegally subletting their rent controlled apartments to others, pocketing the difference. Landlords will have no incentive to keep apartments in good repair and the housing will become substandard. Eventually, the number of rent controlled units will decline as frustrated landlords convert their buildings to condominiums or sell off their property for alternative uses.

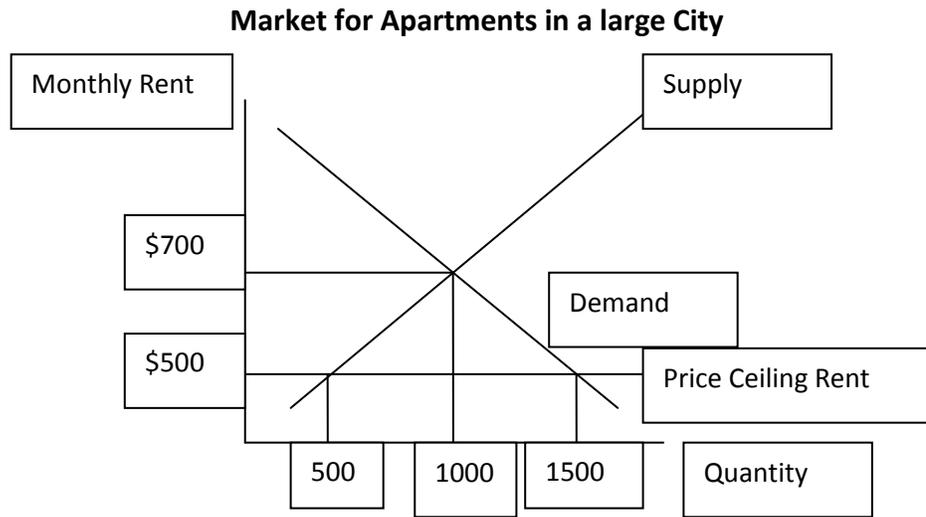
Note to teacher on binding versus non-binding price controls: Although your students may not encounter the idea of binding versus non-binding price controls on some assessments, you may want to tell them that legal price maximums and minimums only create shortages and surpluses if they actually change the market price. For example, the United States minimum wage was set at \$5.15 per hour from 1997 to 2007. In 2004, the Current Population Survey found that only about 2.7% of hourly workers earned at or below the minimum wage. In 2011, the Current Population Survey found that only about 5.2% of hourly workers earned at or below the minimum wage.

Graphing and Explaining a Price Floor



In the market graph above, the equilibrium wage in the market for labor is \$5.15 per hour and there are 1000 workers employed at this wage. The government price floor (minimum wage) is set at \$7.25 per hour. At a wage of \$7.25 per hour, employers only demand a quantity of 500 workers while there are 1500 workers who want to work at \$7.25 per hour. This wage creates a surplus of 1000 workers in the market [1500 (Quantity Supplied) – 500 (Quantity demanded)]. You could also read the graph to say the increase in minimum wage caused 500 workers to be laid off from work and a total of 1000 workers to be unemployed. If students ask why there are 500 new works in the market, remind them about the law of supply. As the wage in the market increases, there is a larger quantity of workers who are willing to supply their labor. The wage acts as an incentive to enter the market.

Graphing and Explaining a Price Ceiling



In the market graph above, the equilibrium rent in the market for apartments is \$700 per month and there are 1000 unit available at this rent. The government price ceiling (rent control) is set at \$500 per month. At a rent of \$700 per month, there are 1000 units tenants willing to rent and 1000 units landlords are willing to rent to them. At a rent of \$500 per month landlords are only willing to supply a quantity of 500 workers units while there are 1500 units tenants want to rent. This price ceiling rent creates a shortage of 1000 units in the market [1500 (Quantity Demanded) – 500 (Quantity supplied)]. You could also read the graph to say the decrease in legal price of apartments has caused 500 units to be taken off the market and no longer are available to the families who want to rent them. The landlords are responding to the price in the market by reducing the quantity of apartments available as the price falls.

Activity Suggestion: Play the market game described in SSEMI2b. After playing the rounds as a competitive market, intervene in the market as the government and set the legal price of the product lower than equilibrium. Run the round as usual and discuss with the students. Your students will discover that either there are very few goods for sale or that the sellers were unable to make a gain. Go through the same process again, but with a price higher than equilibrium. Students should find that consumers are unwilling to purchase and/or the buyers are rarely able to make a gain.

<p>c. Define price elasticity of demand and supply.</p>	<p>The student will be able to differentiate between inelastic demand and elastic demand and inelastic supply and elastic supply by defining price elasticity of demand and price elasticity of supply.</p>
<p>EU – Interdependency</p>	<p>Price elasticity of demand refers to the responsiveness of consumers to changes in price.</p>

Price elasticity of supply refers to the responsiveness of sellers to changes in price.

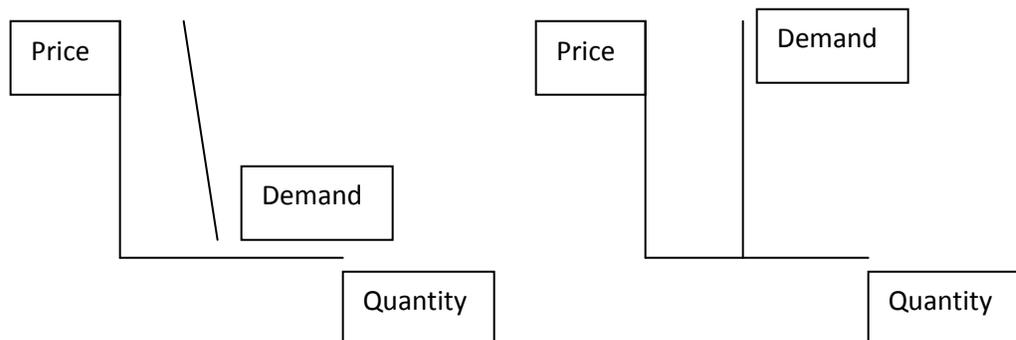
Market demand is **inelastic** when the percentage change in the price of a good is greater than the percentage change in quantity demanded of the good. For example, if a diabetic needs insulin in order to live, they are likely to purchase just as much even if the price rises significantly.

Market demand is **elastic when** the percentage change in the price of a good is less than the percentage change in quantity demanded of the good. For example, if the price of snack you buy goes up, you will likely buy a much smaller quantity because you immediately substitute another snack for it since you have so many choices.

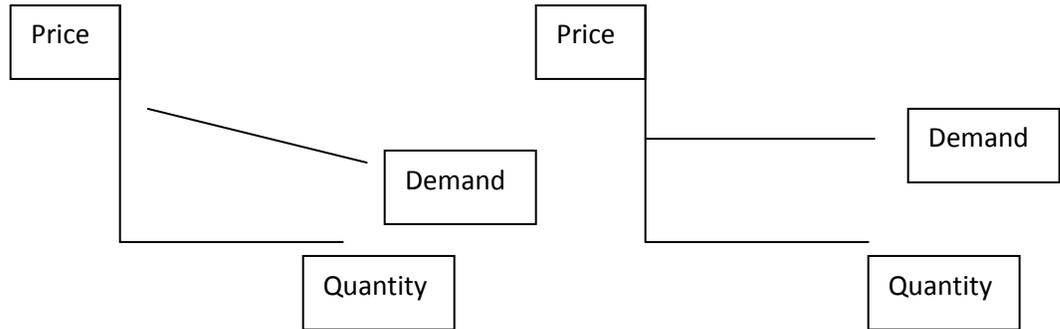
Market supply is **inelastic** when the percentage change in the price of a good is greater than the percentage change in quantity demanded of the good. We expect producers to be motivated to supply a greater quantity when price rises. However, some producers may be unable to respond to the increase in price. For example, a freelance journalist working from home may want to write ten more articles a week when the price of freelance pieces rises, unfortunately she may not be able to respond because she lacks the hours in the day to produce the quantity. (She cannot increase her factors of production quickly enough to take advantage of the higher pay.)

Market supply is **elastic when** the percentage change in the price of a good is less than the percentage change in quantity demanded of the good. For example, if a company has a factory and it is currently operating at 70% of its capacity and the price of its product rises in the market, it can utilize some of its excess capacity quickly to take advantage of the higher prices.

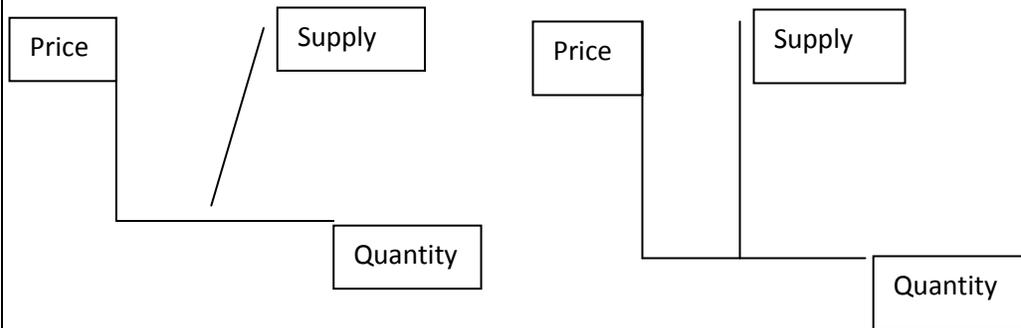
What does inelastic demand look like graphically? The first graph shows **relatively** inelastic demand which means a price change on the demand curve results in a very small change in quantity demanded. The second graph shows **perfectly** inelastic demand which means a price change on the demand curve results in no change in quantity demanded.



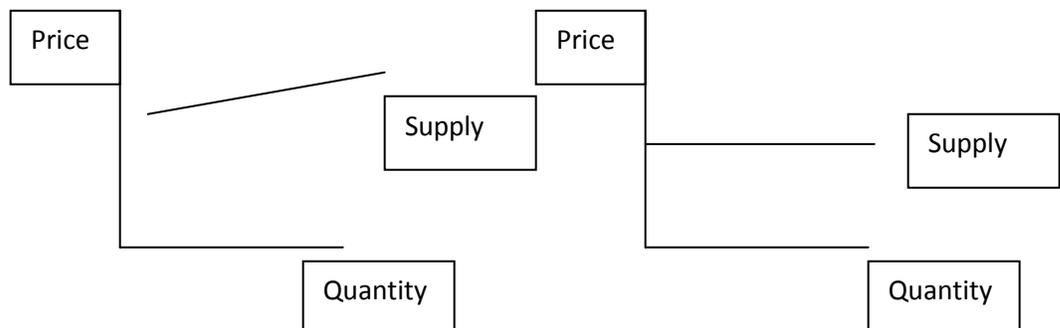
What does elastic demand look like graphically? The first graph shows **relatively** elastic demand which means a price change on the demand curve results in a very large change in quantity demanded. The second graph shows **perfectly** elastic demand which means any price increase or decrease no longer intersects the demand curve and there is no quantity demanded at any other price.



What does inelastic supply look like graphically? The first graph shows **relatively** inelastic supply which means a price change on the supply curve results in a very small change in quantity supplied. The second graph shows **perfectly** inelastic supply which means a price change on the supply curve results in no change in quantity supplied.



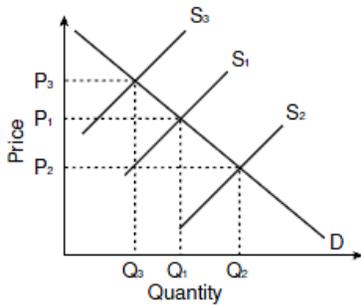
What does elastic supply look like graphically? The first graph shows **relatively** elastic supply which means a price change on the supply curve results in a very large change in quantity supplied. The second graph shows **perfectly** elastic supply which means any price increase or decrease no longer intersects the supply curve and there is no quantity supplied at prices higher or lower than the current price.



Activity: Divide students into pairs. Ask them to fold a piece of paper into four quadrants. Write each of these headings in one of the quadrants: elastic demand, inelastic demand, elastic supply, and inelastic supply. Ask the pairs to try and list at least five goods, services, and/or factors of production in each category. After they have worked for about ten minutes, ask two pairs to make a group of four and share their answers. Ask the groups to give feedback about any disagreements about the placement of the items.

Sample Test Questions:

1. In the graph below, lines D and S1 show the demand and supply schedules for the Anaxos Fruit Shake Company in its last month of operation.



Anaxos just upgraded its capital equipment by buying a machine that makes fruit shakes faster and cheaper than the original machine. What effect should this have on the graph?

- | | Price | Quantity |
|----|-------|----------|
| A. | Rises | Rises |
| B. | Drops | Rises* |
| C. | Rises | Drops |
| D. | Drops | Drops |

2. When economists measure the responsiveness of consumers to changes in price, they are measuring:

- A. the percentage change in price
- B. the price elasticity of demand.*
- C. the price elasticity of supply.
- D. income elasticity.

3. Organizers of many high-interest sporting events such as the Super Bowl and the World Series usually set ticket prices lower than the equilibrium price, citing fairness to the public as their reason. What names do economists give to the resulting set price and disequilibrium situation?

- A. price ceiling; surplus
- B. price ceiling; shortage*
- C. price floor; shortage
- D. price floor; surplus

SSEMI4 The student will explain the organization and role of business and analyze the four types of market structures in the U.S. economy.

Overview: Students will be able to explain market competition and its effects on demand, supply, and price, compare and contrast the advantages and disadvantages of sole proprietorships, partnerships, and corporations as forms of business organization, describe entrepreneurs and entrepreneurship in a market economy including the roles, significance, and effects, describe the characteristics of different market structures including monopolies, oligopolies, monopolistic competition, and pure (perfect competition).

a. Compare and contrast three forms of business organization—sole proprietorship, partnership, and corporation.

EU – Scarcity

Students will be able to compare and contrast the three main forms of business organizations. This comparison will include general characteristics, advantages, and disadvantages.

Sole Proprietorship	Partnership	Corporation
General Characteristics		
<ul style="list-style-type: none"> Owned by one person Most common form of business organization 	<ul style="list-style-type: none"> Owned by two or more people Least common form of business organization 	<ul style="list-style-type: none"> Owned by shareholders Earns the greatest percentage of business profits in the U.S.
Advantages		
<ul style="list-style-type: none"> Keep all profits Make all decisions Easy to start 	<ul style="list-style-type: none"> Easy to start Can benefit from specialization More access to start-up money than sole proprietorships 	<ul style="list-style-type: none"> Access to large amounts of funds for expansion Can grow large and offer opportunity for advancement Limited Liability Unlimited Life
Disadvantages		
<ul style="list-style-type: none"> Unlimited Liability Limited Life Difficult to attract top talent Limited access to funds 	<ul style="list-style-type: none"> Unlimited Liability Limited Life Potential for Conflict Division of profits 	<ul style="list-style-type: none"> Double Taxation Can lose control of company Greater government oversight and legal issues

Unlimited Liability means that one's personal assets can be seized to pay business debts.

Limited Liability means the owners of the corporation cannot lose more than what they paid for their stock if the corporation fails.

Limited Life means that the death of an owner ends the business and it must be reestablished in the name owner's name(s).

Double Taxation happens to a corporation when the company is taxed on its profits and then the shareholders are taxed again on the dividends they earn from the company.

Activity Suggestion: Sweet Opportunities Consultant Role Plays:

www.econedlink.org/lessons/index.cfm?lesson=EM533&page=teacher. Acting as a team of business consultants for a hypothetical client, students will evaluate the entrepreneurial strengths and weaknesses of the proposed business. Students will research the three main forms of business organizations and recommend the most appropriate form to their client. This activity can culminate in a role play using the following planning sheet and rubric which is in addition to the resources found at the website:

Planning Sheet for Business Organization Role Plays

Complete this sheet before creating your role play. All group members must complete and store in project section of notebooks.

1. We are assigned Client # _____.
2. Our client's product(s) is _____.
3. Our client has the following strengths associated with starting his or her business:
4. Our client has the following weaknesses associated with starting his or her business:
5. Based on the strengths and weaknesses we've identified for our client, the best form of business organization for our client is:
6. Three reasons why this is the best form of business organization for your client:
7. Two questions your client may have about the form of business organization you are recommending.

8. Two warnings or concerns you would tell your client about using the recommended form of business organization.
9. List at least four locations/settings in which your role play take place.
10. List at four characters that could be part of your role play.
11. List at least three props that your consultant team or client might need to use during the role play:

Business Organization Role Play Rubric

Get into groups of four. Design a role play in which your group members play the client, the consultant team, and any other key individuals described in the client profile

___ out of 20 points - All members must speak

___ out of 40 points – At least two client strengths and two client weaknesses are clearly understood in the role play.

___ out of 80 points - Your role play must explain at least two advantages and two disadvantages of your recommendation to your client

___ out of 40 points - The client must ask the consultant team at least two open ended questions.

___ out of 40 points – Consultant answers are specific and relate to business organization characteristics.

___ out of 20 points - Your group must have at least three props that are important to understanding the role play.

___ out of 240 points

b. Explain the role of profit as an incentive for entrepreneurs.

EU – Incentives

Students will explain how profit motivates entrepreneurs. Becoming an entrepreneur involves risk. An entrepreneur must use their own time and/or money to start their business. In exchange for this risk, the entrepreneur hopes for a reward in the form of profits from the business.

Many businesses fail and the entrepreneur could lose everything that he or she put into the business. It is only the potential to earn profits that motivates entrepreneurs to start businesses. If an entrepreneur successfully starts and operates a business, he or she has the potential to become wealthy from profits.

	<p>According to a 2007 study published in a journal called <i>Economic Perspectives</i>, while only 7-8% of households are headed by entrepreneurs, these households own nearly one third of all wealth in the United States.</p> <p>Activity Suggestions: Invite a successful entrepreneur into your class to speak to the students about how they started their own business or encourage students to think like an entrepreneur and have them develop a business plan for a company they may want to start in the future.</p>
<p>c. Identify the basic characteristics of monopoly, oligopoly, monopolistic competition, and pure competition.</p> <p>EU – Incentives</p>	<p>Students will be able to explain the characteristics of the four different types of market structures and describe how the nature of competition within a market affects pricing and production decisions.</p> <p>Pure (Perfect) Competition: A market structure characterized by a large number of buyer and sellers of an identical product. (Example: commodities like crude oil)</p> <p>Monopolistic Competition: A market structure characterized by a large number of buyers and sellers of products that are similar to one another be can be differentiated by brand, quality, etc. (Example: restaurants and retail clothing sellers)</p> <p>Oligopoly: A market structure characterized by only a few sellers of a product who dominate the market. (Example: breakfast cereals and natural gas)</p> <p>Monopoly: A market structure characterized by only one seller of a product dominating the market. (Example: electrical power companies and cable television companies)</p> <p>The following characteristics are usually important when distinguishing between the four market structures:</p> <p>Number of Sellers: Are there many, few, or one seller(s) of the product?</p> <p>Price – setting Power: Can the individual firms in the market for a product have any control over the price they charge?</p> <p>Product Differentiation: Is there any difference between the products sold by the sellers in the market for the good?</p> <p>Non-Price Competition: Can the firms in the market use methods other than price to attract customers?</p> <p>Barriers to Entry: Are there any obstacles that prevent other firms from entering the market for the good?</p>

Long-run Profits: Are firms in the market able to make economic profits (long-run) as well as accounting profits (short-run)?

Economic Profits: Money left over for a firm after covering both out of pocket expenses (explicit costs) and opportunity costs (implicit costs).

Accounting Profits: Money left over for a firm after covering out of pocket expenses (explicit costs).

	# of Sellers	Price – Setting Power	Product Differentiation	Non-price Competition	Barriers	Long-run Profits
Pure Competition	Many	None (Price-taker)	None – Products are identical	None; firms sell all they want at the market price	None; easy to enter and exit the market	None; firms enter to get short-run profits and leave when the profits disappear
Monopolistic Competition	Many	A little bit	Yes; must differentiate to attract consumers	Yes; uses lots of advertising	None; easy to enter and exit the market	None; firms enter to get short-run profits and leave when the profits disappear
Oligopoly	Few	Some; practice price leadership; as one raises price the other firms follow	Yes or No; products can be identical or differentiated	Yes; use advertising to attract customers	Yes; these firms are usually very large and can produce many units at low per unit costs making it difficult for small firms to compete	Yes
Monopoly	One	A lot; Price seeker or price maker	Not applicable; only one firm	Public relations; want consumers to feel good about the company	Yes; government licenses and patents can bar entry; ownership of factors of production	Yes

Activity Suggestion: Market Structure Candy Shoppes lesson found in the Unit 3 Balanced Assessments at www.georgiastandards.org. Students participate in four rounds of candy buying and selling, students will simulate the four market structures. By analyzing each round in the simulation students will derive the characteristics of

market structures from their own experience. See attachments under resources for specifics.

Sample Test Items:

1. In which market structure does a firm have greatest control over its product's price?

- A. perfect competition
- B. monopoly***
- C. oligopoly
- D. monopolistic competition

2. Interdependence and price leadership are characteristics of firms in what kind of market structure?

- A. monopoly
- B. oligopoly***
- C. monopolistic competition
- D. perfect competition

3. Sharon decided to open a dry-cleaning business. She borrowed some money from her sister and took a loan from a bank. She hired one helper. What is one disadvantage of Sharon's business?

- A. no separation of ownership and control
- B. ease of organizing the firm
- C. unlimited liability***
- D. double taxation

4. Which of the following is true about a shareholder in a corporation?

- A. A shareholder is part owner of that business.***
- B. A shareholder may not share in the earnings of that corporation.
- C. A shareholder may not transfer his share to another party without permission.
- D. A shareholder is liable for any debts accumulated by that corporation.

5 Which form of business organization is easiest to organize but is LEAST able to benefit from specialization?

- A. sole proprietorship***
- B. partnership
- C. limited partnership
- D. corporation

TEACHER NOTES
HIGH SCHOOL ECONOMICS
MACROECONOMICS CONCEPTS UNIT

Purpose of Macroeconomics Standards Domain

This domain focuses on Macroeconomics concepts and skills dealing with human behavior and choices as they relate to the entire economy. These skills and concepts include measures of economic activity, the Federal Reserve System and monetary policy, and the federal government and fiscal policy. Students will describe how economic activity is measured statistically, describe the purpose of statistical measures of economic activity, explain the structure and role of the Federal Reserve System, and explain the government's role in fiscal policy.

Macroeconomics Concepts Resource Links:

http://www.gcee.org/workshops/register_for_workshops.asp - Georgia teachers are fortunate to have a very active council. The Georgia Council on Economic Education is a non-profit organization devoted to helping teachers teach economics. The council provides workshops and materials to teachers at no financial cost to the teachers or schools. In most cases, the council will fund the cost of a teacher's substitute teacher while they are attending a workshop. This link takes you to the webpage where you can register for a workshop.

<http://www.genirevolution.org/index.php> - This free, web-based video game takes students through 15 economic missions all tied to the Georgia Performance standards in Economics. Mission 14 connects with the Macroeconomics standards in the areas of economic forecasting and policy options. Teachers can create classes and have students register for their class. Teachers can track student performance and mission completion within their own account. The game is challenging, so it is a good idea for the teacher to complete the missions personally before assigning them to students.

http://www.frbatlanta.org/pubs/extracredit/lessons_activities.cfm - The Atlanta District Federal Reserve has a webpage full of links to detailed lesson plans for teachers. Many of these lessons are linked to the Economics GPS for Macroeconomics.

<http://www.khanacademy.org> - Khan Academy provides free, online tutorials in a wide range of economic topics. On the main page, scroll down to the Macroeconomics links. There you will find a wide variety of tutorials on Macroeconomics concepts.

<https://www.georgiastandards.org/standards/Pages/BrowseStandards/SocialStudiesStandards9-12.aspx> - This link takes you to the page where you will find the Economics Course Frameworks document providing a variety of assessment options, materials, and performance tasks for each economics unit.

<http://www.frbsf.org/education/activities/chairman/index.html> - This is an online game allowing students to conduct monetary policy as if they are the Chairman of the Federal Reserve.

<http://www.nytimes.com/interactive/2010/11/13/weekinreview/deficits-graphic.html> - This interactive

tool allows students to work with the federal budget and attempt to solve the federal deficit.

SSEMA1 The student will illustrate the means by which economic activity is measured.

Overview: Students will explain the significance of the unemployment rate as well as structural, cyclical, and frictional unemployment. They will explain factors that account for household, business, and government spending decisions. Students will define aggregate demand and aggregate supply and their relationships to prices/price level. They will explain how and why data collection is used to measure economic conditions. They will explain how Gross Domestic Product and the Consumer Price Index data is collected, calculated, and used by policy makers. They will define inflation and stagflation. Students will explain the causes and stages of business cycles and their effects on economic performance including periods of recessions and depressions. They will be able to distinguish between the national debt and the government deficit, explain how each is calculated and their significance to the economy.

a. Explain that overall levels of income, employment, and prices are determined by the spending and production decisions of households, businesses, government, and net exports.

Students will explain factors that affect income, employment, and price level in the economy. More specifically, they will be able to explain both the expenditure and income approaches to calculating Gross Domestic Product (GDP). GDP is defined under element b below. However, the components listed in this element are used to compute GDP and will be addressed here.

There are two approaches to calculating GDP, the income approach and the expenditure approach. These calculations are closely related to the Circular Flow diagram studied under standard SSEMI1.

The **income approach** is based on transactions made in the factor market. If you recall, the factor market is where firms pay households for their resources of land, labor, capital, and entrepreneurship. Each of these factors of production earn a specific income payment. Firms pay rent for land, pay wages/salaries for labor, pay interest to borrow money to buy capital, and pay profits to entrepreneurs who start/own businesses. Note: Changes in these costs of production shift the short-run aggregate supply curve discussed in SSEMA1b.

The **expenditure approach** is based on transaction made in the product market. If you recall, the product market is where households use their incomes to purchase goods and services from firms. The purchases made in the product market include household expenditures (consumption), business expenditures on capital (investment), government spending, and foreign expenditures on U.S. goods and services (net exports). Note: Changes in these expenditures shift the aggregate demand curve discussed in SSEMA1b.

Activity Suggestion: After students have learned SSEMA1a and SSEMA1b, make a list of scenarios that will affect the categories in the income and expenditure approaches to calculating GDP. For each scenario, have groups of students compete against each other and see which group gets the highest score. Use the

table below for the group's answer sheet.

Scenario	Approach	Category (Circle One)	Effect on AD or SRAS
1.	A. Income B. Expenditure	Wages, Interest, Rent, Profit, Consumption, Investment, Government Spending, Net Exports	AD ↑ ↓ SRAS ↑ ↓
2.	A. Income B. Expenditure	Wages, Interest, Rent, Profit, Consumption, Investment, Government Spending, Net Exports	AD ↑ ↓ SRAS ↑ ↓
3.	A. Income B. Expenditure	Wages, Interest, Rent, Profit, Consumption, Investment, Government Spending, Net Exports	AD ↑ ↓ SRAS ↑ ↓
4.	A. Income B. Expenditure	Wages, Interest, Rent, Profit, Consumption, Investment, Government Spending, Net Exports	AD ↑ ↓ SRAS ↑ ↓
5.	A. Income B. Expenditure	Wages, Interest, Rent, Profit, Consumption, Investment, Government Spending, Net Exports	AD ↑ ↓ SRAS ↑ ↓
6.	A. Income B. Expenditure	Wages, Interest, Rent, Profit, Consumption, Investment, Government Spending, Net Exports	AD ↑ ↓ SRAS ↑ ↓
7.	A. Income B. Expenditure	Wages, Interest, Rent, Profit, Consumption, Investment, Government Spending, Net Exports	AD ↑ ↓ SRAS ↑ ↓
8.	A. Income B. Expenditure	Wages, Interest, Rent, Profit, Consumption, Investment, Government Spending, Net Exports	AD ↑ ↓ SRAS ↑ ↓
9.	A. Income B. Expenditure	Wages, Interest, Rent, Profit, Consumption, Investment, Government Spending, Net Exports	AD ↑ ↓ SRAS ↑ ↓
10.	A. Income B. Expenditure	Wages, Interest, Rent, Profit, Consumption, Investment, Government Spending, Net Exports	AD ↑ ↓ SRAS ↑ ↓

	<ul style="list-style-type: none"> • AD-Aggregate Demand • SRAS- Short Run Aggregate Supply
<p>b. Define Gross Domestic Product (GDP), economic growth, unemployment, Consumer Price Index (CPI), inflation, stagflation, and aggregate supply and aggregate demand.</p>	<p>Gross Domestic Product (GDP) refers to the total market value of all final goods and services produced within a country in a given time period.</p> <p>The definition of Gross Domestic Product must be explained further for true understanding:</p> <p>“market value” – GDP uses market prices of goods and services for calculations. The use of market prices is one problem with the accuracy of GDP because people often buy at discounted prices. The use of market prices can cause GDP to be overstated.</p> <p>“final goods” – GDP calculations include only final goods. Materials purchased by companies that become part of the final good are called intermediate goods. For example, a bakery will purchase flour to make bread. The flour is an intermediate good and its price is not included in GDP calculations. Only the market value of the final product, the loaf of bread, is counted. This avoids “double counting.”</p> <p>“produced within a country” – All final goods produced within the United States are counted in U.S. GDP. It does not matter whether the good is produced by a U.S. based company or a foreign company as long as the production occurs in the U.S. For example, although Apple is a U.S. company, the final production of the iPhone takes place in China, so it is counted in China’s GDP not in U.S. GDP. Likewise, although Kia is a Korean company, it produces cars in Western Georgia. The Kias produced in Georgia are counted in U.S. GDP.</p> <p>“in a given time period” – GDP figures are computed quarterly and yearly. Therefore, any good produced in the United States between 12:00 am on January 1, 2012 and 11:59 pm on December 31, 2012 would be counted in U.S. GDP for 2012.</p> <p>Economic Growth is achieved through an increase in real GDP compared to a previous period. Real GDP is GDP adjusted for inflation. Economic growth can be shown by an outward shift of the production possibilities curve. An economy experiences economic growth when it gains new technology used to improve production or gains new factors of production.</p> <p>Unemployment can refer to people or other factors of production. An unemployed person is one who does not currently have a job, but is actively seeking employment. During times of slow growth or recession, the economy may be operating inside its production possibilities curve, indicating that some factors of production are not being used efficiently. This is also called unemployment of</p>

resources.

The **consumer price index** is an index used to calculate the inflation rate. The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. It is the most well known index used to measure inflation, but there are others including the GDP Deflator and the Producer Price Index.

Inflation occurs in an economy when the average price level of goods and services rise over time. An index number such as the consumer price index is used to calculate the inflation rate between two specified years or periods using a certain “base year/period” value of for dollars. For example, the current base year period used by the Bureau of Labor Statistics is 1982-1984. The CPI in the base year period is equal to 100. On July 17, 2012, the Bureau of Labor Statistics reported a CPI of 229.478. This means that the average price paid by urban consumers for a market basket of goods has risen 129.478% since the base year period of 1982-1984.

Stagflation refers to an economic condition characterized by both a rising average price level (inflation) and a decrease in Real GDP (recession) usually accompanied by a rising unemployment rate. In a normal business cycle, declining real GDP will usually coincide with falling price level. This allows policy makers to stimulate the economy without fears of increasing the inflation rate. However, during a period of stagflation, using traditional monetary and fiscal policy tools (these will be explained in more detail under SSEMA2 and SSEMA3) to stimulate economic growth will have the adverse effect of raising prices. The most common causes of stagflation include negative supply shocks (these result in an increase in the cost of production for companies) such as a large increase in the price of oil or major increases in regulation and/or corporate tax rates by the government.

Aggregate Supply refers to the total quantity of all goods and services firms in an economy are willing and able to supply at each price level in a given period of time. Economists usually further define aggregate supply as either short-run or long-run. The typical short-run aggregate supply curve (SRAS) is upward-sloping showing a direct relationship between price level and real GDP. It is upward-sloping in the short-run because wages and prices are slow to change due to contracts. Economists called this “sticky” wages and prices. In the long-run, economists generally view wages and prices as completely flexible. Therefore, the long-run aggregate supply curve (LRAS) is vertical at the full employment level of real GDP (real output or real national income).

Aggregate Demand refers to the total quantity of all goods and services consumers are willing and able to purchase at each price level in a given period of time. The aggregate demand curve (AD) is downward-sloping showing an inverse relationship between price level and real GDP. The downward slope of Aggregate Demand is explained by three effects: the interest rate effect, the wealth effect (real balances

effect), and the foreign purchases effect (net exports effect). The interest rate effect causes the downward slope of the aggregate demand curve because as price level rises, interest rates (the price of borrowing money) rises and consumers and businesses spend less on interest sensitive purchases like cars, new homes, and physical capital. The wealth effect occurs when a rising price level reduces the purchasing power of consumers thus lowering the amount of consumption spending due to higher prices. Finally, the foreign purchases effect occurs when a higher price level in a country makes the relative price of the country's exports higher, reducing demand for the country's exports in other countries.

Activity Suggestion: Tell students they will participate in a vocabulary activity to help them learn about the different types of taxes. Explain that each group will receive a paper with a key economic concept from SSEMA1b on it and a definition of the tax. Under the tax and definition, there are six "interview" questions. In their groups, ask the students to write answers to the interview questions as if the economic term was answering the questions. If needed, go through the example provided for Federal Grant Funds with the students so they get the idea. Remind them that they should not use the name of the concept in their interview or guessing will be too easy. Pass out copies of each group's Interview a Concept sheet and go around the room to help students when they get stuck. After the groups finish, display the list of vocabulary words. When it is time to present, each group will conduct the "interview" for the other groups and the other groups will try to guess what concept has been interviewed. One student in each group will act as the interviewer while the remaining students will take turns answering the questions.

Interview A Concept

SAMPLE FOR STUDENTS CONCEPT AND DEFINITION:

FEDERAL GRANT FUNDS — Funding from the federal government utilized to pay for all or portions of specific programs. Often, federal funds require a state fund "match" in order to receive the federal allocation.

1. Who are your relatives? President Obama's Race to the Top Program for Education, Georgia's Medicaid and Peachcare Health Programs
2. Would you ever hurt anyone? Who? Why? Yes, when politicians decide to cut me, some states can no longer fund their programs

	<p>3. Are you useful? What is your purpose? <u>Yes, I make important programs like healthcare for low income children affordable for states that want to provide it</u></p> <p>4. What don't you like? Why? <u>I don't like it when I get wasted because governments are inefficient or when I get redirected for a use that was not intended.</u></p> <p>5. What do you love? Why? <u>I love to feel like a helpful partner to state governments</u></p> <p>6. What are your dreams? <u>I dream of being able to provide for all these state programs without having to borrow money and run a budget deficit.</u></p>
<p>c. Explain how economic growth, inflation, and unemployment are calculated.</p>	<p>Economic growth is calculated by finding the percentage change in real GDP from one time period to the next. If the real GDP growth rate is positive, then economic growth has occurred. For example, U.S. real GDP for 2011 is estimated at \$15.29 trillion. The estimated U.S. real GDP for 2010 was \$15.03 trillion. To find the real GDP growth rate between 2010 and 2011, subtract \$15.03 trillion from \$15.29 trillion, divide the difference by \$15.03 trillion and multiply the quotient by 100. This process produces a real GDP growth rate of 1.7% from 2010 to 2011.</p> <div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;"> $\frac{(\text{Real GDP in Year 2} - \text{Real GDP in Year 1}) \times 100}{\text{Real GDP in Year 1}}$ </div> <p>The inflation rate is calculated by finding the percentage change in the price index from one period to another. For example, in June 2011 the Consumer Price Index as reported by the Bureau of Labor statistics was 225.722. In June 2012, the consumer price index was 229.478. To find the inflation rate between June 2011 and June 2012, subtract 225.722 from 229.478. Divide the difference by 225.722 and multiply the quotient by 100. This process produces an inflation rate of 1.7%</p> <div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;"> $\frac{(\text{CPI in Year 2} - \text{CPI in Year 1}) \times 100}{\text{CPI in Year 1}}$ </div> <p>The unemployment rate is calculated by finding the percentage of people in the labor force who do not currently have a job, but are actively seeking employment. Like CPI and inflation, the Bureau of Labor Statistics is responsible for calculating the unemployment rate. Unemployment statistics are reported monthly based on the Current Population Survey conducted by the Bureau of Census for the Bureau of Labor Statistics. To calculate the unemployment rate, the Current Population</p>

Survey counts the number of people in the labor force, the number of people currently employed, and the number of people who are unemployed. For example, in June 2012, there were 142,415,000 people in the United States counted as employed. There were 12,749,000 people who were counted as unemployed. To calculate the unemployment rate, the Bureau of Labor Statistics divides the number of unemployed (12,749,000) by the number of people in the labor force (142,415,000 + 12,749,000) and multiplies the quotient by 100. The unemployment rate using this process is 8.2%.

$$\frac{\text{Number of Unemployed} \times 100}{\text{Labor Force (employed + unemployed)}}$$

Activity Suggestion: Follow the directions in the activity below. There is an assignment description sheet and then two sheets containing the market basket of goods and services. Feel free to make changes to the basket items. Keep in mind that some things are specifically designed to cause problems to simulate the problems with consumer price index as a measure of inflation.

Consumer Price Index Activity

1. Get into groups of three, it would be helpful if there was at least one senior in each group to answer the senior expense questions.
2. Give yourself a group name.
3. Discuss and agree upon a price for each good in your Student Price Index.
4. If the quantity is greater than one, multiply your price times the quantity for the item before recording the amount in the price column.
5. If you feel an additional good should be in the category, enter it and the appropriate quantity in the "Other" line.
6. Calculate the totals for each category.
7. Calculate the total for your entire "market basket" of goods in the Student Price Index and record the value at the top of the Student Price Index handout
8. Go to the Active Board and record your group name and market basket value.
9. Write the group names and market basket totals on the table on the other side of this paper.
10. On a separate sheet of paper, record the following:
 - a. Use the total value of another group's market basket. Whichever market basket value is the lowest, use that one as your "base year" value and the higher value as the "current year", calculate the "student price index" using the following formula:
$$\text{SPI} = \frac{\text{Current year market basket value}}{\text{Base year market basket value}} \times 100$$
11. Go to the Active Board and record your group's SPI. Record the SPI for each group on your table.

12. Choose another group's price index. Using the larger SPI as Year 2 and the lower SPI as Year 1, calculate the "inflation rate" with this formula:
 - a. Inflation Rate = $\frac{\text{Year 2 SPI} - \text{Year 1 SPI}}{\text{Year 1 SPI}} \times 100$
13. Go to the Active Board and record your group's Inflation Rate. Record the Inflation Rate for each group on your table.
14. Combine your group with another group (should be 6 six people in the group now). Compare and contrast the market basket totals you got with that of your new group members. Discuss the major differences in your prices and why those occurred.
15. Everyone must write and submit answers to the following questions, as well as prepare a SHORT presentation to share with the class. Although everyone should discuss these, assign one question to each group member for the presentation. Please include the following information:
 - a. Which prices in your Student Price Index were the most different between the two groups? Why do you think this happened?
 - b. What items in the "market basket" would you eliminate if your group had the responsibility of creating the index? Why?
 - c. What items do you think should be added to a valid Student Price Index? Why?
 - d. The Consumer Price Index is a measure of prices for the goods purchased by the average urban family in America. What goods/services from your market basket might not reflect the purchasing patterns of the average American consumer?
 - e. How might the quality of the goods/services in your market basket affect the validity of your student price index?
 - f. What do you think the inflation rate tells us as consumers? How will our behavior change if there is inflation?

STUDENT PRICE INDEX		
"Basket of Goods"		
Fall 20__		Total Market Basket: _____
Good or Service	Quantity (per year)	Price
School Supplies		
pens: Bic	1 pack of 10	
calculator: TI-84 Plus	1	
backpack	1	
lined notebook paper	4 packs of 250 sheets	
binders	2	
Other: _____	_____	
School Supplies Total:		

Graduation "stuff"		
senior packet	1	
yearbook	1	
prom tickets (per couple)	1	
cap and gown	1	
tuxedo rental	1	
prom dress	1	
Other: _____	_____	
Graduation Total:		
Entertainment		
Music Downloads	10	
movie tickets	12	
football tickets (high school)	5	
concert tickets	2	
"nightclub" tickets	24	
magazine subscriptions	2	
Other: _____	_____	
Entertainment Total:		
Food		
pizza: large, 1-topping	15	
Fast Food Burritos: Willy's, Moe's or Taco Bell	20	
hamburgers: McDonald's big mac	20	
Arby's Sandwich	20	
Burger King-whopper	20	
ice cream cone	24	
Starbucks Coffee	24	
Other: _____	_____	
Food Total:		

Transportation		
gasoline: gallon of unleaded	365	
Car Insurance (for one year)	1	
Other: _____	_____	
Transportation Total:		
Communications		
Cell Phone	1	
Monthly Cell Phone Service Plan	12	
Other: _____	_____	
Communications Total:		
Clothes		
jeans	5	
shirts	25	
sweatshirts	3	
bathing suit	2	
“School” Shoes	3	
Athletic Shoes	3	
Other: _____	_____	
Clothes Total:		
Personal Care		
deodorant	12	
Haircuts/hairstyling	8	
toothbrush	3	
chapstick	15	
Other: _____	_____	
Personal Care Total:		

d. Identify structural,

The student will be able to identify structural, cyclical, and frictional

cyclical, and frictional unemployment.

unemployment. In order to be able to identify an example of each type of unemployment, they will need to define it first and then give examples of people experiencing different types of unemployment.

Structural unemployment exists when the skills of workers do not match the skills needed by the labor market. There may be many jobs available, but the structurally unemployed worker is unable to fill the vacancies for a variety of reasons. The main reasons for structural unemployment include lack of skills required for the available jobs, the work previously done by a human resource is now done by a machine, or workers lack the ability to move to a labor market where their skills are in demand. Since structurally unemployed workers tend to remain unemployed until they gain more skills or move, economists categorize it a long-run unemployment. For example, if a manufacturing job requires a worker to be capable of reading technical equipment manuals, but the worker lacks basic literacy, the worker will be unable to fill that position.

Cyclical unemployment occurs when workers lose their jobs due to a downturn in the economy. The term cyclical references the business cycle (discussed in SSEMA1e). Cyclical unemployment is viewed as short-run unemployment because it is usually low during expansions and high during contractions. During a contraction or recession phase of the business cycle, firms will reduce the number of workers they employ to cut costs and reduce production until demand rebounds. For example, if people decrease the number of cars they purchase due to a recession, the car manufacturing plants will lay off workers because they do not need to produce as many cars. These workers are cyclically unemployed.

Frictional unemployment occurs when someone leaves their job in search of another one or when someone previously outside the labor force enters the labor market in search of a job. Since there are always people moving in between jobs and entering the labor force, economists categorize frictional unemployment as long-run unemployment. For example, a recent college graduate looking for their first professional position would be frictionally unemployed. Also, a teacher who's spouse is transferred from one state to another and starts looking for a job in the new state would be frictionally unemployed. Someone who has left a job because they were unhappy with their current wages in order to look for a job with higher wages would be frictionally unemployed.

Activity Suggestion: Use the assignment and rubric below to help students plan and present a role play demonstrating the different types of unemployment and the categories of workers reported by the Bureau of Labor statistics.

Unemployment Role Play Assignment

Instructions:

1. Get into groups of five.
2. Assign each group member to one or more of the following roles (you may have someone playing more than one role):
 - a. Cyclically unemployed
 - b. Frictionally unemployed
 - c. Structurally unemployed
 - d. Discouraged worker
 - e. Not in the labor force
 - f. Employed
3. Choose a setting for your role play.
4. Discuss how your characters will interact. The audience should be able to tell the role of each person by their words and actions. Your assigned role should not be stated directly in the role play.
5. Improvise different ways to get the message across to the audience. Try to use humor in your performance to make it more engaging for the audience.
6. Make sure all aspects of the rubric below is addressed.
7. Rehearse your final role play.
8. Present.

Unemployment Role Play Rubric

___ out of 25 points - All members spoke.

___ out of 25 points – Each role is clearly shown by the character’s actions and words.

___ out of 50 points – Each character asks another character at least one open ended question.

___ out of 50 points – All characters’ answers are specific and relate to a key idea about unemployment.

___ out of 30 points - Your group must have at least three props that are important to understanding the role play.

___ out of 20 points – Role play uses humor to engage audience.

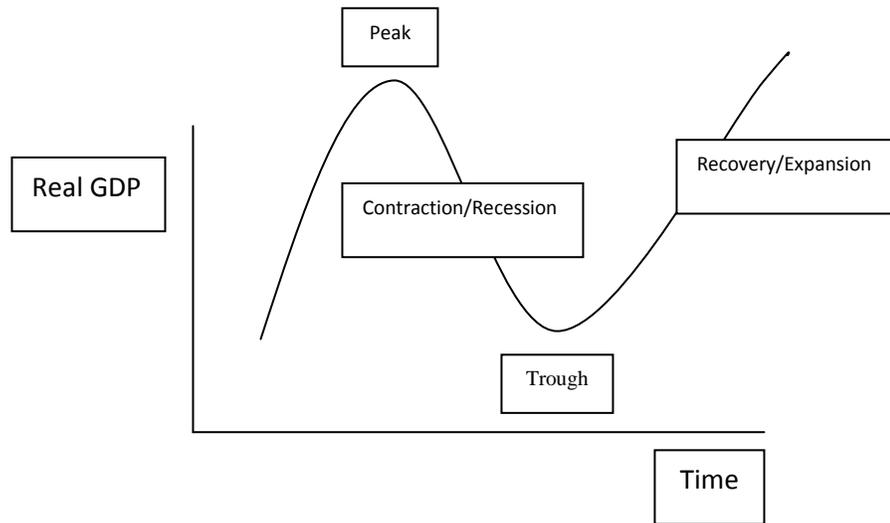
___ out of 180 Points

e. Define the stages of the business cycle, include peak, contraction, trough, recovery, expansion

The **business cycle** is a graph illustrating the relationship between real GDP and time. The y-axis is real GDP. The x-axis is time. The four main parts of the business cycle includes the recovery/expansion, the peak, contraction/recession, and trough.

Business Cycle Graph

as well as recession and depression.



The **peak** refers to the highest point of real GDP between the end of an economic expansion and the beginning of an economic contraction.

The **contraction** phase of the business cycle is a period in which real GDP is declining. If a contraction lasts for 6 months or two quarters then it is usually considered a **recession**. If a contraction continues for a long, sustained period it may become a depression.

The **trough** is the lowest point of real GDP between the end of a contraction and the beginning of a recovery.

A **recovery** occurs when real GDP becomes positive after a period of negative real GDP. A recovery period of an economic **expansion** lasts until real GDP reaches the level of the previous peak. After this level of real GDP is achieved, the growth in real GDP is called an **expansion** (sometimes called prosperity).

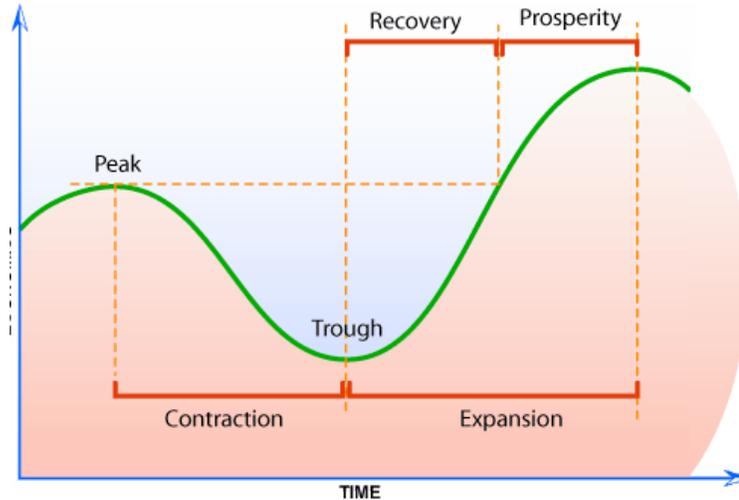
Activity Suggestion: Use the following assignment to help students understand and explain the business cycle.

Business Cycle Graph Mini-project

1. Get a piece of blank paper and a variety of colored pencils.
2. Arrange your paper so it is in landscape position.
3. Draw EVERYTHING in regular PENCIL first in case you need to erase. You will go over everything with colored pencil afterward.
4. (10 points) Using the full length and width of the paper, draw your X-axis

and your Y-axis. Make sure you leave room for labels. (10 points)

5. (5 points) Label your Y-Axis – Real GDP
6. (5 points) Label your X-Axis – Time
7. (30 points) Draw the following information on your graph. Make sure you make it as big as possible, you will need space to add information.



8. (24 points) On the back of your paper, write the definitions for peak, trough, contraction, recession, expansion, and recovery. You can find these in your glossary in your book.
9. (10 points) Answer the following questions on the back of your paper:
 - a. Why do you think the expansion on your chart is divided between a recovery and prosperity? How do you find the start of prosperity?
 - b. How long must a contraction last before it is considered a recession?
10. (24 points) On your graph, place the following economic indicators in the correct location. The up arrows and down arrows do not go together as a group. Please each in its own spot.

↑ CPI (Inflation Rate)	↓ CPI (Inflation Rate)
↑ Unemployment Rate	↓ Unemployment Rate
↑ Real GDP	↓ Real GDP

11. (30 points) Based on your placements in #10, answer the following questions on the back of your graph:
 - a. During what phase of the Business Cycle graph would the government be worried about inflation?
 - b. Fiscal Policy is the power of Congress to increase or decrease taxes and increase or decrease government spending. When the government is worried about inflation, tell whether you think they should increase or decrease taxes. Tell whether you think they should increase or decrease government spending.

	<p>c. Monetary Policy is the Federal Reserve Bank’s power to increase or decrease the supply of money in the economy. One of the main ways the Federal Reserve Bank does this is by increasing or decreasing interest rates. When the Federal Reserve Bank is worried about inflation, tell whether you think they should increase or decrease the money supply. Tell whether you think they should increase or decrease interest rates.</p>
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<p>f. Describe the difference between the national debt and government deficits.</p>	<p>A deficit occurs in the federal government’s budget when the tax revenue received for a given fiscal year is less than the amount of spending done by the government during that year. The national debt for a country is the accumulation of annual deficits over the years plus any interest accrued on the money borrowed.</p> <p>Activity Suggestion: Go to http://www.usdebtclock.org/ and display the U.S. National Debt clock for the students. Help them identify the debt versus the deficit. Point out the tax revenues and government spending changes. Ask them how the changes in government spending and tax receipts are affecting the national debt and the deficit. Point out the interest payments and ask students to explain why interest is being paid.</p>
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<p>Sample Test Items:</p>	<p>1. What would you conclude about an economy characterized by increasing real gross domestic product (GDP), low unemployment, and increasing inflationary pressures?</p> <p>A. This economy is in a slowdown. B. The government needs to address the unemployment problem. C. This economy is in the expansion phase of a business cycle.* D. The Federal Reserve should expand the money supply.</p> <p>2. Which of these is MOST likely to lead to inflation?</p> <p>A. an increase in the costs of production* B. reduced prices for goods and services C. an increase in the aggregate supply of goods and services D. the application of price ceilings</p> <p>3. Peggy, a recent college graduate, decides to look for a job instead of going to graduate school. If she is unable to find a job that suits her interests right away, what type of unemployment is she MOST likely experiencing?</p> <p>A. structural B. seasonal C. frictional* D. cyclical</p> <p>4. Over a two-year period, the nation of Parthia experiences a steep decline in unemployment rate, a rise in real GDP, and a stabilized price level. Parthia appears to be</p> <p>A. at the start of a recession B. in the middle of a depression C. stagnating economically D. in the middle of a boom period*</p> <p>5. The BEST example of structural unemployment in an economy is someone</p> <p>A. between jobs or entering the work force B. out of work due to a change in the business cycle C. out of work due to a seasonal downturn in business D. whose job skills do not match the economy’s needs*</p> <p>6. Which of the following results when federal government expenditures are less than the federal government’s total receipts?</p> <p>A. a trade surplus B. a federal budget deficit* C. a negative balance of payments D. a federal budget surplus</p> <p>7. What problem might policymakers be trying to address MOST if they increase funding for training programs covering skills such as computer repair, programming, and networking?</p> <p>A. frictional unemployment B. structural unemployment* C. cyclical unemployment D. seasonal unemployment</p>
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SSEMA2 The student will explain the role and functions of the Federal Reserve System.

Overview: The student will explain the Federal Reserve System’s organizational structure including the Board of Governors, district banks, and the Federal Open Market Committee (FOMC). They will be able to explain the specific functions of the Federal Reserve System such as controlling the money supply, supplying the economy with paper money (Federal Reserve Notes), holding bank reserves, providing check-clearing services, supervising member banks, and serving as the lender of last resort. The student will be able to explain the tools of monetary policy and how those tools are used to stabilize the economy and avoid period of inflation and recession. Student will be able to read and interpret scenarios, tables, and graphs related to monetary policy.

a. Describe the organization of the Federal Reserve System.

The student will be able to describe the organization of the Federal Reserve System. The Federal Reserve System is the United States’ decentralized, central bank. It is both public and private in nature. It was created in 1913 to help instill trust in the country’s banking system. Since the Federal Reserve can act as the “lender of last resort” to help struggling banks meet their depositor’s demand for money, people are less likely to fear bank failure.

The following characteristics are the public aspects of America’s Federal Reserve System:

1. It was created by an act of Congress, so it can be dissolved by an act of Congress. In this way, the Federal Reserve is checked by those elected by the people.
2. The seven members of the Board of Governors of the Federal Reserve System are nominated by the President and confirmed by the Senate. They are the public part of the Federal Open Market Committee that makes monetary policy decisions. A full term is fourteen years. One term begins every two years, on February 1 of even-numbered years. The Chairman and the Vice Chairman of the Board are named by the President from among the members and are confirmed by the Senate. They serve a term of four years.
3. The Federal Reserve is the fiscal agent for the United States government.
4. The United States paper currency is called a Federal Reserve Note because it is backed by the assets of the Federal Reserve mainly the government securities (bonds) it holds.
5. Profits earned by the Federal Reserve System are transferred to the United States government. In 2011, the Federal Reserve transferred over \$79 billion in profits to the U.S. Treasury.

The following characteristics are the private aspects of America’s Federal Reserve System:

1. The system is decentralized with 12 district banks serving the needs of different regions of the country.
2. The board of directors for each of the 12 district banks includes two-thirds of directors elected by the privately controlled member banks of that district as well as one third of the directors elected by the Board of Governors.
3. There are five district bank presidents serving as voting members of the FOMC at any given time. The New York Federal Reserve Bank President is always a voting member of the FOMC and four other district Federal Reserve Presidents serve as voting members on a rotating basis.
4. Each district Federal Reserve Bank is organized as a private corporation and it self-financed through interest earned on securities held or payments for services like check-clearing.

Activity Suggestion: Go to <http://www.federalreserveeducation.org/resources/fedtoday/>. On this webpage, you will find a video called *The Fed Today* and the companion lesson plans. The video itself is dated, but it does give a great overview of the Federal Reserve System and has a lesson specifically designed to teach the structure of the Fed.

b. Define monetary policy.

Monetary policy refers to the tools used by the Federal Open Market Committee to stabilize the economy. Since the Great Recession, the tools of monetary policy have expanded. However, the three main monetary policy tools with which students should be familiar are open market operations, changes in the discount rate, and changes in the reserve requirement.

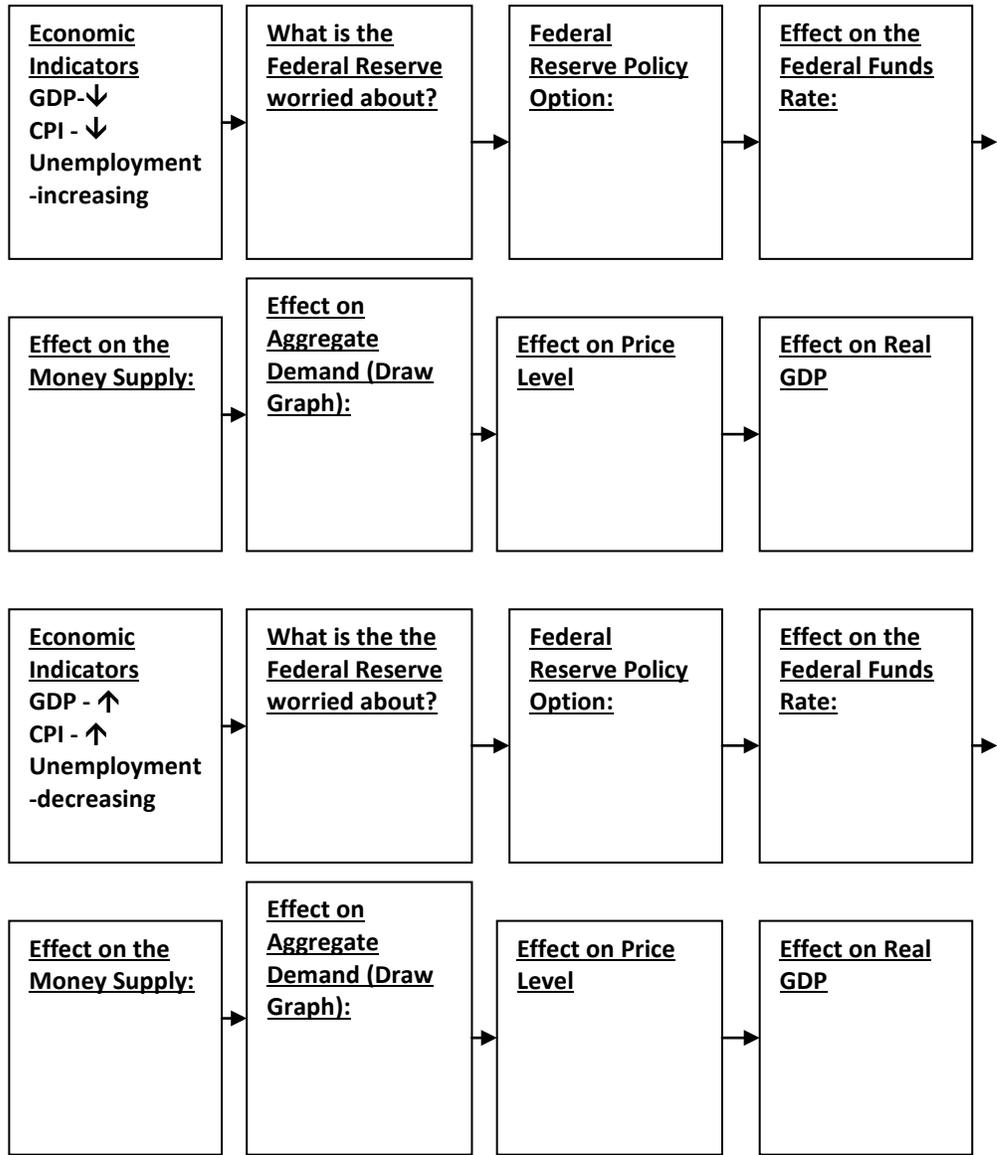
Open market operations refer to the buying and selling of government securities (bonds) on the open market. (see SSEMA2c for information on how this tool is used to stabilize the economy)

The **Discount Rate** is the interest rate the Federal Reserve charges banks on money they borrow from the Federal Reserve. (see SSEMA2c for information on how this tool is used to stabilize the economy)

The **Reserve Requirement** is the percentage of customer deposits banks cannot loan to borrowers. For example, if a bank has \$10,000 in deposits and the reserve requirement is 10%, then the bank can only make loans up to \$9,000. The other \$1,000 must be held in vault cash or in the bank's reserve account at the Federal Reserve.

Activity Suggestion: Ask students to fill in the flow charts below to show the tools and effects of Federal Reserve Monetary Policy. If you copy and paste the flowcharts into a landscape document and enlarge it, there will be more room for

the students.



c. Describe how the Federal Reserve uses the tools of monetary policy to promote price stability, full employment, and economic growth.

The student will be able to describe how the Federal Reserve uses the tools of monetary policy to promote price stability, full employment, and economic growth.

If the Federal Reserve is concerned about **price stability**, it is usually worried that the inflation rate is increasing. This means the Federal Reserve needs to use monetary policy that will decrease the money supply.

The most common tool used by the Federal Reserve is **Open Market Operations**. If the Federal Reserve wants to reduce the money supply to decrease the rate of inflation, it will **sell bonds (securities)**. An open market sale of bonds means that

banks and individuals will use their money to purchase the security. This money will no longer be in the banking system to be used for loans or spending. Since there is less money available for lending, the price banks charge each other for lending money (**the Federal Funds Rate**) rises, reducing borrowing activity.

The next most commonly used tool of monetary policy used by the Federal Reserve is the **Discount Rate**. When the Federal Reserve is concerned about inflation, it will raise the discount rate. Usually, changes in the discount rate are a signal to banks to raise the federal funds rate and borrow less from each other to make loans. This reduces spending and helps to bring price level (inflation) down.

A change in the **reserve requirement** is the tool least often used by the Federal Reserve. Changes to this factor in the banking system can create very large changes in the money supply. This occurs because changes in the reserve requirement have what economists call a large multiplier effect. However, if the Federal Reserve decided to change the reserve requirement to combat inflation, it would raise the reserve requirement, reducing the amount of deposits banks could lend.

Monetary policy can also be used to promote full employment and economic growth. Economists use the term **full employment** to describe the level of employment when all factors of production are being used efficiently. It is the same as an economy operating on its production possibilities curve. **Full employment** can also refer specifically to labor resources. At full employment, the unemployment rate is equal to the structural plus the frictional unemployment rates and there is no cyclical unemployment in the economy.

If the Federal Reserve wants to promote full employment and economic growth, it will use expansionary (or loose) monetary policy. It will buy bonds (securities), causing the Federal Funds Rate to fall and encouraging more borrowing activity. In some cases, it will lower the discount rate as a signal to banks to increase lending. And, finally, in rare cases, it could lower the reserve requirement ratio, allowing banks to lend more of their deposits.

Activity Suggestion: The activity suggestion in SSEMA2a deals with this element as well.

Sample Test Items:

1. When the Federal Reserve buys government securities on the open market, what effect does this action have on the nation's money supply and aggregate demand?

	Money Supply	Aggregate Demand
A.	increases	increases*
B.	increases	decreases
C.	decreases	increases
D.	decreases	decreases

2. The Federal Reserve System conducts its business directly with

A. the government and banks*

B. stock markets and bond markets

C. individuals and firms

D. product markets and factor markets

3. Monetary policies the Federal Reserve can adopt include all of the following EXCEPT

A. raising the discount rate

B. buying government bonds

C. lowering the reserve requirement

D. raising personal income tax rates*

4. Which of the following is primarily responsible for the control of the money supply?

A. the United States Treasury

B. the Federal Reserve System*

C. the Federal Deposit Insurance Corporation

D. the Comptroller of the Currency

5. The Federal Reserve wants to reduce the nation's money supply. This could be accomplished by doing all of the following EXCEPT

A. decreasing the discount rate*

B. increasing the reserve requirement

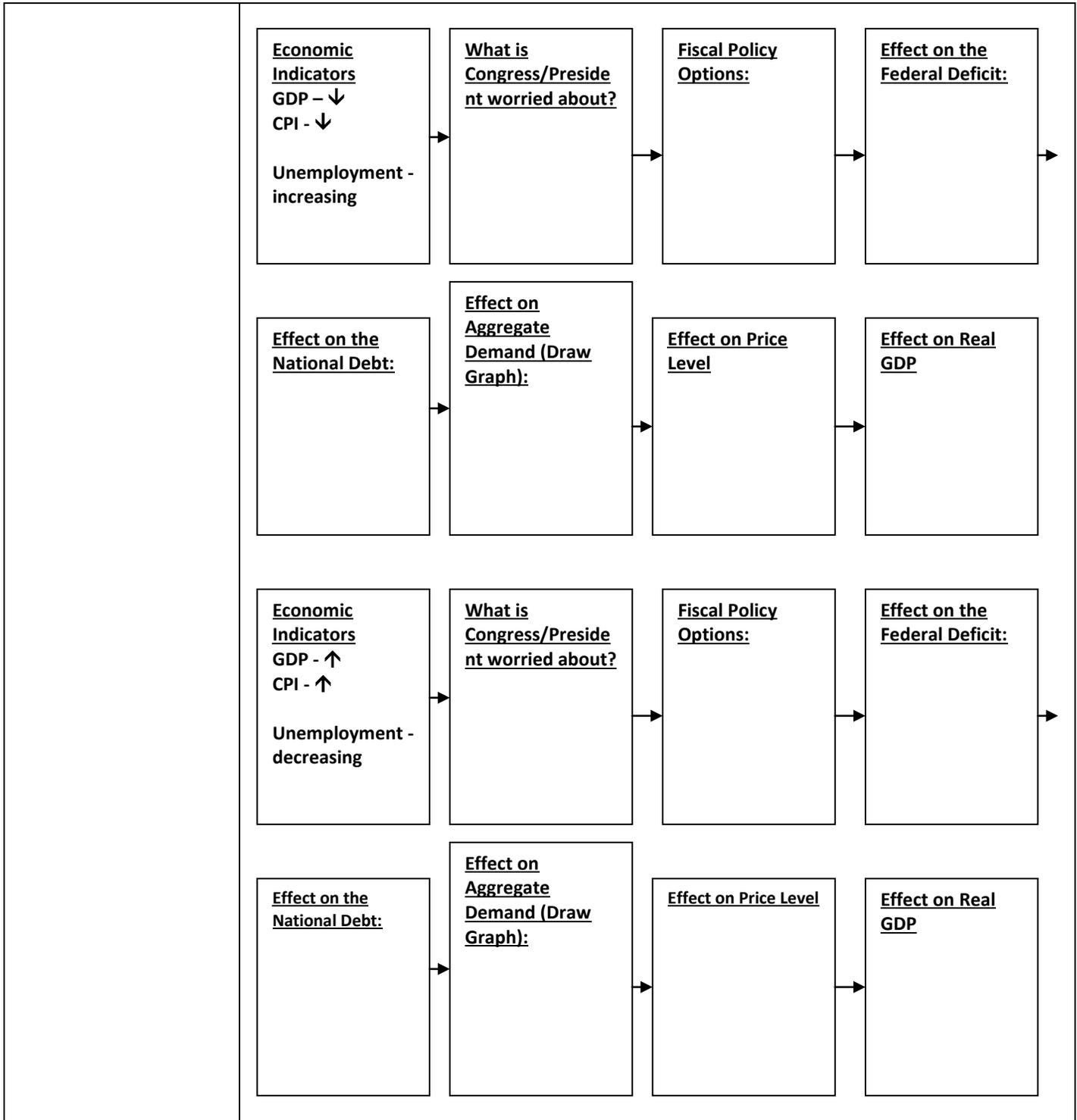
C. selling securities on the open market

D. making banks hold a reserve for all types of deposits

SSEMA3 The student will explain how the government uses fiscal policy to promote price stability, full employment, and economic growth.

Overview: The student will be able to explain how fiscal policy is used as a tool to combat inflation and recession in the economy. Student will be able to reading and interpreting scenarios, tables, and graphs related to fiscal policy.

<p>a. Define fiscal policy.</p>	<p>The student will be able to define fiscal policy. Fiscal policy refers to the power of the government (federal, state, or local) to use government spending and taxation policy changes to influence economic activity. The two main tools of fiscal policy are changes in taxes and changes in government spending. Fiscal policy changes are usually proposed by the executive branch of government and incorporated into a bill which must be passed by the legislative branch into law. In some cases, existing laws can allow automatic fiscal policy changes without new legislation. A good example of an “automatic stabilizer” fiscal policy is the current federal progressive income tax system. In times of inflation, people’s wages rise causing their tax burden to rise, lowering consumer spending and price level. In times of recession, wages will fall and people will pay less in taxes, allowing them to spend some additional income.</p>
<p>b. Explain the government’s taxing and spending decisions.</p>	<p>The student will be able to explain the government’s taxing and spending decisions used to promote price stability, full employment, and economic growth.</p> <p>During a time of increasing price level, the government may decide to pursue contractionary fiscal policy to curb inflation. The fiscal policy tools used to combat inflation include lowering government spending or increasing taxes. Less government spending means fewer firms and workers are earning money from government contracts and jobs. This lowers consumption, investment, and government spending. When spending decreases, prices eventually fall reducing inflation.</p> <p>When the government wishes to promote full employment and economic growth at a time when price level is not a concern, it will use fiscal policy tools that increase spending in the economy. This includes lowering taxes so people have more of their income to spend as well as increasing government spending so more firms and workers can earn money from government contracts and jobs.</p>



Sample Test Items:

1. If the federal government is attempting to encourage spending by consumers and businesses, a fiscal policy BEST serving this purpose would be
A. decreasing taxes* B. decreasing government spending C. reducing the investment tax credit D. balancing the budget

2. If the unemployment rate is rising and GDP is falling, the fiscal policy action that the federal government should MOST likely follow is
A. decreasing taxes* B. decreasing spending C. decreasing the money supply D. decreasing the reserve requirement

TEACHER NOTES
HIGH SCHOOL ECONOMICS
INTERNATIONAL ECONOMICS CONCEPTS UNIT

Purpose of International Economics Standards Domain

This domain focuses on concepts and skills related to the global economy: factors that account for international trade, comparative and absolute advantage, trade barriers and trading blocks, exchange rates, and general arguments for and against free trade.

International Concepts Resource Links:

http://www.gcee.org/workshops/register_for_workshops.asp - Georgia teachers are fortunate to have a very active council. The Georgia Council on Economic Education is a non-profit organization devoted to helping teachers teach economics. The council provides workshops and materials to teachers at no financial cost to the teachers or schools. In most cases, the council will fund the cost of a teacher's substitute teacher while they are attending a workshop. This link takes you to the webpage where you can register for a workshop.

<http://www.khanacademy.org> - Khan Academy provides free, online tutorials in a wide range of economic topics. On the main page, scroll down to the Current Economic to find tutorials about exchange rates and trade or go to the Microeconomics links to find information on comparative and absolute advantage and trade.

Although blocked at most public schools, www.youtube.com has many wonderful videos for use in Economics class. This link is for a short video on scarcity and rational decision making. You can request to have videos from YouTube uploaded to www.teachertube.com which can be accessed from most school computers.

<https://www.georgiastandards.org/standards/Pages/BrowseStandards/SocialStudiesStandards9-12.aspx> - This link takes you to the page where you will find the Economics Course Frameworks document providing a variety of assessment options, materials, and performance tasks for each economics unit.

SSEIN1 The student will explain why individuals, businesses, and governments trade goods and services.

Overview: The intent of this standard is for students to be able to explain the reasons for international trade, define and give examples of imports and exports, explain the significance of specialization in international trade, define absolute advantage and comparative advantage, identify countries with absolute advantage and comparative from a data set, explain the effects of absolute and comparative advantage on international trade, read and interpret scenarios, tables, and graphs related to absolute and comparative advantage, and give the significance of balance of trade and balance of payment data as economic indicators.

a. Define and distinguish between absolute advantage and comparative advantage.

EU – Gain from Trade

Students should be able to define both absolute and comparative advantage. They must be able to determine the person, company, or country with the absolute advantage and the comparative advantage when given data for each entity.

Absolute advantage can be defined in two different ways. When a student is presented with a problem involving the number of inputs required to produce a unit in each country, the absolute advantage is held by the country that uses the fewest inputs to produce the same amount of output. When a student is presented with a problem involving the number of units of output produced by each country with the same number of inputs, the absolute advantage is held by the country that produces the largest number of units of output.

For example, imagine two countries, Jasminia and Lauraland, that both produce MP3 players and Tablet Computers. In the example below, the problem presented is an INPUT problem because the numbers represent the labor hours used to produce one unit of each good. Since Jasminia only takes 10 hours to produce a unit of MP3 players while Lauraland takes 15 hours, Jasminia has the absolute advantage. In the case of the tablet computer, both countries take the same number of hours so neither has the absolute advantage.

Countries	Number of Labor Hours to Produce One Unit of MP3 Players	Number of Labor Hours to Produce One Unit of Tablet Computers
Jasminia	10	12
Lauraland	15	12

Now, imagine that Matthewtopia and Damianland are both producing MP3 players and Tablet Computers. However, the problem presented below is an OUTPUT problem because the numbers represent the number of units of each good they can produce given a fixed resource, in this case one hour of time. Since Damianland produces 9 MP3 players while Matthewtopia produces only 4 MP3 players, Damianland has the absolute advantage. In fact, Damianland has the absolute advantage in both good because it produces more of both per hour.

Countries	Number of Units of MP3 Players produced per hour	Number of Units of Tablet Computers produced per hour
Matthewtopia	4	2
Damianland	9	3

While large countries will probably have an absolute advantage in production over smaller countries, both countries can still benefit each other through specialization and trade. The basis of good trade relationships between countries is comparative advantage. Comparative advantage in production of a good is held by the country with the lowest opportunity cost for producing that good.

To illustrate comparative advantage, let us look again at the example using Jasminia and Lauraland. You will recall that the problem presented is an INPUT problem because the numbers represent the labor hours used to produce one unit of each good. We want to use the labor hours to find out how many units of tablet computers each country must give up to produce MP3 players. For input problems, we have to express opportunity cost as the ratio of “what we are producing” divided by “what we are giving up”. The ratios in each box below represent the opportunity cost of producing each good. When reading this information, say it the following way:

When Jasminia produces MP3 players, it gives up .833 of a tablet computer.
 When Lauraland produces MP3 players, it gives up 1.67 tablet computers.
 Since Jasminia gives up less to produce MP3 players, it has the comparative advantage in producing them and should specialize in this product.

When Jasminia produces Tablet Computer, it gives up 1.2 MP3 players.
 When Lauraland produces Tablet Computer, it gives up .6 of an MP3 player.
 Since Lauraland gives up less to produce Tablet Computers, it has the comparative advantage in producing them and should specialize in this product.

Jasminia should trade its MP3 players to Lauraland in exchange for Lauraland’s tablet computers. By specializing and trading, both countries will be able to consume more goods than they could when they produced both goods.

Countries	Number of Labor Hours to Produce One Unit of MP3 Players	Number of Labor Hours to Produce One Unit of Tablet Computers
Jasminia	10 Opportunity Cost = $10/12$ or $5/6$ or $.833$ of a Tablet Computer	12 Opportunity Cost = $12/10$ or $6/5$ or 1.2 MP3 Players
Lauraland	15 Opportunity Cost = $15/12$ or $5/3$ or 1.67 Tablet Computers	12 Opportunity Cost = $12/15$ or $3/5$ or $.6$ of an MP3 Player

To illustrate comparative advantage using the OUTPUT method, let us look again at the example using Matthewtopia and Damianland. You will recall that the problem presented is an OUTPUT problem because the numbers represent the labor hours used to produce one unit of each good. We want to use the labor hours to find out how many units of tablet computers each country must give up to produce MP3 players. For input problems, we have to express opportunity cost as the ratio of “what we are producing” divided by “what we are giving up”. The ratios in each box below represent the opportunity cost of producing each good. When reading this information, say it the following way:

When Matthewtopia produces MP3 players, it gives up .5 of a tablet computer. When Damianland produces MP3 players, it gives up .33 of a tablet computer. Since Damianland gives up less to produce MP3 players, it has the comparative advantage in producing them and should specialize in this product.

When Matthewtopia produces Tablet Computer, it gives up 2 MP3 players. When Damianland produces Tablet Computer, it gives up 3 MP3 players. Since Matthewtopia gives up less to produce Tablet Computers, it has the comparative advantage in producing them and should specialize in this product.

Damianland should trade its MP3 players to Matthewtopia in exchange for Matthewtopia’s tablet computers. By specializing and trading, both countries will be able to consume more goods than they could when they produced both goods.

Countries	Number of Units of MP3 Players produced per hour	Number of Units of Tablet Computers produced per hour
Matthewtopia	4 Opportunity Cost = .5 Tablet Computers	2 Opportunity Cost = 2 MP3 Players
Damianland	9 Opportunity Cost = .3 Tablet Computers	3 Opportunity Cost = 3 MP3 Players

Activity Suggestion: Ask students to get into pairs. Tell students they are going to name their own country. Ask them to come up with a country name and enter it in the table on the record sheet found below the activity description.

Next, have each student get out a piece of scratch paper. Tell students they are going to “produce” a good by drawing it on the paper. Show them how to produce the first good which is a house. The house is a square with a triangle on top. Tell them they will draw the house on their paper as many times as they can in 10 seconds. Say “go” and time them for 10 seconds. At the end of time, ask them to count up all their houses and their own production of houses in the proper box on their record sheet.

Now, tell students they are going to “produce” another good by drawing it on the other side of the paper. Show them how to produce the second good which is an ice cream cone. The ice cream cone is an upside down triangle with a circle on top. Tell them they will draw the ice cream cone on their paper as many times as they can in 10 seconds. Say “go” and time them for 10 seconds. At the end of time, ask them to count up all their ice cream cones and their own production of cones in the proper box on their record sheet.

Tell students that they are now going to answer questions about absolute and comparative advantage using their own production possibilities as the basis for the calculations. Ask them to answer the questions on their record sheets.

Comparative Advantage Activity

1. Use your name to make a country name: _____ (Ex: Narkertopia, Narkerland, etc.)

2. Produce your products:

	# produced Round 1	# produced Round 2
Houses		0
Ice Cream Cones	0	

3. Get a Partner and put your output in the chart below:

	Houses	Ice Cream Cones
Your Country Name: _____		
Your Partner's Country Name: _____		

4. Is this an input or an output question?

5. Which country has the absolute advantage in house production?

6. Which country has the absolute advantage in ice cream cone production?

7. What is the opportunity cost of producing houses in _____?
_____?

8. What is the opportunity cost of producing houses in _____?
_____?

9. What is the opportunity cost of producing ice cream cones in _____?
_____?

10. What is the opportunity cost of producing ice cream cones in _____?
_____?

11. If these two countries traded, what would be fair terms of trade?

b. Explain that most trade takes place because of comparative advantage in the production of a good or service.

Students should be able to explain how comparative advantage leads to gains from trade. Based on the example used in the description for element (a), it is clear that the country with the lowest opportunity cost for producing a good or service should specialize in that good and then trade with another country for the other good. By producing those goods with low opportunity cost, countries can consume beyond the production possibilities of their country. Specialization allows countries to allocate resources to their best possible use and creates greater efficiency.

<p>EU – Gain from Trade</p>	<p>Better efficiency means that there will be room for new industries to emerge.</p> <p>Activity Suggestion: See activity under SSEIN1a.</p>
<p>c. Explain the difference between balance of trade and balance of payments.</p> <p>EU – Interdependency</p>	<p>The student will be able to distinguish between the balance of payments and the balance of trade.</p> <p>Every country keeps an accounting record of international transactions between itself and the rest of the world. It is important for the teacher to make sure students understand that although it is the government keeping the record, the actual transactions are made primarily by individual people or firms not the government.</p> <p>The balance of payments for the United States includes three main accounts: the current account, the capital account, and the financial account. The current account is also known as the balance of trade. It records the monetary value of both U.S. exports and U.S. imports. The entry of the value of exports records money coming into the United States as payment for goods and services. Therefore, these transactions are recorded as credits (+) in the current account. It also records the monetary value of all U.S. imports. This is money going out of the U.S. as payments for goods and services made abroad. Therefore, these transactions are recorded as debits (-) in the current account.</p> <p>The current account balance is equal to the value of exports minus the value of imports. The current account balance is where we get the balance of trade. If the current account balance is a positive number, we have a trade surplus. If the current account balance is a negative number, we have trade deficit.</p> <p>The balance of payments also includes the value of international financial transactions and international purchases of capital. For example, the purchase of a U.S. Treasury Bond by someone in Argentina would be recorded in the Financial Account as a credit because the money is entering the United States. If U.S. residents purchase stock in an Argentine company, this would be debit to the U.S. financial account because the money is leaving the U.S.</p> <p>Similarly, a resident of Argentina may decide to make a purchase of capital in the United States such as buying a shopping center. This would be a credit to the U.S. capital account because the money is coming into the United States. If a U.S. resident purchased a factory in Argentina, then the transaction would be recorded as a debit since the money is leaving the United States.</p> <p>Ultimately, the balance of payments must balance. This means that a deficit in the current account must be offset by a surplus in the capital and/or financial accounts. If there is a surplus in the current account, then there must be a deficit in the capital and/or financial accounts to offset the current account surplus.</p>

Activity Suggestion: Put students into groups of three. One student is from the U.S. and one student is from Argentina. The third student acts as the bank. Give the student from the U.S. some fake U.S. dollars, some cards with U.S. exports written on them, and some cards with U.S. assets (treasury bonds, Facebook stock, etc.) on them.

Give the student from the Argentina some fake Pesos, some cards with Argentine exports written on them, and some cards with Argentine assets on them.

The students should have a simplified record sheet showing the balance of payments. They will record all their international transactions on the record sheet. Tell students that for the purposes of this activity there will be a one dollar to one Argentine peso exchange rate to make record keeping simple.

Tell the U.S. students that they want to buy an Argentine export for a specified amount of money. Explain that they must send this money to the bank to exchange it for pesos before they can buy the export. Tell the student from Argentina to do the same. Tell the banker to make the exchange and have the students make their purchases of exports. Ask the students to record their transactions on the U.S. Balance of Payments record sheet. Ask the students to tell whether there is positive, negative, or zero balance in the balance of payments. If the balance of the current account is positive or negative, tell the students they will need to have a transaction in the Financial Account to balance the current account. Ask them to make another transaction to balance the surplus or deficit in the current account.

The teacher should continue with transactions until students seem to understand the purpose of the balance of payments.

U.S. Balance of Payments

Name of Account	Year 1	Year 2
Current Account		
Value of U.S. Exports (+)		
Value of U.S. Imports (-)		
Current Account Balance		
Financial Account		
Foreign purchases of U.S. Financial Assets		
Value of Foreign purchase of U.S. Stock (+)		
Value of Foreign purchase of U.S. Treasury Bonds (+)		
U.S. purchases of Foreign Financial Assets		
Value U.S. purchase of Foreign Stock (-)		
Value U.S. purchase of Foreign Treasury Bonds (-)		
Financial Account Balance		
U.S. Balance of Payment (CA + FA)		

Sample Test Items:

1. Use the following chart to answer the question:

The chart below shows the number of minutes it takes to make one unit of each good.

	Muffins	Doughnuts
Islandia	1	2
Territoria	2	6

1. Which of the following statements about the data from the countries is TRUE?

- A. Territoria has an absolute and comparative advantage in muffins.
- B. Territoria has an absolute and comparative advantage in doughnuts.
- C. Islandia has an absolute and comparative advantage in muffins.
- D. Islandia has an absolute and comparative advantage in doughnuts.***

2. Which of the following statements correctly describe the difference between the balance of trade and the balance of payments?

- A. The balance of trade is always in deficit and the balance of payments is always in surplus.
- B. The balance of trade records barter transactions while the balance of payments records transactions made with money.
- C. The balance of trade is the current account balance and is one of the accounts found in the balance of payments.***
- D. The balance of trade records exports while the balance of payments records imports.

SSEIN2 The student will explain why countries sometimes erect trade barriers and sometimes advocate free trade.

Overview: The intent of this standard is for students to be able to explain the effects of tariffs, quotas, embargoes, and subsidies on international trade, give reasons why nations impose trade barriers and restrictions on trade, cite examples of modern-day trade barriers and restrictions, explain the short and long-term advantages and disadvantages of erecting trade barriers and restrictions, read and interpret scenarios, tables, and graphs related to trade barriers and restrictions, explain the reasons why nations create trading blocs such as the EU and NAFTA, and give general arguments for and against free trade.

<p>a. Define trade barriers as tariffs, quotas, embargoes, standards, and subsidies.</p> <p>EU – Gain From Trade</p>	<p>The student will be able to define trade barriers and explain the meaning of each kind of trade barrier.</p> <p><i>Trade Barrier</i> – A law passed or action taken by the government of a country with the intention of restricting the flow of goods and services between its country and another.</p> <p><i>Tariff</i> – A tax placed on goods when they are imported into a country.</p> <p><i>Quota</i> – A limit on the quantity of a good imported into a country.</p> <p><i>Embargo</i> – A complete ban on trade with a particular country due to political disputes</p> <p><i>Standards</i> – Requirements that a good must meet before it can enter the country as an import.</p> <p><i>Subsidies</i> – A transfer payment given by a government to their exporting companies allowing the company to compete with other nations at the international market price without having to incur the cost of the lower price.</p>
<p>b. Identify costs and benefits of trade barriers over time.</p> <p>EU – Gain from Trade</p>	<p>When a country imposes trade barriers, there are usually some winners and some losers. A general concern about using any trade barrier is the possible retaliation of the other country.</p> <p><i>Tariff</i> – Benefits include providing revenue to the importing country’s government and protecting the domestic producers of the good. Costs include higher prices for consumers and inefficient use of resources.</p> <p><i>Quota</i> – The benefit is some protection for domestic producers. The cost is that consumers who want the imported good cannot get it once the quota is met no matter how high a price they are willing to pay.</p>

	<p><i>Standards</i> – Requirements that a good must meet before it can enter the country as an import.</p> <p><i>Subsidies</i> – A transfer payment given by a government to their exporting companies allowing the company to compete with other nations at the international market price without having to incur the cost of the lower price.</p>
<p>c. List specific examples of trade barriers.</p> <p>EU – Interdependency</p>	<p>Students will be able to name specific examples of how these trade barriers have been used by the United States government.</p> <p>2002 U.S. Tariffs on Steel – In 2002, amid bankruptcies of a large number of steel companies in the U.S., President George W. Bush issued tariffs on imported steel to protect the remaining steel companies. A number of countries were exempt from the tariffs such as Mexico and Canada. The tariffs started a trade war with Europe which placed retaliatory tariffs on U.S. steel. The World Trade Organization officially came out against the steel tariffs in 2003 and the U.S. withdrew them.</p> <p>2005 Quotas on China’s Textiles – On January 1, 2005, under new free trade rules from the World Trade Organization, the United States and Europe lifted textile quotas that had been in place for decades. China’s textile imports into the U.S. grew by 1500% in the period from January to May 2005. The U.S. responded by implementing a quota to limit the growth of Chinese textile imports to a 7.5% annual increase.</p> <p>U.S. Embargo against Cuba – Since 1960, there has been a partial and/or close to total block against U.S. companies doing business with Cuba. The embargo is motivated by political objections to Cuba’s government. The strength of voting power among Americans of Cuban descent in Florida is thought to be the reason behind the embargo. Florida is often a crucial swing state for Presidential candidates.</p> <p>USDA Labeling Standards – The United States Department of Agriculture requires all foods entering the U.S. to have proper nutritional and ingredient labeling.</p> <p>U.S. Agricultural Subsidies – The U.S. government has been giving money to agricultural businesses for decades. These subsidies allow U.S. farmers to compete in world markets since the world price for many agricultural goods is lower than what U.S. farmers could charge on their own.</p> <p>Activity Suggestion: Ask students to create and perform a public service announcement arguing for or against one of the trade barriers. The teacher can have them research a specific trade barrier imposed by the United States.</p>

<p>d. List specific examples of trading blocs such as the EU, NAFTA, and ASEAN.</p> <p>EU – Interdependency</p>	<p>The student should be able to explain that a trading bloc is a group of countries who have come together to eliminate trade barriers in their region with the hope of increasing the economic strength of the region.</p> <p>The EU is the European Union. The European Union allows for free movement of goods and workers across country borders. Many countries in the EU use the Euro as their currency to further reduce obstacles to trade. There are currently 27 countries in the European Union.</p> <p>NAFTA is the North American Free Trade Agreement. It was established to promote barrier free trade between Canada, the United States, and Mexico.</p> <p>ASEAN is the Association of South East Asian Nations. It includes ten countries in southeast Asia. It was established to promote economic growth, free trade, and economic collaboration between member nations.</p>
<p>e. Evaluate arguments for and against free trade.</p> <p>EU - Incentives</p>	<p>The student will evaluate the main arguments for and against free trade. The student should be able to explain each of the arguments used when considering free trade versus the implementation of barriers. They should also be able to assess the costs and benefits of each argument.</p> <p>The main arguments in favor of restricted trade include:</p> <ol style="list-style-type: none"> 1. Protecting infant industries 2. Protecting national security 3. Protecting domestic employment 4. Protecting workers in developing countries from unfair labor practices 5. Protecting the environment in developing countries <p>The infant industries argument supports the use of trade barriers when a new industry is in the early stages of development. Unless the industry can grow and establish economies of scale (high output with low cost per unit), it will be unlikely to survive in competition with established industries in other countries. Opponents of this argument cite the difficulty in accurately predicting which industries are likely to “grow up” and be competitive as well as the potential for retaliation by other countries.</p> <p>The national security argument cites the importance of maintaining industries critical to the country’s national security even when the industry cannot efficiently compete at the international level. Opponents to this argument cite the potential for abuse because at some level many industries can argue their importance to national security.</p>

The domestic employment argument seeks to protect workers of a country from becoming unemployed to competition from products made by workers in developing countries who usually work for much lower wages and benefits. Opponents of this argument emphasize the increased consumer prices caused by the protectionism. Also, free trade and efficient production usually leads to new industries and jobs within those new industries. Finally, if workers in developing countries are allowed to produce goods for which they have a comparative advantage, these workers will become richer and will become consumers of international goods as well as producers.

The protecting workers in developing countries from unfair labor practices argument is the basis for limiting the purchase of those goods by people in the developed country. By developed world standards, working conditions in developing nations are often very bad relatively speaking. However, opponents of this argument emphasize that workers in developing countries would lack jobs entirely if their countries were unable to produce and sell goods abroad. In the long-run, as industries in developing countries become more established and worker's wealth increases, the workers will demand better working conditions.

The protection of the environment argument is used to support restrictions on trade with countries that have lax environmental standards. Opponents argue that developing nations must have the ability to produce goods without being held to the same environmental standards as developed nations because they would be uncompetitive otherwise. Economic research shows that as a nation becomes richer, the people of the country demand higher environmental standards. If countries are allowed to increase growth without a lot of restrictions, eventually the environment will become cleaner.

Sample Test Questions:

1. A tariff can BEST be described as which of the following?

- A. a tax on an imported good*
- B. a limit on the amount of imports
- C. government payments to domestic producers to help them compete in world markets
- D. a law that sets a limit on the amount of a good that can be imported

2. What is the primary purpose of the North American Free Trade Agreement (NAFTA)?

- A. to reduce trade barriers among the United States, Canada, and Mexico*
- B. to decrease quotas but increase tariffs among the member countries
- C. to establish trade policy between the member countries and the rest of the world
- D. to counter the establishment of the European Union

3. A tariff placed on foreign steel imports represents

- A. a barrier to trade*
- B. a balance of payment deficit
- C. a subsidy to domestic producers
- D. an increase in domestic production

4. Those in favor of protectionist trade policies would MOST likely

- A. support a reduction in tariffs
- B. call for fewer import restrictions
- C. cite the need to preserve domestic industries*
- D. believe that restrictions harm consumers

SSEIN3 The student will explain how changes in exchange rates can have an impact on the purchasing power of individuals in the United States and in other countries.

Overview: The purpose of this standard is for the student to be able to define the exchange rate, describe the causes of depreciation and appreciation of national currencies, explain the effects of currency depreciation and appreciation on trade and consumption, and to accurately read and interpret scenarios, tables, and graphs related to the reasons for and the effects of changes in exchange rates.

a. Define exchange rate as the price of one nation's currency in terms of another nation's currency.

EU – Gain from Trade

The student will define an exchange rate as the price of one nation's currency expressed in terms of another nation's currency. For example, the price of the dollar expressed in Euros at the time this sentence was written was \$1 = €.79 which means it takes .79 of a euro to purchase one U.S. dollar.

b. Locate information on exchange rates.

EU – Gain from Trade

The student should be able to locate resources that provide exchange rates. The internet is the best source for current exchange rates although some newspapers may still publish the rate at time of press. The following websites offer exchange tables and currency converters:

<http://www.usforex.com>
<http://www.exchangerate.com/>

c. Interpret exchange rate tables.

The student should be able to interpret exchange rate tables. The exchange rate table is the one provided in the Economics EOCT Study Guide. Students should be able to answer questions based on the table.

U.S. Dollar, end of Year 1

	One U.S. dollar	in U.S. dollars
British pound	0.49	2.06
Danish krone	5.17	0.19
Euro	0.69	1.44
Japanese yen	114.69	0.0087
Mexican peso	10.71	0.093
Swiss franc	1.17	0.86
Thai baht	31.7	0.03

For example, if the student is asked how much a U.S. dollar costs in yen. The student should say that it takes 114.69 yen to buy one dollar. If the student is asked how many U.S. dollars it takes to purchase a Thai baht, the student should say it takes three cents or .03 of a dollar to buy a baht. If the student is asked how many pounds it would take to buy a \$10 meal in the U.S., the student would multiply .49 times \$10 and say that it will take 4.90 pounds to purchase the meal. If the student is asked how many dollars it takes to buy a 15 euro train ticket, the student would take \$1.44 times 15 Euros for a total of \$21.60 for the train ticket.

d. Explain why, when exchange rates change, some groups benefit and others lose.

The student should be able to explain how a change in exchange rates will benefit some groups while hurting others.

When a country's currency value rises against another currency that currency has *appreciated*. If the country's currency value falls against another currency, it has *depreciated*.

For example, assume the United States and Japan are trading partners. Due to the popularity of Japanese Anime in the United States, there is an increase in demand for yen by people in the United States because they have to have Japanese currency to buy Japanese goods.

As the demand for yen rises, the price of yen rises in the foreign exchange market. The higher price of yen will make Japanese goods more expensive and Japanese exports to the United States will decrease. However, the higher value of the yen will allow people in Japan to import more goods, more cheaply from the United States. Therefore, while Japanese exporters are harmed, U.S. exports to Japan will increase so U.S. exporters will be helped. Also, while U.S. tourists visiting Japan will be harmed by the increased price of the yen, Japanese tourists coming to the U.S. will be helped because they can buy more.

The following tables show the exchange rates for two different years. Based on the tables, students should be able to determine whether a currency has appreciated or depreciated and explain who is helped and hurt by the changes.

U.S. Dollar, end of Year 1

	One U.S. dollar	in U.S. dollars
British pound	0.49	2.06
Danish krone	5.17	0.19
Euro	0.69	1.44
Japanese yen	114.69	0.0087
Mexican peso	10.71	0.093
Swiss franc	1.17	0.86
Thai baht	31.7	0.03

U.S. Dollar, end of Year 2

	One U.S. dollar	in U.S. dollars
British pound	0.52	1.92
Danish krone	4.83	0.21
Euro	0.67	1.49
Japanese yen	121.3	0.0082
Mexican peso	15.02	0.067
Swiss franc	1.06	0.94
Thai baht	36.8	0.027

Based on the tables, we can say that the pound depreciated against the dollar. This means a trip to the United States and U.S. exports will be more expensive for the British, while Americans will be able to travel more cheaply in England and purchase more British goods.

Activity Suggestion: Put students into small groups (about three people per group) and tell them that they and their friends are going to plan a trip to another country.

Give them guidelines such as how long the trip should be and type of accommodations they should choose. Giving some parameters could help the students to make comparisons about the cost of traveling in various countries. Put a selection of countries into a container and have students randomly select one. You could also have them request a country, but make sure each group has a different country and that you have resources available to plan the trip.

Make travel guide books available for the countries the students. You should be able to find travel books at the public library. Lonely Planet guides are particularly good for young people. Ask the students to plan their trips, creating a budget for the trip in both U.S. dollars and the other country's currency. Student groups should present their trips to the class. The class should then discuss how exchange rates and cost of living are related. For example, although you can buy a lot of yen with a dollar, that doesn't mean traveling in Japan is cheap.

Sample Test Questions:

1. Over the course of one year, the Japanese yen depreciates relative to the British pound. Who would benefit MOST from this occurrence?

- A. British consumers of British goods
- B. British consumers of Japanese goods***
- C. Japanese consumers of Japanese goods
- D. Japanese consumers of British goods

2. Study the information below and use it to answer the question that follows.

Year	Yen per Euro
1	90
2	115
3	80

The table shows the hypothetical international value of the Japanese yen in terms of the European euro. Which of the following BEST explains why the yen per Euro changed from year 1 to year 2?

- A. Japanese consumers increased the demand for European goods and services.***
- B. Japanese business firms increased their exports to European markets.
- C. Japanese investment in European securities decreased.
- D. The inflation rate in Europe increased at a faster rate than it did in Japan.

3. Use this exchange rate table to answer the question.

U.S. Dollar, end of Year 1

	One U.S. dollar	in U.S. dollars
British pound	0.49	2.06
Danish krone	5.17	0.19
Euro	0.69	1.44
Japanese yen	114.69	0.0087
Mexican peso	10.71	0.093
Swiss franc	1.17	0.86
Thai baht	31.7	0.03

Which monetary amount is the closest equivalent to having two U.S. dollars?

- A. 64 Thai baht*
- B. 57 Japanese yen
- C. 0.7 Euro
- D. 0.25 British pound

4. Study the information below and use it to answer the question that follows.

Foreign Exchange Rates

Country/ Currency	Foreign Currency in U.S. Dollars	U.S. Dollars in Foreign Currency
Canada/ Dollar	.6625	1.5095

Keisha traveled to Canada and took \$100 in U.S. currency. When Keisha exchanged the \$100 for an equivalent sum in Canadian dollars, she received about

- A. 33 Canadian dollars
- B. 66 Canadian dollars
- C. 100 Canadian dollars
- D. 150 Canadian dollars***

TEACHER NOTES
HIGH SCHOOL ECONOMICS
PERSONAL FINANCE CONCEPTS UNIT

Purpose of Personal Finance Standards Domain

This domain focuses on economic skills and concepts that deal with personal economic decisions related to spending, saving, and investing, banks and other financial institutions, the use of credit, insurance, the effects of monetary and fiscal policy on personal economic behaviors, and factors that account for personal income earned in the workforce. Students will explain how individuals can make rational spending and saving choices, explain how banks and other financial institutions provide services to individuals, explain the effects that changes in fiscal and monetary policy have on individual spending and saving choices, evaluate the benefits and disadvantages of using credit, compare different types of insurance policies available to individuals, and evaluate the relationship of years of education completed to level of wages earned in the workforce.

Resource Links:

http://www.gcee.org/workshops/register_for_workshops.asp - Georgia teachers are fortunate to have a very active council. The Georgia Council on Economic Education is a non-profit organization devoted to helping teachers teach economics. The council provides workshops and materials to teachers at no financial cost to the teachers or schools. In most cases, the council will fund the cost of a teacher's substitute teacher while they are attending a workshop. This link takes you to the webpage where you can register for a workshop.

<http://www.genirevolution.org/index.php> - This free, web-based video game takes students through 15 economic missions all tied to the Georgia Performance standards in Economics. Almost every mission has a link to the personal finance standards. Topics include credit, investing in stocks, bonds, and mutual funds, buying a house, saving, and comparing financial institutions. Teachers can create classes and have students register for their class. Teachers can track student performance and mission completion within their own account. The game is challenging, so it is a good idea for the teacher to complete the missions personally before assigning them to students.

http://www.frbatlanta.org/pubs/extracredit/lessons_activities.cfm - The Atlanta District Federal Reserve has a webpage full of links to detailed lesson plans for teachers. Many of these lessons are linked to the Economics GPS for Personal Finance.

<http://www.practicalmoneyskills.com/games/trainingcamp/ff/> - Visa's Financial Football is a fast-paced, sports-themed game, but it's also a learning tool. Make it a part of your classroom curriculum with these integral lesson modules. Each lesson module is structured as a comprehensive teaching tool for easy integration into your own classroom curriculum. Students of all ages learn key concepts about saving and spending, budgeting and the wise use of credit in preparation for game play. Pick an age level of Rookie, Pro

or Hall of Fame in the box (at right) and download the modules.

<https://www.georgiastandards.org/standards/Pages/BrowseStandards/SocialStudiesStandards9-12.aspx> -

This link takes you to the page where you will find the Economics Course Frameworks document providing a variety of assessment options, materials, and performance tasks for each economics unit.

<http://www.smgww.org/> - This site is a virtual stock market game. You can use it to have student learn about the stock market. There are teacher resources to help teachers teach about investing in the stock market.

SSEPF1 The student will apply rational decision making to personal spending and saving choices.

Overview: The student will be able to apply rational decision making to personal spending and saving choices by explaining the differences between and among spending, saving, and investing, explain the difference between wants and needs, explain the reasons why individuals spend, save, and invest money, make short and long-term goals for spending, saving, and investing money, and use different strategies to determine appropriate ways for individuals to spend, save, and invest money.

a. Explain that people respond to positive and negative incentives in predictable ways.

The student will be able to explain that people respond to positive and negative incentives in predictable ways when choosing what to do with their money. Ultimately, what a person decides to do with his or her money is his or her choice, but the federal government, as well as other agencies, attempts to influence people’s spending and saving choices in a variety of ways.

For example, this influence is obvious in the national tax code. The government is using tax laws to influence people’s decision-making processes. For example, the government wants a larger pool of educated workers (they have higher income potential) and it would prefer fewer chronic smokers (who get ill more often). To achieve this, the government offers a variety of tax breaks for education—such as tax-free savings accounts or the ability to deduct interest on student loan payments — to encourage people to spend money on education.

At the same time the government sets high excise tax rates on cigarettes and alcohol to discourage people from smoking and drinking. The final choice is still the individual’s, but in this example the government has attempted to skew the decision toward education and away from smoking and drinking. The result of more educated people is a more stable society that produces more GDP and tax revenue. A smaller number of smokers and drinkers will reduce health care costs, labor cost, and accidents like home fires and fatalities caused by drunk driving.

Activity Suggestion: Display an item of value to students. It could be money, candy, or a homework pass. Ask students to do something goofy (but not demeaning or

	<p>dangerous) to get the item. Ask the students why their classmate was willing to perform the action. They will say he or she really wanted what was offered. Explain that this is an example of an incentive in action. Tell students that they are constantly being influenced by positive and negative incentives. The key is to rationally choose to which they will respond.</p>																														
<p>b. Use a rational decision making model to select one option over another.</p>	<p>The student will be able to use a rational decision making model to select one option over another. Students should identify several options between which they want to choose. This could be where they want to go to college, with whom they want to go to prom, or simply who in their group should get a piece of candy. After selecting the alternatives, they will need to select some criteria for use in evaluating the alternatives. At this point, the student should put the information into a decision matrix and give each alternative a plus or a minus based on the criteria. The student could also rank the alternatives from best (5) to worst (1) in each criterion and add the scores. More important criteria could be given greater weight than less important criteria.</p> <p>Activity Suggestion: The chart below is an example of a decision matrix for college choices. Ask students to complete a similar one for the criteria and schools important to them.</p> <p style="text-align: center;">Decision Matrix</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 20%;">Scholarship or Financial Aid Offered</th> <th style="width: 20%;">Low Cost travel to and from home</th> <th style="width: 20%;">Preferred Major and Minor Available</th> <th style="width: 20%;">Excellent Reputation of School</th> </tr> </thead> <tbody> <tr> <td>University of Georgia</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Temple University</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Georgetown University</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Miami University of Ohio</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Cal Tech</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Scholarship or Financial Aid Offered	Low Cost travel to and from home	Preferred Major and Minor Available	Excellent Reputation of School	University of Georgia					Temple University					Georgetown University					Miami University of Ohio					Cal Tech				
	Scholarship or Financial Aid Offered	Low Cost travel to and from home	Preferred Major and Minor Available	Excellent Reputation of School																											
University of Georgia																															
Temple University																															
Georgetown University																															
Miami University of Ohio																															
Cal Tech																															
<p>c. Create a savings or financial investment plan for a future goal.</p>	<p>The student will be able to create an investment plan for a future goal. An investment plan is a detailed description of all the major areas of one’s investment strategy. It will help a person understand themselves and set the framework for every investment activity undertaken. The investment plan has four main components:</p>																														

1. Risk and return objectives - Generally, the higher the risk of loss there is associated with an investment, the higher the potential return. For this reason, investing in individual company stock or real estate is very risky. If the company or the area does well, the investor can make a lot of money quickly. However, they could also lose a lot if the company fails or the real estate market crashes.
2. Investment guidelines and constraints – This refers to things that influence where you will put your money. For young investors with few financial and family obligations, taking bigger risks to increase wealth quickly may be sensible. However, as someone ages and becomes more financially responsible for others, they may become more risk averse and want a smaller stable return on investments.
3. Investment policy – This is a written statement by the investor clearly indicating what investments they will and will not make. For example, some investors may be unwilling to purchase stock in companies which seem to have values or business practices that are questionable. Some investors are interested in investing in companies who have a reputation for preserving the natural environment or pursuing good labor practices.
4. Portfolio monitoring, reevaluation, and rebalancing – Every investor has to reflect on their investment portfolio on a regular basis. Depending on the type of investor, this is done on a monthly, quarterly, or annual basis. The investor should compare the actual performance of their investments to the benchmarks provided by the investment bank or those set by the investor when making the investment. New goals should be incorporated into the plan.

Activity Suggestion: Ask student to complete the following plan for a short-term goal.

Set the Goal

Describe something you would like to be able to afford within one year from today: _____

Determine the actual cost and write it here: _____

Evaluate Your Budget

List your monthly income here: _____

List your monthly expenses here: _____

Subtract your expenses from your income: _____

If this amount is positive, it can become your savings!

If you save this amount every month for a year, will you be able to afford your goal? _____

If not, what changes can you make to your monthly income and/or expenses to make your goal affordable? _____

Sample Test Questions:

1. The government has recently raised the excise tax on gasoline making it more expensive. Which of the following consumer responses would NOT be a predictable response to this government imposed negative incentive?

- A. Some consumers purchase hybrid vehicles
- B. Consumers combine trips to reduce gasoline consumption
- C. Consumers take more vacations that require long-distance car travel***
- D. Consumers look for transportation alternatives like bikes, mass transit, and car pooling.

2. Which of the following is NOT one of the steps in creating a financial plan for saving and investing?

- A. Getting a second job.***
- B. Setting realistic, measurable, attainable goals.
- C. Matching investment types with personal financial goals.
- D. Evaluating the performance of investments at regular intervals.

SSEPF2 The student will explain that banks and other financial institutions are businesses that channel funds from savers to investors.

Overview: The students will identify the different types of financial institutions that compete for business and consumer money, explain the difference between interest paid to a financial institution and interest received, give factors that account for the amount of return when saving or investing, give reasons for differences between and among a savings account, checking account, individual stocks, bonds, and mutual funds.

a. Compare services offered by different financial institutions.

Types of Financial Institutions

1) Bank—For most consumers, banks provide a safe means to store earnings. Typically, banks also offer direct deposit (where a person’s paycheck goes directly into his or her account), check-writing services, debit and credit cards, loans of all sorts (personal, home equity, business), and a host of other services.

2) Credit Union—A credit union provides services similar to a bank; the main difference is that a credit union only provides these services to its members, and these members own and control the institution. In theory, then, credit unions should be able to have higher saving rates for deposits and also lower interest rates on loans, because these two items would be helpful to its owners (the depositors and people taking out loans).

3) Savings and Loan—This organization is like a focused bank; instead of providing a wealth of services, a savings and loan takes deposits and concentrates on the two areas in its name: savings and (mortgage) loans. People who put money into a savings and loan know that it will not be as easily accessible as money placed in a commercial bank, but this should be offset by a higher savings rate than a typical commercial bank. Also, by focusing on a single aspect of the loan market (mortgage loans), a savings and loan can gain experience and expertise in this area and may be able to handle mortgage loans that other financial institutions would be unable (or unwilling) to take on.

4) Payday Loan Company—Suppose you need \$50 on Wednesday but won’t get paid by your job until Friday. To solve this temporary problem, a payday loan company will give out small loans in return for a portion of the upcoming paycheck. This means the person will get \$50 on Wednesday, but come Friday, \$55 of his or her paycheck will go to the payday loan company. Payday loan companies generally charge much higher interest on loans than other institutions.

Activity Suggestion: Schedule time in the computer lab for your students. Ask students to find an example of each of these financial institutions online. Give them a chart to complete similar to the one below:

	Name/Type of Institution	Services Offered	Charges for Services	Benefits of Using this Institution	Costs of Using this Institution
	1.				
	2.				
	3.				
	4.				
<p>b. Explain reasons for the spread between interest charged and interest earned.</p>	<p>The student will be able to explain the reasons for the spread between interest charged and interest earned. Commercial banks, and other financial institutions that offer loans, are businesses. They must make a profit if they expect to continue operating. One primary way banks make profits is by taking the money deposited in them and loaning out a portion of these savings to people who apply for them. By charging interest on the loans, banks make money. The more money on deposit, the more loans they can make, which is why some banks offer very generous checking account services. The interest on the loans is always more than the interest paid out to depositors for their money. If banks did not have this “spread” between interest earned and interest charged, they would go out of business very quickly. NOTE: As provisions of the Glass-Steagall Act have eroded, commercial banks have increasingly added very lucrative investment banking services to the traditional role of taking deposits and making loans. Some economists believe this has created some of the problems in the financial services industry leading to the Great Recession of 2008-2009.</p>				
<p>c. Give examples of the direct relationship between risk and return.</p>	<p>The student will be able to cite examples of the relationship between risk and return. The typical rule is that the higher the potential return offered by an investment opportunity, the more risky the investment usually is. Therefore, if someone offers a 20% return and no risk, the person is most likely not being very honest. The options below give an idea of the relationship between risk and return:</p> <ol style="list-style-type: none"> 1. Savings Accounts - Savings accounts are bank accounts in which people put money to which they need easy access. Since savings accounts are insured by the Federal Deposit Insurance Corporation (FDIC) up to \$250,000, there is virtually no risk that the depositor will lose his or her money. The only risk comes from inflation risk. This means that the interest earned on the savings is less than the rate of inflation. Therefore, money held in a very low interest savings account is likely to erode in value over time. Since 				

	<p>savings accounts are very low risk, the rate of return is very low as well. Most bank pay less than 1% interest on savings.</p> <ol style="list-style-type: none"> 2. U.S. Treasury Bonds – Purchasing a U.S. Treasury Bond is like loaning the U.S. government money. The government pays you a guaranteed rate of return. Since the U.S. government is considered a reliable borrower, the rate of return is low. For example, the interest rate on 3 month to 5 year treasury bonds is less than 1%. The interest rate on 10 year treasury bonds is around 1.5%. Again, bonds are safe but carry an inflation risk if interest paid is not higher than the inflation rate. 3. Stock Mutual Funds – Individual company stock is usually viewed as relatively risky. For this reason, many people choose to play the stock market by purchasing mutual fund. Mutual funds provide more protection against loss because the investment is spread across many different companies rather than just one company. You may also select funds that reflect specific levels of risk or your values. Long term investing tends to give a greater return in the stock market than short-term investing. Over a 20-year period, the stock market returns on average 7-8%. However, when holding stocks for only 5 to 10 years, the average rate of return drops to 1-2%. 4. Stock – Purchasing stock of individual companies is one of the more risky ways to invest. When purchasing stock in large stable companies (blue chip stocks), your investment could be safer, but your rate of return is likely to be lower. If you invest in companies with a shorter track record or a brand new product, the potential return is generally high if the company succeeds, but you are much more likely to lose your investment if the business model is fails. <p>Activity Suggestion: Reserve the computer lab. Have students complete the investment and risk related missions at www.genirevolution.org. Mission 15, in particular, deals with the different types of risk. Mission 12 deals with changes in stock values. Mission 13 deals with investment portfolios and business cycle changes.</p>
<p>d. Evaluate a variety of savings and investment options; include stocks, bonds, and mutual funds.</p>	<p>The student will evaluate a variety of savings and investment options including stocks, bonds, and mutual funds.</p> <p>The mutual fund is usually a collection of various investments (stocks, bonds, and other forms of securities). The goal of a fund is to have many people pool their earnings, thereby giving these individual investors much greater purchasing power as a unit. The accrued earnings are then used to buy a range of investment options, and any earnings made by the fund are distributed among the individuals.</p> <p>Some investors are quite risk adverse. For example, someone who has retired is not able to add any additional money to their income and must rely on their</p>

savings to survive. These individuals will not want to take the chance of losing their savings. To accomplish this, they might buy U.S. government securities (**bonds**). These are quite safe, but they do not offer a very high return.

There are other types of **bonds** that are regularly offered by state and local governments as well as other entities like companies. By investing in them, the investor gets a promise that his or her investment will be repaid with interest. Local governments and companies are more likely to go bankrupt than the U.S. government so these bonds are more risky than U.S. Treasury bonds.

People who believe in the business prospects of a certain corporation can buy **stocks** in that company. In return for partial ownership of the company, the investor gives that corporation his or her money to spend. If the company does well, its stock price usually rises, which translates to an increase in the wealth of its stockholders. Some companies also pay out dividends to their stockholders, which are a portion of their profit.

Activity Suggestion: See the activity for SSEPF2c.

Sample Test Items:

1. A man has \$100 to invest and hopes to receive 10 times the amount back (\$1,000) by the end of 5 years. This could be BEST accomplished by

- A. placing the money in a savings and loan account
- B. depositing the money in a commercial bank account
- C. purchasing \$100 worth of stock in a start-up company*
- D. buying \$50 worth of bonds and investing \$50 in a mutual fund

2. Buying stock through mutual funds is less risky than buying individual company stock because

- A. You diversify your risk by buying small pieces of many companies at a time*
- B. Inflation is less likely to erode your investment
- C. Investments made into mutual funds are insured by the FDIC
- D. Individual companies usually go bankrupt

SSEPF3 The student will explain how changes in monetary and fiscal policy can have an impact on an individual's spending and saving choices.

Overview: The student will explain the definition, causes, and effects of inflation, the monetary policy and fiscal policy as tools to combat inflation, and will be able to read and interpret scenarios, tables, and graphs related to the causes and effects of inflation. The student will also explain the features of and give examples of progressive, regressive, and proportional taxes, explain the effects of progressive, regressive, and proportional taxes on different income levels, analyzing arguments for and against progressive, regressive, and proportional taxes, and read and interpret scenarios, graphs, and tables related to progressive, regressive, and proportional taxes.

a. Give examples of who benefits and who loses from inflation.

The student will be able to give examples of people who benefit and who lose from inflation, particularly unanticipated inflation.

Inflation generally harms an individual because wages tend to rise more slowly than prices. There are a variety of factors involved. Over time, workers will demand more money to keep up with having to pay higher prices, but in the short run inflation causes an increase in prices. If this increase is not matched by a similar increase in wages, workers will find that their paycheck can no longer purchase all the items they once purchased.

People try to prepare for inflation by investing in things that will give them a rate of return higher than the rate of inflation. Businesses will try to factor inflation into contracts they enter into with workers and suppliers. Banks will try to account for inflation in the loans they make to households and companies.

Unfortunately, sometimes, the inflation rate is higher than expected and is called unanticipated inflation. As a rule, borrowers with fixed rate loans usually benefit from unanticipated inflation because they repay their loans with dollars that have less purchasing power than the ones they originally borrowed. Conversely, lenders at fixed interest rates lose from unanticipated inflation because they are receiving dollars that do not purchase as much as those they originally lent.

b. Define progressive, regressive, and proportional taxes.

Students will be able to define progressive, regressive, and proportional taxes.

A **Progressive tax** is a tax rate that increases as income increases, meaning the wealthy pay a higher percentage of their earnings than people less financially well-off. For example, a progressive tax might have a tax rate of 1% for every \$10,000 earned annually, with a maximum tax rate of 50%. This system would lead to the following:

Annual Income	Progressive Tax Rate	Amount pay in taxes
\$10,000	1%	\$100
\$20,000	2%	\$400
\$30,000	3%	\$900
\$40,000	4%	\$1,600
\$50,000	5%	\$2,500
\$60,000	6%	\$3,600
\$70,000	7%	\$4,900
\$80,000	8%	\$6,400
\$90,000	9%	\$8,100
\$100,000	10%	\$10,000

\$10,000 1% (1%) (\$10,000) = \$100
\$30,000 3% (3%) (\$30,000) = \$900
\$200,000 20% (20%) (\$200,000) = \$40,000
\$500,000 50% (50%) (\$500,000) = \$250,000
\$700,000 50% (50%) (\$700,000) = \$350,000

As you can see, people earning \$30,000, or three times as much as those earning \$10,000, would have to pay *nine* times the amount in taxes (\$900 to \$100). Those earning \$200,000, more than six times as much as those earning \$30,000, would have to pay more than *forty-four* times as much in taxes. While this may seem excessive, the rationale is that a progressive tax takes more money from those who can afford it.

A **Regressive tax** is a tax rate that decreases as income increases. Consider a tax that imposes a flat rate of \$1,000 annually regardless of income. For someone earning only \$3,000 a year, this tax would be huge, accounting for one-third of all earnings. To someone earning \$50,000 a year, the tax rate is not as large, accounting for only 2% of annual income.

A **Proportional tax**, also known as a flat tax, does not change with respect to changes in income. If the proportional tax rate is 15%, then everyone pays 15%, regardless of whether he or she makes \$10,000 or \$570,000.

Activity Suggestion: Your students can design their own tax policy by taking an online quiz at <http://www.taxpolicy.com/build.htm>.

c. Explain how an increase in sales tax affects different income groups.

The student will explain how an increase in sales tax affects different income groups. For instance, a sales tax is a consumption tax levied on people when they make certain kinds of purchases, such as buying a book or joining a gym. Not all goods and services are subject to a sales tax; doctor visits, for example, are not taxed.

Like the different types of income taxes, a change to the sales tax affects different income groups in different ways. Since all consumers purchase essential goods like food, a high sales tax on food would affect poor people more than wealthy people because both groups will be paying the same tax rate for the same good. For this reason, economists usually classify sales tax as a regressive tax because it takes a greater percentage of income from a low income person than from a high income person. This is one reason why food is often not subject to a sales tax. However, food served at a restaurant typically is subject to a sales tax, since eating out is not considered a necessity.

Activity suggestion: Show students how they can calculate the amount of sales tax they pay on items of different amount. You can give them a set of sales taxed items

the typical household buys and have them calculate the sales tax paid over the course of a month. You may also want them to calculate sales tax on big ticket items like electronics or cars. The calculator is found at <http://www.tax-rates.org/georgia/sales-tax-calculator>.

Sample Test Questions:

1. On which of the following do people pay a regressive tax?

- A. their earned income
- B. interest earned on their savings accounts
- C. stocks purchased for investments
- D. goods purchased for their personal use*

2. Dana has a fixed rate of 3.5% on her 30 year mortgage. Which best described the effect of unanticipated inflation on Dana?

- A. She loses because her interest rate will rise when there is more inflation
- B. She loses because the bank will now expect her to repay the balance of the loan immediately
- C. She gains because she is repaying the loan with money that has less purchasing power than the money she borrowed
- D. She gains because the it will now take less time to repay the mortgage

SSEPF4 The student will evaluate the costs and benefits of using credit.

Overview: The student will describe credit, loans, and interest rates paid on different types of credit, compare the advantages and disadvantages associated with credit purchases, describe the different types of loans such as personal, home, education, car, etc., give the factors that account for varying interest rates charged for different types of loans, explain the significance of personal credit cards in the economy, and read and interpret scenarios, tables, and graphs related to the use of personal credit.

a. List factors that affect credit worthiness.

Students will be able to list factors that affect credit worthiness.

As a rule, we should try to spend only what we earn and avoid borrowing. However, there are some purchases that are very difficult to make without the use of credit and the benefits of making those purchases using credit may outweigh the costs in the long-run. For example, if someone cannot go to college without a student loan, the higher future income potential and lower risk of unemployment may make the student loan a wise idea. If someone lacks a reliable car to get them to a great job, a low-interest car loan may be worth it because of the higher income earned at the new job. The key is to be wise in borrowing. Do not borrow more than you need to and make sure the payments are affordable given your income.

If you want to secure a loan from a financial institution like a bank, your credit rating must be good. **Credit worthiness** is a measure of a variety of factors, but it boils down to an attempt to determine whether you'll be able to pay back loans properly. This doesn't mean that someone who makes \$4,000,000 annually will definitely pay off a \$2,000 loan; it just means that it is *very likely* that he or she would be able to pay off the loan.

Annual earned income is a major factor in determining credit worthiness; if you make a lot of money it stands to reason that you would be able to use some of that money to pay off debts.

However, **amount of current debt** is another big factor in a credit report. Making \$4,000,000 isn't that great if you already owe \$5,000,000.

Another factor that affects a credit report is the **timeliness of repaying** previous loans. If you took eight years to pay off a small debt, banks will be reluctant to loan you more money.

The **Three C's of Credit** are character, capacity, and collateral. Your character is determined by your credit history such as how often have you paid on time. Your capacity is based on your debt to income ratio, do you make enough to pay back the new debt as well as the old ones. Finally, collateral is something of value a borrower can use to back the loan. For example, a home mortgage is available to

people with lower incomes because the bank can seize the home if the mortgage is not paid.

Many people sign up for their first credit card to start building up their credit. To get low interest rates for borrowing and sometimes even to get a job, people need a good credit report and good credit score. By making small purchases and then paying the entire amount each month, people can show that they are able to take small loans and then repay them promptly.

However, this does not always work out as planned. People sometimes run up charges to their credit cards impulsively and then find they are unable to pay the entire amount owed. If they can't do this, they can keep the credit card by paying a smaller amount of the total owed, but any unpaid amount will be subject to the interest rate associated with that credit card. It can sometimes take people years to pay off a small purchase because they only make the minimum payment and accrue huge interest charges. If people have late payments, their interest rates can skyrocket and they are charged large fees.

Activity Suggestion: Help students learn how to read a credit report and evaluate the credit worthiness of some hypothetical debtors. The web pages listed below give sample reports from some of the credit reporting agencies. Print or display copies of the credit reports for students to analyze.

1. http://tui.transunion.com/pdf/learnCenter/Reading_Your_Report.pdf
2. http://www.thelpa.com/lpa/sample_tu_credit_report.html
3. http://www.familysecure.com/full_report1b.aspx

b. Compare interest rates on loans and credit cards from different institutions.

The student will be able to compare rates on loans and credit cards from different institutions.

The chart below is taken from an online credit card comparison tool. The names of the cards have been removed. Students should be able to compare the three cards shown and explain the benefits and costs of each. Given a scenario, they should be able to decide which card would be best for a particular consumer.

For example, a consumer who wanted to transfer the balance of one card to a new card for the purpose of getting a lower interest rate should chose the first card. If someone was primarily interested in obtaining frequent flyer miles, card number two offers the best benefit in this area. For someone who pays off their full balance each month and wants to benefit from a rewards program, card number one would not be a good choice since no rewards are offered. Card number three carries an annual fee. Someone should choose card number three only if the cash back each year from using the card is more than the amount of the annual fee. The interest rate on card three is higher than the other two, so only someone who pays their

balance in full each month should pick card three.

Key features	<ul style="list-style-type: none"> * Intro Balance Transfer: 0% var. APR (based on Prime Rate) for 18 months * Balance Transfer: 12.99% – 21.99% var. APR (based on Prime Rate) * No annual fee * Extended warranty on card purchases 	<ul style="list-style-type: none"> * Balance Transfer: 13.9% – 20.9% var. APR (based on Prime Rate) * Annual fee: \$59 (\$0 for first year) * 2 miles per dollar on every purchase * Extended warranty on card purchases 	<ul style="list-style-type: none"> * Annual fee: \$75 * 6% cash back on groceries * 3% cash back on gas * 3% cash back on department stores
Purchase APR			
Intro rate	0% intro APR for first 18 months	Information not available	0% intro APR for first 12 months
Rate	12.99% – 21.99% var. APR (based on Prime Rate)	13.9% – 20.9% var. APR (based on Prime Rate)	17.24% – 22.24% var. APR (based on Prime Rate)
Credit limit	Based on customer qualifications	\$5,000 – \$30,000	Based on customer qualifications
Requirements to qualify			
Minimum credit history	Information not available	Excellent	Good
Minimum age	18	18	18
Existing customer	No	No	No
Rewards			
Reward type	None	Miles	Cashback
Annual maximum	Information not available	Information not available	-
Rewards partner	None	None	None
Rewards expire	Information not available	Information not available	-
Blackout dates	Information not available	No	-
Bonuses	Information not available	<ul style="list-style-type: none"> • 10,000 bonus miles - When you spend \$1,000 in the first three months. 	<ul style="list-style-type: none"> • \$150 cashback bonus - \$15 cash back after spending \$1,000 within the first 3 months

Activity Suggestion: The Atlanta District Federal Reserve has many lessons on Personal Finance topics available free to teachers. There is a great credit card comparison lesson found at

http://www.frbatlanta.org/publica/extra_credit/2007/spring/07hoover.pdf.

c. Explain the difference between simple and compound interest rates.

The interest rate is the percentage amount of payment by borrowers to the lender. An annual interest rate of 5% on a \$100 loan would translate to an interest payment of \$5 each year, since $5\% = 0.05$.

$$5\%(\$100) = (0.05)(100) = \$5$$

After one year, the person would now owe \$105. With a **simple** interest rate, the interest is determined annually with the *original* loan amount. In the second year, the interest would again be \$5, so a person would owe $\$105 + \$5 = \$110$ after the second year.

With a **compound** interest rate, future interest is determined with the *existing* amount owed. In the second year of a compound debt, the interest would be

$$5\% (105) = (0.05)(105) = \$5.25$$

$$\$105 + \$5.25 = \$110.25$$

so the compound interest rate is greater than the simple interest rate. The current difference is only a quarter (\$110 versus \$110.25), but compound interest can really build up over time.

Sample Test Questions:

1. All of the following are important factors in determining Credit Worthiness EXCEPT

- A. repayment of previous loans
- B. collateral available to back the loan
- C. income capacity to repay the loan
- D. marital status of the borrower***

1. When a borrower must repay a loan based on compound interest rather than simple interest, they should expect:

- A. pay the lender more total interest than they would under simple interest***
- B. pay the lender less total interest than they would under simple interest
- C. repay a larger principal loan balance than they would with simple interest
- D. to be quoted a higher interest rate percentage

SSEPF5 The student will describe how insurance and other risk-management strategies protect against financial loss.

Overview: The student will describe the different types of personal insurance such as home, car, health, disability, etc., give the factors that influence the purchase of personal insurance, compare the advantages and disadvantages associated with the purchase of personal insurance, and read and interpret scenarios, tables, and graphs related to the purchase of personal insurance.

a. List various types of insurance such as automobile, health, life, disability, and property.

Students will be able to list the various type of insurance. These include policies for homeowners, renters, automobiles, healthcare, disability, and life insurance. Homeowners insurance pays for damages sustained to your real estate property and for injuries to others that happen on your property. Renters insurance protects your personal property assets when you live in a rental property instead of a home you own. Auto insurance protects your vehicle and the vehicle of someone you hit in an accident. It usually includes insurance to pay for injuries sustained in the accident as well. Health insurance is designed to pay for medical costs. Disability insurance provides people with income in case they become injured or are unable to work at a job. Life insurance provides a monetary payment when the insured person dies.

b. Explain the costs and benefits associated with different types of insurance; include deductibles, premiums, shared liability, and asset protection.

Students will be able to explain the costs and benefits associated with different types of insurance including key terminology like deductibles, premiums, shared liability, and asset protection.

In general, all insurance policies allow a person or business to pay a relatively small amount of money (a **premium**) in the present to purchase **asset protection** against the possibility of a future financial loss caused by an unforeseen event.

Assets that can be protected range from one’s home to one’s health. Most insurance policies include a **deductible** that stipulates the amount of money the insured must pay when a claim is filed with the insurance company.

Purchasing insurance involves **shared liability** between the insurer and the insured. This means that the insurance company assumes a pre-determined amount of financial liability for a claim that the insured might file. The insurance company is obligated to pay for the loss since the insured has paid premiums for the financial protection.

In some cases, people pay auto or home insurance premiums for years and never file a claim. This is the cost one incurs to make sure they are protected when an accident happens or natural disaster occurs.

Activity Suggestion: Arrange for computer access for the students. Give students a chart on which to list insurance premium, deductible, and coverage comparisons. There are many websites available to compare rates on car insurance which may be a good place to start with teens. However, you could also have them check renter's insurance rate comparisons, life insurance rates, etc.

Sample Test Items:

1. While delivering the mail, a postman gets struck in the arm by a passing car. An ambulance takes him to the hospital, and after x-rays and other tests are done, the doctor states that no bones were broken and no permanent damage was done.

Which of the following types of insurance would be MOST beneficial for the postman as a result of this accident?

- A. auto
- B. disability
- C. health*
- D. life

2. When filing a claim with your own insurance company, you should expect to pay this before you receive compensation for the loss:

- A. Premium
- B. Deductible*
- C. Asset Cost
- D. Liability Cost

SSEPF6 The student will describe how the earnings of workers are determined in the marketplace.

Overview: The student will describe the direct relationship between level of education attained to personal income, give factors that account for the importance of education in the workforce such as advances in technology, increased global competition, etc., and read and interpret scenarios, tables, and graphs related to education and earned income levels.

a. Identify skills that are required to be successful in the workplace.

The student will identify skills that are required to be successful in the workplace.

The Partnership for 21st Century Skills (P21) is a nationwide network of business leaders, educators, community leaders, non-profit organization, and government leaders working to help schools prepare students for the workplace. The P21 has developed a set of knowledge and skills that young people should possess to be successful in the 21st Century workplace. The image below describes the skills and knowledge important for students to have and is found in the P21 Framework document at http://www.p21.org/storage/documents/P21_Framework.pdf.

Core Subjects and 21st Century Themes

Mastery of **core subjects and 21st century themes** is essential to student success. Core subjects include English, reading or language arts, world languages, arts, mathematics, economics, science, geography, history, government and civics.

In addition, schools must promote an understanding of academic content at much higher levels by weaving **21st century interdisciplinary themes** into core subjects:

- **Global Awareness**
- **Financial, Economic, Business and Entrepreneurial Literacy**
- **Civic Literacy**
- **Health Literacy**
- **Environmental Literacy**

Learning and Innovation Skills

Learning and innovation skills are what separate students who are prepared for increasingly complex life and work environments in today's world and those who are not. They include:

- **Creativity and Innovation**
- **Critical Thinking and Problem Solving**
- **Communication and Collaboration**

Information, Media and Technology Skills

Today, we live in a technology and media-driven environment, marked by access to an abundance of information, rapid changes in technology tools and the ability to collaborate and make individual contributions on an unprecedented scale. Effective citizens and workers must be able to exhibit a range of functional and critical thinking skills, such as:

- **Information Literacy**
- **Media Literacy**
- **ICT (Information, Communications and Technology) Literacy**

Life and Career Skills

Today's life and work environments require far more than thinking skills and content knowledge. The ability to navigate the complex life and work environments in the globally competitive information age requires students to pay rigorous attention to developing adequate life and career skills, such as:

- **Flexibility and Adaptability**
- **Initiative and Self-Direction**
- **Social and Cross-Cultural Skills**
- **Productivity and Accountability**
- **Leadership and Responsibility**

Activity Suggestion: Ask groups of students to select one of the four main sections of the Framework above. Have each group come up with examples of how they are currently developing these skills at their school or how they think their school could change to integrate opportunities for learning these skills. Ask each group to present their ideas and allow other groups to comment on their examples/suggestions.

b. Explain the significance of investment in education, training, and skill

The student will explain the significance of investment in education, training, and skill development. Since societies are constantly changing, and their economies—and marketplace demands— change as well.

At some point in the 20th century, people who excelled at selling typewriters could

development.	<p>probably have demanded a high salary for their work. Today, this expertise is no longer in demand, so work would be hard to get and at a much lower wage than it once was.</p> <p>In general, the two factors that can boost the wages of a particular job are demand for that service and the training requirements needed for the job. High demand raises wages because it allows the limited supply of labor force in that area to ask for more money and get it. Additional training (educational or job specific) also raises wages because there is an opportunity cost associated with this unpaid training, and this opportunity cost must be offset with a higher wage. Otherwise, no one will undertake the training for the job.</p> <p>Activity Suggestion: Ask students to think of someone who they consider to be successful. Tell them to come up with a set of interview questions to ask this person specifically about the education, training, and/or skill development they needed to achieve success. Discuss the questions with the students and ask them to schedule the interview. After the interview, ask students to share their results in the form of an article or poster. Have students take turns reading a few articles or posters. Ask the students to note any trends among the successful individuals or any surprising facts about the role of education/training/skills they discovered.</p>
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<p>Sample Test Items:</p> <p>1. A good example of the effect of education on income would be that</p> <ul style="list-style-type: none">A. employees who learn to perform high-risk jobs always get paid moreB. workers who learn to make high demand products are well paidC. only job applicants with high school diplomas get job interviewsD. people with college degrees usually earn more than those with less education* <p>2. Which factor MOST often has the greatest role in determining the amount of money that workers earn during their careers?</p> <ul style="list-style-type: none">A. their credit worthinessB. their education level*C. the location of the business for which they workD. the size of the business for which they work
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The Economics Teacher Notes were written by Sherilyn Narker, and vetted by a team of high school teachers. Vetting team- Joy Hatcher, Gary Petmecky, and Mike Raymer (Georgia Council on Economic Education).