

Tools for Teaching the Arkansas Economics and Personal Finance Course

2016 Edition

Developed by Economics Arkansas and the Federal Reserve Bank of St. Louis.

Tools for Teaching the Arkansas Economics and Personal Finance Course

Table of Contents

Preface	ii
Overview	iii
Links to Resources	v
Using Online Courses from the Federal Reserve Bank of St. Louis	vi
Session 1: Scarcity & Decision Making.....	1
Session 2: Allocation.....	19
Session 3: Marginal Analysis	29
Session 4: Demand, Supply, and Market Equilibrium	33
Session 5: Circular Flow	69
Session 6: Market Failures.....	77
Session 7: Market Structures.....	89
Session 8: Macroeconomic Indicators: GDP, CPI, and the Unemployment Rate.....	99
Session 9: Economic Growth.....	113
Session 10: Financial Institutions	121
Session 11: The Role of the Federal Reserve System and Monetary Policy	125
Session 12: Fiscal Policy.....	135
Session 13: Revenues, Outlays, & Debt of the Federal Government.....	139
Session 14: Absolute Advantage & Comparative Advantage	151
Session 15: Globalization	155
Session 16: Factors for Financial Success and Earning Income	173
Session 17: Setting & Achieving Financial Goals and Spending	181
Session 18: Saving and Investing.....	193
Session 19: Insuring	199
Session 20: Borrowing	203

Preface

In July 2009, the Arkansas State Board of Education approved a one-semester economics course requirement beginning with high school students graduating in 2014. The frameworks for the course were divided into the following strands: economic fundamentals, microeconomics, macroeconomics, and personal finance management. Economics Arkansas was positioned as the “go-to” organization by the Arkansas Department of Education for preparing educators to teach this course. Over its 50-year history, Economics Arkansas has been dedicated to delivering exceptional training and resources for teachers in the state. Its reputation for excellence provided the organization a unique opportunity to develop a course outline that included standards and activity based lessons—*The Notebook*, as it came to be called. The original course notebook was created in partnership with Dr. Curt Anderson, director of the Center for Economic Education at the University of Minnesota Duluth.

Once completed, Economics Arkansas produced copies of *The Notebook* and provided professional development training for teachers throughout Arkansas. Teachers across the state took advantage of the opportunity to relearn—and in some cases, learn—the fundamentals of the discipline in order to feel comfortable teaching the new required course. Economics Arkansas staff made sure teachers had access to the materials and classroom expertise from its trainers, which include college professors, Economics Arkansas Master Economics Teachers, and content specialists within Economics Arkansas.

In an effort to maximize the best that both organizations have to offer, in 2011 Economics Arkansas partnered with the Federal Reserve Bank of St. Louis to update and redesign *The Notebook*, now called *Tools for Teaching the Arkansas Economics and Personal Finance Course*. The updated resource included online and print resources from the St. Louis Fed, the Federal Reserve System, and a plethora of high-quality effective lessons for teachers of the high school economics course. In addition, the updated resource included more lessons, data sources, and links to increase technology use in the classroom, enhance the Common Core State Standards, and increase economic education and financial literacy.

In the summer of 2014, a group of teachers and content specialists met to develop new standards for the Arkansas Economics, Social Studies Curriculum Framework for the high school economics course. The standards are divided into the following five strands: Economic Decision Making, Exchange and Markets, National Economy, Global Economy, and Personal Financial Management. The advent of these new standards gave Economics Arkansas and the Federal Reserve Bank of St. Louis the opportunity to reorganize and expand *Tools for Teaching the Arkansas Economics and Personal Finance Course*. This 2016 edition includes additional resources and replaces the 2015 edition.

Economics Arkansas and the Federal Reserve Bank of St. Louis are proud to present an engaging resource for both students and teachers. It is hoped that this updated resource and partnership will serve as a model for other states.

Overview

This manual is divided by topic into 20 sessions. Each session lists a variety of resources on the given topic(s) for use over multiple class periods. Some resources are included in these materials; others need to be acquired (if you do not already own them) or may be accessed online for free. The “Resources” section below provides additional details. The class time required to use each resource varies and could require a few minutes or the entire class period.

Each session includes the following sections:

Session Description

The session description indicates the overall purpose of the session.

Talking Points

The talking points provide simple wording of the main concepts in the session. These points are not tied to a particular resource and are not intended to be presented in their entirety as listed; rather, teachers are encouraged to reference the talking points as needed.

Standards and Benchmarks

This list includes an accumulation of the standards and benchmarks met by using all of the resources recommended for each session. The standards referenced are the Arkansas Economic Standards and Common Core State Standards.

Resources

The type, number, and sources of resources recommended vary by session. Although you may elect to pick and choose which resources to use, for optimal learning it is recommended you use them in the order listed, as they were selected to build topically.

: The symbol on the left (check mark in a box) indicates resources provided in these materials and may include the following:

- **Lessons:** Each lesson includes objectives, required class time, a materials list, and a detailed procedure. Some lessons include visuals and handouts, with their use clearly detailed in the procedure. Lengths of lessons vary.
- **Ⓢ Visuals:** The symbol on the left (the letter S in a circle) indicates a stand-alone resource. Stand-alone visuals are provided to help explain and/or illustrate points and are intended to be used ad hoc. Directions for use (if required) are provided in the resource list and not on the visuals themselves.
- **Ⓢ Handouts:** The symbol on the left (the letter S in a circle) indicates a stand-alone resource. Stand-alone handouts are intended to be used ad hoc and are not tied to a particular lesson. Directions for use (if required) are provided in the

Overview

“Resources” section and not on the handouts themselves (although directions for students are provided on handouts if required).

- **Adaptations:** These are resources or directions for modifying an activity provided in other materials.

Recommended resources *not* provided may include the following:

- *Virtual Economics*[®] 4.5: Specific lessons are indicated;
- lessons, podcasts, online courses, and other economic education resources from the Federal Reserve Bank of St. Louis, accessible online for free (for additional information about these online courses, see p. vi); and
- other resources from a variety of free online sources.

Links to Resources

Economics Standards

- Arkansas Department of Education, Social Studies Curriculum Framework; http://www.arkansased.gov/public/userfiles/Learning_Services/Curriculum%20and%20Instruction/Frameworks/Social_Studies/Economics.pdf.
- Common Core State Standards; <http://www.corestandards.org/>.
- Council for Economic Education, Voluntary National Content Standards in Economics; <http://www.councilforeconed.org/wp/wp-content/uploads/2012/03/voluntary-national-content-standards-2010.pdf>.
- College, Career, and Civic Life (C3) Framework for Social Studies State Standards; <http://www.socialstudies.org/c3>.

Personal Finance Standards

- Arkansas Department of Education, Personal Financial Management Strand (see pp. 10-11); http://www.arkansased.gov/public/userfiles/Learning_Services/Curriculum%20and%20Instruction/Frameworks/Social_Studies/Economics.pdf.
- Council for Economic Education, National Standards for Financial Literacy; <http://www.councilforeconed.org/resource/national-standards-for-financial-literacy/>.

Glossaries

- Arkansas Department of Education, Glossary for Economics (see p. 12); http://www.arkansased.gov/public/userfiles/Learning_Services/Curriculum%20and%20Instruction/Frameworks/Social_Studies/Economics.pdf.
- Federal Reserve Bank of St. Louis, *Page One* Glossary of Terms; <https://www.stlouisfed.org/education/glossary>.
- NOTE: *Virtual Economics*® 4.5 includes a glossary.

Tools for Teaching the Arkansas Economics and Personal Finance Course

Using Online Courses from the Federal Reserve Bank of St. Louis

The recommended resources include several free online courses from the Federal Reserve Bank of St. Louis. These interactive courses are designed for students to complete individually online. Once registered, teachers gain access to a “Management Panel” that allows them to preview the courses and monitor student use and scores. To register, complete the following:

1. Go to <https://www.stlouisfed.org/education>.
2. Choose  Teachers: Go directly to the Online Course Login .
3. To register as an instructor, click “REGISTER.”
4. Enter the required information and press “SUBMIT.”
5. An email will be sent to you with a link to the Management Panel and your temporary instructor code and password.
6. Sign in and create a new password. Going forward, you will log in using your email address and chosen password.
7. Depending on your needs, click either “VIEW COURSES” or “VIDEO Q&A” in the navigation bar.
8. To see descriptions, click on individual course/video names in the left-hand column. Course/video descriptions will appear in the right-hand column.
9. To preview a given course/video, click “PREVIEW COURSE/VIDEO” at the bottom of the page. (Note: Some courses/videos have multiple lessons or are part of a series. You will be able to preview each individual item.)
10. To select a course/video for student use, click “ADD TO CLASSROOM” at the bottom of the page. You will be prompted to add a classroom and students if you have not done so already.
11. To access log-in information for your students, click the “MY CLASSROOMS” tab in the top navigation bar. In the left-hand column, click the desired classroom name. The student names appear. Select either “PRINT LOG IN INFORMATION” or “EMAIL LOG IN INFORMATION” and follow the prompts.
12. To review student progress, on the “MY CLASSROOMS” page, in the left-hand column under the classroom names, click on individual course/video names. In the navigation bar that appears under the classroom name in the middle of the page, click “STUDENT PROGRESS.” From the same navigation bar, select the “DISCUSSION” tab to read/post discussion board items, the “POLL QUESTIONS” tab to push polling questions to students, and the “SURVEY” tab to complete a teacher survey about the given course/video.

SESSION 1: SCARCITY & DECISION MAKING

Session Description

Scarcity of resources requires individuals, organizations, and governments to make decisions. Students will explore limited resources, opportunity cost, trade-offs, and the production possibilities curve. In addition, they will experience decision making in several ways by planning a dance, choosing a college, and buying a computer.

Talking Points

1. Scarcity necessitates that a decision be made.
2. Productive resources are scarce because there are not enough of them to produce the unlimited amounts of goods and services that society wants. This is the fundamental economic problem (Step 1 of the PACED model) faced by society.
3. The PACED model provides a five-step process for making decisions:
 - P:** Identify the **problem**. Usually, the problem is related to scarcity.
 - A:** List **alternatives**—the options you will choose from.
 - C:** Select **criteria**—the things that are important to you in making the decision.
 - E:** **Evaluate** alternatives based on the criteria.
 - D:** Make a **decision**.
4. Even though people may face the same problem and alternatives, they may have different criteria and evaluate the alternatives differently based on those criteria. So, faced with the same problem, people do not necessarily make the same decision.
5. The PACED model is not about finding the “correct” choice for everybody; it is about making a careful, well-informed decision for yourself.
6. Although societies want a large variety of goods, for simplicity's sake, let's assume that we have a society that wants only two goods. A production possibilities curve (PPC) shows the various combinations of these two goods a society can produce given its available productive resources and current technology (methods of converting resources into goods and services); that is, it shows the alternative mixes of goods that are possible to produce at this time.

Session 1

7. To construct a PPC, first find the “all-or-nothing” extremes and then ask what is the maximum amount of one good that could be produced given a certain amount of the other good to find the remaining combinations.
8. Combinations outside the PPC are not possible to produce at this time, while those inside the PPC are possible but do not require the use of all of society’s resources.
9. The opportunity cost of a choice is the most-valued alternative that must be given up (it is real goods and services and/or real activities, not simply money or time) when a decision is made.
10. The opportunity cost along a PPC is the amount of one good that must be given up to get more of the other.
11. If all units of a resource are homogeneous (equally productive), the opportunity cost is the same for all units of a good (resulting in a straight-line PPC).
12. If units of a resource are heterogeneous (not equally productive), the opportunity cost rises as more of a good is produced (resulting in a bow-shaped PPC).
13. The simple message of the PPC is that there is a trade-off: Getting more of one thing (one good) means getting less of something else (another good).

Session 1: Standards and Benchmarks

Arkansas Economic Standards

Strand: Economic Decision Making

Content Standard 1: Students will make decisions after considering the marginal costs and marginal benefits of alternatives.

- EDM.1.E.1 Evaluate the roles of scarcity, incentives, trade-offs, and opportunity costs in decision making (e.g., PACED decision making model, cost/benefit analysis)

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
- CCSS.ELA-Literacy.RH.9-10.7 Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
- CCSS.ELA-Literacy.SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.
- CCSS.ELA-Literacy.SL.11-12.1b Work with peers to promote civil, democratic discussions and decision making, set clear goals and deadlines, and establish individual roles as needed.

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Session 1

- CCSS.ELA-Literacy.SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

Session 1: Resources

1. Video: Scarcity (*Virtual Economics*® 4.5)
 - a. Choose “Browse Economic Concepts.”
 - b. Choose “Fundamental Economics.”
 - c. Choose “Scarcity.”
 - d. Choose the picture on the right.

2. Podcast: Economic Lowdown Series (Federal Reserve Bank of St. Louis)
 - a. Episode 1: Opportunity Cost;
<https://www.stlouisfed.org/education/economic-lowdown-podcast-series>

3. Video: Decision Making/Cost Benefit Analysis (*Virtual Economics*® 4.5)
 - a. Choose “Browse Economic Concepts.”
 - b. Choose “Fundamental Economics.”
 - c. Choose “Decision Making/Cost Benefit Analysis.”
 - d. Choose the picture on the right.

4. Lesson 1.1: Sam’s Sandwiches

5. Focus: High School Economics (Council for Economic Education)
 - a. “Planning a Dance” in Lesson 1: Choice, Opportunity Costs, and Decisions
 - i. Go to <http://www.economicarkansas.org/>.
 - ii. Register or sign in.
 - iii. Under the “Portal” menu in the green box on the right, choose “high school economics course resources.”
 - iv. Under the (new) “Portal” menu, choose “Session 1.”
 - v. Choose “Lesson 1: Choice, Opportunity Costs, and Decisions.”
 - (1) Use the “Planning a Dance” section only.

6. Economics in Action: 14 Greatest Hits for Teaching High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 2: Economic Decision Making

7. Financial Fitness for Life (*Virtual Economics*® 4.5)
 - a. Lesson 3: Decision Making

Tools for Teaching the Arkansas Economics and Personal Finance Course

Session 1

8. Any table from *Consumer Reports*
 - a. Share as a real-world example of the PACED model in action.
9. Old MacDonald to Uncle Sam (*Virtual Economics*® 4.5)
 - a. Lesson 5: Scarcity and Choice
10. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 1: Production Possibilities and Opportunity Costs
11. Lesson 1.2: Constructing Production Possibilities Curves
12. Lesson: Production Possibilities Frontier (Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/production-possibilities>
 - a. Choose the PDF and accompanying slides of your choice:
 - i. SMART Notebook
 - ii. PowerPoint

Lesson 1.1: Sam's Sandwiches

Objective

Students will learn the role opportunity cost plays in economic profit.

Time Required

30 Minutes

Materials

- Visual 1
-

Procedure

1. Relate the following story: Samantha (Sam) is a college student with three months off this summer and wants to earn money during that time. Sam's friend offered her a job working in the make-up department of a large retail store. He told Sam she would likely earn \$1,000 per month, or \$3,000 for the entire summer. While this sounded good, Sam thought she might be able to earn more by opening a small business: selling sandwiches along a path beside a lake that is very popular with tourists. So, Sam got the necessary permits from the local government to use the space along the path and rented some equipment from Bob's Rent-All. Some of the rental items included a meat warmer, refrigerator for cheese and vegetables, tables, and a cash register. Plus, she purchased meat, cheese, breads, lettuce, tomatoes, and condiments from Superior Foods (a wholesale food supplier). Sam hired high school students to help her, and her business was up and running. Over the summer, she sold 10,000 sandwiches at a dollar each. She created a financial report at the end of the summer to see how well her business performed.
2. Display *Visual 1: Sam's Statement of Revenue and Costs* and describe each item as necessary. Tell the class that Sam's total profit was \$2,000! Ask the following:
 - How do you think Sam feels about her profit? (*Probably not so good. Students will likely recognize that Sam could have made more at the retail store.*)
3. Define economic profit as total revenues (price times quantity sold) minus total costs, where total costs are the opportunity costs of *all* resources (inputs) used. For example, if the high school students could earn \$8 per hour working at any fast food restaurant in town, Sam must pay at least \$8 per hour to get them to work for her. Explain that \$8 per hour is the opportunity cost of the labor resource. If Bob were to give Sam all

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Session 1

the equipment for free, he would lose the opportunity to rent it to someone else for perhaps \$2,000. Thus, \$2,000 is the opportunity cost of the capital resources. The other two costs listed similarly represent the opportunity cost of using them. Ask the following:

- Were any other resources used that are not accounted for on the report? (Yes, Sam!)
4. Explain that by deciding to operate her own business, Sam gave up the opportunity to earn \$3,000 at the retail store. Thus, the opportunity cost of Sam's entrepreneurial resources is \$3,000. Although there is no explicit payment made for using this resource, it still must be accounted for in determining the economic profit of this business. When this \$3,000 cost is added to the others, total costs are \$11,000, meaning that Sam's business suffered an economic loss of \$1,000 ($\$10,000 - \$11,000$). Sam is not happy with her choice. It cost her \$1,000 to run the sandwich shop because she only earned \$2,000 when she could have earned \$3,000 at the retail store.
 5. Define "normal profit" as the minimum amount necessary to keep the entrepreneurial resource—the person running the business—in the business. The normal profit is just the opportunity cost of the entrepreneurial resource. Sam's normal profit was \$3,000. So, normal profit is one of the costs that must be included in determining economic profit.
 6. Note that if Sam (or any entrepreneur) is not able to make enough to cover all of her explicit costs plus her normal profit, she will likely close her business and move to her next-best opportunity. On the other hand, if she is able to earn an economic profit, then she is very happy to stay in business because she would earn not only her normal profit, but extra profit beyond that—economic profit.

Lesson 1.1, Visual 1: Sam's Statement of Revenue and Costs**Total Revenue**

10,000 sandwiches at \$1 each	\$10,000
(Price × Quantity = \$1 × 10,000)	

Total Costs

Permits (land/space resources)	\$2,000
Payment to high school workers (human/labor resources)	\$3,000
Payment to Bob's Rent-All (capital resources, i.e., equipment)	\$2,000
Payment to Superior Foods (natural/intermediate resources)	\$1,000
	<hr/>
Total costs	\$8,000

Lesson 1.2: Constructing Production Possibilities Curves

Objective

Students will

- identify the opportunity cost of producing one good in terms of giving up another good and
 - construct a production possibilities graph.
-

Time Required

One class period

Materials

- Handout 1, one copy, with the 4 individual apples/carrots cards cut out and folded along the center lines
 - Handout 2, one copy for each student
-

Procedure

NOTE: Prior to this lesson, complete “Lesson 5: Scarcity and Choice” in *Virtual Economics*® 4.5: Old MacDonald to Uncle Sam.

1. Select three students of varying height to come to the front of the room. Line them up from shortest to tallest. Explain to the class that these are three resources (human resources) that are going to be used to harvest carrots and apples. Harvesting carrots requires simply bending down and pulling up the carrots. Have each student simulate this and note that they each can do it equally well. Harvesting apples requires picking them off a tree. Since they have no additional resources (such as a ladder), this requires them to reach up and/or jump up to pick the apples. Ask the following:
 - How does the ability of these students to pick apples differ? (*The tallest student can reach apples more easily and can jump higher to reach apples. The shorter students would likely not be able to reach as many apples and be less successful.*)
 2. Give the students one of the production cards from *Handout 1: Production Possibilities Cards* as follows:
 - Give the shortest student the “First Worker” card, which has 1 apple and 1 carrot.
-

- Give the middle-height student the “Second Worker” card, which has 3 apples and 1 carrot.
 - Give the tallest student the “Third Worker” card, which has 5 apples and 1 carrot.
3. Have all students turn their cards to the carrot side. Explain that in one day each student can harvest one carrot (i.e., they are equally productive in pulling carrots). Have the students turn their cards over and note that the number of apples they could pick in one day is different (i.e., they are not equally productive in picking apples, so the production trade-offs are not the same). Given this information, ask the students the following question:
- What is the maximum number of carrots that these three people could pull in a day, and what is the maximum number of apples they could pull in a day? (*Carrots: $1 + 1 + 1 = 3$. Apples: $1 + 3 + 5 = 9$.*)
4. Have the students return to their seats.
5. Distribute *Handout 2: Production Possibilities Graph* and have all students plot these two points. (*Handout 2: Production Possibilities Graph—Answer Key* is provided for teacher reference.) Ask the following:
- What is the maximum number of apples the three students could pick if they also pulled 1 carrot? (*8; To maximize the number of apples, the first worker should pull one carrot because the cost, or lost production of apples, would only be 1 apple. If one of the other workers pulled the 1 carrot, the cost in terms of apples would be greater. This can be demonstrated by having each student be the only carrot puller and looking at the number of apples that can still be picked.*)
 - What is the maximum number of apples this group could pick if they also pulled two carrots? (*5; The first and second workers would have to pull the carrots while the third worker picked the apples.*)
6. Have students plot the last two points (1 carrot / 8 apples and 2 carrots / 5 apples) on their graphs and then connect the points to form the production possibilities curve. Ask the following:
- How does this graph compare with the one constructed for squares and triangles? (*It is not a straight line, but bowed outward from the origin.*) Explain that in this case the opportunity cost of getting more carrots rises (first 1 apple, then 3, and then 5), while previously, the opportunity cost of getting more squares was always the same (2 triangles).
 - What caused this difference? (*The resource strips produced equal amounts of squares and triangles. The [human] resources for producing carrots and apples were not equally productive.*)
 - Are all people, machines, and lands equally productive in producing real goods and services? (*No, people have different abilities and lands produce some crops*

Session 1

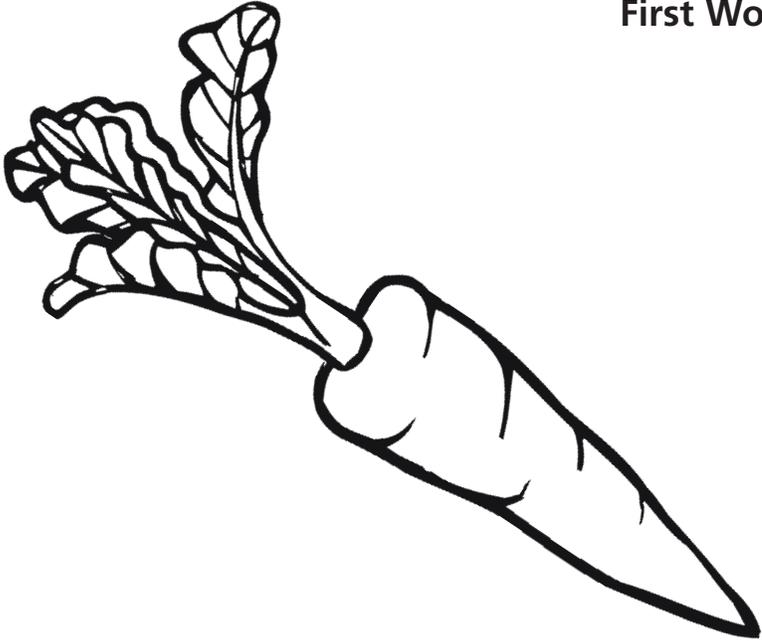
better than others.) Explain that this implies that, in general, producing more of any one good physically requires giving up increasing amounts of other goods. This is referred to as the “law of increasing costs.”

7. Ask the following:
 - If each of the three workers harvesting apples and carrots were trained to jump higher so that they each could increase the probability of getting an apple on each jump, how would this likely change the total amount of apples they could pick each day? (*They would each be able to pick more.*)
 - How many apples would each person be able to pick if the training enabled each of them to pick one more apple? (*First worker, 2; second worker, 4; third worker, 6*)
8. Have students plot a new production possibilities curve based on the increased production. (*The maximum number of carrots that can be pulled is still 3; the maximum number of apples would now be $2 + 4 + 6 = 12$. The other points would be 1 carrot / 10 apples and 2 carrots / 6 apples.*)
9. Ask the student volunteers to return to the front of the room and retrieve their signs.
10. Going back to the original situation, bring up a fourth student and give him or her the “Fourth Worker” card from Handout 1, which has 1 carrot and 2 apples. Ask the following:
 - What would happen to the production possibilities curve with the addition of this fourth resource? (*The curve would shift out, making more carrots and apples available for each combination.*)
11. Have students construct the new production possibilities curve for this case. (*The maximum number of apples would be 11, while the maximum number of carrots would be 4. The other points would be 1 carrot/10 apples, 1 carrot/8 apples, and 3 carrots/5 apples.*)

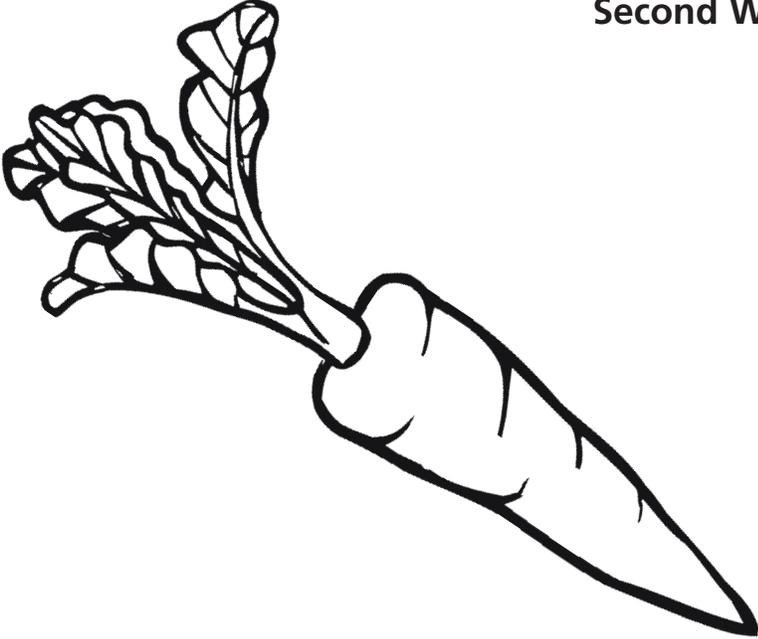
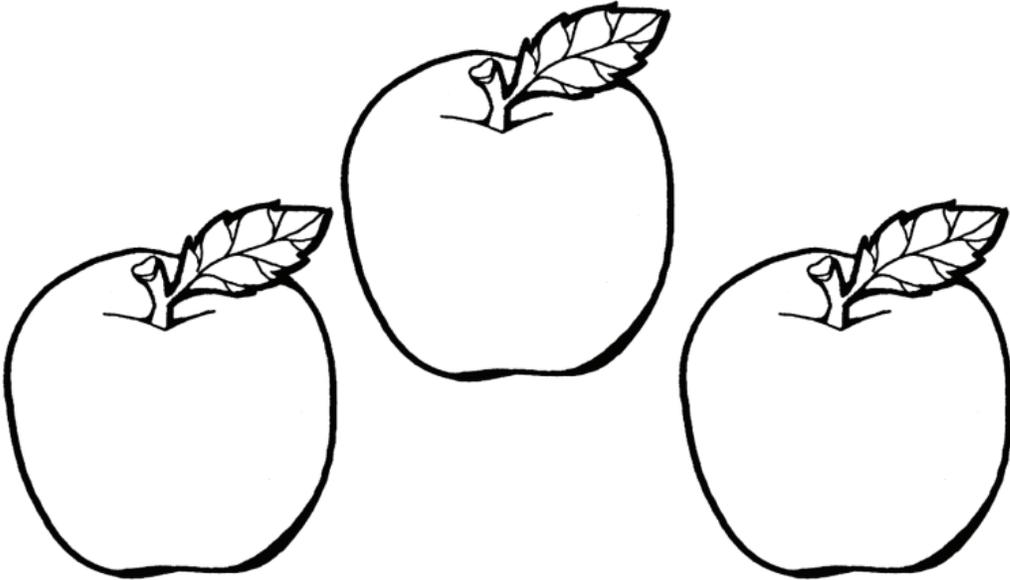
Closure

12. Ask the students to name two ways a society could increase its production possibilities or shift its production possibilities outward? (*Increase the productivity of its resources [possibly through training or advances in technology] and increase the amount of its resources.*)

Lesson 1.2, Handout 1: Production Possibilities Cards (page 1 of 4)

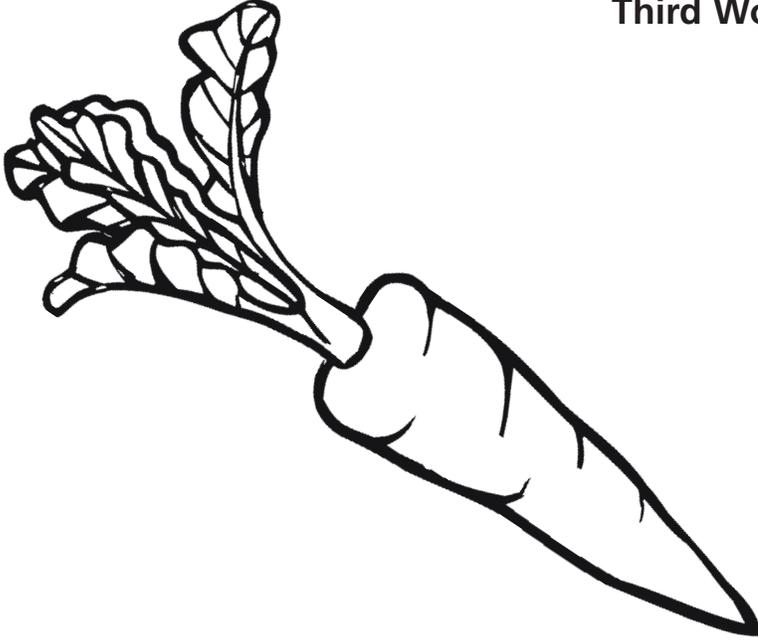
 <p data-bbox="1084 359 1308 399">First Worker</p>
 <p data-bbox="407 1759 626 1799">First Worker</p>

Lesson 1.2, Handout 1: Production Possibilities Cards (page 2 of 4)

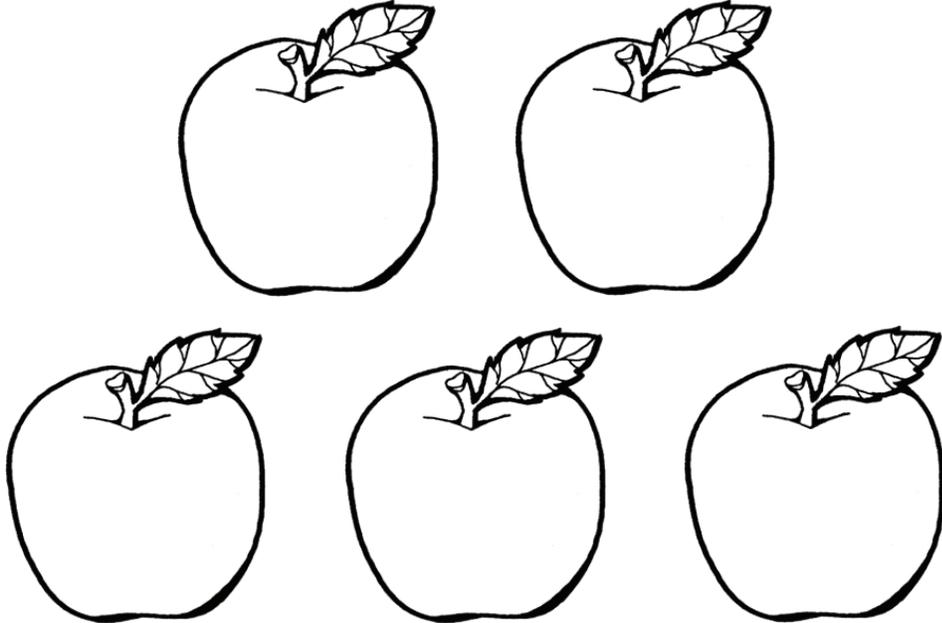
 <p data-bbox="971 359 1235 401">Second Worker</p>	 <p data-bbox="289 1759 553 1801">Second Worker</p>
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Lesson 1.2, Handout 1: Production Possibilities Cards (page 3 of 4)

Third Worker



Third Worker

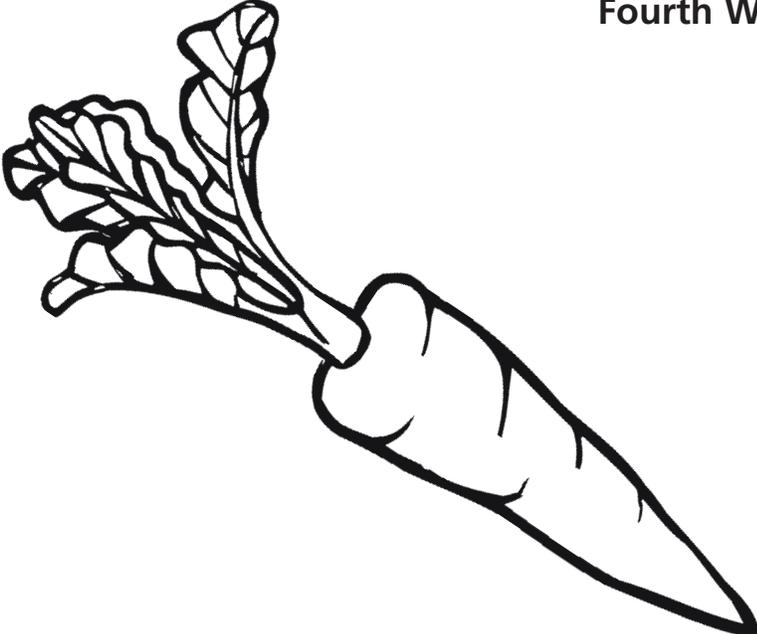


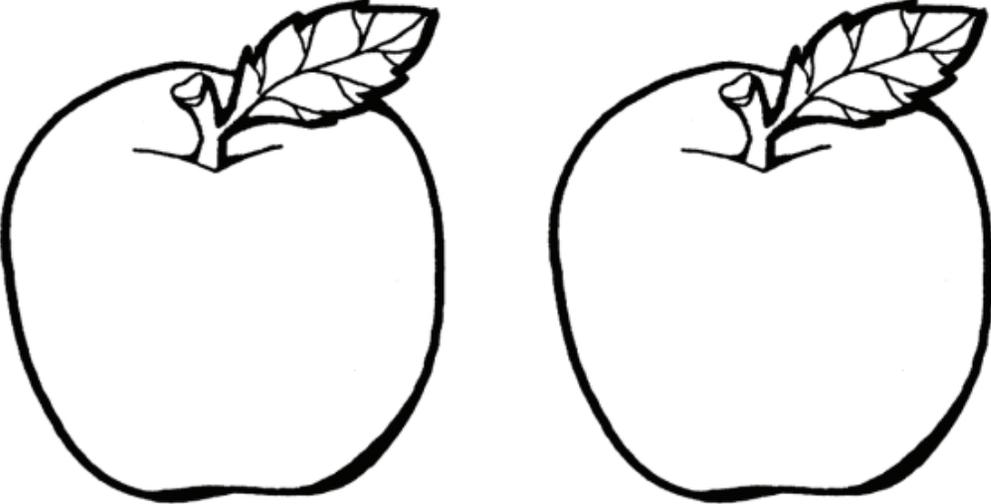
Third Worker

The image shows two dashed-line boxes representing production possibilities for a 'Third Worker'. The top box contains one carrot. The bottom box contains five apples. The text 'Third Worker' is printed in the top right of the first box and the bottom left of the second box.

Lesson 1.2, Handout 1: Production Possibilities Cards (page 4 of 4)

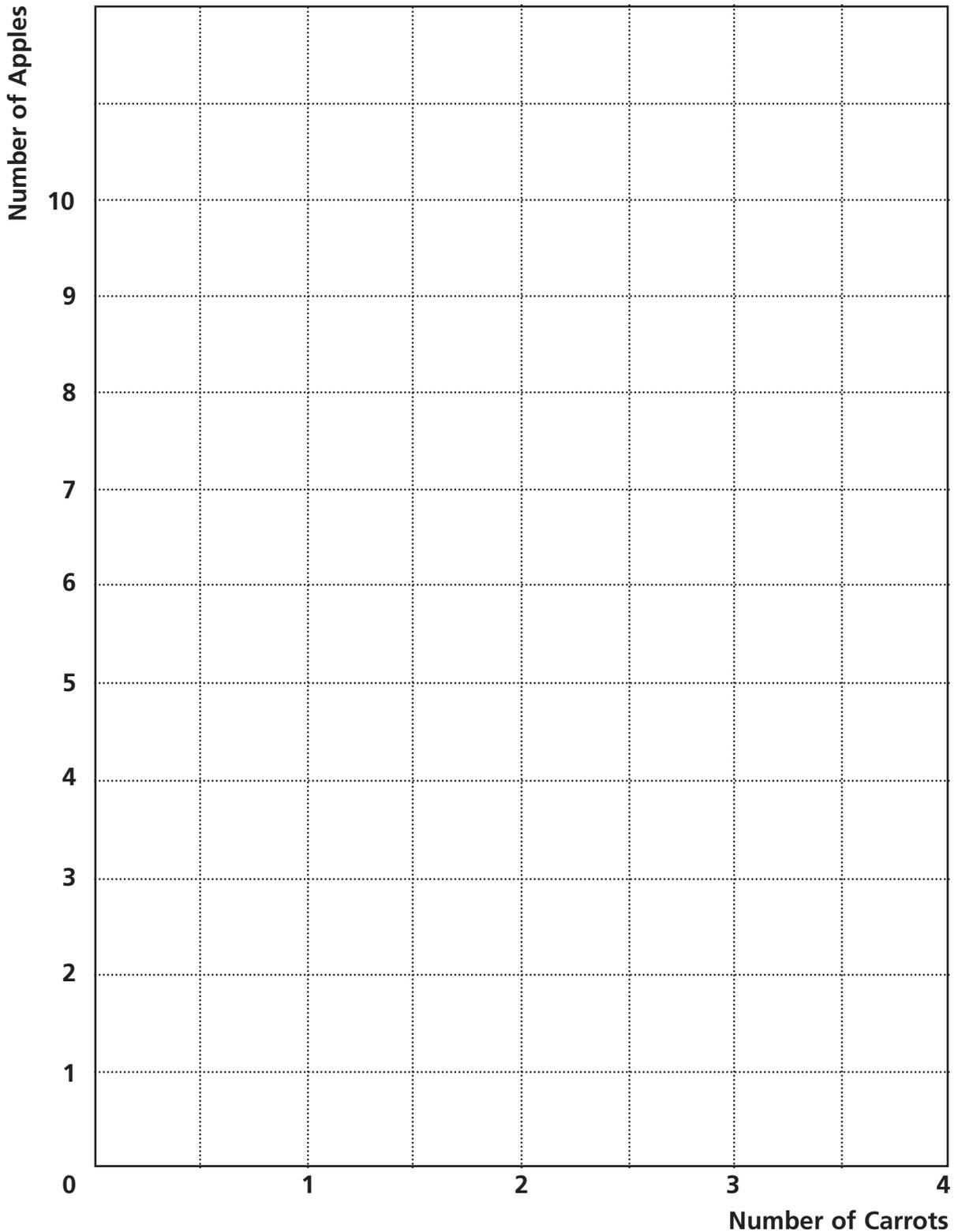
Fourth Worker





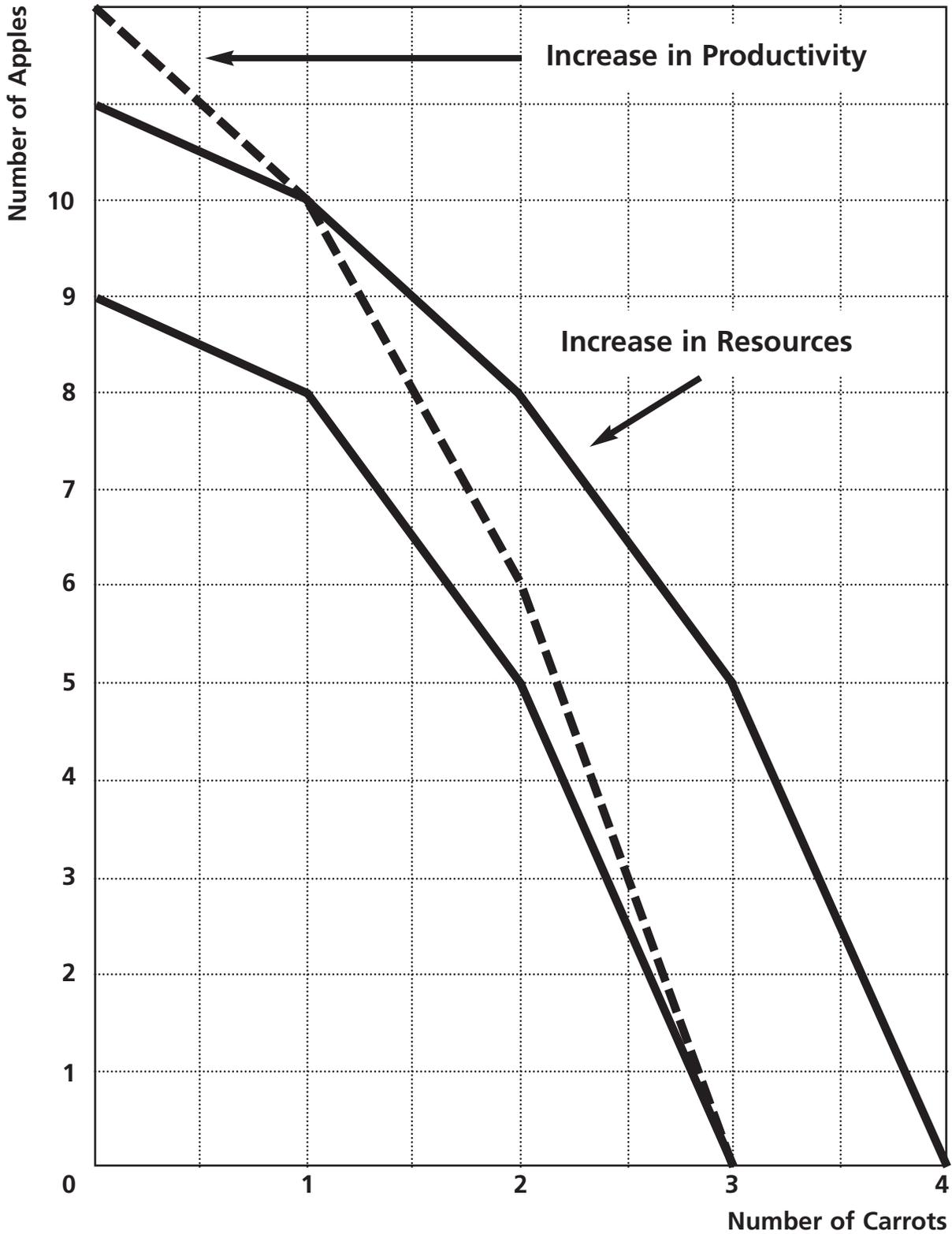
Fourth Worker

Lesson 1.2, Handout 2: Production Possibilities Graph



Tools for Teaching the Arkansas Economics and Personal Finance Course

Lesson 1.2, Handout 2: Production Possibilities Graph—Answer Key



SESSION 2: ALLOCATION

Session Description

In this session, students explore the ways scarce resources are allocated.

Talking Points

1. People face scarcity of marketable resources (land, labor, capital, and entrepreneurship). This scarcity limits their ability to earn income.
2. Because of limited income and limits to their time, people must make choices about allocating/rationing what is available.
3. There are many possible allocation/rationing methods.
4. There are costs and benefits to every method of allocation/rationing. Selection of an allocation/rationing method does not eliminate scarcity.
5. Market economies are based on the willingness-and-ability-to-pay allocation/rationing method.
6. Command economies are based on the fiat method of allocation.
7. Economics investigates the choices people make as individuals and groups regarding methods of allocation/rationing when faced with scarcity.

Session 2: Standards and Benchmarks

Arkansas Economic Standards

Strand: Exchange Markets

Content Standard 2: Students will evaluate different allocation methods.

- EM.2.E.1 Identify various allocation methods used in different circumstances, countries, and economies (e.g., price, auction, lottery, fiat)

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
- CCSS.ELA-Literacy.SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

Session 2: Resources

1. Economics from Here to There (*Virtual Economics*® 4.5)
 - a. Lesson 5: Who Gets to See the Game?
 - i. Share *Visual 1: Possible Allocation Methods* from “ Lesson 2.1: Possible Allocation Methods” (below).
2. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 2: Allocating Scarce Resources
3. Lesson 2.1: Possible Allocation Methods

Lesson 2.1: Possible Allocation Methods

Objective

Students will identify the allocation methods used in various situations found in newspaper and/or magazine articles.

Time Required

Two class periods

Materials

- Visuals 1 and 2
 - Handout 1 cut into 3 “Get Out of a Quiz Free” cards or 3 other items used to give a pass on homework or to provide extra-credit points
 - A different newspaper and/or magazine article for each group of 3 to 4 students that illustrates scarcity and allocation (For example, an article about the homeless may indicate that beds are provided based on a lottery [random draw], or an article about college may indicate that entry is based on test scores [performance].)
 - A sheet of paper for each student
-

Procedure

NOTE: Prior to this lesson, complete “Lesson 5: Who Gets to See the Game?” in *Virtual Economics*® 4.5: Economics from Here to There.

1. Distribute a piece of paper to each student. Have students write one word that they think describes what economics is about fundamentally. Have each student share his or her word. (*Answers will vary, but could include money, business, investing, resources, or choices.*)
2. Tell students to think about the word “scarcity.” Ask the following:
 - What does it mean when something is scarce? (*There is not enough of it for everyone who wants some of it.*)
3. Explain that economics is fundamentally about scarcity; that is, productive resources—land, labor, and capital resources—are limited and people’s wants for goods and services are unlimited. The first thing most people think of when they hear the word scarcity is not having enough income to buy all the goods and services they want (the basic personal finance problem). Incomes are limited because the quantity and quality

of the resources people have available for earning income are limited. People often say that their time is scarce. Again, this is related to resources—human resources—there’s a limited amount a person can do and many things that the person wants to do. People may say that space is scarce, an idea that is related to limited natural resources—that is, there is not enough space for all the ways we would like to use the space we have.

4. Show the class a “Get Out of a Quiz Free” card (or other item used to give a pass on homework or provide extra credit points).
5. Ask the students how many of them would like to have this card, which allows them to skip a quiz or have a low quiz score removed. (*Likely most of the class will want one.*) Explain that labor resources, use of printers, and so forth were limited, so that you have only three of these passes. As a result, the class must decide who in the class will get the cards.
6. Ask the class to recall the different allocation methods from the “Who Gets to See the Game?” lesson and suggest ways the cards could be allocated. Note that rationing is another term for allocation. As students share, record the methods on the board. (For the general categories to use, refer to *Visual 1: Possible Allocation Methods*, but do not show the visual yet. Let students come up with the categories on their own).
7. Ask the students to describe exactly how each suggested allocation method would work. For example, if someone suggests “by height,” write down “Personal Characteristic” and then underneath that write “height” and ask the student to explain how that would work. Help provide explanations as necessary. For example, if a student says “height,” suggest that everyone could be lined up along the wall from tallest to shortest and you could select the three tallest students (or the three shortest students). If a student says “by auction,” which would fall into the “Willingness and Ability to Pay” category, explain that each student could secretly write down the maximum they would be willing and able to pay for a card and then you could give the cards to the three highest bidders. If a student says “a lottery,” which would fall into the “Random Draw” category, explain that everyone’s name could be placed in a hat and three names could be drawn. For each category noted, ask if there are other methods that could fall under that category. For example, for personal characteristics, weight and age could also be used. Guide students as necessary and continue until the students have come up with ideas that represent most of the methods shown on Visual 1.
8. Display *Visual 1: Possible Allocation Methods* and review any that the students didn’t note.
9. Divide the students into groups of 3 or 4. Give each group an article (newspaper or magazine) and have them identify what is scarce and which allocation method is used in each case. Display *Visual 2: Group Instructions* and review.

Session 2

10. Have each group present its article, explaining what is scarce and the allocation method being used.
-

Closure

11. Have students generate a list of allocation methods and examples.

Lesson 2.1, Visual 1: Possible Allocation Methods

1. **Random Draw**

By luck, by lottery, by drawing out of a hat, etc.

Examples: drawing cards for shelter beds, choosing Vietnam War draftees, determining a Powerball winner, selecting a raffle or door-prize winner

2. **Personal Characteristic**

By age, by weight or height, by ancestry, alphabetically by name, by need, etc.

Examples: government benefits (e.g., Social Security, welfare, Indian health services), organ transplants, basketball starters

3. **Performance**

By test score, by 10K race results, by quantity of sales, by number of push-ups, etc.

Examples: scholarships, promotions, awards, sport/game winners

4. **Willingness and Ability to Pay**

By the amount of cash, goods, or services one is willing and able to sacrifice

Examples: most everything in a market-based economy: pizzas, houses, cars, toys, college education, personal electronics, etc.

5. **First Come, First Served**

By who is first in line, first on a list, first to a stop sign, etc.

Examples: goods in the former Soviet Union, an intersection with a four-way stop sign, immigration into the United States, tickets to a popular concert, restaurant reservations

6. **Fiat (Authority)**

By authority/whim of the allocator (e.g., teacher's pet, parent's favorite, dictator's choice)

Examples: rules, use of resources (e.g., a dictator decides if his or her country's resources are going to be used to produce housing or military equipment), punishment

7. **Voting**

By majority rule—who gets the greatest amount of votes

Examples: selection of congressmen, allocation of public resources by Congress, selection of prom king and queen

8. **Multiple Methods**

By combining two or more of the above

Example: tickets to a popular concert (you must be willing and able to pay the ticket price and at the proper place in line to purchase the tickets [first come, first served])

Lesson 2.1, Visual 2: Group Instructions

As a small group, complete the following:

- Read your article.
- Develop a summary to share with the class.
- Identify what is scarce.
- Identify the allocation method used.

Lesson 2.1, Handout 1: Cards

**Get out of a
quiz FREE!!!**



**Get out of a
quiz FREE!!!**



**Get out of a
quiz FREE!!!**



SESSION 3: MARGINAL ANALYSIS

Session Description

Students will analyze the marginal costs and marginal benefits of solutions to economic problems.

Talking Points

1. People cannot have everything they want. As a result, they must make decisions.
2. Family budgets are limited by the incomes they earn. Incomes are dependent on the quantity and quality of human resources (people working) and any income the family might earn from other types of resources it owns (natural, capital, and entrepreneurial ability).
3. Families must make decisions about how to spend their income. For example, if more money is spent on clothing and electronic gadgets, less money can be spent on food and other items.
4. Governments also have limited budgets based on tax revenue collected and direct ownership of resources. For example, if additional funds are budgeted for police patrols, less money is available to hire more parks and recreation workers.
5. Identifying and systematically comparing alternatives allows people to make more informed decisions and to recognize often overlooked relevant consequences of choices.
6. To make decisions that provide the greatest possible return from the resources available, people and organizations must weigh the benefits and costs of using their resources to do more of some things and less of others. Examples include the following:
 - A student might decide between spending another hour studying or talking with friends.
 - School officials might decide among spending funding on tablets for students, more equipment for sports teams, or more equipment for classrooms.
 - Business owners and managers regularly decide which products to make and whether to increase or decrease the amount they produce.
 - The president, Congress, and other government officials regularly decide which public spending programs to increase or decrease.
7. In economics, comparing changes in benefits with changes in costs is referred to as marginal analysis.
8. Decision makers maximize utility by pursuing an activity as long as the marginal benefit of the action is greater than or equal to the marginal cost.
9. It is impossible to change how resources were used in the past. Past decisions only establish the starting point for current decisions on the allocation of resources.

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Session 3: Standards and Benchmarks

Arkansas Economic Standards

Strand: Economic Decision Making

Content Standard 1: Students will make decisions after considering the marginal costs and marginal benefits of alternatives.

- EDM.1.E.2 Justify various economic solutions to problems affecting an individual or society using marginal costs and marginal benefits.

Common Core State Standards

- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.L.9-10.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- CCSS.ELA-Literacy.L.11-12.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9-10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11-12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.

- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.RH.11-12.4 Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines *faction* in *Federalist No. 10*).
- CCSS.ELA-Literacy.RH.9-10.7 Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
- CCSS.ELA-Literacy.RH.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.
- CCSS.ELA-Literacy.RH.9-10.10 By the end of grade 10, read and comprehend history/social studies texts in the grades 9-10 text complexity band independently and proficiently.
- CCSS.ELA-Literacy.RH.11-12.10 By the end of grade 12, read and comprehend history/social studies texts in the grades 11-CCR text complexity band independently and proficiently.

Session 3: Resources

1. Economics in Action: 14 Greatest Hits for Teaching High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 6: The Economic Way of Thinking: Three Activities to Demonstrate Marginal Analysis
 - i. Use the “Diminishing Marginal Utility” activity.
 - ii. Use the “Fluffernutter Production” activity.
 - iii. Use the “How Clean Is Clean Enough?” activity.
2. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 3: Marginalism
3. Lesson: Dumptown, USA (EconEdLink)
 - a. Go to <http://www.econedlink.org>.
 - b. Search for and then choose “Dumptown, USA.”
4. Lesson: Utility (EconEdLink)
 - a. Go to <http://www.econedlink.org>.
 - b. Search for and then choose “Utility.”
5. Video: Welker’s Wikinomics: Law of Diminishing Returns (Jason Welker; 13:35); https://www.youtube.com/watch?v=CfioxJ4E_h4

SESSION 4:

Demand, Supply, and Market Equilibrium

Session Description

Students will construct supply and demand graphs, recognize shifts in supply and demand, and construct graphs of those shifts. They will also participate in activities that illustrate market equilibrium.

Talking Points

Demand

1. Demand is the relationship between various prices and the quantities consumers are willing and able to buy during some time period. The demand curve is a picture of demand.
2. In general, people get less satisfaction (what economists call “utility”) from additional units of a good or service. This is due to the “law of diminishing marginal utility.” As people get more of something, they value an additional unit less and less.
3. Price is the amount of money buyers actually must pay for a good or service.
4. Buyers will buy units of a good or service as long as the amount of satisfaction the buyer gains from the purchase is greater than the price they must pay for the good or service. They will not buy when the opposite is true.
5. The demand curve reflects the law of demand: As the price of a good or service decreases, buyers buy more of it; as the price of a good or service increases, buyers buy less of it.

Supply

1. Cost is defined as what is given up (i.e., opportunity cost).
2. Cost is not a single-number concept (units of a good or service will have different costs).
3. In general, the cost society incurs from additional units of a good rises because more of other goods or services must be given up (rising opportunity cost).
4. The cost curve shows the additional cost society incurs from each individual unit of the good or service (reading vertically up and then over).

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Session 4

5. Supply shows how sellers react to various prices of a good or service.
6. Sellers will produce units of a good or service when the cost of production for one more unit is less than the price they are able to charge for that unit. They will not produce when the opposite is true. The cost curve reads horizontally over and then down. It shows the amount sellers would produce and offer for sale at various prices and, thus, is also the supply curve for the good.
7. The supply curve reflects the law of supply: As the price of a good or service decreases, sellers produce less of it; as the price of a good or service increases, sellers produce more of it.

Market Equilibrium

1. Price is determined in a market by the interaction of buyers and sellers (buyers trying to pay the lowest possible price and sellers trying to sell at the highest possible price).
2. When there are surpluses in a market, sellers and/or buyers will have an incentive to push the price down, moving the price to where the quantity demanded equals the quantity supplied.
3. When there are shortages in a market, sellers and/or buyers will have an incentive to push the price up, moving the price to where the quantity demanded equals the quantity supplied.
4. Price is a single-number concept—all units are sold at the equilibrium price.
5. Market equilibrium answers two of the fundamental questions raised earlier:
 - a. The allocation question: How much of each good should be produced? The market answers with the equilibrium quantity.
 - b. The distribution question: Who receives the produced goods and services? The market answers by allowing everyone who is willing and able to pay the equilibrium price or more to purchase goods and services.
6. The market equilibrium quantity is the quantity of a good found to be allocatively efficient. The market demand curve accurately depicts society's willingness to pay, and the market supply curve accurately depicts society's costs. If markets determine price, as shown earlier, markets can produce the allocatively efficient amounts of all goods and services, thus using society's scarce resources efficiently. Those are big "ifs," however (which are explored further in Session 6, which address market failures).
7. Price is not a measure of demand or a measure of supply; it is a measure of the relative scarcity of the good (its desirability relative to its availability). It takes both demand and supply to determine price. (For example, although the demand for air is great,

the price of air is zero because of its abundance—that is, at a price of zero, the quantity of air supplied is greater than the quantity demanded.)

8. Several factors can cause an increase or decrease in demand—that is, a shift of the demand curve to the right or left:
 - a. changes in consumer tastes/preferences,
 - b. changes in consumer income/wealth,
 - c. changes in the prices of related goods,
 - d. changes in consumer expectations, and
 - e. changes in the number of buyers.

9. Several factors can cause an increase or decrease in supply—that is, a shift of the supply curve to the right or left:
 - a. changes in productivity/technology,
 - b. changes in resource prices,
 - c. changes in government policies,
 - d. changes in expectations, and
 - e. changes in the number of sellers.

10. A change in demand or supply leads to a surplus or shortage at the initial price, which causes the price to change and the market to move to the new equilibrium price and quantity.

11. Price changes in one market often lead to price changes in other related markets because of goods that are substitutes or complements for one another or because one good is an input in the production of another.

Session 4: Standards and Benchmarks

Arkansas Economic Standards

Strand: Exchange and Markets

Content Standard 2: Students will evaluate different allocation methods.

- EM.2.E.2 Demonstrate changes in supply and demand (e.g., shifts, shortages, surpluses, availability) that influence equilibrium price and quantity using a supply and demand model.

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.

- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 4: Resources

Demand

1. Lesson 4.1: Demand Curve Construction
2. Economic Lowdown Video Series (Federal Reserve Bank of St. Louis)
 - a. Episode 2: Demand (6:53);
<https://www.stlouisfed.org/education/economic-lowdown-video-series>
3. Master Curriculum Guide in Economics: Teaching Strategies 5-6 (*Virtual Economics*® 4.5)
(Note: Use the two lessons to teach the basics of constructing a demand curve.)
 - a. Lesson 4: A Profusion of Confusion
 - b. Lesson 5: Graphing Demand
4. Capstone: Exemplary Lessons for High School Economics (*Virtual Economics*® 4.5)
 - a. Unit 2, Lesson 8: A Picture Is Worth a Thousand Words: Demand

Supply

5. Economic Lowdown Video Series (Federal Reserve Bank of St. Louis)
 - a. Episode 1: Supply (3:57);
<https://www.stlouisfed.org/education/economic-lowdown-video-series>
6. Master Curriculum Guide in Economics: Teaching Strategies 5-6 (*Virtual Economics*® 4.5)
(Note: Use the two lessons to teach the basics of constructing a supply curve.)
 - a. Lesson 9: Producers and Supply
 - b. Lesson 10: Supply Changes
7. Capstone: Exemplary Lessons for High School Economics (*Virtual Economics*® 4.5)
 - a. Unit 2, Lesson 9: A Picture Is Worth a Thousand Words: Supply

Market Equilibrium

8. Choose one of the following videos:
 - a. Economic Lowdown Video Series (Federal Reserve Bank of St. Louis)
 - i. Episode 3: Equilibrium (5:21);
<https://www.stlouisfed.org/education/economic-lowdown-video-series>
 - b. Principles of Economics: The Equilibrium Price (Marginal Revolution University; 4:51);
<http://mruniversity.com/courses/principles-economics-microeconomics/equilibrium-price-supply-demand-example>

9. Economics in Action: 14 Greatest Hits for Teaching High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 7: A Market in Wheat
10. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 4: A Classroom Market for Cocoa
11. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 5: What Happens When Prices Are Not In Equilibrium?

Changes in Market Equilibrium

12. Visual 4A: Steps in Market Equilibrium Change
13. Visual 4B: Shifts in Supply and Demand
14. Master Curriculum Guide: Teaching Strategies 5-6 (*Virtual Economics*® 4.5)
 - a. Lesson 13: Mind Your P's & Q's
 - b. Adaptation: Mind Your P's & Q's
15. Lesson 4.2: Shifting Supply and Demand (by Dr. Jeni Logan)
16. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 6: The Markets Never Stand Still
17. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 7: How Markets Interact
18. Online Course: Supply and Demand (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.
 - d. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "Supply and Demand."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.

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Bonus Lesson

19. Lesson: Shifting Curves: Demand and Supply Shifts in the Gasoline Market (*Inside the Vault*, Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/shifting-curves-demand-and-supply-shifts-in-the-gasoline-market>

Lesson 4.1: Demand Curve Construction

Lesson Objective

Students will be able to construct a demand graph using provided information.

Time Required

One class period

Materials

- Index cards
 - Blank overhead transparency or paper for document camera
 - Overhead markers
-

Procedure

1. Display *Visual 1: Demand*. Read the definition. Underscore that in order for people to help create the demand for a good or service, they must be both *willing* and *able* to purchase the good or service.
 2. Ask students to think about how much they would be willing and able to pay for an A in your class for the term.
 3. Explain that you will be accepting bids for A's and using the data to construct a demand curve.
 4. Hand out index cards for students to write down their bids. Explain that they need to write the dollar amount they are willing and able to pay and their name on the paper so you know who to talk to about the deal after class. (Note: In order to give you time to place the bids in order and write the dollar amounts on an overhead or graph, you may want to give students an article to read or have another activity.)
 5. Using the bids for an A for the semester, construct a demand graph. The graph is constructed by graphing the bids from highest to lowest. (*Visual 2: Demand Curve for an "A"* is provided as an example.)
 6. Explain that the graph is read as follows: Reading up from the horizontal axis and then over to the vertical axis, the graph shows the added value of the *n*th A to the class.
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Session 4

7. Note that this is a downward-sloping curve, indicating that as society (the class) gets more A's, in general, the added value of another A falls (because it is given to someone who values it less highly than the students before).
8. Continue explaining the graph as follows: Reading from the vertical axis over and then down to the horizontal axis, the graph shows the number of A's that would be purchased at a given price, or the quantity demanded of A's. Note that all the students who value an A greater than the price chosen would be willing and able to buy an A (because they would value it more highly than the price chosen), but all those students who value an A less than the price chosen would not be willing or able to buy an A. Also, note that if a lower price is chosen, there are more students with values higher than the price and hence, more students would buy the A's. This is the law of demand: As price falls, buyers will buy more units of a good or service (and vice versa).
9. If there are any blank index cards, on which students did not note a price, or if any students wrote zero, note the following: Students who refuse to "pay" for a grade are simply not in the market for an A because they are not willing, or in some cases not able, to buy the grade.
10. Conclude the demonstration by explaining that the demand for any good or service can be described with price and quantity data. Explain that the relationship between price and quantity demanded is an inverse relationship—as price goes up, quantity demanded goes down.

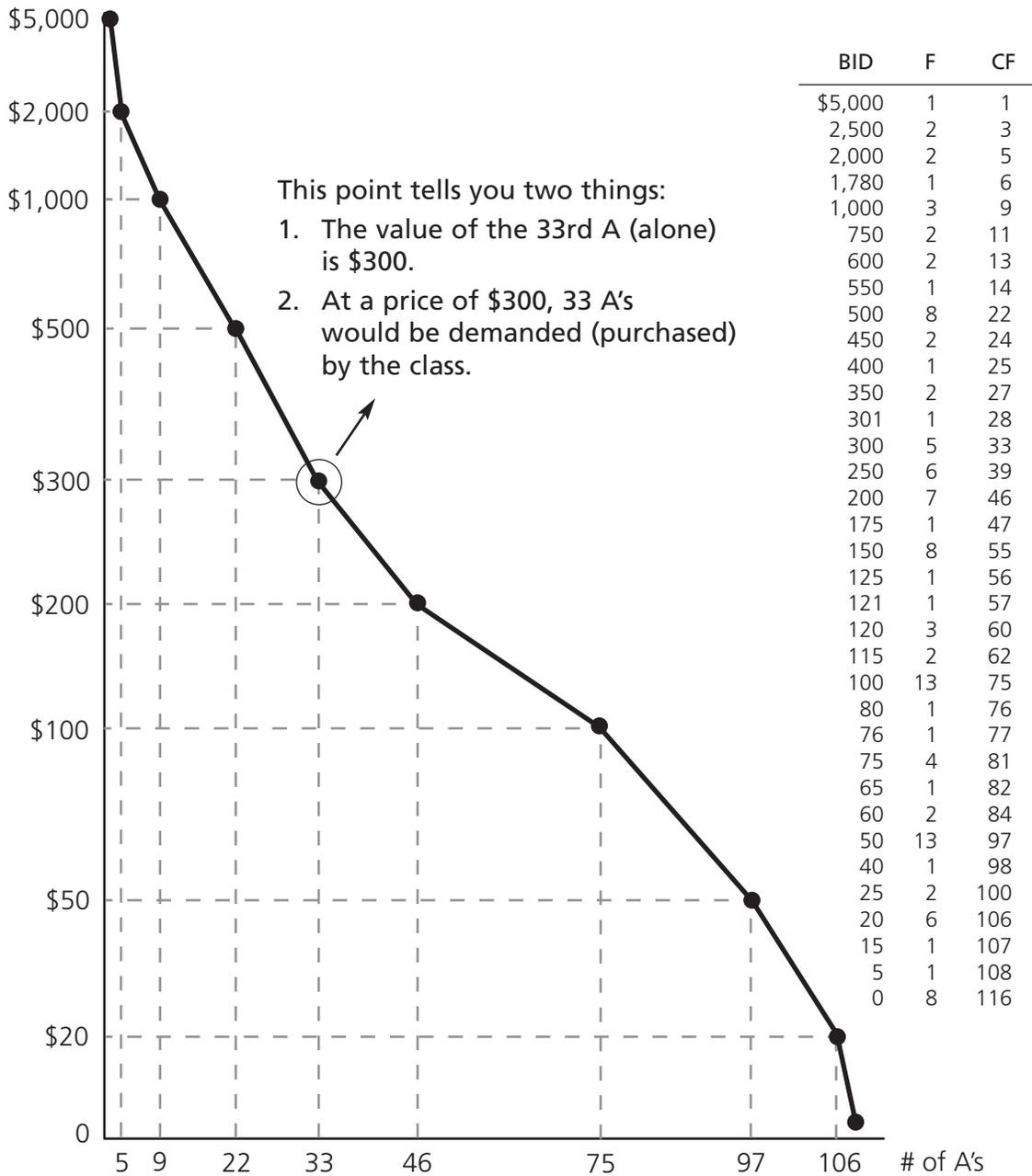
Closure

12. Distribute *Handout 1: Construct a Demand Curve* and have the students generate their own demand curve based on the information provided.

Lesson 4.1, Visual 1: Demand

Demand: The quantity of a good or service that buyers are *willing* and *able* to buy at all possible prices during a certain time period.

Lesson 4.1, Visual 2: Demand Curve for an A



NOTE: F, frequency; CF, cumulative frequency.

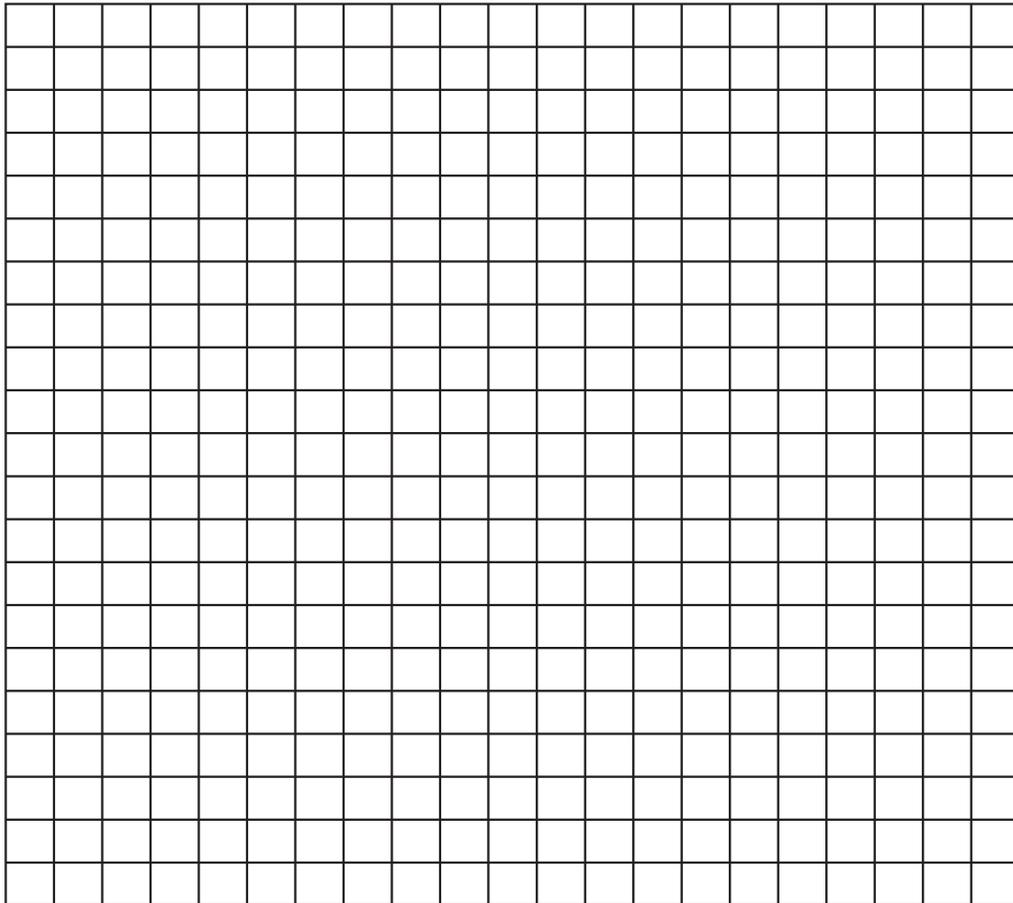
Lesson 4.1, Handout 1: Construct a Demand Curve

Name _____

Directions: Construct a demand graph using the information provided. Label your graph.

Market for Soft Drinks

<u>Suggested price</u>	<u>Quantity demanded</u>
\$2.50	1
\$2.00	2
\$1.75	4
\$1.50	6
\$1.25	7
\$1.00	10
\$0.75	13
\$0.50	15



⑤ **Visual 4A: Steps in Market Equilibrium Change**

1. **An event occurs** that changes the demand for or supply of a given good or service.
2. **Demand and/or supply shift(s)** in response to the above change.
3. **A surplus or shortage occurs** at the old equilibrium price.
4. **The price moves:** It increases if there is a shortage; it decreases if there is a surplus.
5. **The new equilibrium price and quantity are established** at the intersection of the new demand or supply curve and the original demand or supply curve.

© Visual 4B: Shifts in Supply and Demand**Causes of Shifts (Changes) in Demand**

1. Consumer tastes/preferences (changes in a person's willingness to pay)
2. Consumer income/wealth (changes in a person's ability to pay)
3. Prices of related goods (changes in the prices of substitute goods or complementary goods)
4. Consumer expectations about the future
5. The number of buyers

Causes of Shifts (Changes) in Supply

1. Productivity/technology (resource savings in how the good is produced)
2. Prices of resources used (resource prices are directly related to costs)
3. Government policies (changes in taxes or subsidies)
4. Producer expectations about the future
5. The number of sellers

Lesson 4.2: Shifting Supply and Demand

Author

Dr. Jeni Logan

Objectives

Students will

- construct market equilibrium graphs and
 - shift supply and demand on a graph to determine the new equilibrium point.
-

Time Required

One class period

Materials

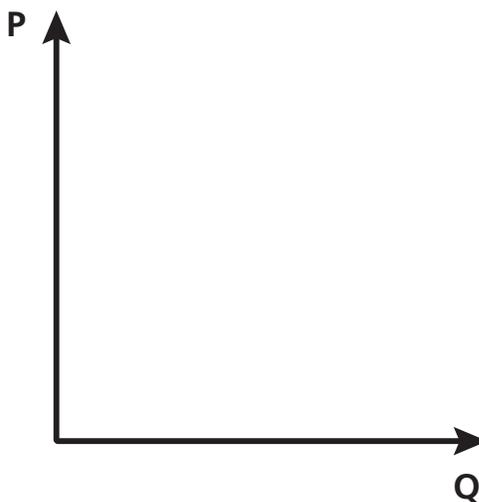
- Handout 1, one copy for each student
 - Handout 1—Answer Key for the teacher
 - Whiteboard or document camera
-

Procedure

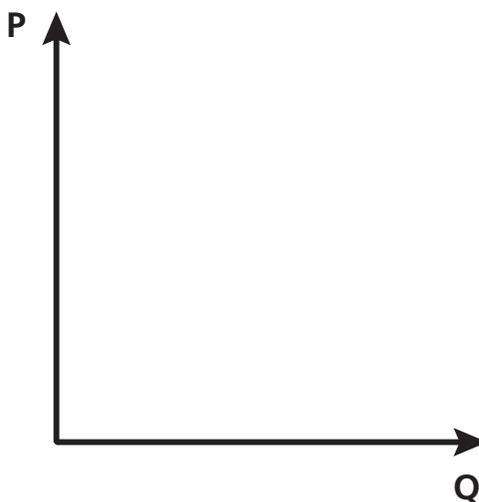
1. Distribute *Handout 1: Supply and Demand Graphing*.
 2. Ask a student to read number 1. Ask the following:
 - What was affected, supply or demand? (See the Answer Key).
 3. Ask the students to recall how the graphs were labeled from the session on supply and demand. Ask them to label their graphs while you do so on the board.
 4. Ask the students to construct a simple supply and demand equilibrium graph for number 1 in the space provided on the handout. Demonstrate how to do so on the board.
 5. Continue through as many of the scenarios as needed until the students can complete the remainder on their own. NOTE: If your students are not ready to graph a double shift, tell them they do not need to complete number 11.
-

Lesson 4.2, Handout 1: Supply and Demand Graphing (page 1 of 6)

1. Suppose the price of peanut butter increases sharply. How will this influence the market for jelly?

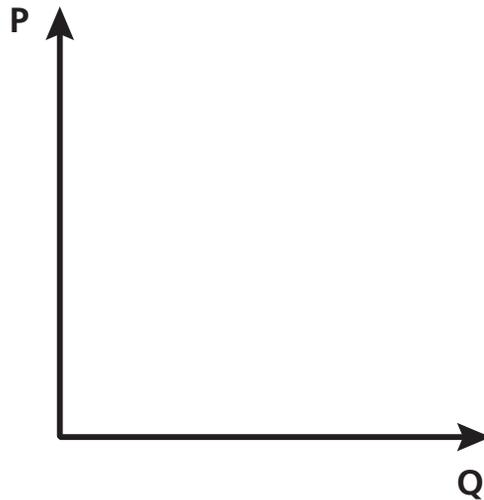


2. Suppose a lack of rainfall in the Midwest leads to a reduction in wheat production. How will this influence the market for bread?

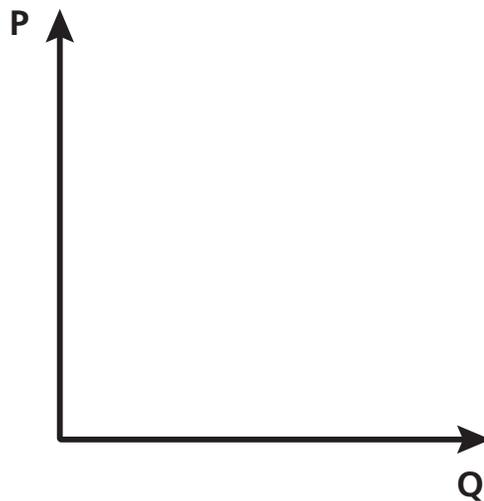


Lesson 4.2, Handout 1: Supply and Demand Graphing (page 2 of 6)

3. As the summer season approaches, more people want to surf. How will this influence the surfboard market?

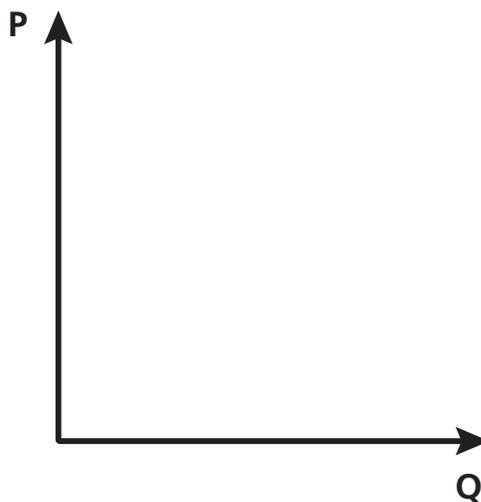


4. Suppose lemonade vendors expect future lemonade prices to double. How will this influence the current lemonade market?

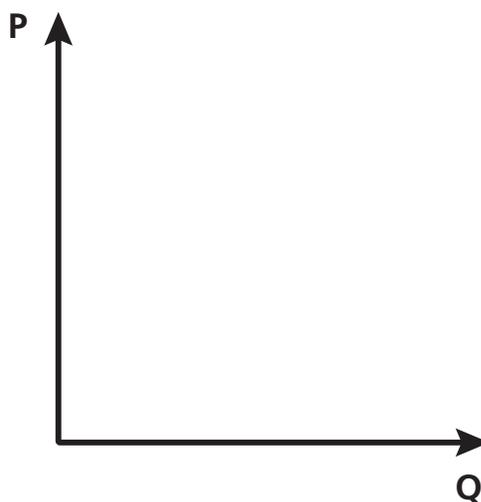


Lesson 4.2, Handout 1: Supply and Demand Graphing (page 3 of 6)

5. Technological advancements in cellular phones have dramatically improved the production process. How has this influenced the cellular phone market?

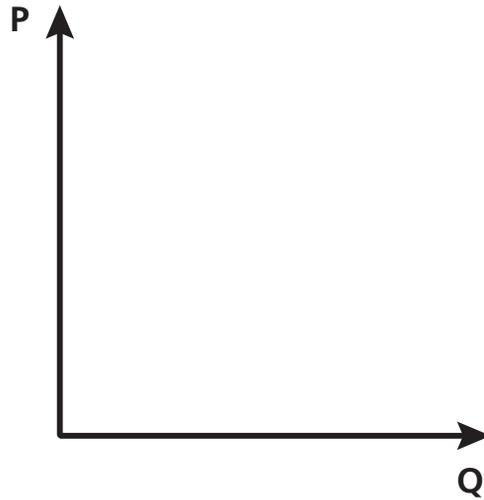


6. Suppose the price of Pepsi™ falls dramatically. How will this affect the market for Coke™?

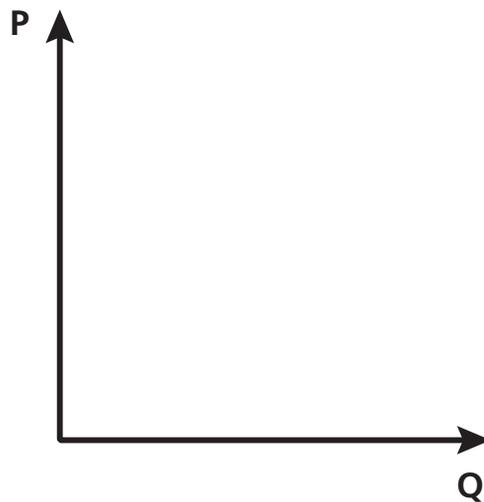


Lesson 4.2, Handout 1: Supply and Demand Graphing (page 4 of 6)

7. Suppose medical professionals announce that consuming coffee will stunt your growth. How will this influence the coffee market?

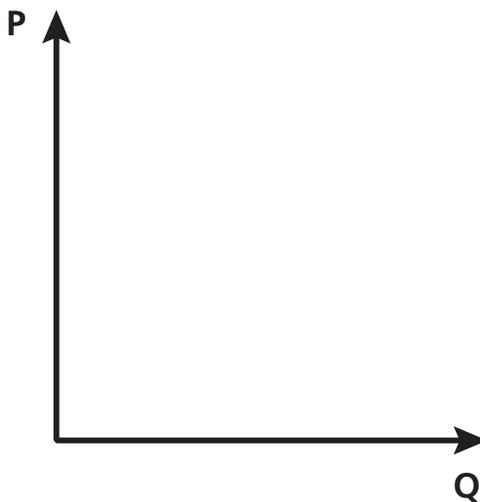


8. Suppose households anticipate a dramatic increase in the price of milk in the future. How will this influence the milk market?

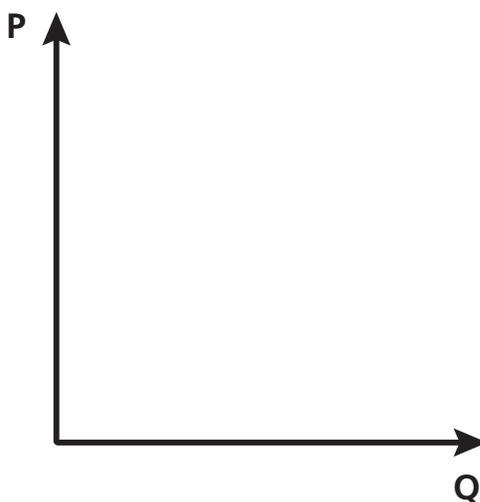


Lesson 4.2, Handout 1: Supply and Demand Graphing (page 5 of 6)

9. Suppose that because of higher profit potential elsewhere, many Brussels sprout sellers are leaving the market. How will this influence the Brussels sprout market?

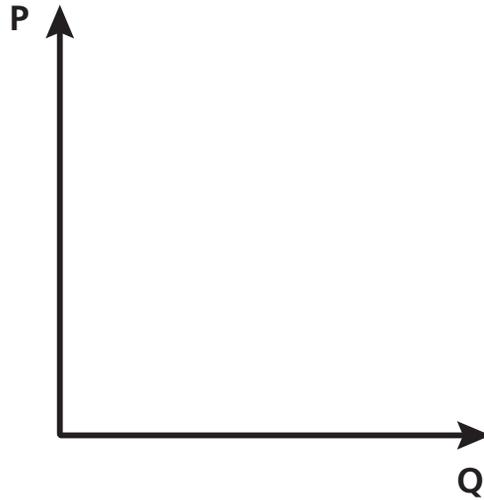


10. Suppose people become increasingly concerned with physical fitness. How will this influence the market for athletic shoes?



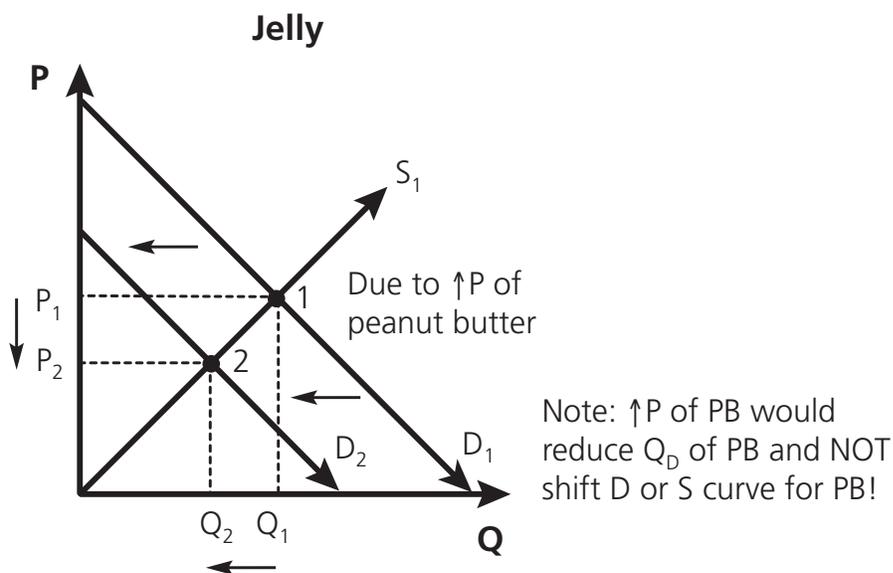
Lesson 4.2, Handout 1: Supply and Demand Graphing (page 6 of 6)

11. Suppose hurricanes decrease the shrimp population but the popularity of shrimp cocktail increases. How will this influence the market for shrimp? (**Double shift alert!**)

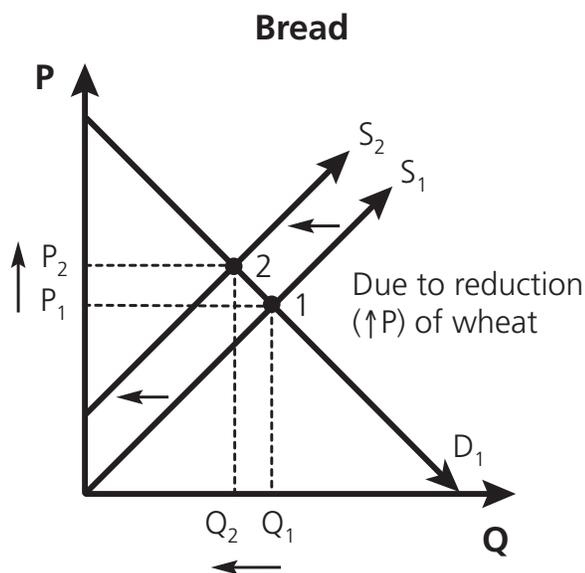


Lesson 4.2, Handout 1: Supply and Demand Graphing—Answer Key (page 1 of 6)

- Suppose the price of peanut butter increases sharply. How will this influence the market for jelly? (*The demand for jelly decreases because peanut butter and jelly are complementary goods. The equilibrium price of jelly decreases and the equilibrium quantity decreases.*)

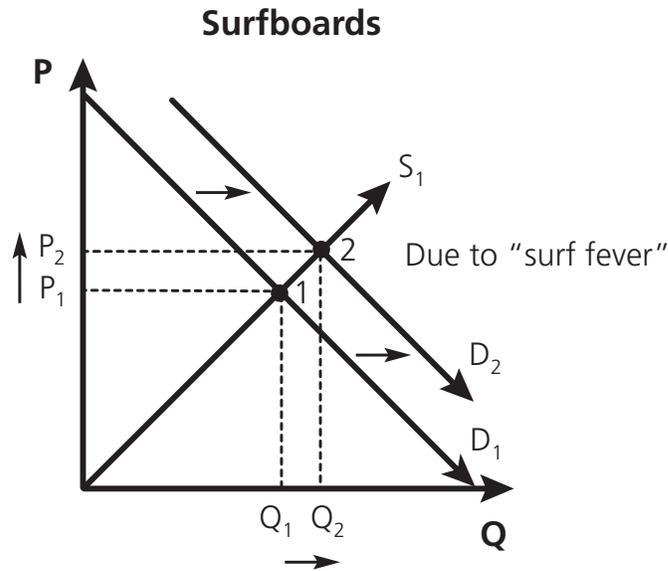


- Suppose a lack of rainfall in the Midwest leads to a reduction in wheat production. How will this influence the market for bread? (*The supply of bread decreases because wheat is an input in the production of bread. The equilibrium price of bread increases and the equilibrium quantity decreases.*)

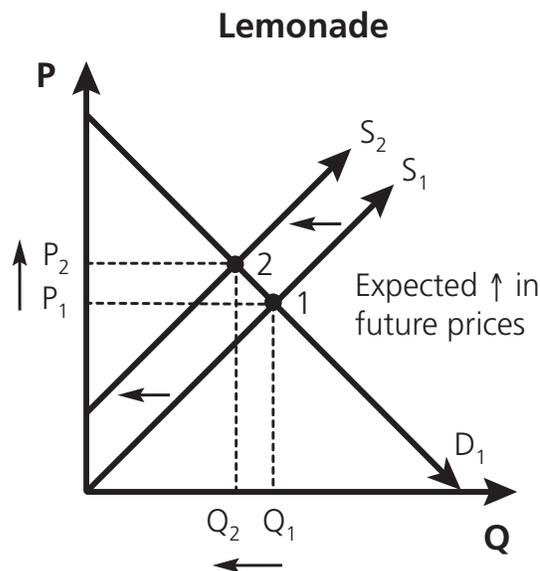


Lesson 4.2, Handout 1: Supply and Demand Graphing—Answer Key (page 2 of 6)

3. As the summer season approaches, more people want to surf. How will this influence the surfboard market? *(The demand for surfboards increases because the number of consumers in the market increases. The equilibrium price of surfboards increases and the equilibrium quantity increases.)*

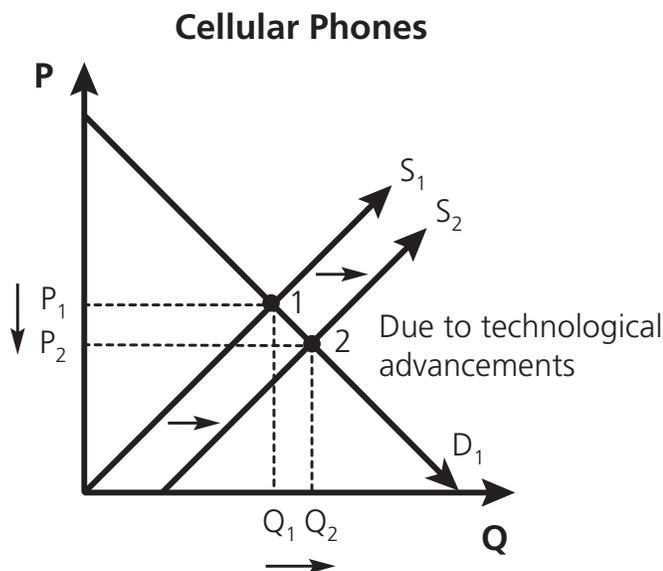


4. Suppose lemonade vendors expect future lemonade prices to double. How will this influence the current lemonade market? *(The supply of lemonade today decreases because producers expect to receive higher prices in the future. The equilibrium price of lemonade rises and the equilibrium quantity decreases.)*

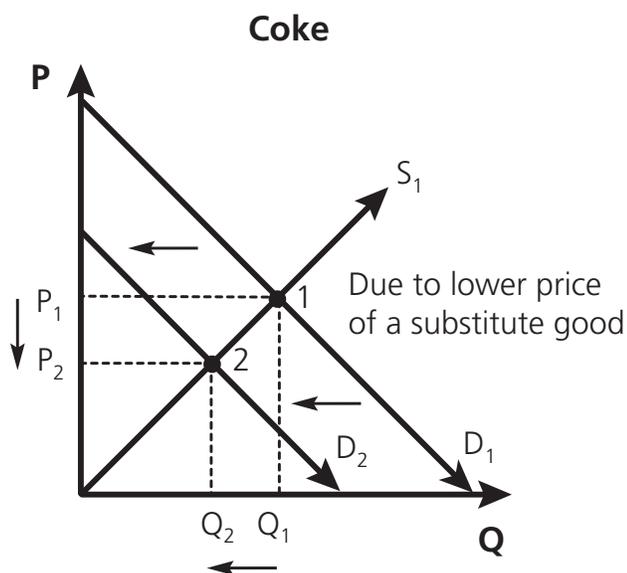


Lesson 4.2, Handout 1: Supply and Demand Graphing—Answer Key (page 3 of 6)

5. Technological advancements in cellular phones have dramatically improved the production process. How has this influenced the cellular phone market? (*The supply of phones has increased because of a change in technology. The equilibrium price of cellular phones decreased and the equilibrium quantity increased.*)

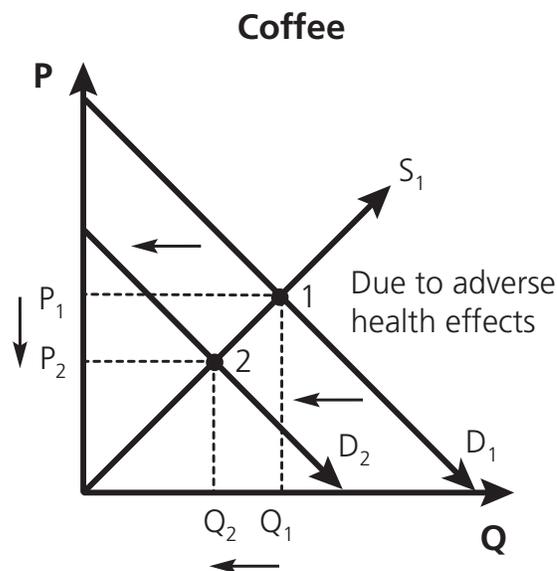


6. Suppose the price of Pepsi™ falls dramatically. How will this affect the market for Coke™? (*The demand for Coke decreases because Pepsi is a substitute for Coke. The equilibrium price of Coke decreases and the equilibrium quantity decreases.*)

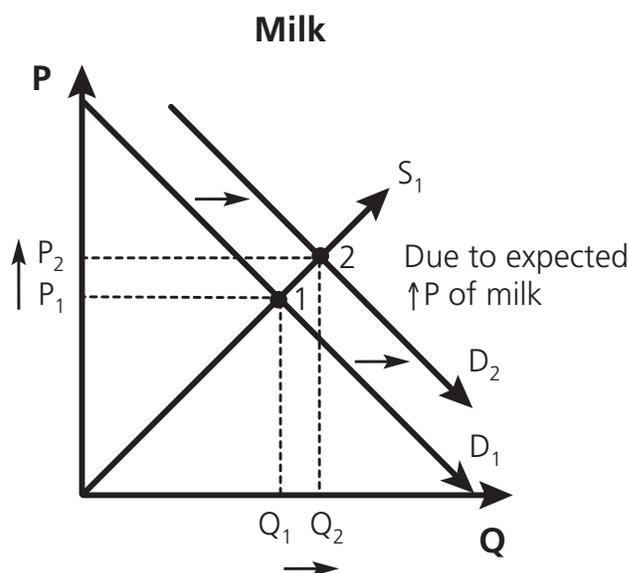


Lesson 4.2, Handout 1: Supply and Demand Graphing—Answer Key (page 4 of 6)

7. Suppose medical professionals announce that consuming coffee will stunt your growth. How will this influence the coffee market? *(The demand for coffee decreases because of a change in consumer tastes and preferences. The equilibrium price of coffee decreases and the equilibrium quantity decreases.)*

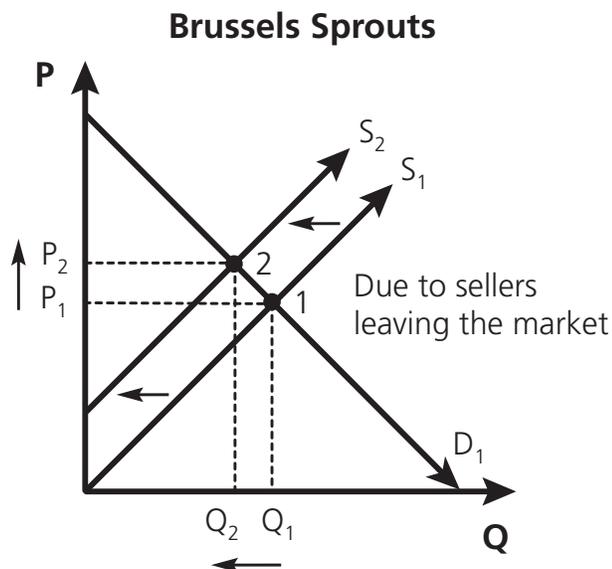


8. Suppose households anticipate a dramatic increase in the price of milk in the future. How will this influence the milk market? *(The current demand for milk increases because consumers expect to pay more in the future. The equilibrium price of milk increases and the equilibrium quantity increases.)*

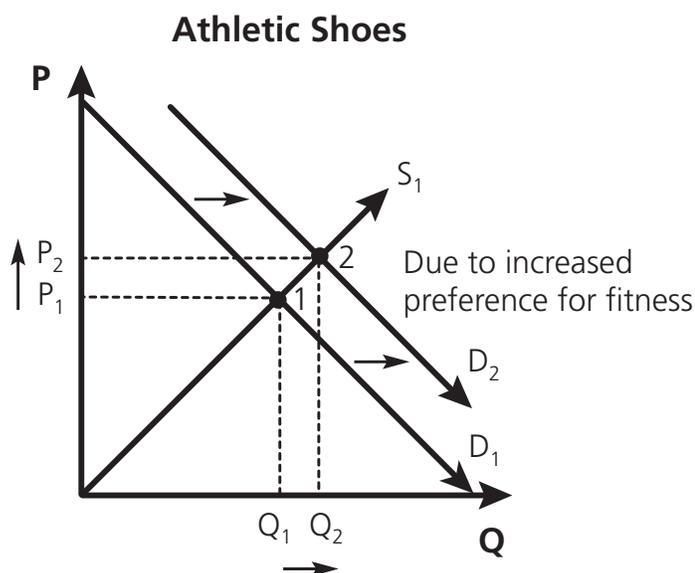


Lesson 4.2, Handout 1: Supply and Demand Graphing—Answer Key (page 5 of 6)

9. Suppose that because of higher profit potential elsewhere, many Brussels sprout sellers are leaving the market. How will this influence the Brussels sprout market? *(The supply of Brussels sprouts decreases as producers shift to another product. The equilibrium price of Brussels sprouts increases and the equilibrium quantity decreases.)*



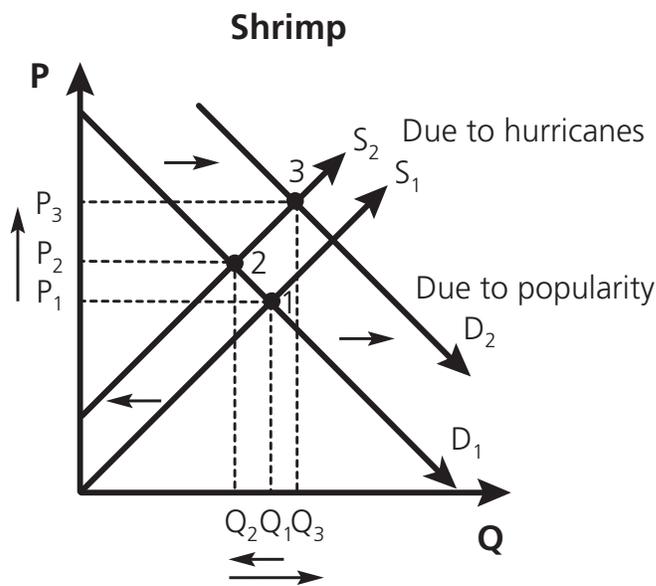
10. Suppose people become increasingly concerned with physical fitness. How will this influence the market for athletic shoes? *(The demand for athletic shoes increases because consumer tastes and preferences have changed. The equilibrium price of athletic shoes increases and the equilibrium quantity increases.)*



Lesson 4.2, Handout 1: Supply and Demand Graphing—Answer Key (page 6 of 6)

11. Suppose hurricanes decrease the shrimp population but the popularity of shrimp cocktail increases. How will this influence the market for shrimp? (**Double shift alert!**) *(The demand for shrimp increases and the supply of shrimp decreases. The equilibrium price increases, but how the equilibrium quantity changes is unknown.)*

For the teacher: Explain that any time you have a scenario where both supply and demand shift, you will have a known and unknown effect. In this case, the supply of shrimp decreases and the demand for shrimp increases. Both of these changes cause the price of shrimp to increase. The decrease in supply would cause quantity to decrease; however, the increase in demand would cause quantity to increase. So exactly what would happen to quantity is unknown. The change in price is known—it increases. The change in output depends on the magnitude (distance) of the shifts. In graph 11, notice the shift in demand is larger than the shift in supply; thus, the quantity is shown to be higher than it was initially ($Q_3 > Q_1$).



Adaptation: Mind Your P's and Q's

Use with “**Lesson 13: Mind Your P's & Q's**” in *Virtual Economics*® 4.5: Master Curriculum Guide: Teaching Strategies 5-6.

Materials

- *Handout 1: Supply Arrows*
 - Copy on colored cardstock (yellow)
 - Copy enough pages so that each student has one of each card (one with the arrows up and one with the arrows down)
 - Cut out and laminate
 - *Handout 2: Demand Arrows*
 - Copy on colored cardstock (red)
 - Copy enough pages so that each student has one of each card (one with the arrows up and one with the arrows down)
 - Cut out and laminate
 - *Handout 3: Price Arrows*
 - Copy on colored cardstock (green)
 - Copy enough pages so that each student has one of each card (one with the arrows up and one with the arrows down)
 - Cut out and laminate
-

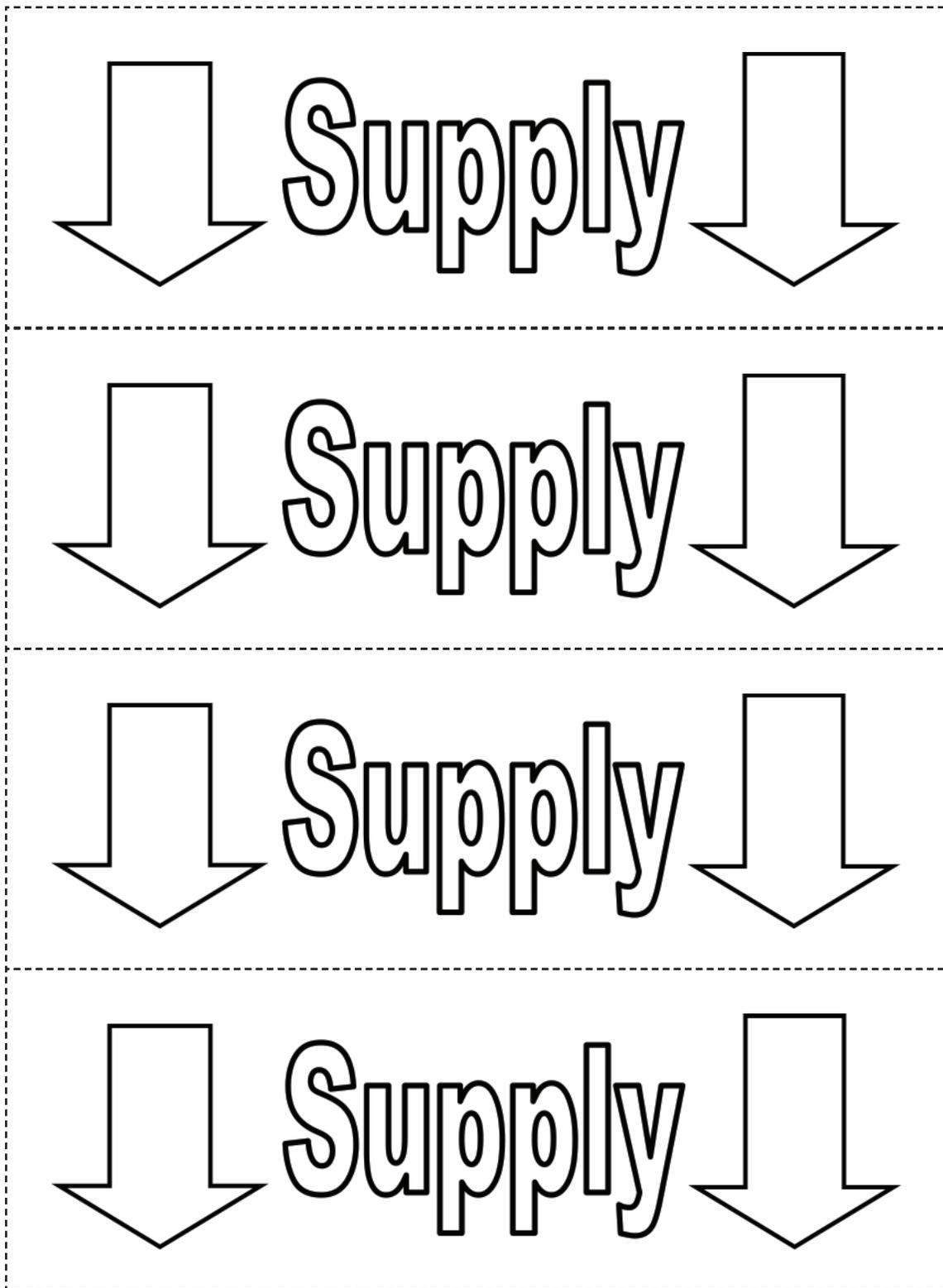
Procedure

1. Complete lesson instructions as written in the lesson, stopping before distributing the worksheet.
 2. Distribute one set of cards to each student.
 3. Read the “news event” aloud.
 4. Ask students whether supply or demand is affected and whether it increases or decreases and to hold up the appropriate card to give their answers.
 5. Ask students to determine whether the price goes up or down and to hold up the appropriate card to give their answers.
 6. Discuss the correct answers.
 7. Repeat for each “news event.”
-

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Adaptation: Mind Your P's and Q's
Handout 1: Supply Arrows (page 1 of 2)



Adaptation: Mind Your P's and Q's
Handout 1: Supply Arrows (page 2 of 2)

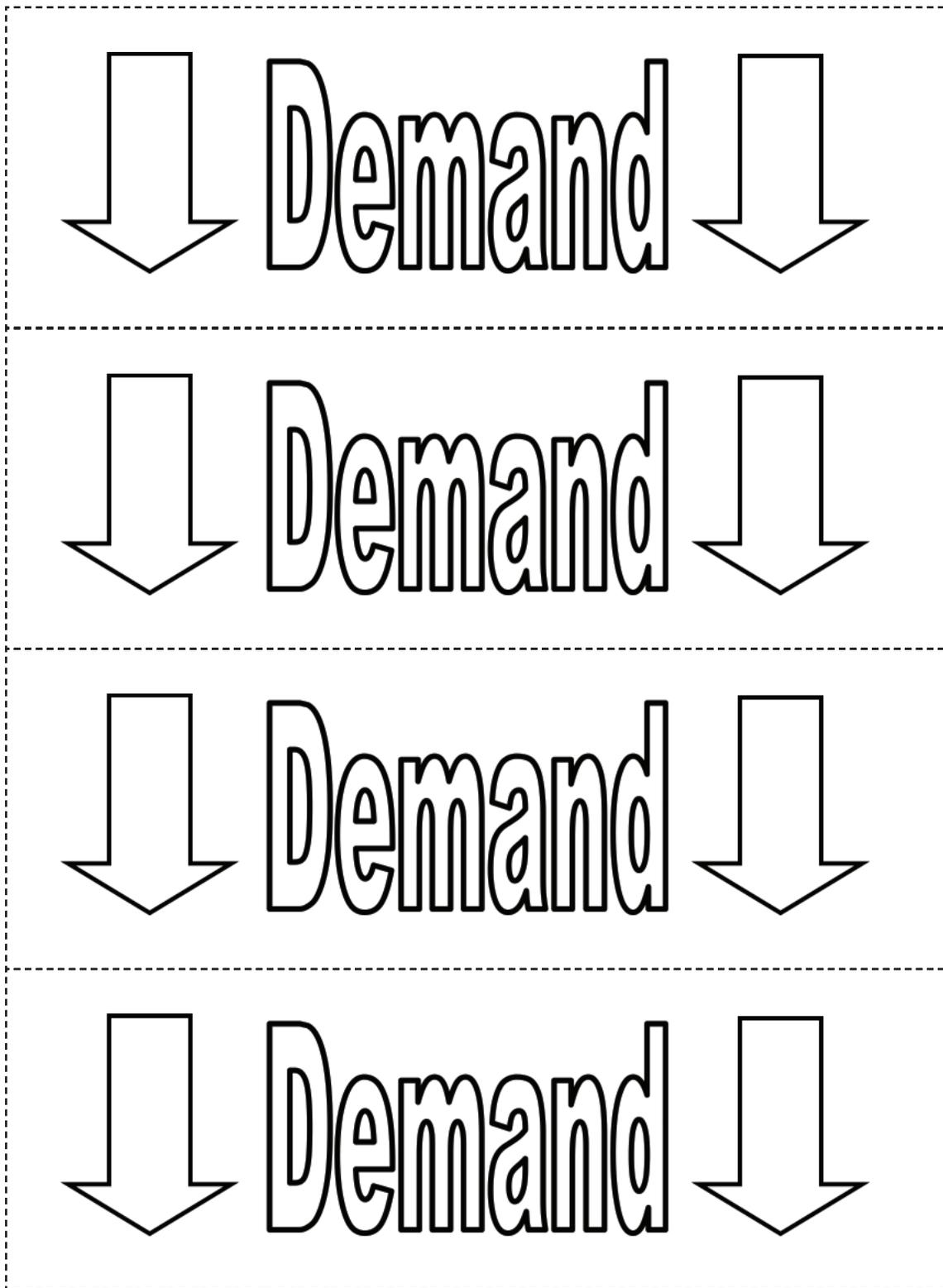
↑ Supply ↑

↑ Supply ↑

↑ Supply ↑

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Adaptation: Mind Your P's and Q's
Handout 2: Demand Arrows (page 1 of 2)



Adaptation: Mind Your P's and Q's
Handout 2: Demand Arrows (page 2 of 2)

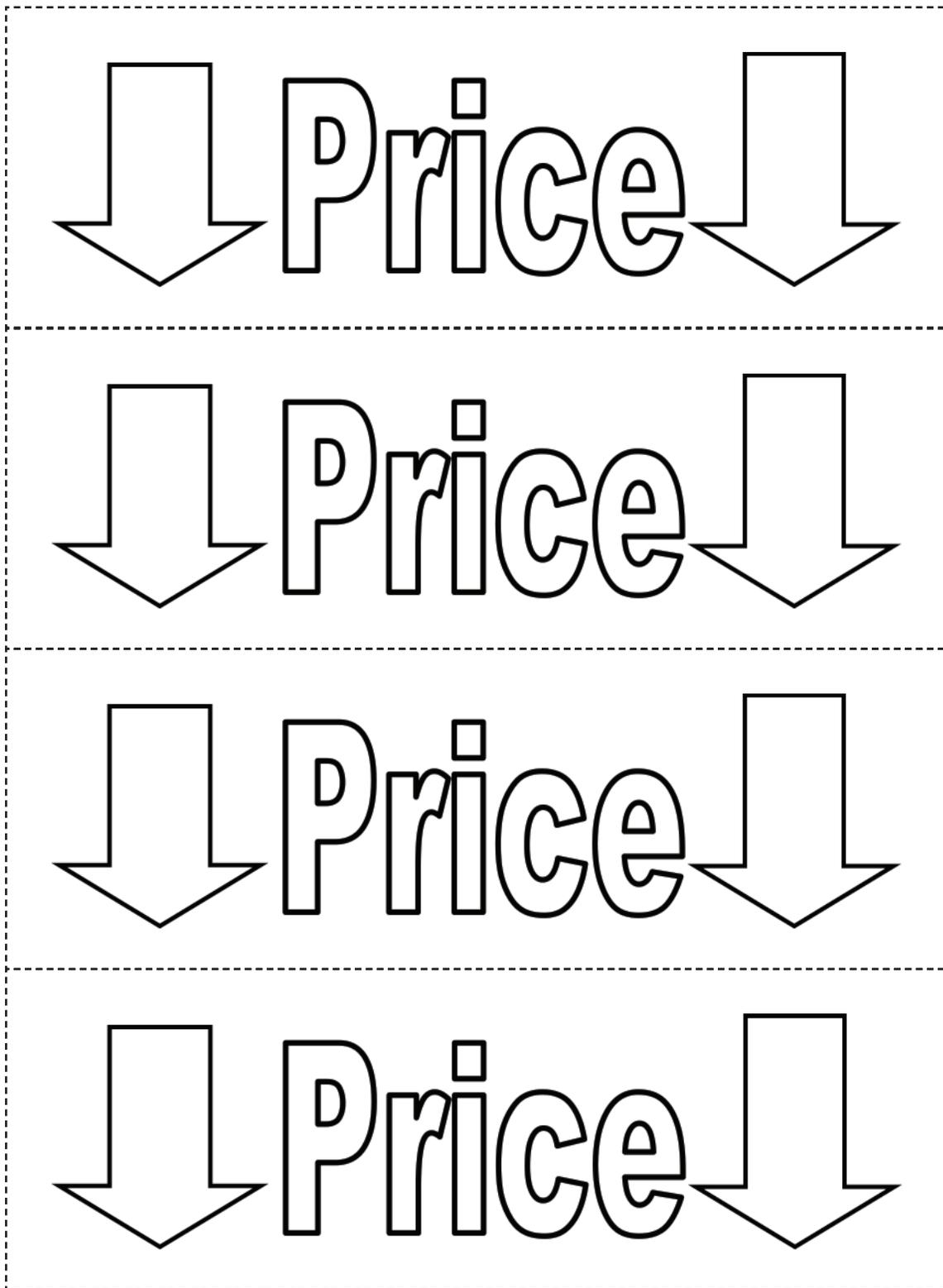
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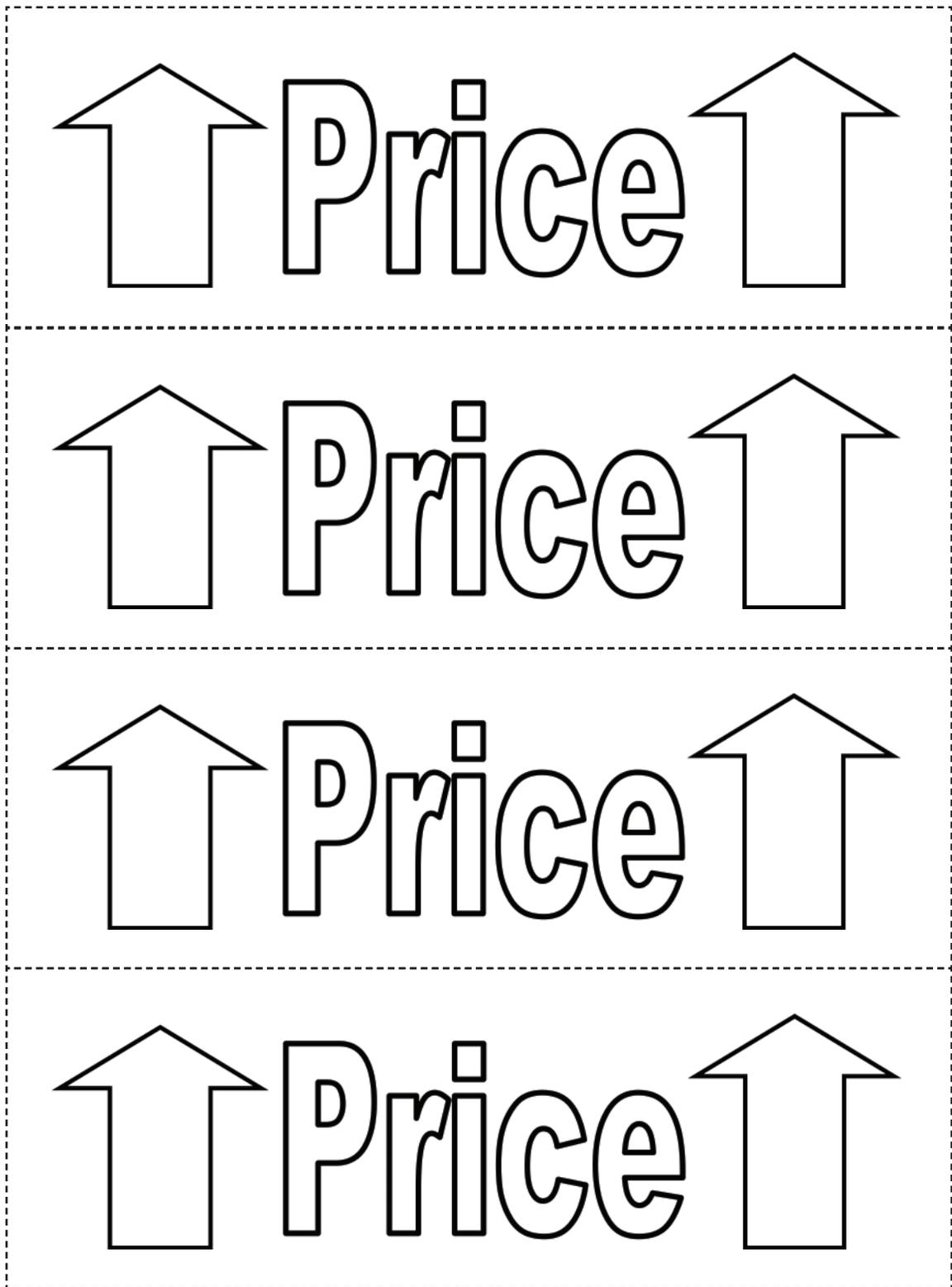
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Adaptation: Mind Your P's and Q's
Handout 3: Price Arrows (page 1 of 2)



Adaptation: Mind Your P's and Q's
Handout 3: Price Arrows (page 2 of 2)



SESSION 5: Circular Flow

Session Description

In a market economy, businesses (producers), consumers, and government are linked. Students explore this linkage with circular flow activities. Students will also investigate the major forms of business organizations.

Talking Points

1. In the circular flow model (CFM) of an economy, consumers trade resources for money in resource markets. They use the money to buy finished goods and services in product markets. Producers buy resources in resource markets with money. Producers use the resources to produce goods and services, which they sell in resource markets in exchange for money. So, real things (goods and services) and money flow in opposite directions.
2. Consumers are sellers in resource markets and buyers in product markets, while producers are buyers in resource markets and sellers in product markets.
3. Consumers and producers have different names for the same flows in the CFM:
 - a. Consumers sell resources; producers buy inputs.
 - b. Consumers are paid income; producers incur costs.
 - c. Consumers buy goods and services; producers sell their outputs.
 - d. Consumers make expenditures; producers receive revenue.
4. There are four main types of business ownership: sole proprietorship, partnership, franchise, and corporation. These types are distinguished by the ability of the owners to raise financial capital, the liability they face should the business fail, and some differences in tax liability.

Session 5: Standards and Benchmarks

Arkansas Economic Standards

Strand: Exchange and Markets

Content Standard 3: Students will investigate the role of producers, consumers, and government in a market economy.

- EM.3.E.1 Analyze the role of consumers in a market economy
- EM3.E.2 Compare and contrast major forms of business organizations (e.g., sole proprietorships, partnerships, corporations, non-profits, franchises)

Common Core State Standards

- CCSS.ELA-Literacy.RI.9-10.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- CCSS.ELA-Literacy.RI.11-12.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
- CCSS.ELA-Literacy.RI.9-10.2 Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
- CCSS.ELA-Literacy.RI.9-10.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).
- CCSS.ELA-Literacy.RI.11-12.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines *faction* in *Federalist No. 10*).
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

- CCSS.ELA-Literacy.SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.RH.11-12.4 Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines *faction* in *Federalist No. 10*).

Session 5: Resources

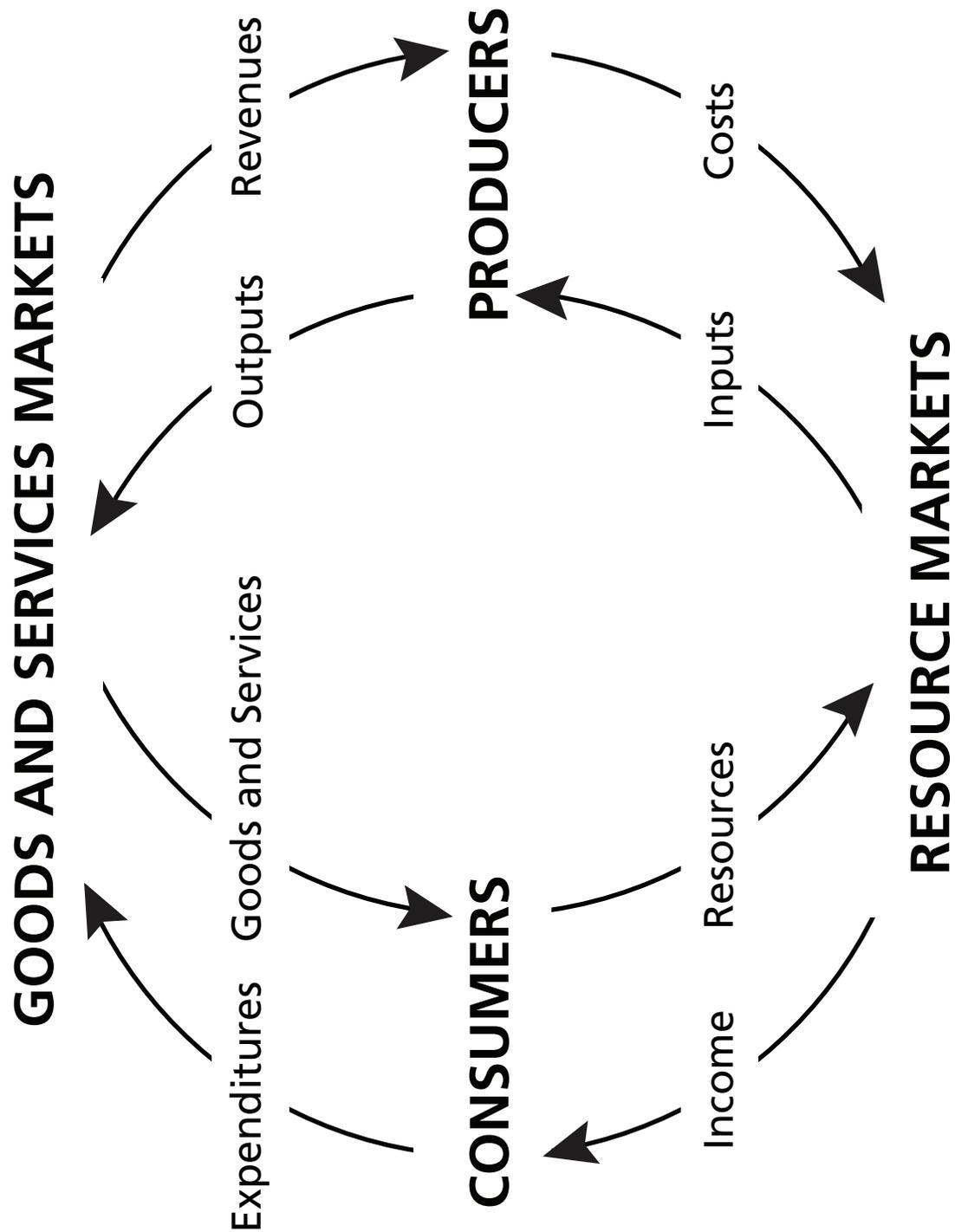
1. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 16: The Circular Flows of Econoland

2. © Visual 5B: Goods and Services Markets

3. Focus: Institutions and Markets (*Virtual Economics*® 4.5)
 - a. Lesson 3: Business Organizations

4. Entrepreneurship Economics (*Virtual Economics*® 4.5)
 - a. Lesson 4: Choosing the Right Type of Business Organization
 - b. Adaptation: Choosing the Right Type of Business Organization
 - i. Use with the activity in the lesson.

© Visual 5B: Goods and Services Markets



Adaptation: Choosing the Right Type of Business Organization

Use with “**Lesson 4: Choosing the Right Type of Business Organization**” in *Virtual Economics*® 4.5: Entrepreneurship Economics.

OPTION 1

As a class, have the students compete in a relay race to correctly identify characteristics of each business organization.

Preparation

- Copy the concentration cards (provided with “Lesson 4: Choosing the Right Type of Business Organization”) on different colors of cardstock, using a different color for each team (with a minimum of 3 teams).
 - Laminate the cards and cut them apart.
 - Place each team’s cards in a basket or bag.
 - Write the types of business organizations on the board (far enough apart that the cards won’t overlap but close enough that they are easy for each team to reach): Franchise, Corporation, Sole Proprietor, Partnership.
-

Procedure

1. Divide the class into 3 (or more) teams. Have the teams line up at the opposite end of the room from the board.
 2. Place each team’s basket (bag) of cards at the starting line.
 3. Explain the rules of play:
 - When start is called, the first student in line for each team pulls a card from the team basket (bag).
 - This student moves to the front of the class and tapes the card under the appropriate sign and then returns to the starting line and tags the next teammate in line.
 - This teammate then draws a card from the bag and repeats the process.
 - Teams continue until all of the cards are taped to the board.
 4. Play the game, keeping track of the order in which teams finish (by points or time).
 5. Check answers. Deduct points/add seconds for any incorrect answers.
-

OPTION 2

Preparation

- Copy the concentration cards (provided with “Lesson 4: Choosing the Right Type of Business Organization”) on different colors of cardstock, using a different color for each team of 3 to 4 students.
 - Laminate the cards and cut them apart.
 - Copy and laminate the mats from *Handout 1: Business-Type Mats*, with one set for each team of 3 to 4 students.
-

Procedure

1. Divide the class into teams of 3 to 4 students. Provide each team with a set of concentration cards and business-type mats.
2. Have the groups sort the characteristics onto the business-type mats.
3. Check answers.

Adaptation: Choosing the Right Type of Business Organization
Handout 1: Business-Type Mats

Sole Proprietor	Franchise
Partnership	Corporation

SESSION 6: Market Failures

Session Description

Students will learn that market failures are caused by a problem within a market that can result in an inefficient use of resources. Policymakers may intervene in an attempt to correct market failures through laws that include regulations and/or programs to alleviate the market failure. Students will also learn that firms will not provide goods and services if they aren't able to earn a profit. If society values these goods and services, government may provide them.

Talking Points

1. For markets to produce the allocatively efficient quantities of goods, the markets must be perfectly competitive with well-defined property rights.
2. A market failure occurs when the market fails to produce the allocatively efficient quantity of a good or service.
3. Economic power (e.g., a monopoly, as discussed in Session 7) leads to a higher price and a lower quantity of output than is efficient.
4. Economic power can be addressed by the government through regulation, such as the legal restrictions currently placed on utility companies, or antitrust laws, which attempt to limit collusion and restrict mergers that could significantly reduce competition.
5. Barriers to trade (or entry) lead to inefficiency because resources cannot move to their most-valued uses, resulting in too much output produced in some markets and too little produced in others. (NOTE: This is a principal argument for free trade between countries discussed in Session 15.)
6. Commonly owned or unowned resources tend to be inefficiently used because there is no owner to protect them and monitor that they be used in the most-valued way. This is often referred to as the "tragedy of the commons."
7. Governments often take de facto control of common property resources. For example, the Environmental Protection Agency (EPA) makes rules regarding the use of air sheds and waterways, and states control their deer and fish populations through the issuance of hunting and fishing licenses.
8. If property rights are defined for a resource but are not enforced or protected, the resource will be used inefficiently, as if it weren't owned in the first place.

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Session 6

9. Governments define and enforce property rights through the provision of a legal court system and police services.
10. Negative (positive) externalities are costs (benefits) generated from the production or consumption of a good that spill over to people other than the market participants, resulting in markets producing too much (too little) of the good.
11. Negative (positive) externalities can be corrected through government taxes/charges (subsidies).
12. Public goods and services are both
 - a. non-rival in consumption (one person's use or consumption of the good or service does not affect another person's ability to also consume the good or service) and
 - b. non-excludable (non-payers cannot be excluded from receiving the benefits of the good or service if it is provided).
13. Examples of public goods include light from a lighthouse, ecological benefits from the Amazon rainforest, levee protection, over-the-air radio/TV broadcasts, and a fire-works display.
 - a. Public goods offer benefits to people whether they pay for them or not. For example, ships benefit from the light provided by a lighthouse whether they pay to use the lighthouse or not.
 - b. Because people are able to benefit from public goods without paying, they have an incentive to be "free riders"—that is, to enjoy the benefits without making any payment.
 - c. Because suppliers are unable to collect payment from free riders to pay for public goods, it isn't profitable to produce these goods. As a result, markets (i) fail to produce the goods or (ii) produce a quantity that is less than efficient.
14. Governments often correct for this market failure by providing public goods. Governments provide many goods and services, but only some of them, such as national defense, are public goods as defined by the characteristics above. That is, only some of the goods government provides are non-excludable and non-rival.

Session 6: Standards and Benchmarks

Arkansas Economic Standards

Strand: Exchange Markets

Content Standard 3: Students will investigate the role of producers, consumers, and government in a market economy.

- EM3.E.3 Evaluate intended and unintended consequences of government policies created to improve market outcomes

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

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- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 6: Resources

1. Video: "Metallica" (*Virtual Economics*® 4.5)
 - a. Choose "Browse Economic Concepts."
 - b. Choose "Fundamental Economics."
 - c. Choose "Property Rights."
 - d. Choose the picture on the right.
 - e. Fast-forward through the first segment.
 - f. Show the second segment.

2. Lesson: Unintended Consequences (Federal Reserve Bank of St. Louis); <https://www.stlouisfed.org/education/unintended-consequences>
 - a. Choose the PDF and the accompanying slides of your choice:
 - i. SMART Notebook
 - ii. ActiveInspire
 - iii. PowerPoint

3. Lesson: Worker Safety: The Triangle Fire Legacy (econedlink); <http://www.econedlink.org/lessons/index.php?lid=542&type=student>

4. Economic Lowdown Podcast Series (Federal Reserve Bank of St. Louis)
 - a. Episode 11: Externalities; <https://www.stlouisfed.org/education/economic-lowdown-podcast-series>

5. Focus: Understanding Economics in United States History (*Virtual Economics*® 4.5)
 - a. Lesson 2: Property Rights Among North American Indians

6. Economics in Action: 14 Greatest Hits for Teaching High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 4: Property Rights in a Market Economy

7. Master Curriculum Guides in Economics: Teaching Strategies 5-6 (*Virtual Economics*® 4.5)
 - a. Lesson 15: Regulation Rigmarole
 - b. Adaptation: Friendship Pin Production Table
 - i. Use with the activity in the lesson.

Session 6

8. Focus: Institutions and Markets (*Virtual Economics*® 4.5)
 - a. Lesson 7: Public Goods and Externalities
9. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 12: Third-Party Costs and Benefits
10. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 11: Not-So-Private Goods and Services
11. Lesson 6.1: Negative and Positive Externalities
12. Lesson 6.2: Andy the Antenna: A Story About Public Goods

Adaptation: Friendship Pin Production Table

Use with “**Lesson 15: Regulation Rigmarole**” in *Virtual Economics*® 4.5: Master Curriculum Guides in Economics: Teaching Strategies 5-6.

Friendship Pin Production Table

1	2	3	4	5	6	7	8	9
Round	Output (in 3 min.) # of Pins	Input # of Workers	Productivity (in 3 min.) Col. 2 ÷ Col. 3	Estimate of Output (in 1 hr.) Col. 2 X 20	Estimate of Productivity (in 1 hr.) Col. 4 X 20	Wage (1 hr.) \$6.00	Labor Cost (1 hr.) Col. 7 X Col. 3	Labor Cost per Pin Col. 8 ÷ Col. 6
1								
2								
3								

Friendship Pin Production Table

1	2	3	4	5	6	7	8	9
Round	Output (in 3 min.) # of Pins	Input # of Workers	Productivity (in 3 min.) Col. 2 ÷ Col. 3	Estimate of Output (in 1 hr.) Col. 2 X 20	Estimate of Productivity (in 1 hr.) Col. 4 X 20	Wage (1 hr.) \$6.00	Labor Cost (1 hr.) Col. 7 X Col. 3	Labor Cost per Pin Col. 8 ÷ Col. 6
1								
2								
3								

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Lesson 6.1: Negative and Positive Externalities

Lesson Objective

Students will understand what happens when the exclusive benefits and costs condition provided by property rights is violated.

Time Required

30 minutes

Materials

- Handout 1, one copy for the teacher to use as a visual and (if desired) one copy for each student
-

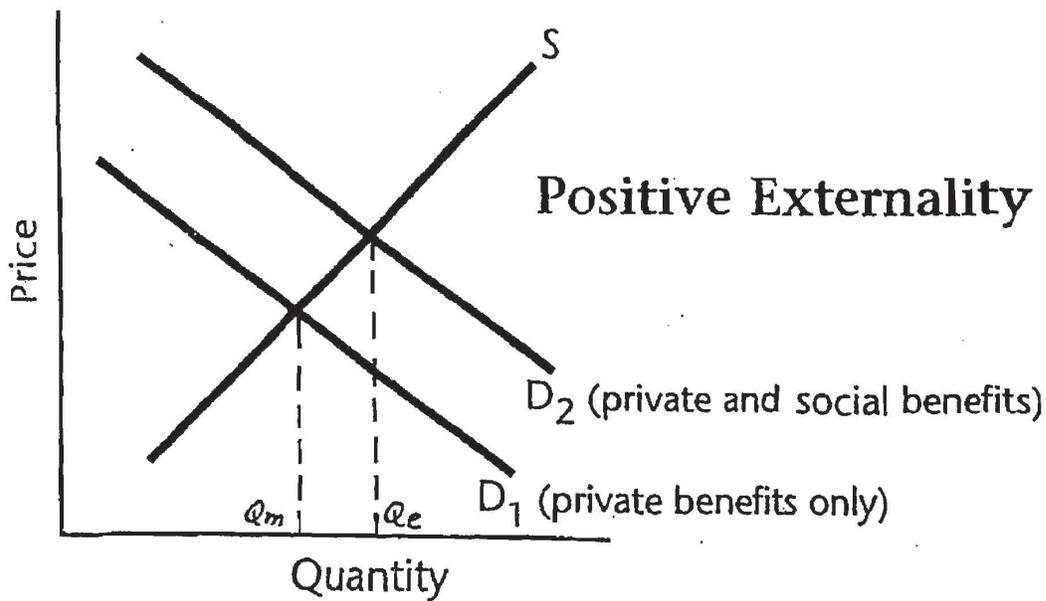
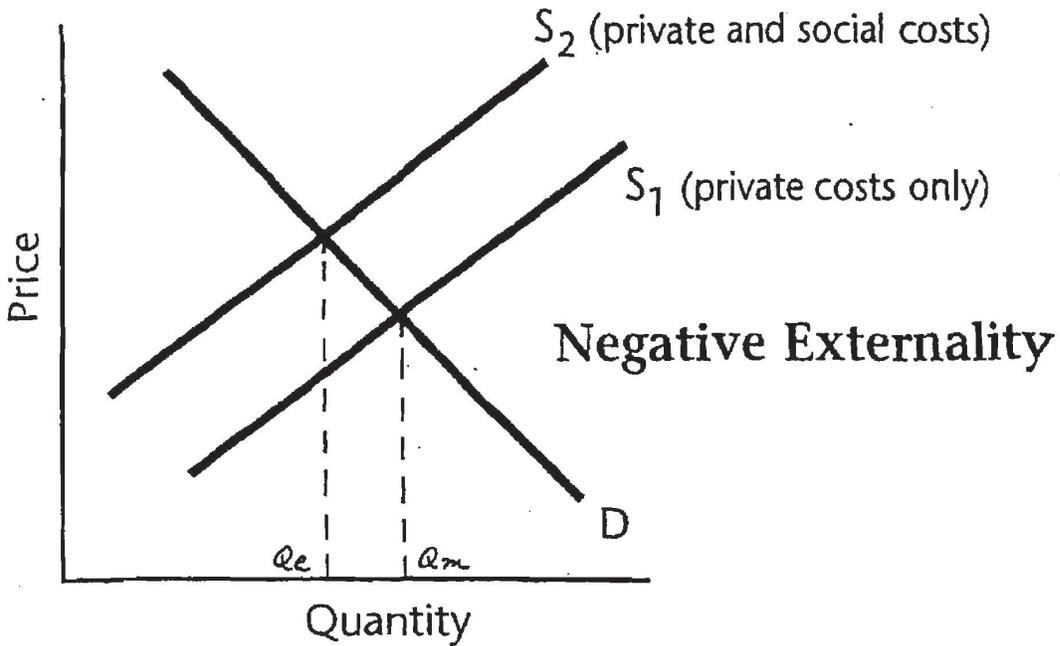
Procedure

1. Display *Handout 1: Positive and Negative Externalities*. If desired, distribute a copy to each student.
 2. Remind students that allocative efficiency implies that resources will be allocated to the production of a good as long as the added value to society of producing one more unit of that good exceeds the added cost of producing one more unit of that good (or in other words, up to the point where the two curves, typically represented by demand and supply, cross). However, the demand curve represents only the value to the buyers in the market, while the supply curve represents only the cost to the sellers in the market. Therefore, if other people who are neither buyers nor sellers of a particular good are affected by the production or consumption of the good, then the demand and supply curves do not show the real value or cost of producing one more unit of the good to society as a whole.
 3. Explain that a negative externality exists when people other than those in the market for a good or service suffer costs due to the production or consumption of that good or service. In this case, the cost to society of producing the good is understated by the market because the cost doesn't include these "external" or "social" costs. As a result, the market produces the quantity Q_m based on the private benefits and private costs of the market participants, while the efficient amount of the good to produce for society is the quantity Q_e , where all costs are considered. Examples include pollution generated in the production of a good, secondhand smoke from the consumption of cigarettes, and domestic violence and drunk-driving costs associated with alcohol consumption.
-

4. Explain that a positive externality exists when people other than those in the market for a good or service enjoy benefits due to the production or consumption of that good or service. In this case, the benefit to society of producing the good is understated by the market because the price does not reflect the “external” or “social” benefits. As a result, the market produces the quantity Q_m based on the private benefits and private costs of the market participants, while the efficient amount of the good to produce is the quantity Q_e , where all benefits are considered. Examples include flu shots, flower gardens, research knowledge, and education.

5. Explain that the government can correct for negative externalities (i.e., get the market to produce at Q_e) by taxing producers an amount equal to the social costs (the vertical distance between S_1 and S_2). Similarly, the government can correct for positive externalities by subsidizing producers enough to drop their costs (and S) down to where it intersects demand at Q_e .

Lesson 6.1, Handout 1: Positive and Negative Externalities



Lesson 6.2: Andy the Antenna: A Story About Public Goods

NOTE: Use this lesson as an optional follow-up to “**Lesson 11: Not-So-Private Goods and Services**” in *Virtual Economics*® 4.5: High School Economics.

Objective

Students will be able to identify the characteristics of a public good.

Time Required

20 minutes

Procedure

1. Explain that public goods have two characteristics that distinguish them from private goods. They must be
 - non-rival (one person’s use or consumption of the good or service does not affect another person’s ability to also consume the good or service) and
 - non-excludable (non-payers cannot be excluded from receiving the benefits of the good or service if it is provided).

A pizza, car, or shirt yields benefits only to the person eating, driving, or wearing it. There are rivals for consumption. In addition, one can enjoy the benefits of each of these goods only if he or she buys them. So, they are also excludable and, hence, private goods.

2. Relate the following story to students:

Many years ago, the only way to get television programs was through over-the-air broadcasts. In the so-called “golden days” of television, there were only three major networks: ABC, NBC, and CBS. The people living in and around Laramie, Wyoming, had televisions, but their reception was very poor because the nearest broadcasts were coming from Denver, Colorado, which was over 100 miles away with a small mountain range in between. So, one day, a small group decided on a solution. They acquired a loan to buy and install a small, signal-boosting antenna on top of the mountain range. Once this antenna (named “Andy”) was activated, everyone in and around Laramie suddenly had great TV reception.

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Session 6

3. Ask the following:

- In what way was the antenna a public good? (*Because one person's use of the boosted signal did not affect anyone else's ability to use the signal, the boosted signal was non-rival in consumption.*)

4. Continue the story:

In order to repay the loan used to purchase the antenna, the members of the small group sent letters to all the residents in the area requesting that they send \$12 to help "support Andy the Antenna." Most everyone in the area loved the new reception, but especially Clark, who enjoyed news and live sports. To Clark, this new reception was worth much more than \$12. But then he thought to himself, "If I spend \$12 supporting Andy the Antenna, I will get to enjoy the great reception; however, if I spend \$12 on snacks instead, I would get to enjoy the snacks AND the great reception because there is no way to block my television from getting the signal if I don't pay.

5. Ask the following:

- In what way does Clark's thinking describe a public good? (*Because Clark cannot be excluded from getting the signal if he doesn't pay the \$12, the boosted signal is non-excludable.*)

6. Finish the story:

Clark decided to buy the snacks and comforted his conscience by telling himself that his \$12 is only a small amount of the total amount and so would not make that much difference anyway. Unfortunately, many other people came to the same conclusion and very few contributions were sent to the small group. They eventually had to go to the city council of Laramie to ask for funds. Fortunately for them, the city council voted to give them the necessary funds.

7. Explain that this story demonstrates, like the "Not-So-Private Goods and Services" lesson, why markets have trouble providing resources for the production of public goods. Everyone who receives the benefits of such a good has a strong incentive to behave as a "free rider." This means that they enjoy the benefits the good provides without paying for the good. No one is willing to produce and sell such a good for fear they won't get paid. Thus, few or no resources will be allocated to the good's production even though it may be valuable to people. The story also points out the usual solution to this problem, which is to have government use tax dollars to provide the good.

8. Have students discuss the public-good characteristics of the following goods provided by the government with tax dollars:

- Street lights
- Wildlife habitats
- Lighthouses
- Mosquito control
- National defense
- Knowledge gained from research

SESSION 7: Market Structures

Session Description

Students learn that market structures refer to the characteristics, level of competition, and the resulting prices and quantities of goods and services produced. In addition, they learn that, in general, the greater the amount of competition in a market, the lower the price and higher the quantity produced and vice versa.

Talking Points

Market Structures: Perfect Competition

1. The following exist in perfectly competitive markets:
 - a. Many firms produce essentially identical products.
 - b. Businesses enter and exit the market with ease—that is, there are no barriers to entry or exit.
 - c. Individual firms are “price-takers”—that is, they have no power over their output price.
 - d. The market sets the price in the short run.
 - e. In the long run,
 - i. firms enter an industry when economic profits cause supply to shift to the right or
 - ii. firms leave an industry when economic losses cause supply to shift to the left.
2. The following occur as a result of perfect competition:
 - a. Consumers get the lowest price possible.
 - b. Productive efficiency: Firms are forced to produce in the least-costly manner possible.
 - c. Allocative efficiency: The market sets the equilibrium quantity.
3. The “invisible hand” of the market refers to the market’s ability to respond to changes in society’s values by automatically reallocating resources toward more-desired goods.

Other Market Structures

1. There are other market structures—with varying levels of competition.

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Session 7

2. The market structure with the least amount of competition is a monopoly. A monopoly is a single firm that
 - a. produces a product with no close substitutes and
 - b. is protected by insurmountable barriers to entry.
3. Barriers to entry are obstacles that limit the ability of new firms to enter a market.
4. Monopolies are “price-makers.” They have complete control over their output price because they have complete control over supply (the quantity produced).
5. Monopolies increase the price of their output by restricting their production (output).
6. The following occur as a result of a monopoly:
 - a. Prices are higher and output is lower than with perfect competition; therefore, the output level chosen is not allocatively efficient.
 - b. Productive efficiency is not necessary for the firm to survive.
7. The monopolistic competitive market structure is similar to the perfectly competitive market structure except there is some non-price competition due to product differentiation in the former.
8. The oligopolistic market structure is similar to the monopolistic market structure except price leadership is used to set prices and there is extensive non-price competition (advertising and product development) in the former.
9. Collusion is an agreement among firms in a market about quantities to produce or prices to charge.
10. If businesses are truly seeking long-run economic profits, they would much prefer to operate at the monopoly end of the market structure spectrum. Long-run economic profits are much more likely there than in the more-competitive market structures.
11. Monopolistic competitive markets tend to be dominated by sole proprietorships and partnerships, while oligopolistic markets tend to be dominated by corporations.

Session 7: Standards and Benchmarks

Arkansas Economic Standards

Strand: Exchange and Market

Content Standard 4: Students will evaluate the degree of competition among buyers and among sellers in markets.

- EM.4.E.1 Compare and contrast various degrees of competition in markets (e.g., perfect competition, monopolistic competition, oligopoly, monopoly)
- EM.4.E.2 Explain how differences in the extent of competition in various markets can affect price, quantity, and variety

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

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- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
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- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 7: Resources

1. Video: Episode 25: Market Structures (Dr. Mary J. McGlasson; 5:51);
<https://www.youtube.com/watch?v=9Hxy-TuX9fs>
2. Capstone: Exemplary Lessons for High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 22: How Competitive Is the Industry?
3. Lesson 7.1: Market Structures (Council for Economic Education)
4. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 9: Perfect Competition Versus Monopoly
5. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 10: Game Theory: One Step Ahead of the Competition
6.  Visual 7A: Barriers to Entry
 - a. Use when discussing monopolies.
7. Focus: Understanding Economics in United States History (*Virtual Economics*® 4.5)
 - a. Lesson 25: The Economic Effects of the Nineteenth-Century Monopoly
8. Slides: Perfect Competition (Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/perfect-competition>
 - a. Choose your preferred medium:
 - i. SMART Notebook
 - ii. PowerPoint
9. Slides: Monopoly (Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/monopoly>
 - a. Choose your preferred medium:
 - i. SMART Notebook
 - ii. PowerPoint
 - iii. PDF
10. Slides: Monopolistic Competition (Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/monopolistic-competition>
 - a. Choose your preferred medium:
 - i. SMART Notebook
 - ii. PowerPoint

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Lesson 7.1: Market Structures

NOTE: This lesson is adapted from a Council for Economic Education lesson of the same name. Used with permission.

Introduction

Economists group industries into four distinct market structures: pure competition, pure monopoly, monopolistic competition, and oligopoly. These four market structures differ by the number of firms in the industry, whether those firms produce a standardized product or try to differentiate their products from those of other firms, and how easy or difficult it is for firms to enter the industry. Together these structures help to explain, in a general way, how output and price are determined in the many product markets that exist in an economy. They also help to assess the extent of efficiency or inefficiency in those markets.

Objectives

Students will

- distinguish among various market structures and
 - demonstrate the effects of collusion and competition on prices.
-

Time Required

One class period

Concepts

(Though not explicitly defined, these concepts are addressed in the lesson.)

- Collusion
 - Market structure
 - Monopoly
 - Oligopoly
 - Perfect competition
-

Materials

- A stick of gum or other small item for each student
- A sheet of scrap paper for each student
- \$5.00 in quarters and other coins

Procedure

1. Have each student take a sheet of scrap paper and write his/her name on it.
2. Ask for volunteers for a very profitable demonstration as you show a handful of quarters and other coins.
3. Select and move students around the room as follows and remind them to bring along the scrap paper and pencils. (NOTE: The procedure is written for a class of at least 20. For smaller classes, use only 2 students in Groups 2 and 3 so that there are at least 10 students in Group 4.)
 - Ask for one volunteer to be Group 1. Have him/her stand in the front of the class on the side of the room. He or she is not to talk to the other groups.
 - Ask for three volunteers to be Group 2. Have them stand together in front of the class on the other side of the room. (It helps if some of your better students are in this group.) Tell them that they *are* allowed to talk to each other during the entire demonstration but not to the other groups.
 - Ask for three volunteers to be Group 3. Have them stand in the back of the class separated from one another. Tell the group that they are *not* allowed to talk to each other during the entire demonstration or to any other groups.
 - Tell the rest of the class that they are Group 4. They *are* allowed to talk to each other but not to any other groups.
4. Point out the groups:
 - Group 1: One student not allowed to talk
 - Group 2: Three students who *are* allowed to talk to each other but not to any other group
 - Group 3: Three students who are *not* allowed to talk to each other or to any other group
 - Group 4: The rest of the class, who *are* allowed to talk to each other but not to the other groups
5. Pass out a piece of gum or other small item to each student in each group.

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Session 7

6. Give the following instructions:
 - Each of you now holds a very valuable item that you may sell. I am a buyer interested in purchasing the item you have. I am going to buy one and only one item from each group. I am willing and able to pay up to \$1.50 for each item, but I am looking for the best deal I can get. So I want each of you to write down the minimum you would be willing to accept for your item. I will then buy from the person with the lowest price in each group. Keep in mind that you are only competing against the people in your group. In the event of a tie, I will just randomly choose which of the sellers from whom to buy. You have 2 minutes to consider your bids.
7. Remind members of Group 3 that they may not talk to each other, but members of Groups 2 and 4 that they may.
8. After 2 minutes, announce that you are going to make your deals.
9. Go to Group 1 and ask the student the price of the item. (Given the lack of competition, it will most likely be \$1.50.) Purchase the item from the student.
10. Next ask Group 2 to share their prices. (Most likely, the group will see the collusion possibilities and each write down \$1.50 and agree to split it among the group. However, it may be the case that one member of the group agreed to collude, but then wrote down a lower price. This provides the opportunity to discuss the difficulties of collusion and the possibility of cheating in a colluding oligopoly.)
11. Next ask Group 3 to share their prices. Purchase the item from the student with the lowest price.
12. Next ask Group 4 to share their prices. Purchase the item from the student with the lowest price.
13. Have all students return to their seats.

Closure

14. Ask the following questions (all may not apply to what happened in your classroom):
 - What type of market structure did Group 1 represent? (*A monopoly*)
 - Why was the price offered by Group 1 so high? (*There was no competition, so the price was constrained only by the buyer's willingness and ability to pay.*)
 - What type of market structure did Group 2 represent? (*Colluding oligopoly*)

- Why did Group 2 choose to collude? (*They had a financial incentive to act as a single seller.*) If someone in Group 2 cheated, discuss.
- What type of market structure did Group 3 represent? (*Oligopoly*)
- Why were the prices lower in Group 3? (*Competition lowered the price.*)
- What type of market structure did Group 4 represent? (*Perfect competition*)
- What happened to the price in Group 4? (*Likely, the price was driven even lower because of the large number of competitors.*)
- Why didn't Group 4 collude? (*It was too difficult to get everyone to agree.*)

⑤ **Visual 7A: Barriers to Entry**

Barriers to entry are obstacles that

- limit the ability of new firms to enter a particular industry and
- allow existing firms to earn economic profits in the long run.

Examples

Legal Barriers (imposed or sanctioned by the government)

- Patents and copyrights
- Import restrictions
- Licensing
- Regulatory requirements

Control of Vital Resources

- Natural resource deposits
- Technical knowledge and/or equipment

Significant Economies to Scale

- Small-scale entry (production of a few items), which puts new firms at a cost disadvantage
- Large-scale entry (production of many items), which requires a large initial investment and makes financial backing difficult

Market Advantages of Existing Firms

- Brand loyalty
- Network economies (industry “standard”)
- Access to marketing and distribution channels

SESSION 8:

Macroeconomic Indicators: GDP, CPI, and the Unemployment Rate

Session Description

Students will learn that macroeconomics is concerned primarily with data used to analyze the country's economic health. The session shows how data are used and what some specific data measure. Students will use basic math skills to analyze data.

Talking Points

Macroeconomic Indicators: GDP, CPI, and the Unemployment Rate

1. Economic growth is measured by the percentage change in real gross domestic product (GDP).
2. A percentage change is calculated by dividing the change in the value of a variable by its initial or starting value.
3. GDP is the total market value of all final goods and services produced within the borders of a country in a given year.
4. GDP is typically measured by adding together the spending of four sectors: household (C, consumption expenditures), business (I, gross investment expenditures, including new home construction), government (G, federal/state/local government expenditures), and foreign (Net exports [NX] = Exports minus imports).
5. GDP does not include financial transactions, transfers, secondhand sales, non-market goods and services, or the production of illegal goods.
6. Nominal GDP = GDP *not* adjusted for inflation.
7. Real GDP = nominal GDP adjusted for inflation.
8. Real GDP per capita = Real GDP divided by the population of the country.
9. A price index is based on the cost of a particular basket of goods and services in a base year.
10. The consumer price index (CPI) is based on a basket of goods and services purchased by typical consumers. The current standard reference base is 1982-84 = 100.

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Session 8

11. Inflation is measured by the percentage change in some price index (usually the CPI).
12. The rate of unemployment is defined as the percentage of the civilian labor force that is actively seeking a job but is unable to find one (i.e., unemployed).
13. The civilian labor force of the United States is defined as non-institutionalized individuals 16 years old or older who are working or actively seeking employment.
14. A person is considered unemployed if he or she is a member of the labor force but earned no wage or salary income from a job and is actively seeing work.

Macroeconomic Goals

1. Societies have broad social goals. Included among these are the following:
 - a. Economic growth
 - b. Economic stability
 - c. Economic equity
 - d. Economic efficiency
2. Economic growth refers to a sustained rise over time in a nation's production of goods and services. Economic growth is measured by changes in the level of GDP.
3. Economic stability is a two-part goal that includes both price stability and employment stability, which are measured by employment and unemployment statistics and with price indices such as the CPI.
4. Economic equity refers to a more-equal distribution of goods and services to citizens.
5. Economic freedom refers to the ability of people in the society to decide the following: how to earn income, how to save and spend income, whether and when to change jobs, and whether to open a business or to close an existing business.
6. Economic efficiency refers to not wasting scarce resources—that is, people produce the goods and services that people want the most and economize the use of resources in the production of goods and services.
7. Updated data for GDP, CPI, and the unemployment rate can be found at <http://research.stlouisfed.org/fred2/>.

Economic Growth and Stability

1. Economic growth is a sustained increase in a country's output of goods and services.
2. GDP measures a country's output of goods and services.
 - a. Nominal GDP is the market value of all final goods and services produced in a country in a year.
 - b. Real GDP is the market value of all final goods and services produced within a country over a given period of time valued in a base year. That is, Real GDP = Nominal GDP adjusted for inflation.
 - i. Market value is the current price of a good or service.
 - ii. Final goods and services are those that are for consumers. For example, tires that people buy to replace the tires on their cars are final goods, and they are counted as part of GDP. When Ford buys tires to place on new cars, the tires are not final goods, the car is. So, the tires are not counted separately as part of GDP. The car is counted as part of GDP.
 - iii. "Produced in a given country" means only goods and services produced within that country's borders. For example, cars produced by Toyota in a plant in Kentucky are counted as part of U.S. GDP. However, cars produced by Ford in Slovakia are not counted as part of U.S. GDP.
3. The components of GDP are consumer spending (C), investment spending (I), government spending (G), and net exports (NX; exports minus imports).

Inflation

1. The goal of economic stability has two parts: stable prices and stable employment.
2. Stable prices refer to a low and stable rate of inflation.
3. Inflation is a sustained increase in the average price level. In general, if the price level rises and incomes do not rise as quickly, the purchasing power of our money decreases.
4. Deflation is a sustained decrease in the average price level.
5. The most common/reported measure of inflation is the CPI. 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.
6. The CPI represents changes in prices of all goods and services purchased for consumption by urban households. User fees such as water and sewer service and sales and excise taxes paid by consumers are also included. Income taxes and investment items, such as stocks, bonds, and life insurance, are not included.

Tools for Teaching the Arkansas Economics and Personal Finance Course

Session 8

7. Prices for the goods and services used to calculate the CPI are collected in 87 urban areas throughout the country and from about 23,000 retail and service establishments. The data on rents are collected from about 50,000 landlords or tenants.
8. The weight given to an item in the CPI is derived from reported expenditures on that item as estimated by the Consumer Expenditure Survey.

Unemployment

1. The second part of the economic stability goal is stable employment. A common measure used is the unemployment rate. People are counted as unemployed if they are 16 years old or older, not currently employed, and actively seeking a job.
2. The unemployment rate is the percentage of the labor force that is willing and able to work, does not currently have a job, and is actively looking for employment. The labor force includes those who are employed and those who are unemployed—as defined above.
3. Stable employment does not mean zero unemployment.
4. The “natural” rate of unemployment (the lowest rate that does not trigger inflation) is the sum of frictional and structural unemployment (around 5 to 7% for the United States).
5. The economy is considered to be at “full employment” when the unemployment rate is around 5 to 7%.
6. There are four types of unemployment:
 - a. Frictional unemployment is short-term unemployment associated with normal turnover in the labor market, such as people changing jobs or entering the labor force for the first time.
 - b. Structural unemployment is unemployment caused by changes in the economy that result in a mismatch between the skills and/or the location of those looking for work and the requirements for and/or locations of available job openings.
 - c. Cyclical unemployment is unemployment caused by fluctuations in the overall rate of economic activity. Cyclical unemployment occurs when there’s a downturn in the economy (recession).
 - d. Seasonal unemployment is unemployment caused by a change in season or time of year.

Session 8: Standards and Benchmarks

Arkansas Economic Standards

Strand: National Economy

Content Standard 5: Students will analyze the current and future state of the economy using economic indicators.

- NE.5.E.1 Analyze economic indicators used to measure economic performance (e.g., Gross Domestic Product, unemployment, Consumer Price Index [CPI])

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

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Session 8: Resources

1. Video: (Macro) Episode 20: GDP (Dr. Mary J. McGlasson; 3:52);
https://www.youtube.com/watch?v=yUiU_xRPwMc
2. EconLowdown Video Series (Federal Reserve Bank of St. Louis)
 - a. Episode 7: Gross Domestic Product (7:52);
<https://www.stlouisfed.org/education/economic-lowdown-video-series/episode-7-gross-domestic-product>
3. Playful Economics (*Virtual Economics*® 4.5)
 - a. Lesson 15: GDP Measuring What We Produce
4. Capstone: Exemplary Lessons for High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 33: Gross Domestic Product (GDP) and How to Measure It
5. © Visual 8A: GDP Expenditure Flows
 - a. May be used with the lesson in 2 (above) if desired.
6. Online Course: GDP & Pizza (Federal Reserve Bank of St. Louis)
(NOTE: This lesson provides an introduction to GDP.)
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.
 - d. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "GDP & Pizza."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.
7. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 20: Explaining Short-Run Economic Fluctuations
8. Great Depression Curriculum (Federal Reserve Bank of St. Louis)
 - a. Lesson 1: Measuring the Great Depression
<https://www.stlouisfed.org/education/great-depression-curriculum-unit>
(NOTE: This lesson provides an introduction to GDP, unemployment, and CPI.)
 - i. Choose the PDF and the accompanying slides of your choice:

- (1) SMART Notebook
 - (2) PowerPoint
9. Economic Lowdown Podcast Series (Federal Reserve Bank of St. Louis)
 - a. Episode 4: Inflation;
<https://www.stlouisfed.org/education/economic-lowdown-podcast-series>
 10. Video: The Fed Explains Inflation (Federal Reserve Bank of Atlanta; 4:14);
<https://www.frbatlanta.org/about/fed-explained/2012/inflation.aspx>
 11. Video: (Macro) Episode 16: Inflation and Price Indexes (Dr. Mary McGlasson; 9:19);
<https://www.youtube.com/watch?v=SmOMp8gycMA&index=16&list=PLF2A3693D8481F442>
 12. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 17: Inflation
 13. Online Course: The Great Inflation (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.
 - d. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "The Great Inflation."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.
 14. Economic Lowdown Podcast Series (Federal Reserve Bank of St. Louis)
 - a. Episode 5: Unemployment;
<https://www.stlouisfed.org/education/economic-lowdown-podcast-series>
 15. Video: (Macro) Episode 18: Unemployment (Dr. Mary McGlasson; 2:51);
https://www.youtube.com/watch?v=_CdTu1pk06w&list=PLF2A3693D8481F442&index=18
 16. Video: (Macro) Episode 19: Types of Unemployment (Dr. Mary McGlasson; 4:19);
<https://www.youtube.com/watch?v=ZckAN1KYB5I&list=PLF2A3693D8481F442&index=19>

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Session 8

17. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 18: Unemployment Survey

18. Online Course: The Story of Unemployment (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.
 - d. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "The Story of Unemployment."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.

19. Online Courses: Unemployment Short Courses (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.
 - d. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "Short Courses" and select from among the following courses:
 1. "Consequences of Unemployment"
 2. "Education vs. Unemployment"
 3. "Measuring Unemployment"
 4. "Types of Unemployment"
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.

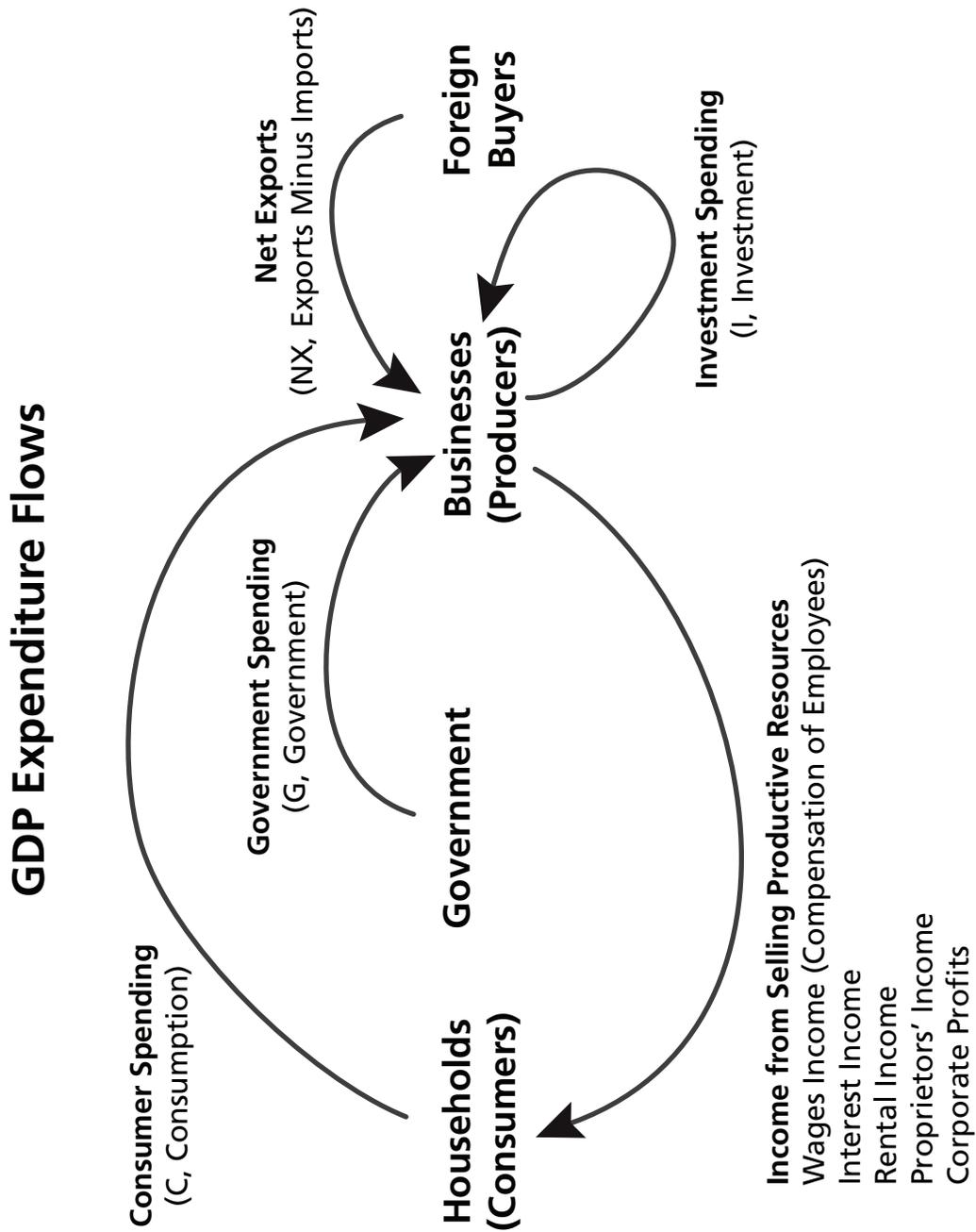
20. Lesson: What Is Unemployment, How Is It Measured, and Why Does the Fed Care? (Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/what-is-unemployment-how-is-it-measured-and-why-does-the-fed-care>

21. Lesson: Making Sense of Unemployment Data
(*Page One Economics* Classroom Edition, Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/page-one-economics-classroom-edition/making-sense-of-unemployment-data>
 - a. Choose "Classroom Edition"

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22.  Visual 8B: Unemployment
23.  Handout 8A: Types of Unemployment (with Answer Key)
- a. 10 scenarios for which students must identify the type of unemployment
24. Data Practice Using FRED® (Federal Reserve Bank of St. Louis)
- a. Lesson: Measures of Inflation;
<http://research.stlouisfed.org/pageone-economics/>
 - i. In the right-hand column under “Data Practice Using FRED®,” choose “Measures of Inflation.”
 - ii. Print one copy for each student or instruct students to access online.
 - b. Lesson: Unemployment and the Labor Force;
<http://research.stlouisfed.org/pageone-economics/>
 - i. In the right-hand column under “Data Practice Using FRED®,” choose “Unemployment and the Labor Force.”
 - ii. Print one copy for each student or instruct students to access online.

⑤ Visual 8A: GDP Expenditure Flows



⑤ Visual 8B: Unemployment

Unemployment—A condition where people at least 16 years old are not currently employed but are actively seeking a job.

Natural rate of unemployment—The rate of unemployment that denotes full employment of resources such that unemployment is at its “optimal” level (debated to be between 5 and 7%).

Four Types of Unemployment

- **Frictional unemployment**—The “good” unemployment: short-term unemployment associated with normal turnover in the labor market, such as new entrants into the workforce and people changing jobs.
- **Structural unemployment**—Job loss due to changes in the business structure (e.g., the introduction of new technologies or a change in the location of manufacturing).
- **Cyclical unemployment**—Job loss due to a downturn in the business cycle (e.g., caused by a recession or natural disaster).
- **Seasonal unemployment**—Job loss due to a change in the season/time of year (e.g., after the Christmas shopping season or summer vacation season).

Bureau of Labor Statistics (BLS) Estimates and Notation

- Employment (E)
- Unemployment (U)
- Population (POP)
- Labor force = E + U
- Labor force participation rate = $(E + U)/\text{Adult POP}$
- Not in Labor Force = $\text{Adult POP} - (E + U)$
- Unemployment Rate = $(U/(E + U)) \times 100$

⑤ **Handout 8A: Types of Unemployment**

Directions: Identify the type of unemployment each scenario below.

Structural = S, Cyclical = C, Frictional = F

- _____ 1. A computer programmer moves to Mexico City and temporarily cannot find a job that complements her family responsibilities.
- _____ 2. A steelworker is laid off because of a long recession.
- _____ 3. A clerical worker trained 30 years ago cannot find work in modern offices that require computer skills.
- _____ 4. A store clerk loses her job because retail sales are slow due to high unemployment and consumers' fears of eroding family budgets.
- _____ 5. A high school dropout applies for several jobs but is told each time that he is not qualified.
- _____ 6. An unemployed college senior is looking for her first job.
- _____ 7. Robotics replace 30% of assembly line autoworkers, whose skills are not readily transferable to other industries.
- _____ 8. An unemployed person rejects a job offer because the wage is too low.
- _____ 9. The banking sector of the economy lays off 20% of its workforce because of the global financial crisis.
- _____ 10. A prolonged rainy season prevents agricultural workers from beginning their harvesting at the usual time.

© Handout 8A: Types of Unemployment—Answer Key

Directions: Identify the type of unemployment each scenario below.

Structural = S, Cyclical = C, Frictional = F

- F 1. A computer programmer moves to Mexico City and temporarily cannot find a job that complements her family responsibilities.
- C 2. A steelworker is laid off because of a long recession.
- S 3. A clerical worker trained 30 years ago cannot find work in modern offices that require computer skills.
- C 4. A store clerk loses her job because retail sales are slow due to high unemployment and consumers' fears of eroding family budgets.
- S 5. A high school dropout applies for several jobs but is told each time that he is not qualified.
- F 6. An unemployed college senior is looking for her first job.
- S 7. Robotics replace 30% of assembly line autoworkers, whose skills are not readily transferable to other industries.
- F 8. An unemployed person rejects a job offer because the wage is too low.
- C 9. The banking sector of the economy lays off 20% of its workforce because of the global financial crisis.
- F 10. A prolonged rainy season prevents agricultural workers from beginning their harvesting at the usual time.

SESSION 9: Economic Growth

Session Description

Students will explore how advances in technology and investment in human capital and in capital goods impact economic growth and standards of living.

Talking Points

1. Economic growth is defined as a sustained rise over time in a nation's production of goods and services. This is measured as a percentage change in real GDP (real GDP was discussed in Session 8).
2. Economic growth is largely dependent on the following:
 - a. The quantity of resources available: An economy can produce more if it has a larger labor force, a larger stock of capital, and/or more natural resources.
 - b. The quality (productivity) of its resources: An economy can produce more if its resources become more productive—for example, through training and educating the labor force, improved capital, and/or better technology.
3. Other factors affecting economic growth include the following:
 - a. the level of economic freedom of members of the society: Economic freedom refers to the ability to choose your work, choose where you live, choose to operate a business, and so on;
 - b. the political stability of the country;
 - c. the willingness and ability of society members to save;
 - d. the level of government regulation of production and consumption;
 - e. the opportunity to earn a profit by operating a business; and
 - f. how efficiently society's resources are allocated.
4. When real GDP expands, the unemployment rate tends to fall, although there is often a lag.
5. When real GDP contracts, the unemployment rate tends to rise, although there is often a lag.
6. When real GDP expands, the price level may rise, fall, or stay the same.
7. When real GDP contracts, the price level may rise, fall, or stay the same.

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Session 9: Standards and Benchmarks

Arkansas Economic Standards

Strand: National Economy

Content Standard 5: Students will analyze the current and future state of the economy using economic indicators.

- NE.5.E.2 Evaluate the impact of advancements in technology, investments in capital goods, and investments in human capital on economic growth and standards of living.

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 9: Resources

1. Video: Economic Growth (Investopedia; 1:57);
<http://www.investopedia.com/video/play/economic-growth/>
2. Focus: High School Economics (Council for Economic Education)
 - a. Lesson 21: Economic Growth and Development;
<http://www.economicsarkansas.org/>
 - i. Register or sign in.
 - ii. Under the "Portal" menu in the green box on the right, choose "high school economics course resources."
 - iii. Under the (new) "Portal" menu, choose "Session 9."
 - iv. Choose "Lesson 21: Economic Growth and Development."
3. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 19: Economic Growth
4. Online Course: GDP & Pizza (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.
 - d. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "GDP & Pizza."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.
5. Online Course: Soar to Savings (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.
 - d. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "Soar to Savings."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.

6. Lesson: Which Came First—Democracy or Growth? (*Inside the Vault*, Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/publications/inside-the-vault/spring-2009/lesson-plan>
7. Lesson: What Are the Ingredients of Economic Growth? (*Page One Economics Classroom Edition*, Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/page-one-economics-classroom-edition/what-are-the-ingredients-for-economic-growth>
 - a. Choose “Classroom Edition.”

Adaptation: Cards (page 1 of 3)

Use with “**Lesson 21: Economic Growth and Development**” in Focus: High School Economics (see Resource 2 on p. 114).

<p>After years of little or no population growth, immigration and a higher birth rate increase the labor supply.</p> <p>L + 1</p> 	<p>More women enter the nation’s labor force.</p> <p>L + 1</p> 
<p>Older workers postpone their retirement.</p> <p>L + 1</p> 	<p>A growing portion of the population is elderly and retiring.</p> <p>L – 1</p> 
<p>Private savings increase, interest rates fall, and businesses borrow more for new factories and equipment.</p> <p>K + 1</p> 	<p>Private savings decrease, interest rates increase, and businesses borrow less for new factories and equipment.</p> <p>K – 1</p> 
<p>Individuals and businesses from other nations decide to invest more in your country.</p> <p>K + 1</p> 	<p>Individuals and businesses from other nations decide to invest less in your country.</p> <p>K – 1</p> 
<p>Political and economic stability in other nations leads to more investment in your country.</p> <p>K + 1</p> 	<p>World War III breaks out. Many young adults are killed and many cities and factories are destroyed.</p> <p>L – 2 K – 3</p> 

Adaptation: Cards (page 2 of 3)

<p>Population increases moderately.</p> <p>$L + 1$</p> 	<p>More women enter the nation's labor force.</p> <p>$L + 1$</p> 
<p>Older workers postpone their retirement.</p> <p>$L + 1$</p> 	<p>A growing portion of the population is elderly and retiring.</p> <p>$L - 1$</p> 
<p>Private savings increase, interest rates fall, and businesses borrow more for new factories and equipment.</p> <p>$K + 1$</p> 	<p>Private savings decrease, interest rates increase, and businesses borrow less for new factories and equipment.</p> <p>$K - 1$</p> 
<p>Individuals and businesses from other nations decide to invest more in your country.</p> <p>$K + 1$</p> 	<p>Individuals and businesses from other nations decide to invest less in your country.</p> <p>$K - 1$</p> 
<p>Political and economic instability in other nations lead some people and firms in other countries to invest more in your country, but others fear that the instability will develop in your country, too, and invest less.</p> <p>No net change in K.</p> 	<p>World War III breaks out. Many young adults are killed and many cities and factories are destroyed.</p> <p>$L - 2$ $K - 3$</p> 

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Adaptation: Cards (page 3 of 3)

<p>Population growth is extremely high because of high birth rates and falling mortality rates.</p> <p>L + 2</p> <p style="text-align: right;"><input type="radio"/></p>	<p>More women enter the nation's labor force.</p> <p>L + 1</p> <p style="text-align: right;"><input type="radio"/></p>
<p>Older workers postpone their retirement.</p> <p>L + 1</p> <p style="text-align: right;"><input type="radio"/></p>	<p>Droughts and crop failures reduce the population and labor force.</p> <p>L - 1</p> <p style="text-align: right;"><input type="radio"/></p>
<p>A sharp increase in loans and grants from foreign governments and international agencies is used to fund new public and private investments.</p> <p>K + 1</p> <p style="text-align: right;"><input type="radio"/></p>	<p>A sharp decrease in loans and grants from foreign governments and international agencies reduces public and private investments.</p> <p>K - 1</p> <p style="text-align: right;"><input type="radio"/></p>
<p>Individuals and businesses from other nations decide to invest more in your country.</p> <p>K + 1</p> <p style="text-align: right;"><input type="radio"/></p>	<p>Individuals and businesses from other nations decide to invest less in your country.</p> <p>K - 1</p> <p style="text-align: right;"><input type="radio"/></p>
<p>Political and economic instability in your nation leads to less investment in factories and equipment.</p> <p>K - 1</p> <p style="text-align: right;"><input type="radio"/></p>	<p>World War III breaks out. Many young adults are killed and many cities and factories are destroyed.</p> <p>L - 2 K - 3</p> <p style="text-align: right;"><input type="radio"/></p>

SESSION 10: Financial Institutions

Session Description

Students will learn that money and financial institutions are vital to a well-functioning economy.

Talking Point

1. Financial institutions are private or public institutions that may be for-profit or non-profit. These organizations pool small amounts of money so that larger investments (with higher returns) can be made. They do this by collecting money from the public or from other institutions and investing those funds in financial assets. A common example is banks that take in customer deposits for safekeeping and use the deposits to make loans to other customers. Another example is insurance companies. Although insurance companies do not take in deposits, in exchange for premiums paid by customers, they guarantee payment to customers if a certain situation occurs.

Session 10: Standards and Benchmarks

Arkansas Economic Standards

Strand: National Economy

Content Standard 6: Students will analyze monetary and fiscal policies for a variety of economic conditions.

- NE.6.E.1 Compare and contrast the roles and functions of financial institutions.

Common Core State Standards

- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases *based on grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 10: Resources

1. Financial Fitness for Life 9-12 (*Virtual Economics*® 4.5)
 - a. Lesson 9: Banking Basics

SESSION 11:

The Role of the Federal Reserve System and Monetary Policy

Session Description

The Federal Reserve System's monetary policy works to stabilize and promote the growth of the U.S. economy. This session will provide students with an overview of the Federal Reserve System and its monetary policy.

Talking Points

The Federal Reserve System (the Fed)

1. The Federal Reserve System is the central bank of the United States. "Central bank" is the generic name given to a country's primary monetary authority. Generally, a nation's central bank is responsible for determining the money supply, supervising and regulating banks, providing banking services for the government, and lending to banks.
2. Congress created the Federal Reserve System in 1913. Congress oversees the entire Federal Reserve System. The Fed must work within the objectives Congress established, yet Congress gave the Federal Reserve autonomy to carry out its responsibilities without political pressure. The Federal Reserve System is a central bank under public control, with many checks and balances.
3. The nation's periodic episodes of banking panics were one of the most serious concerns that led Congress to create the Federal Reserve and establish the following as its responsibility: safe, sound, and competitive practices in the nation's banking system. To accomplish this, Congress included the Fed among those responsible for regulating the banking system and supervising financial institutions.
 - a. Regulation refers to the written rules that define acceptable behavior and conduct for financial institutions. These regulations help establish safe, sound banking practices and protect consumers in financial transactions.
 - b. The nation's banking system is only as safe and sound as the banks within the system. The Federal Reserve examines banks regularly to identify and contain bank risks.
4. The Fed has three main parts: (1) the Board of Governors, (2) 12 regional Reserve Banks, and (3) the Federal Open Market Committee (FOMC).
5. The Board of Governors, also called the Federal Reserve Board, is an agency of the federal government and located in Washington, D.C. It is the Fed's centralized component. The Board of Governors consists of seven members who are appointed by the

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president of the United States and confirmed by the Senate to staggered, 14-year terms, which expire every two years. Fed governors guide the Federal Reserve's policy actions. Longer, staggered terms ensure the Fed's political independence as a central bank.

- a. The president of the United States appoints two Fed governors to serve four-year terms as Chairman and Vice Chairman of the Board.
 - b. The Chairman reports to Congress twice a year regarding the Fed's monetary policy objectives, testifies before Congress on numerous other issues, and meets periodically with the Secretary of the Treasury.
6. The structure of the Federal Reserve is complex, yet effective. Reserve Banks operate somewhat independently but under the general oversight of the Board of Governors.
 7. Federal Reserve Banks are often called the "bankers' banks" because they provide services to commercial banks similar to the services commercial banks provide to their customers. Federal Reserve Banks authorize or distribute currency and coin to banks, lend money to banks, and process electronic payments.
 8. Reserve Banks also serve as fiscal agents for the U.S. government. They maintain accounts for the U.S. Treasury, process government checks, and conduct government securities auctions.
 9. Economists at Reserve Banks conduct regional, national, and international research; prepare Reserve Bank presidents for their participation on the FOMC; and distribute information about the economy through publications, speeches, educational workshops, and websites.
 10. The FOMC is the Fed's chief body for monetary policy.
 - a. By tradition, the chairman of the FOMC is also the Chairman of the Board of Governors. The FOMC includes the 7 Fed governors and the 12 Reserve Bank presidents.
 - b. At any time, only 12 of the members vote on policy decisions. These include the 7 members of the Board of Governors, the president of the Federal Reserve Bank of New York, and 4 other Reserve Bank presidents. Although Reserve Bank presidents vote on a rotating basis, all of them attend and participate in deliberations at FOMC meetings even when they are not voting members.
 - c. The FOMC typically meets eight times a year in Washington, D.C. If economic conditions require additional meetings, the FOMC can and does meet more often.

Monetary Policy

1. Keeping our economy healthy is one of the most important jobs of the Federal Reserve. The Federal Reserve System has a dual mandate. By law, the Fed must pursue the economic goals of price stability and maximum employment. It does this by managing the nation's system of money and credit—in other words, conducting monetary policy. The Fed can pursue expansionary and/or contractionary policies.
2. Expansionary policy actions are intended to increase economic activity, and contractionary policy actions are intended to moderate or decrease economic activity.
 - a. Expansionary monetary policy refers to actions taken by the Federal Reserve to increase the growth of the money supply and the amount of credit available.
 - b. Contractionary monetary policy refers to actions taken by the Federal Reserve to decrease the growth of the money supply and the amount of credit available.
3. The Fed has three main tools to achieve its monetary policy goals: the discount rate, reserve requirements, and open market operations. All three affect the amount of funds in the banking system.
 - a. **The Discount Rate**
 - i. The discount rate is the interest rate Reserve Banks charge commercial banks for short-term loans. The discount rate influences other interest rates. Federal Reserve lending at the discount rate complements open market operations in achieving the target federal funds rate and serves as a backup source of liquidity for commercial banks. Reserve Banks and the Board of Governors make changes to the discount rate.
 - ii. Lowering the discount rate is expansionary because lower interest rates encourage lending and spending by consumers and businesses.
 - iii. Raising the discount rate is contractionary because higher interest rates discourage lending and spending by consumers and businesses.
 - b. **Reserve Requirements**
 - i. A reserve requirement is the portion of deposits the Fed requires banks to hold in cash, either in their vaults or on deposit at a Reserve Bank. The Board of Governors has sole authority over changes to reserve requirements. The Fed rarely changes reserve requirements.
 - ii. A decrease in reserve requirements is expansionary because it increases the funds available in the banking system to lend to consumers and businesses.
 - iii. An increase in reserve requirements is contractionary because it reduces the funds available in the banking system to lend to consumers and businesses.
 - c. **Open Market Operations**
 - i. Open market operations refers to the Fed buying and selling government securities from its portfolio. It is the most frequently used tool, by far.

- ii. Buying and selling securities affects an important interest rate called the federal funds rate. The federal funds rate is the interest rate that banks charge one another for overnight loans. It is an important rate because it influences other interest rates in the economy. For example, if the federal funds rate rises, home loan rates and car loan rates will likely rise as well. The FOMC establishes a target for the federal funds rate and then uses open market operations to move the rate toward the target.
 - iii. The Fed holds government securities, as do individuals, banks, and other financial institutions, such as brokerage companies and pension funds. After FOMC participants have deliberated the options, members vote on a policy that is given to the Federal Reserve Bank of New York's Trading Desk. The policy directive informs the Desk of the FOMC's objective for open market operations—whether to maintain or alter the current policy. The Desk then buys or sells U.S. government securities on the open market to achieve this objective.
 - iv. The term “open market” means that market forces and not the Fed itself decides with which securities dealers the Fed will buy and sell government securities—that is, various securities dealers compete against each other in the government securities market based on price.
4. The Fed's purchase of government securities is referred to as expansionary monetary policy and its sale of government securities as contractionary monetary policy.
- a. **Expansionary Monetary Policy**
 - i. Purchases of government securities increase bank reserves, making more funds available for lending. This puts downward pressure on the federal funds rate. Policymakers call this easing, or expansionary monetary policy.
 - ii. When the Fed buys government securities through the securities dealers in the bond market, it deposits the payments into the bank accounts of the banks, businesses, and individuals who sold the securities.
 - iii. Those deposits become part of the funds in commercial bank accounts and thus part of the funds that commercial banks have available to lend.
 - iv. Because banks want to lend money, to attract borrowers they decrease interest rates, including the rate they charge each other for overnight loans (the federal funds rate).
 - b. **Contractionary Monetary Policy**
 - i. Sales of government securities reduce bank reserves. Less money available for lending tends to raise the federal funds rate. Policymakers call this tightening, or contractionary monetary policy.
 - ii. When the Fed sells government securities, buyers pay from their bank accounts, which reduces the amount of funds held in bank accounts.

- iii. Because there is less money in bank accounts, banks have less money available to lend.
- iv. When banks have less money to lend, the price of lending that money—the interest rate—goes up, and that includes the federal funds rate.

Session 11: Standards and Benchmarks

Arkansas Economic Standards

Strand: National Economy

Content Standard 6: Students will analyze monetary and fiscal policies for a variety of economic conditions.

- NE.6.E.2 Examine monetary policy tools used by the Federal Reserve System (e.g., open market operations, discount rate, reserve requirement, interest on reserves)

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 11: Resources

The Federal Reserve System

1. Online Course: In Plain English (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.
 - d. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "In Plain English."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.

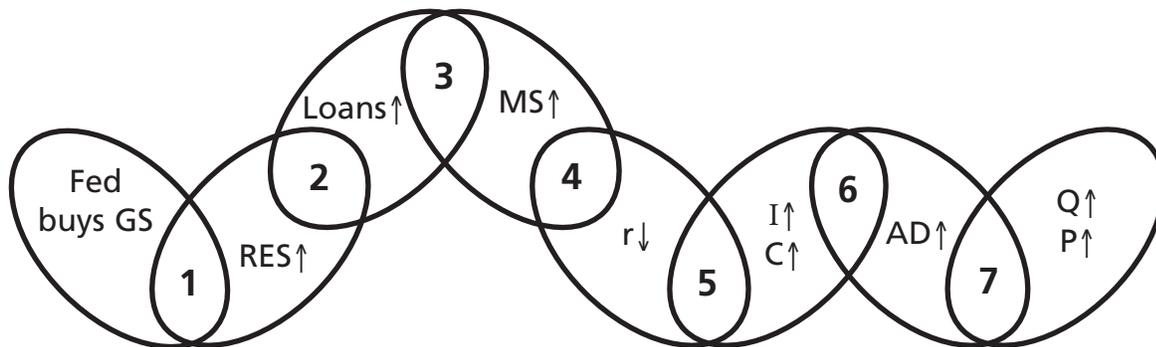
2. Lesson: Your Introduction to The Federal Reserve and You;
http://www.philadelphiafed.org/education/teachers/resources/fed-today/Your_Introduction_to_The_Federal_Reserve_and_You_Lesson.pdf
 - a. Video (viewed during the lesson): The Federal Reserve and You: Chapter 1 (3:50);
<http://www.phil.frb.org/education/federal-reserve-and-you/index.cfm>

3. Complete one of the following, either the lesson or online course:
 - a. Lesson: The Great Depression Curriculum Unit (Federal Reserve Bank of St. Louis)
 - i. Lesson 6: Could It Happen Again?;
<https://www.stlouisfed.org/education/great-depression-curriculum-unit>
 - (1) Choose the PDF and accompanying slides of your choice:
 - a. SMART Notebook
 - b. PowerPoint
 - b. Online Course: The Great Depression (Federal Reserve Bank of St. Louis)
 - i. Lesson 6: Could It Happen Again?
 - (1) Go to <https://www.stlouisfed.org/education>.
 - (2) Choose  Teachers: Go directly to the Online Course Login .
 - (3) Register or, if you already have an account, log in.
 - (4) Register your class for the course as follows:
 - a. Choose the "COURSES" tab.
 - b. In the "COURSE NAME" column choose "Could It Happen Again?"
 - c. Choose "ADD TO CLASSROOM" and follow the prompts.

Monetary Policy

4. © Visual 11A: Monetary Chain for Expansionary Monetary Policy
5. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 22: The Case of the Gigantic \$100,000 Bill
6. Lesson: The Fed's Toolbox;
<https://www.stlouisfed.org/education/the-feds-toolbox>
 - a. Choose the PDF and accompanying PowerPoint slides.
7. Online Course: Monetary Policy (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - c. Choose  Teachers: Go directly to the Online Course Login .
 - d. Register or, if you already have an account, log in.
 - e. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "Monetary Policy."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.
8. Lesson: Crowding Out (Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/crowding-out>
 - a. Choose the PDF and accompanying SMART Notebook slides.

© Visual 11A: Monetary Chain for Expansionary Monetary Policy



1. The Federal Reserve buys government securities (GS)—that is, the Fed conducts open market operations. The Fed pays for these securities by making deposits in the sellers’ bank accounts.
2. Those deposits increase bank reserves (RES).
3. Banks can use increased reserves to make loans. These loans increase the money supply (MS).
4. When the money supply increases and the demand for loans remains unchanged, interest rates (r) decrease.
5. Lower interest rates encourage increased investment (I) in plants, buildings, equipment, and so on. It also encourages additional consumer spending. (C)
6. Increased investment leads to increased aggregate demand (AD).
7. In the short run, increases in the money supply increase overall demand (Q). In the long run, this may result in increases in the price level (P).

SESSION 12: Fiscal Policy

Session Description

The fiscal policy of Congress works to stabilize and promote the growth of the U.S. economy. This session will provide students with an overview of the fiscal policy of Congress.

Talking Points

Fiscal Policy

1. Fiscal policy involves actions of the federal government—the administration and Congress—to set government spending and tax rates in an effort to affect the economy.
2. Expansionary policies, such as increases in government spending and/or decreases in taxes, in theory are thought to increase overall demand for goods and services. These actions move the budget toward a deficit. Congress and the president might use expansionary policies during a recession.
3. Contractionary policies, such as decreases in government spending and/or increases in taxes, in theory are thought to decrease overall demand for goods and services. These actions move the budget position toward a surplus. Contractionary policies are rarely used.
4. If the government runs a deficit, it borrows to cover the deficit spending. This borrowing increases the demand for loanable funds. An increase in the demand for loans could increase interest rates and “crowd out” (reduce/replace) private investment spending. Crowding out tends to lower overall demand.

Session 12: Standards and Benchmarks

Arkansas Economic Standards

Strand: National Economy

Content Standard 6: Students will analyze monetary and fiscal policies for a variety of economic conditions.

- NE.6.E.3 Examine fiscal policy tools used by the executive and legislative branches of the government (e.g., taxation, spending)

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 12: Resources

1. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 21: Fiscal Policy: The Multiplier Effect

2. Online Course: Fiscal Policy (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - c. Choose  Teachers: Go directly to the Online Course Login .
 - d. Register or, if you already have an account, log in.
 - e. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "Fiscal Policy."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.

3. Entrepreneurship in the U.S. Economy (*Virtual Economics*® 4.5)
 - a. Lesson 32: Government Policies, the Economy, and the Entrepreneur

SESSION 13: Revenues, Outlays, & Debt of the Federal Government

Session Description

Students will learn that the federal government receives income from taxes and other sources and provides goods, services, and transfer payments. In addition, students will learn key concepts and terms regarding the federal budget.

Talking Points

1. The typical sources of revenue for the federal government are personal income taxes, Social Security taxes, Medicare taxes, unemployment taxes, corporate income taxes, and other taxes (custom duties, excise taxes, tariffs, and so on), and borrowing. To see the previous year's revenue, go to <http://www.usgovernmentrevenue.com/breakdown>.
2. Typically, the main spending (outlays) of the federal government are Social Security and Medicare payments, national defense and foreign aid, social programs, physical/human/community development, net interest on debt, law enforcement, and general government. To see the previous year's spending, go to http://www.usfederalbudget.us/federal_budget_actual.
3. If government revenue is greater than its outlays, the government has a budget surplus.
4. If government revenue is less than its outlays, the government has a budget deficit.
5. If the government has a deficit, it must borrow funds (i.e., increase its debt).
6. The debt of the federal government (public debt) is the total amount owed by the federal government as a result of its current and past borrowing.
7. The main historical causes for accumulated public debt have been
 - a. wars,
 - b. unanticipated downturns in the economy (recessions),
 - c. tax cuts with no offsetting cuts in outlays, and
 - d. increases in outlays with no offsetting increases in revenues.
8. Foreign investors hold just less than one-third of U.S. public debt, which represents a loss of wealth as interest payments leave the country.

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Session 13

9. Private debt of households, corporations, and small businesses is much larger than the public debt of the federal government.
10. For every debt in an economy, someone else has a credit—an IOU—a valuable asset.
11. If a borrower defaults—that is, is unable to pay their loan—the lender loses wealth (the IOU becomes worthless).

Session 13: Standards and Benchmarks

Arkansas Economic Standards

Strand: National Economy

Content Standard 6: Students will analyze monetary and fiscal policies for a variety of economic conditions.

- NE.6.E.4 Determine the relationship between the national debt and the federal budget (e.g., balanced, surplus, deficit)

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.RH.9-10.6 Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

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- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- CCSS.ELA-Literacy.RH.11-12.6 Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 13: Resources

1.  Handout 13A: Calculating Government Surpluses, Deficits, and Debt (with Answer Key)
 - a. Use with any of the government debt and deficit lessons.
2.  Visual 13A: A Brief History of U.S. Public Debt
3. Capstone: Exemplary Lessons for High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 36: Should We Worry About the National Debt?
4. Focus: Understanding Economics in Civics and Government (*Virtual Economics*® 4.5)
 - a. Lesson 5: Government Spending
5. *The Budget and Economic Outlook: 2015 to 2025* (Congressional Budget Office)
 - a. Revenues, Outlays, Deficits, Surpluses, and Debt Held by the Public Since 1965; <http://www.cbo.gov/sites/default/files/cbofiles/attachments/49892-Outlook2015.pdf>. Go to Appendix G, Table G-1 on document pages 158 and 159.
6. Lesson 13.1: Where Will You Cut the Budget?
7. The Penny Game (Concord Coalition); <http://www.concordcoalition.org/act/tools/penny-game>
8. Lesson: National Budget Simulation (Econedlink); <http://www.econedlink.org/lessons/index.php?lid=306&type=student>
9. Data Practice Using FRED® (Federal Reserve Bank of St. Louis)
 - a. Lesson: Debt and Deficit; <http://research.stlouisfed.org/pageone-economics/>.
 - i. In the right-hand column under “Data Practice Using FRED®,” choose “Debt and Deficit.”
 - ii. Print one copy for each student or instruct students to access online.

⑤ **Handout 13A: Calculating Government Surpluses, Deficits, and Debt**

Directions: Calculate the budget surplus or deficit for each year below. Assume that any deficit requires the government to borrow an amount equal to the deficit and that any surplus is exclusively used to reduce the debt.

NOTE: Figures are hypothetical and in billions of dollars.

Year	Revenue	Outlays	Surplus (+) or deficit (-)	Debt
Prior to 2003				50
2003	100	90	_____	_____
2004	110	115	_____	_____
2005	125	125	_____	_____
2006	120	130	_____	_____
2007	130	135	_____	_____
2008	150	145	_____	_____
2009	155	170	_____	_____

© Handout 13A: Calculating Government Surpluses, Deficits, and Debt— Answer Key

Directions: Calculate the budget surplus or deficit for each year below. Assume that any deficit requires the government to borrow an amount equal to the deficit and that any surplus is exclusively used to reduce the debt.

NOTE: Figures are hypothetical and in billions of dollars.

Year	Revenue	Outlays	Surplus (+) or deficit (-)	Debt
Prior to 2003				50
2003	100	90	+10	40
2004	110	115	-5	45
2005	125	125	0	45
2006	120	130	-10	55
2007	130	135	-5	60
2008	150	145	+5	55
2009	155	170	-15	70

⑤ Visual 13A: A Brief History of U.S. Public Debt

U.S. Debt in Given Years from Historical Events

Year	Public debt	Budget status	Event
1791	\$75M	Deficit	Revolutionary War
1816	127M	Deficit	War of 1812
1837	0	Balanced	Jackson administration
1860	64M	Deficit	War with Mexico
1866	2.7B	Deficit	Civil War
1915	3.0B	Deficit	50 Years of relative prudence
1919	27.4B	Deficit	World War I
1930	16.2B	Deficit	Roaring Twenties
1940	43.0B	Deficit	Great Depression
1946	269.4B	Deficit	World War II
1960	290.2B	Deficit	Korean War
1980	930.2B	Deficit	Vietnam War/War on Poverty
1983	1.4T	Deficit	1981-82 Recession
1988	2.6T	Deficit	Tax cuts
2000	5.7T	Surplus	Surplus (debt decreased)
2010	14T	Deficit	Tax cuts, wars, bailouts, and stimulus

NOTE: M, million; B, billion; T, trillion. To see the current national debt, go to the National Debt Clock at http://www.brillig.com/debt_clock/.

Lesson 13.1: Where Will You Cut the Budget?

Objective

Students will choose which areas of the federal budget to cut and defend their choices.

Time Required

One to three class periods

Materials

- Handout 1, one copy for each student
 - Signs matching A to J on Handout 1
 - Tape
-

Preparation

- Prepare signs
 - Post signs around the room
-

Procedure

Note: Use this lesson after “**Lesson 5: Government Spending**” in *Virtual Economics*® 4.5: Focus: Understanding Economics in Civics and Government.

1. Distribute *Handout 1: Where Will You Cut the Budget?*
 2. Allow students the opportunity to read through the spending categories and ask questions. Direct the students to rank the categories according to the directions on Handout 1.
 3. Ask the students to move and stand under the sign that indicates what category they would cut first from the federal budget. Encourage students to share why they made this choice.
 4. Have the students move to their second choice and share. Do this several times.
-

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Session 13

5. Have the students return to their first choice. Divide the students into small groups based on this choice.
6. Assign each group to conduct research about what would happen if funding were cut from the particular category they chose, specifically who would benefit and who would lose. Instruct the groups to prepare an argument to share with the class defending their choice.

Closure

7. Invite groups to share their arguments.
8. Option: Invite students to debate their arguments.

Lesson 13.1, Handout 1: Where Will You Cut the Budget?

Directions: Assume you are a member of Congress. You must recommend budget cuts. Consider the spending categories below and rank them in order of importance (designated by the letters), with 10 being the last item to cut. Be prepared to defend your decisions:

- A. National defense
- B. International affairs
- C. General science, space, and technology
- D. Energy
- E. Environmental protection
- F. Transportation
- G. Education, training, employment, and social services
- H. Social Security
- I. Health care and Medicare
- J. Veterans benefits

Cut first:	1. _____
	2. _____
	3. _____
	4. _____
	5. _____
	6. _____
	7. _____
	8. _____
	9. _____
Cut last:	10. _____



SESSION 14:

Absolute Advantage & Comparative Advantage

Session Description

Students will learn that people engage in trade voluntarily because they expect to benefit. They will also learn the roles that absolute advantage and comparative advantage play in specialization and trade.

Talking Points

1. Trade increases the value society receives from a given or fixed amount of goods and services because both traders gain from a voluntary trade. Each trader receives goods or services that they value more highly than the goods or services they trade.
2. In addition, trade makes specialization possible, allowing people to increase the amount of goods and services that can be produced.
3. The producer/country that has the greater output of a good or service per unit of input (or resource) used has an absolute advantage in the production of that good or service.
4. The producer/country that has the lower opportunity cost of producing a good or service, in terms of other goods or services that must be given up to produce that good or service, has a comparative advantage in the production of that good or service.
5. Even if a producer/country doesn't have an absolute advantage in producing a good or service, it can still have a comparative advantage in producing that good or service.
6. Producers/countries should specialize in the production of those goods or services for which they have a comparative advantage.
7. Trade expands a country's consumption possibilities beyond its production possibilities and, thus, makes it possible for people in the country to consume more goods and services, which are the fundamental gains from trade.

Session 14: Standards and Benchmarks

Arkansas Economic Standards

Strand: Global Economy

Content Standard 7: Students will analyze ways in which trade leads to increased economic interdependence.

- GE.7.E.1 Analyze the role of comparative advantage in trade and global markets using available data and a variety of sources

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 14: Resources

1. Video: Everyday Economics: Comparative Advantage and the Tragedy of Tasmania (Marginal Revolution University; 7:35);
<http://mr.university.com/courses/everyday-economics/comparative-advantage-and-tragedy-tasmania>
 - a. To create a free account, click “Register” and complete the online form.
 - b. You will receive an email to activate your account.
2. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 26: Comparative Advantage
3. Lesson: The Global Economy: It’s a Small World After All (*Page One Economics* Classroom Edition, Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/page-one-economics-classroom-edition/the-global-economy-its-a-small-world-after-all>
 - a. Choose “Classroom Edition.”
4. Focus Globalization (*Virtual Economics*® 4.5)
 - a. Lesson 2: Why People Trade, Domestically and Internationally
5. Capstone: Exemplary Lessons for High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 41: Why People Trade: Comparative Advantage
6. Online Course: Comparative Advantage (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.
 - d. Register your class for the course as follows:
 - i. Choose the “COURSES” tab.
 - ii. In the “COURSE NAME” column choose “Comparative Advantage.”
 - iii. Choose “ADD TO CLASSROOM” and follow the prompts.

SESSION 15: Globalization

Session Description

Students will learn that people engage in trade voluntarily because they expect to benefit.

Talking Points

1. Generally, when a country imports a good or service, domestic producers of that good or service are made worse off and domestic consumers are made better off. However, the country as a whole is better off because the gains of those who are made better off from trade will exceed the losses of those who are made worse off.
2. Generally, when a country exports a good or service, domestic producers of that good or service are made better off and domestic consumers are made worse off. However, the country as a whole is better off because the gains of those who are made better off from trade will exceed the losses of those who are made worse off.
3. Trade barriers—those imposed naturally or by governments (tariffs, quotas, embargos, standards, and so on)—reduce trade and, therefore, a country's gains from trade.
4. The formation of trade blocs and participation in free-trade agreements are attempts to lower trade barriers between certain countries.
5. The exchange rate of a currency is its price in terms of another currency and can be determined by market forces or fixed by a country's central bank.
6. When the price of one country's currency increases in terms of another country's currency, it is said to be appreciating in value.
7. When the price of one country's currency decreases in terms of another country's currency, it is said to be depreciating in value.
8. An appreciation in the value of a country's currency makes its exports more expensive to foreigners and imports from other countries less expensive to domestic consumers, leading to a decrease in net exports (NX) and a decrease in aggregate demand.
9. A depreciation in the value of a country's currency makes its exports less expensive to foreigners and imports more expensive to domestic consumers, leading to an increase in NX and an increase in aggregate demand.

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Session 15: Standards and Benchmarks

Arkansas Economic Standards

Strand: Global Economy

Content Standard 7: Students will analyze ways in which trade leads to increased economic interdependence.

- GE.7.E.2 Explain ways in which current trends in globalization affect economic growth, labor markets, rights of individuals, the environment, technological advancement, and resources and income distribution in different nations.
- GE.7.E.3 Research the impact of international and national economic and political policies on global trade using a variety of sources from multiple perspectives.

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 15: Resources

1. Lesson 15.1 The Benefits of Trading (Cards and Candy)
2. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 25: Why Do People Trade?
3. Lesson: Crossing Borders: The Globalization Debate (Inside the Vault, Federal Reserve Bank of St. Louis);
https://www.stlouisfed.org/legacy_assets/education_resources/assets/lesson_plans/08IT_V_Globalization.pdf
4. Lesson: Is a Strong Dollar Better than a Weak Dollar? (*Page One Economics* Classroom Edition, Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/page-one-economics-classroom-edition/is-a-strong-dollar-better-than-a-weak-dollar>
 - a. Choose “Classroom Edition.”
5. Lesson 15.2: Trading Hurdles (Center for Entrepreneurship and Economic Education at the University of Missouri–St. Louis)
6. The Wide World of Trade (*Virtual Economics*® 4.5)
 - a. Lesson 8: Something’s in the Way
 - b. Lesson 10: Why Trade Money?

Lesson 15.1: The Benefits of Trading (Cards and Candy)

Lesson Objective

Students will experience trade.

Time Required

One class period

Materials

- Bag
 - Five colors of index cards, an equal number of each, with additional cards as needed so that the number of cards equals the number of students in the class
 - Five different desirable items (such as boxes or bars of candy)
 - Notebook paper and a pencil for each student
-

Preparation

- Place the index cards in the bag.
-

Procedure

1. Show students the five desirable items. Tell them to rank the items on paper (write a list 1 through 5), with 1 being the item they would like to have the most and 5 being the item they would like to have the least.
 2. Explain that each item is represented by a particular color (assign each item one of the five colors of index cards in the bag). Have each student randomly draw (without looking) a card from the bag and tell them to imagine that they now have the item associated with that color.
 3. Write "1st Choice," "2nd Choice," "3rd Choice," "4th Choice," and "5th Choice" in a column on the board. Ask how many students got the item they ranked as their first choice. Count the number and record it next to "1st Choice" on the board. Next, ask how many students got the item they ranked as their second choice. Count the number and record next to "2nd Choice" on the board. Repeat the process for the remaining choices.
-

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Session 15

4. Ask the students to make observations about the completed chart.
5. Tell the students they may trade cards with each other to try to get the card that represents an item ranked higher on their list. Explain that students who already have their first choice shouldn't trade because they cannot do better. Allow students a few minutes to trade cards.
6. Once the students are unable to make any more trades, return to the choices list and create a second column. Add the trading results (as described in 3).
7. Ask the following:
 - What do you observe when you compare the two columns on the board? (*More students should have their first, second, and perhaps third choices and fewer should be left with their fourth and fifth choices.*)
 - Why do you think this happened? (*When trading was voluntary, each trader was made better off as a result of the trade; that is, both traders moved up on their respective lists.*) Point out that both traders are better off after a trade because no one should make a trade that makes them worse off.
 - Was anyone worse off after trading and, if so, why? (*Someone may have traded "down" in the hopes of making a second trade for a more-desired item.*)

Lesson 15.2: Trading Hurdles

NOTE: This lesson (with slight revisions) is “Lesson 6: Trading Hurdles” in *A Yen to Trade* by Curt L. Anderson from the Center for Entrepreneurship and Economic Education at University of Missouri–St. Louis. Used with permission.

Lesson Description

In this very active lesson, students represent goods being traded among countries. As the students move in trade, they encounter physical barriers (a hurdle, long jump, and limbo bar) that represent natural and government-imposed trade barriers. Through their activity, students see that trade barriers reduce the flow of goods and services among countries and, as a result, reduce the gains from trade.

Objectives

Students will be able to

- define cost, trade barriers, tariff, quota, embargo, and standard;
 - distinguish between natural and government-imposed trade barriers;
 - describe how trade barriers raise the cost of goods from other countries; and
 - explain why trade barriers result in fewer goods being traded.
-

Voluntary National Content Standards in Economics

Standard 5: Voluntary exchange occurs only when all participating parties expect to gain. This is true for trade among individuals or organizations within a nation and among individuals or organizations in different nations.

Time Required

45 to 60 minutes

Economic Concepts

- Cost (opportunity cost)
 - Trade barriers
 - Tariff
 - Quota
-

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- Embargo
- Standard

Related Area

Physical education

Materials

- Two yardsticks, broom handles, or small jump ropes
- Gymnastics mats
- Visual 1
- Handouts 1 and 2, one copy of each for each student

Procedure

1. Tell students that today's activity requires a lot of open space in the center of the classroom. Ask them to move their desks toward the classroom walls. Set the gymnastic mats in the center of the room.
2. Explain that trade occurs when people exchange resources, goods, services, or money with one another. When voluntary trade occurs, both traders expect to gain—they expect to get more satisfaction or value from the good received than from the good they traded. If they don't expect to gain from the trade, then they won't trade.
3. Explain that trading involves both benefits and costs. When people trade, they receive something they want more than what they have, which is a benefit. At the same time, they give up what they trade, which is a cost. For example, if Jason trades one of his popular action figures for one of Tim's baseball cards, then the cost to Jason is the fun he would have had playing with the action figure. The benefit of the trade is the satisfaction Jason receives from owning the baseball card.
4. Explain that if Jason pays his friend \$10 for the baseball card, Jason gives up something, and it is not just the \$10. Jason gives up the opportunity to have the next most-valued item on which he could have spent \$10. This next most-valued item that Jason gives up is called his opportunity cost. Opportunity cost is the highest-valued choice that is given up.
5. Point out that whether Jason trades using money or another item, he will trade only as long as he thinks the benefits of owning the baseball card are greater than the cost. This is true for all traders.

6. Explain that students will participate in a trading activity. Select two or three students to act as helpers so that an even number of students remains after the helpers have been selected.
7. Divide the rest of the class in half. Ask one-half of the students to stand in the front of the open area of the room and the other half to stand in the back of the open area of the room.
8. Tell the students in the front of the room that each of them is a “tubble.” A tubble is a good that people in their country, Frontier, specialize in producing.
9. Tell the students in the back of the room that each of them is a “krone.” A krone is a good that people in their country, Outback, specialize in producing.
10. Explain that people in both countries have determined that trading one tubble for one krone makes everyone better off. (That is, the benefit of an extra krone to a Frontier citizen is greater than the benefit of a tubble to them. The benefit of an extra tubble to an Outback citizen is greater than the benefit of a krone to them.)
11. Have the helpers place two yardsticks (or other items, as noted in the Materials section) on the mats next to each other no more than 6 inches apart. (See diagram below.)



12. Draw the following table on the board and then add additional rounds as needed:

Trades	Number of completed trades		
	Round 1	Round 2	Round 3
Standing long jump			

13. Explain that for goods (tubbles and kronen) to move from Outback to Frontier and from Frontier to Outback, students must jump over the yardsticks. Students will execute standing jumps, not running jumps. Each time that one tubble *and* one krone make it over the yardsticks, one trade has been completed.

Session 15

14. Have one student demonstrate a standing jump over the yardsticks. Then, have students alternate jumping over the yardsticks. Count the number of completed trades (one krone and one tubble), and record this information on the table under "Round 1."
15. Have students return to their original countries. Explain that each student in Frontier is once again one tubble and each student in Outback is once again one krone. Tell the helpers to place the yardsticks one foot apart.
16. Explain that the rules are the same. In order for a trade to occur, both a tubble student and a krone student must make it over the yardsticks into the other country. If not, both the tubble and the krone must remain in their original countries. Count the number of trades, and record this information under "Round 2."
17. Repeat steps 15 and 16. In Round 3, move the yardsticks apart another foot. If necessary, add additional rounds so that in the final round no trades can be completed.
18. Refer students to the information recorded on the board and discuss the following:
 - What happened to the number of completed trades as the distance between the two yardsticks increased? (*The number of completed trades decreased.*)
 - Would you expect the people of Frontier to be more or less happy as the distance between the yardsticks increased? (*Less happy*) Why? (*They have fewer kronas.*)
 - Would you expect the people of Outback to be more or less happy as the distance between the yardsticks increased? (*Less happy*) Why? (*They have fewer tubbles.*)
19. Explain that the jump represents transporting goods and services from one country to another. If the distance isn't great, it is less costly to transport goods by air, ship, or truck. However, as the distance increases, the transportation costs are greater. As a result, fewer trades are likely to be made because the costs of the trades are greater than the benefits received from the trades.
20. Discuss the following:
 - Are you more likely to make trades with kids in your neighborhood or with kids in another town? (*Most likely their own neighborhoods because the kids are closer.*) Why? (*It is easier and faster to trade with someone who lives nearby.*)
21. Explain that the costs of trading with someone who lives nearby are less than the costs of trading with someone who lives far away. Discuss the following:
 - As fewer and fewer trades were completed between people in Outback and Frontier, what happened to the gains from trade? (*They were reduced*)

- What does this mean for the people of Outback and Frontier? (*The people receive less satisfaction, or are less happy, with their combination of goods.*)
22. Explain that students have some more jumps to make. Write “Hurdles” in the box under “Standing long jump.” Ask the helpers to hold a yardstick about one foot off the ground. Explain that the students from each country will alternate jumping over the yardstick. Each pair of students (one from Outback and one from Frontier) that completes the jump represents one trade. After the first round of jumps, record the number of completed trades under “Round 1.”
 23. Have the helpers raise the yardstick another foot. Have students from each country alternate jumping over the yardstick. After the jumps are completed, record the number of completed trades under “Round 2.” Repeat until no trades can be completed.
 24. Have students return to their original countries. Discuss the following:
 - What happened to the number of completed trades as the yardstick was moved higher from the floor? (*The number of completed trades decreased.*)
 - Would you expect the people of Frontier to be more or less happy as the yardstick was moved higher from the floor? (*Less happy*) Why? (*They have fewer kronas.*)
 - Would you expect the people of Outback to be more or less happy as the distance of the yardstick from the floor increased? (*Less happy*) Why? (*They have fewer tubbles.*)
 25. Explain that the height of the yardstick represents high mountains, “high” seas, or high temperatures. As demonstrated in the activity, these all make trading more difficult or expensive so that less trading occurs. These factors, along with distance, are called trade barriers. A trade barrier is anything that makes trading less desirable or more difficult to do.
 26. Explain that distance, mountains, rough terrain, high temperatures, or rough seas are natural barriers to trade—that is, barriers imposed by nature.
 27. Explain that sometimes the government of a country may impose trade barriers. This means that the government of the country does something that makes trading more difficult. For example, a government may charge a tariff. A tariff is a tax that must be paid before a good may be brought into a country.
 28. Ask a student to demonstrate jumping over the raised yardstick and point out that the height of the yardstick now represents the amount of the tariff. As the yardstick gets higher, fewer students will be able to jump over, and fewer trades occur. In the same way, as a tariff “gets higher,” the cost of bringing goods into the country rises and fewer trades are desirable.

Session 15

29. Explain that the students will engage in another round of trading. (Quietly, tell the helpers to allow the first 5 students from each country to jump over the yardstick as it lies on the floor. Then, they should raise the yardstick as high as they can so that no one could possibly jump over it.)
30. Explain that this activity demonstrates what happens when a government imposes a quota. A quota is a limit placed on the amount of a good or service that may come into a country. In the example, 5 kronas could come into Frontier and 5 tubbles could come into Outback. Once that limit was reached, no more of the goods were allowed in.
31. Have the students return to their original countries. Have the helpers hold the yardstick as high as they can. Discuss the following:
 - Why can no trading occur? (*No one can jump over the yardstick.*)
32. Explain that this situation represents an embargo. An embargo occurs when no foreign goods are allowed into a country. An embargo is a quota of zero!
33. Explain that students will participate in one more activity. Ask the students if they have ever played limbo. (*Answers will vary.*)
34. Write "Limbo" under "Hurdles" on the table. Explain that this time the yardstick will be a limbo bar. Have the helpers hold the limbo stick about chest high. The students must pass under the limbo bar, without knocking it over or falling to the ground, to move into the other country. Each time a krone and a tubble pass under the bar, one trade is completed.
35. Have students from each country alternate moving under the limbo bar. When all students have participated, record the number of completed trades under "Round 1."
36. Have students return to their home countries. Walk up to the yardstick, push it down approximately one foot, and have students from each country alternate moving under the limbo bar. When all of the students have had a turn, record the completed number of trades under "Round 2." Repeat until no trades can be completed.
37. Discuss the following:
 - What must a tubble or a krone do in order to move to the other country? (*It must pass under the limbo bar without knocking it over or falling to the ground.*)
 - As the bar was pushed lower, what happened to the number of completed trades? (*Trades decreased*) Why? (*It became harder and harder for students to go low enough to get under the bar.*)
38. Explain that, in this demonstration, the yardstick represented a standard or a requirement that a good must meet in order to enter the country. Tubbles and kronas had to

meet the requirement of passing under the limbo bar. In real-world trading, there are health, safety, environmental, and other standards or requirements that must be met. For example, medicines from other countries must meet safety and health standards before they are allowed in the United States. Milk produced in the United States must be free of certain chemicals before it is allowed in European countries.

39. Have students return to their seats and complete the closure activities.

Closure

40. Display *Visual 1: Trade Barriers* and distribute a copy of *Handout 1: Trade Barriers Review* to each student. Instruct students to record answers as you discuss the following:
- What is a trade barrier? (*Anything that makes trade less desirable or more difficult to do*)
 - Trade barriers imposed by nature are called natural trade barriers. Why is distance between traders a barrier? (*Traveling a long distance takes more time, is more difficult, requires more fuel, and so on. These barriers make it more costly to travel long distances in terms of time and fuel than to travel short distances.*)
 - What are some other geographic barriers to trade? (*Mountains, rough terrain, climate*)
 - What is a tariff? (*A tax placed on goods coming into a country*)
 - What is a quota? (*A limit placed on the amount of a good that may come into a country*)
 - What is an embargo? (*Not allowing any of a good into a country*)
 - What is a standard? (*A health, environmental, safety, or other requirement a good must meet before it is allowed in a country*)
41. Remind students that people agree to trade voluntarily because both traders expect to gain. Discuss the following:
- What do we mean when we say people expect to gain from trade? (*People expect to be happier and have more satisfaction from what they have after a trade than before a trade.*)
 - What is the benefit traders receive? (*Traders get more of something they want.*)
 - What is the cost of trading? (*Giving up something to make the trade—an opportunity cost*)
 - As the costs of trading rise, will more or less trading occur? (*Less*)
 - Do trade barriers raise or lower the cost of trading? (*Trade barriers raise the cost of trading.*)

Assessment

42. Distribute a copy of *Handout 2: Assessment*. Allow time for students to complete and then check answers. (Answers: 1, b; 2, c; 3, d. Both Mexico and Canada border the United States, so they are closer than other countries with which the United States might trade. In addition, there are no major geographical barriers between these countries and the United States, so there are few natural trade barriers. The governments of the three countries have also signed trade agreements, specifically the North American Free Trade Agreement, which reduces tariffs and other trade barriers among them.)

Lesson 15.2, Visual 1: Trade Barriers**Natural Barriers**

- **Distance**—How far goods must be shipped between countries.
- **Geography**—Mountains, waterways, climate, or other physical factors that make the transportation of goods between countries difficult.

Government-Imposed Barriers

- **Tariff**—A tax placed on a good coming into a country.
- **Quota**—A limit placed on the amount of a good that may come into a country.
- **Embargo**—Not allowing any of a good to come into a country.
- **Standard**—A health, environmental, safety, or other requirement a good must meet before it is allowed into a country.

Lesson 15.2, Handout 1: Trade Barriers Review

Name _____

1. What is a trade barrier?

Natural Barriers

2. Why is distance between traders a barrier?
3. What are some other geographic barriers to trade?

Government-Imposed Barriers

4. What is a tariff?
5. What is a quota?
6. What is an embargo?
7. What is a standard?

Lesson 15.2, Handout 2: Assessment

Name _____

Directions: Circle the correct answer for each.

1. Trade barriers
 - a. increase the amount of goods that are traded.
 - b. increase the cost of trading goods.
 - c. make people better off.
 - d. make trading easier.

2. Which of the following is an example of a natural trade barrier?
 - a. A tariff
 - b. A quota
 - c. A long distance between traders
 - d. Very low shipping costs

3. Generally, in which circumstance will more trade occur between two countries?
 - a. The farther they are from each other
 - b. The more standards that traded goods must meet
 - c. The lower their quotas
 - d. The lower their tariffs

Trading Partners

Canada and Mexico are two of the United States' largest trading partners. How might trade barriers explain why the United States trades a great deal with these countries?

SESSION 16:

Factors for Financial Success and Earning Income

Session Description

Students participate in activities that demonstrate how improving their human capital will put them on a path to financial success.

Talking Points

Factors for Financial Success

1. Financial success depends on learning to manage your personal financial life and on learning to make informed decisions (see the PACED decision-making model in Session 1).
2. Financial success also depends on factors such as being willing to work hard, acquiring useful skills, having a good attitude, being motivated, and luck.

Earning Income

1. Human capital refers to the set of skills, education, and attitudes a person possesses.
2. Human capital can be increased by getting more education and training, practicing a skill or task, developing a strong work attitude/ethic, and by staying healthy.
3. Higher levels of human capital are associated with higher levels of productivity, which in turn are associated with a greater demand for a person's services.
4. As a person acquires more human capital, there are fewer other people who possess a similar set of skills, which means there is a lower supply of people able to do what that person does.
5. Greater demand coupled with lower supply leads to higher wages for people with higher levels of human capital.
6. In particular, higher levels of education are associated with both higher incomes and lower rates of unemployment.
7. Net income (or disposable income) is gross income minus taxes and other deductions.
8. Instead of working for someone else (for wages or salaries), one can also work for him or herself (for profit) as a business owner or entrepreneur.
9. Entrepreneurs are people who tend to have certain personal characteristics, including self-reliance, self-motivation, a desire to achieve, and a willingness to take risks, work hard, and lead others.

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Session 16: Standards and Benchmarks

Arkansas Economic Standards

Strand: Personal Financial Management

Content Standard 8: Students will analyze factors affecting income, wealth, and financial risk.

- PFM.8.E.1 Analyze the impact of education, training, and other factors on productivity and income potential (e.g., interpersonal skills, workforce readiness skills, ethics)

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 16: Resources

Factors for Financial Success

1. Financial Fitness for Life (9-12) (*Virtual Economics*® 4.5)
 - a. Lesson 1: How to Really Be a Millionaire
 - b. Adaptation: True/False/Millionaire Signs
 - i. Use with the activity in the lesson. Copy each page on different-colored card stock, cut out, and laminate for durability. You will need one of each sign for each pair of students.

Earning Income

2. Lesson: Developing Human Capital with Paper Airplanes (Economics Arkansas); https://economicsarkansasorg.presencehost.net/file_download/inline/6a5878a6-49df-4efa-b234-fcaf2f4ce707
3. It's Your Paycheck Curriculum Unit (Federal Reserve Bank of St. Louis)
 - a. Unit A: Know Your Dough, Lessons 1 and 2; <https://www.stlouisfed.org/education/its-your-paycheck-curriculum-unit>
 - i. Choose the "Lesson 1: Invest in Yourself" PDF and the accompanying slides of your choice:
 - (1) SMART Notebook
 - (2) PowerPoint
 - (3) ActivInspire
 - ii. Choose the "Lesson 2: 'W' Is for Wages, W4 and W2" PDF and the accompanying slides of your choice:
 - (1) SMART Notebook
 - (2) PowerPoint
 - (3) ActivInspire
4. Lesson: College: Learning Skills to Pay the Bills (*Page One Economics Classroom Edition*, Federal Reserve Bank of St. Louis); <https://www.stlouisfed.org/education/page-one-economics-classroom-edition/college-learning-the-skills-to-pay-the-bills>.
 - a. Choose "Classroom Edition."

5. Lesson: Investing in Yourself: An Economic Approach to Education Decisions (*Page One Economics* Classroom Edition, Federal Reserve Bank of St. Louis); http://www.stlouisfed.org/education_resources/investing-in-yourself-an-economic-approach-to-education-decisions/.
 - a. Choose "Classroom Edition."
6. Entrepreneurship Economics (*Virtual Economics*® 4.5)
 - a. Lesson 9: The Entrepreneur and Human Capital
7. Financial Fitness for Life (9-12) (*Virtual Economics*® 4.5)
 - a. Lesson 7: Uncle Sam Takes a Bite
8. Lesson: U.S. Income Inequality: It's Not So Bad (*Inside the Vault*, Federal Reserve Bank of St. Louis); <https://www.stlouisfed.org/publications/inside-the-vault/spring-2010/us-income-inequality-its-not-so-bad>

Adaptation: True/False/Millionaire Signs (page 1 of 3)

Use with the activity in “**Lesson 1: How to Really Be a Millionaire**” in *Virtual Economics*® 4.5: Financial Fitness for Life (9-12).

TRUE

TRUE

TRUE

TRUE

Adaptation: True/False/Millionaire Signs (page 2 of 3)

FALSE

FALSE

FALSE

FALSE

Adaptation: True/False/Millionaire Signs (page 3 of 3)

MILLIONAIRE

MILLIONAIRE

MILLIONAIRE

MILLIONAIRE

SESSION 17: Setting & Achieving Financial Goals and Spending

Session Description

Students will have the opportunity to set financial goals, both short term and long term, and develop a budget.

Talking Points

Setting & Achieving Financial Goals

1. A financial goal is a monetary target to be met by a specific time in order to purchase a good or service (car, down payment on a house, college education, start-up funds for a business, retirement, and so on).
2. Financial goals are met with a systematic financial plan for saving (deciding how much to save each pay period) and investing (deciding what financial assets to purchase with income saved).
3. A financial plan largely depends on
 - a. the amount of the goal,
 - b. how long a person has until the goal must be met,
 - c. how much can be saved each pay period, and
 - d. the rate of return earned on investment assets.
4. A person's net worth, or wealth, is the market value of the assets he or she owns minus the market value of the debt, or liabilities, he or she owes.
5. A person's cash flow is the amount of income he or she earns minus the amount of expenses he or she incurs over a given period of time.
6. A person's net worth tends to rise when his or her cash flow is positive—that is, when income is greater than expenses each pay period.
7. A person's net worth tends to fall when his or her cash flow is negative—that is, when income is less than expenses each pay period.
8. A budget is a cash-flow plan that decides how a person's income is to be spent each period (all income each pay period is essentially spent on goods and services, taxes, and savings to purchase goods and services in the future).

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9. There are three categories of spending in a typical monthly budget:
 - a. regular spending (goods and services typically purchased every month),
 - b. irregular spending (financed by short-term saving for goods and services purchased on a non-monthly basis during the year), and
 - c. future spending (financed by long-term saving, or investment, for purchasing goods and services more than a year away).
10. Making a budget involves trade-offs—allocating more spending to one item and less to other items—so one must consider the satisfaction per dollar spent on each item (see Session 1).

Spending

1. The fundamental consumer problem is a scarcity of resources from which they are able to earn income. This means that people don't have enough income to buy all the goods and services they would like to have. Thus, they must decide how to spend (or allocate) their income in order to best satisfy their unlimited wants.
2. Two general assumptions are made about people's preferences (or the satisfaction they get from consuming goods and services):
 - a. More is preferred.
 - b. Each additional unit of a particular good tends to add less satisfaction than the unit before it.
3. People maximize their satisfaction by purchasing those goods or services that give them the most satisfaction per dollar spent. So, their preferences and the prices of goods and services both matter in making spending decisions.

Session 17: Standards and Benchmarks

Arkansas Economic Standards

Strand: Personal Financial Management

Content Standard 8: Students will analyze factors affecting income, wealth, and financial risk.

- PFM.8.E.2 Evaluate a variety of strategies for making personal financial goals to build short-term and long-term wealth.

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
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- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
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- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
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- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 17: Resources

Setting & Achieving Financial Goals

1. Learning, Earning, and Investing (Council for Economic Education)
 - a. Lesson 15: Why Don't People Save?; <http://www.economicsarkansas.org/>
 - i. Register or sign in.
 - ii. Under the "Portal" menu in the green box on the right, choose "high school economics course resources."
 - iii. Under the (new) "Portal" menu, choose "Session 17."
 - iv. Choose "Lesson 15: Why Don't People Save?"
2. Financial Fitness for Life (9-12) (*Virtual Economics*® 4.5)
 - a. Lesson 8: Managing Your Money
 - i. Adaptation: Character Signs
 - (1) Use with the lesson activity.
3. It's Your Paycheck (Federal Reserve Bank of St. Louis)
 - a. Unit B: KaChing!, Lesson 4: Your Budget Plan; <https://www.stlouisfed.org/education/its-your-paycheck-online-course-for-consumers>
 - i. Under "Unit B: KaChing!" choose the "Lesson 4: Your Budget Plan" PDF and the accompanying slides of your choice:
 - (1) SMART Notebook
 - (2) PowerPoint
 - (3) ActivInspire

Spending

4. Financial Fitness for Life (6-8) (*Virtual Economics*® 4.5)
 - a. Lesson 7: Managing Cash
5. It's Your Paycheck Curriculum Unit (Federal Reserve Bank of St. Louis); <https://www.stlouisfed.org/education/its-your-paycheck-curriculum-unit>
 - a. Unit B: KaChing!, Lesson 3: Cash the Check and Track the Dough
 - i. Choose the PDF and the accompanying slides or your choice:
 - (1) SMART Notebook
 - (2) ActiveInspire
 - (3) PowerPoint

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Session 17

6. Lesson: Take Charge Today: Checking Account and Debit Card Simulation;
<https://takechargetoday.arizona.edu/lessonplans/checking-account-and-debit-card-simulation>
 - a. To create a free account, click “Create a Free Account” and complete the online form.
 - b. You will receive an email to activate your account once your account is approved.

7. Lesson 17.1: Twenty Pennies: Allocating Monthly Income

Adaption: Character Signs (page 1 of 2)

Use with “**Lesson 8: Managing Your Money**” in *Virtual Economics*® 4.5: Financial Fitness for Life (9-12).

**Budget Bob
Radio Host**

Dr. Saver

Adaption: Character Signs (page 2 of 2)

Connie

Calvin

Minnie

Lesson 17.1: Twenty Pennies— Allocating Monthly Income

Lesson Description

Students have the opportunity to choose the goods and services they would like to buy with their monthly income. Pennies are used to simulate their monthly income, allowing them to make choices on housing, transportation, food, and entertainment.

Objectives

Students will

- use budgeting to allocate their income and,
 - through a simulation, experience decision making and trade-offs.
-

Time Required

One class period

Concepts

- Budgeting
 - Trade-offs
-

Materials

- 20 pennies for each student
 - Handout 1, one copy for each student
-

Procedure

1. Remind students that in making a decision there are often trade-offs. A trade-off occurs when getting more (or one) of something means getting less (or none) of something else. This is especially true when budgeting your monthly income.
 2. Distribute 20 pennies and *Handout 1: Monthly-Income Mats* to each student.
 3. Explain that each penny represents \$100 of monthly net income. Therefore, 20 pennies represent \$2,000. Tell the students that this is their income after taxes have been paid.
-

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Session 17

4. Draw the students' attention to the mats. Ask the following:
 - What do you notice about the items on the mats? (*Answers will vary but should include that if you spend more money, you often get more of the item and/or better quality.*)
5. Tell the students that they are to allocate their monthly income as they see fit. Allow 5 minutes for the students to completely allocate their income.
6. Tell the students that this is their budget. If time permits, have a few students share some of their choices and their reasoning.
7. Share the following scenario: Labor costs have increased at your workplace. Your boss is a nice guy though and didn't fire anyone. Instead he reduced everyone's hours. Now you're only bringing home \$1800. How will this affect your budget? Where are you going to cut back \$200?
8. Again, if time permits, have students share their choices and their reasoning.

Closure

9. Explain that because income is limited, people can't have all the things they want. They must make choices and consider the trade-offs. Creating a budget helps people decide what is most important to them given their income.

Lesson 17.1, Handout 1: Monthly-Income Mats (page 1 of 2)



Twenty Pennies: Allocating Monthly Income

\$300,000, newer, large house 20	\$225,000, 10-yr-old, large house 15	\$150,000, 20-yr-old, medium-sized house 10	\$100,000, 30-yr-old, medium-sized house 7	\$75,000, 30-yr-old, medium-sized house 5	Medium-sized apartment 4
Smaller, older, apartment 3	Very small, run-down apartment 2	Share a room with others OR live in a car 1	No shelter 0	Luxury SUV OR two newer vehicles 10	Luxury vehicle OR two older vehicles 7
Newer, large vehicle 5	Newer, small vehicle 4	Older, dependable vehicle 3	Older, questionable vehicle 2	Unreliable vehicle OR mass transit 1	No vehicle 0
Gourmet and specialty food, upscale restaurants 10	Good assortment of grocery foods, chain restaurants 7	Grocery foods, fast-food restaurants 5	Basic grocery foods, very limited dining out 4	Staples plus some processed food 3	Staples only (minimum nutritional requirements met) 2
Staples only (minimum nutritional requirements <i>not</i> met) 1	Starvation 0	New wardrobe annually, high-end toiletries 10	Wardrobe with many trendy items, most toiletries 7	Mostly up-to-date wardrobe, some trendy items, some toiletries 5	Good wardrobe turnover, few trendy items, complete toiletries 4

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Lesson 17.1, Handout 1: Monthly-Income Mats (page 2 of 2)

Some wardrobe turnover, department-store quality, most toiletries 3	Medium deductibles, low co-pays, limited prescription coverage 5	Technology, full-service; non-local 2-week vacation; \$100/wk "fun" money 5	Low deductibles, low co-pays, good prescription coverage 7	Complete insurance coverage (health and dental) 10	No technology, local 1-week vacation; \$25/wk "fun" money 1	No entertainment 0	Low deductibles, low co-pays, good prescription coverage 7
Limited wardrobe turnover, mostly outdated, some toiletries 2	High deductibles, medium co-pays, no prescription coverage 3	Technology, some service; local 1-week vacation; \$25/wk "fun" money 3	High deductibles, high co-pays, no prescription coverage 2	Very high deductibles, use free clinics, no prescription coverage 1	No technology, local 1-week vacation; \$25/wk "fun" money 1	No entertainment 0	No coverage 0
"New" clothes are second-hand, basic toiletries 1	High deductibles, medium co-pays, no prescription coverage 3	Technology, very limited service; local 1-week vacation; \$25/wk "fun" money 2	High deductibles, high co-pays, no prescription coverage 2	Technology, very limited service; local 1-week vacation; \$25/wk "fun" money 2	Technology, very limited service; local 1-week vacation; \$25/wk "fun" money 2	No contributions to charity/non-profits 1	No contributions to charity/non-profits 1
Limited wardrobe turnover, mostly outdated, some toiletries 2	Medium deductibles, medium co-pays, limited prescription coverage 4	Technology, good service; non-local 1-week vacation; \$75/wk "fun" money 4	High deductibles, high co-pays, no prescription coverage 2	Very high deductibles, use free clinics, no prescription coverage 1	No technology, local 1-week vacation; \$25/wk "fun" money 1	No contributions to charity/non-profits 0	No contributions to charity/non-profits 0
Some wardrobe turnover, department-store quality, most toiletries 3	Medium deductibles, low co-pays, limited prescription coverage 5	Technology, full-service; non-local 2-week vacation; \$100/wk "fun" money 5	High deductibles, high co-pays, no prescription coverage 2	Very high deductibles, use free clinics, no prescription coverage 1	No technology, local 1-week vacation; \$25/wk "fun" money 1	No contributions to charity/non-profits 0	No contributions to charity/non-profits 0
Limited wardrobe turnover, mostly outdated, some toiletries 2	High deductibles, medium co-pays, no prescription coverage 3	Technology, some service; local 1-week vacation; \$25/wk "fun" money 3	High deductibles, high co-pays, no prescription coverage 2	Very high deductibles, use free clinics, no prescription coverage 1	No technology, local 1-week vacation; \$25/wk "fun" money 1	No contributions to charity/non-profits 0	No contributions to charity/non-profits 0
"New" clothes are second-hand, basic toiletries 1	High deductibles, medium co-pays, no prescription coverage 3	Technology, very limited service; local 1-week vacation; \$25/wk "fun" money 2	High deductibles, high co-pays, no prescription coverage 2	Very high deductibles, use free clinics, no prescription coverage 1	No technology, local 1-week vacation; \$25/wk "fun" money 1	No contributions to charity/non-profits 0	No contributions to charity/non-profits 0
Limited wardrobe turnover, mostly outdated, some toiletries 2	Medium deductibles, medium co-pays, limited prescription coverage 4	Technology, good service; non-local 1-week vacation; \$75/wk "fun" money 4	High deductibles, high co-pays, no prescription coverage 2	Very high deductibles, use free clinics, no prescription coverage 1	No technology, local 1-week vacation; \$25/wk "fun" money 1	No contributions to charity/non-profits 0	No contributions to charity/non-profits 0
Some wardrobe turnover, department-store quality, most toiletries 3	Medium deductibles, low co-pays, limited prescription coverage 5	Technology, full-service; non-local 2-week vacation; \$100/wk "fun" money 5	High deductibles, high co-pays, no prescription coverage 2	Very high deductibles, use free clinics, no prescription coverage 1	No technology, local 1-week vacation; \$25/wk "fun" money 1	No contributions to charity/non-profits 0	No contributions to charity/non-profits 0



Tools for Teaching the Arkansas Economics and Personal Finance Course

SESSION 18:

Saving and Investing

Session Description

Students will participate in hands-on activities about saving and investing.

Talking Points

Saving

1. Saving is allocating part of one's current income toward the purchase of goods and services in the future (i.e., it is spending on future goods and services).
2. Saving is hard to do because it goes against people's natural time preference to enjoy benefits now and pay costs later.
3. Saving is good to do because there is a monetary reward: interest (a payment typically based on a percentage of the amount saved).
4. The simple interest formula shows how much interest (I) an initial amount of savings (the principal, P) will earn at a fixed interest rate (r) over a specific amount of time (t, usually years): $I = prt$.
5. The compound interest formula shows how much an initial amount of savings (P) will be worth (A) at the end of some number of years (t) if the annual interest rate is r and n is the number of times interest is compounded during the year:
 $A = P(1 + \frac{r}{n})^{nt}$.
6. Based on compounding, one can determine the number of years it would take an initial amount of savings to double. This doubling can be approximated by the Rule of 72: Time to double = $72/r$, where r is the interest rate expressed as a whole number.
7. Because of compounding, the earlier a person starts to save, the greater the impact on the amount saved.

Investing

1. The rate of return on an investment, or asset, over a year is the return (any income generated plus any change in the market value of the asset over the year) divided by the market value of the asset at the beginning of the year.
2. The rate of return on an asset can vary from period to period.

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3. The expected rate of return is an average of the actual rates of return over several periods and is typically expressed as an annual rate of return.
4. The greater the variability of the actual rate of return from the expected rate of return, the greater the risk associated with the asset.
5. Because people tend to be risk averse (i.e., they wish to avoid risk), they usually must be paid a higher expected rate of return on riskier assets.
6. Risk can be reduced by
 - a. choosing assets with lower variability,
 - b. time, and/or
 - c. diversification (holding several different types of assets).
7. The PACED decision-making model can be applied to the investment decision:
 - a. **P**roblem: The need to choose investments for a portfolio.
 - b. **A**lternatives: Identify investment alternatives (choices), e.g., stocks, bonds, mutual funds, savings accounts, and real estate.
 - c. **C**riteria: Determine which factors to use to evaluate alternatives, e.g., risk, rate of return, liquidity, costs, and diversification.
 - d. **E**valuation: Evaluate the alternatives based on the criteria. Evaluation will vary depending on a person's age, risk preferences, time horizon, and so on.
 - e. **D**ecision: Choose the highest-ranked alternative given the criteria.

Session 18: Standards and Benchmarks

Arkansas Economic Standards

Strand: Personal Financial Management

Content Standard 8: Students will analyze factors affecting income, wealth, and financial risk.

- PFM.8.E.2 Evaluate a variety of strategies for making personal financial goals to build short-term and long-term wealth.

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

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- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 18: Resources

Saving

1. No Frills Money Skills Video Series (Federal Reserve Bank of St. Louis)
 - b. Episode 1: Compound Interest (7:21);
<https://www.stlouisfed.org/education/no-frills-money-skills-video-series/episode-1-growing-money-compound-interest>
2. Learning, Earning, and Investing (*Virtual Economics*® 4.5)
 - a. Lesson 1: Why Save?
3. Financial Fitness for Life (9–12) (*Virtual Economics*® 4.5)
 - a. Lesson 20: What’s the Cost of Spending and Saving?

Investing

4. Financial Fitness for Life (9–12) (*Virtual Economics*® 4.5)
 - a. Lesson 21: There Is No Free Lunch in Investing
5. Learning, Earning, and Investing (*Virtual Economics*® 4.5)
 - a. Lesson 12: Building Wealth over the Long Term
6. Lesson: Diversification and Risk (Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/diversification-and-risk>
 - a. Choose the lesson PDF and the accompanying slides of your choice:
 - i. SMART Notebook
 - ii. PowerPoint
7. No Frills Money Skills Video Series (Federal Reserve Bank of St. Louis)
 - a. Episode 3: Get Into Stocks (8:58);
<https://www.stlouisfed.org/education/no-frills-money-skills-video-series/episode-3-get-into-stocks>

Saving and Investing

8. Online Course: Soar to Savings (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.

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- d. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "Soar to Savings."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.

SESSION 19:

Insuring

Session Description

After an explanation of how insurance works, students will choose insurance to purchase and experience the costs and benefits of those choices.

Talking Points

1. Insurance is a product that allows people to pay a fee (called a premium) now to transfer the costs of potential loss to a third party. A premium is the amount a person pays to an insurance company for protection. Typically, the price of insurance increases as the amount of protection increases.
2. Insurance can be purchased for almost any kind of potential loss, but the most common types of insurance are home, automobile, medical, dental, disability, life, and renters.
3. Insurance companies pool premiums from many people to cover the losses of a few (and, much like banks, they take the pooled premiums and make investments).
4. Insurance companies set premiums to cover the expected losses plus a rate of return for the company.
5. Choosing the right amount of insurance is a matter of weighing the benefits of additional protection, or coverage (lower losses in the case of a covered event), against the costs (the premium, any uncovered losses, and other opportunity costs).
6. Most people pay more for insurance than what it will save them in terms of losses, while some people pay less for insurance than what it will cost them in terms of losses. Unfortunately, when deciding how much insurance to buy, people don't know in which groups they will end up.

Session 19: Standards and Benchmarks

Arkansas Economic Standards

Strand: Personal Financial Management

Content Standard 8: Students will analyze factors affecting income, wealth, and financial risk.

- PFM.8.E.3 Analyze insurance as a risk management strategy to protect against financial loss (e.g., auto, health, life, homeowners, renters, disability, liability)

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
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- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 19: Resources

1. Financial Fitness for Life (9–12) (*Virtual Economics*® 4.5)
 - a. Lesson 10: Managing Risk

2. Personal Finance 101 Chats (Federal Reserve Bank of St. Louis)
 - a. Car Insurance;
<https://www.stlouisfed.org/education/personal-finance-101-chats>

SESSION 20: Borrowing

Session Description

Students will investigate different forms of credit, compare credit card offers, and determine the costs and benefits of credit.

Talking Points

1. People receive credit when they obtain the use of someone else's money to purchase goods or services.
2. People who obtain credit are given a loan of money in exchange for their promise to repay the money later plus additional money called interest.
3. Common types of credit include mortgage loans, car loans, student loans, personal loans, and credit cards.
4. Interest is the price borrowers pay for using someone else's money and the price lenders receive for letting someone else use their money.
5. Using credit has both benefits and costs.
6. Benefits of credit include the following:
 - a. acquiring assets to increase your net worth over time,
 - b. the ability to finance emergency purchases,
 - c. payment convenience (purchasing goods and services now as opposed to later),
 - d. a lower cost than using your own invested funds, and
 - e. the ability to take advantage of a lower price for some good or service (to get a good deal).
7. Costs of credit include the following:
 - a. creating a liability that lowers your net worth,
 - b. paying interest and fees,
 - c. purchasing fewer goods and services in the future,
 - d. less available credit for emergencies, and
 - e. increased exposure to identity theft.
8. Credit providers consider the three C's in deciding to whom they will extend credit:
 - a. Capacity—The ability of the creditor to repay the loan.

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- b. Character—How honest and reliable the creditor is in paying debts.
 - c. Collateral—Assets the creditor has that could be sold later to pay off the loan.
9. People’s credit scores are a measure of their character because credit scores are based largely on their payment history. For example, whether or not they
- a. pay bills on time,
 - b. pay bills in full,
 - c. stay below their credit limits, or
 - d. have declared bankruptcy.
10. When considering whether credit or a loan is desirable, it is important for people to consider the likely impact the choice will have on their personal net worth over time.

Session 20: Standards and Benchmarks

Arkansas Economic Standards

Strand: Personal Financial Management

Content Standard 9: Students will analyze the role of credit in personal finance.

- PFM.9.E.1 Evaluate costs and benefits of using various types of credit (e.g., interest rates, fees, penalties, rewards)
- PFM.9.E.2 Analyze factors that affect credit worthiness (e.g., credit history, capacity, collateral)
- PFM.9.E.3 Evaluate various strategies to correct and avoid credit issues

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

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- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 20: Resources

1. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 23: Interest Rates: Let's Go Shopping for Money
2. Financial Fitness for Life (9–12) (*Virtual Economics*® 4.5)
 - a. Theme 4: Spending and Credit
3. Lessons: It's Your Paycheck Curriculum (Federal Reserve Bank of St. Louis); <https://www.stlouisfed.org/education/its-your-paycheck-curriculum-unit>
 - a. Under Unit C: All About Credit, choose the following lessons and the accompanying slides of your choice:
 - i. Lesson 6: Credit Reports—and You Thought Your Report Card Was Important (PDF)
 - (a) SMART Notebook
 - (b) PowerPoint
 - (c) ActivInspire
 - ii. Lesson 7: Creditors' Criteria and Borrowers' Rights and Responsibilities (PDF)
 - (a) SMART Notebook
 - (b) PowerPoint
 - (c) ActivInspire
 - iii. Lesson 8: So How Much Are You Really Paying for That Loan? (PDF)
 - (a) SMART Notebook
 - (b) PowerPoint
 - (c) ActivInspire
4. Online Course: Credit Cred (Federal Reserve Bank of St. Louis)
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.
 - d. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "Credit Cred."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.

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Session 20

5. Online Course: Cars, Cards, and Currency
 - a. Go to <https://www.stlouisfed.org/education>.
 - b. Choose  Teachers: Go directly to the Online Course Login .
 - c. Register or, if you already have an account, log in.
 - d. Register your class for the course as follows:
 - i. Choose the "COURSES" tab.
 - ii. In the "COURSE NAME" column choose "Cars, Cards, and Currency."
 - iii. Choose "ADD TO CLASSROOM" and follow the prompts.
 - e. Instruct students to complete these lessons:
 - i. Lesson 2: The Credit Card
 - ii. Lesson 4: The Car Deal Package
6. Lesson: Personal Bankruptcy (Consumer Action);
http://www.consumer-action.org/downloads/english/2009_Bankruptcy_Lesson.pdf
7. Practical Money Skills for Life
 - a. Lesson 15: Staying Out of Debt;
https://www.practicalmoneyskills.com/foreducators/lesson_plans/highschool.php

Economics Arkansas

<http://www.economicsarkansas.org/>

Federal Reserve Bank of St. Louis

<https://www.stlouisfed.org/education>

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