

Lesson/Unit Title	Why Study Economics? Economic Systems and Tools
Day(s)	10-12
Grade Level	11-12
Curriculum	Economics
Website(s)	<p>www.econextra.swlearning.com Website for Southwestern-Thomson's <i>Contemporary Economics</i> textbook by William A McEachern, 2005©, South-Western, ISBN 0-538-43701-4</p> <p>www.fraserinstitute.ca/teachercentre/pdf/Government_Systems.pdf Online simulation that helps students work through how resources are allocated in command economies vs. market economies. Student "ministers" find their ability to distribute goods and services to satisfy consumer wants/needs is severely hampered by their inability to access the information that markets provide!</p>
Teacher Resources	<ul style="list-style-type: none"> • <i>Contemporary Economics</i> by William A. McEachern, 2005©, South-Western-Thomson www.econextra.swlearning.com • PowerPoint for Unit, "Economic Systems and Tools" • Worksheets – Attached at end of unit • S'Mores Activity – Attached at end of unit
Unit Overview	<p>At the completion of this unit, students will be able to:</p> <ul style="list-style-type: none"> • Identify the three questions that all economic systems must answer • Describe a pure market economy and identify its problems • Describe a pure centrally planned economy and identify its problems • Compare mixed, transitional, and traditional economies • Describe the production possibilities frontier and explain its shape • Explain what causes the production possibilities frontier to shift • Explain the law of comparative advantage • Understand the gains from specialization and exchange <p>Daily Lesson Overview Day 1: Economic Questions and Economic Systems Day 2: Production Possibilities Frontier Day 3: Comparative Advantage Day 4: Specialization and Division of Labor Day 5: Review Assessment Day 6: Review Games Work Day Day 7: Games Presentations Day 8: Test</p>
Nebraska Frameworks Essential Learnings	<p>Foundation Skills and Knowledge Computer Applications Essential Learning BE 12.4 Students will understand a variety of application software and demonstrate competency by utilizing appropriate software for specific tasks. Example Indicators: Advanced Features – use advanced features (graph, merge, sort,</p>

	<p>filter, link, embed) of common application software.</p> <p>Application Software – use application software (word processing, desktop publishing, spreadsheet, database, etc.)</p> <p>Economics and Personal Finance Essential Learning BE 12.5 Students will understand basic economic and financial principals in order to make wise domestic and global economic decisions related to their personal finance affairs, the successful operation of organizations and the economic activities of the country. They will demonstrate competency by applying economic and personal finance reasoning to individual, business and government practice.</p> <p>Example Indicators</p> <p>Market Structures – compare and contrast the different types of market structures and the effect they have on price and quality of the goods and services produced.</p> <p>Markets and Prices – analyze and describe the role of markets and the prices in the United States economy.</p> <p>Productivity – explain the importance of productivity and how it is affected through specialization, division of labor, investment in physical and human capital and technological change.</p> <p>Role of Government – analyze and discuss the role of government in economic systems, especially that of the United States.</p>
<p>Link to Nebraska Standards</p>	<p><u>Reading/Speaking/Listening</u></p> <ul style="list-style-type: none"> • Students will identify the main idea and supporting details in what they have to read. • Students will identify, locate, and use multiple resources to access information on an assigned or self-selected topic. • Students will write using standard English for sentence structure, usage, punctuation, capitalization, and spelling. • Students will demonstrate the ability to use self-generated questions, note-taking, summarizing and outlining while learning. • Students will participate in group discussions by asking questions and contributing information and ideas. • Students will identify information gained and complete tasks through listening. <p><u>Mathematics</u></p> <ul style="list-style-type: none"> • Students will identify the appropriate operation and do the correct calculations when solving word problems. • Students will read and interpret tables, charts, and graphs to make comparisons and predictions. <p><u>Social Studies/History</u></p> <ul style="list-style-type: none"> • Explain the structure and operation of the United States economy and the role of citizens as producers and consumers. • Compare the United States economic system to systems in other countries.

<p>NBEA Curriculum Standards</p>	<p>Economics: II. Economic Systems--Explain why societies develop economic systems, identify the basic features of different economic systems, and analyze the major features of the U.S. economic system. IV. Markets and Prices--Analyze the role of markets and prices in the U.S. economy. IV. Productivity--Explain the importance of productivity and analyze how specialization, division of labor, investment in physical and human capital, and technological change affect productivity. VII. The Role of Government--Analyze the role of government in economic systems, especially the role of government in the U.S. economy. Personal Finance: V. Buying Goods and Services--Apply a decision-making model to maximize consumer satisfaction when buying goods and services.</p>
<p>National Economics Standards</p>	<p>Standard 1: Scarcity Standard 3: Allocation of Goods and Services Standard 4: Role of Incentives Standard 5: Gain from Trade Standard 6: Specialization and Trade Standard 7: Markets – Price and Quantity Determination Standard 10: Role of Economic Institutions Standard 11: Role of Money Standard 15: Growth Standard 16: Role of Government</p>
<p>National Personal Finance Standards</p>	<p>N/A</p>
<p>Nebraska Math Standards</p>	<p>8.5 Data Analysis, Probability, and Statistical Concepts 8.5.2 Students will read and interpret tables, charts, and graphs to make comparisons and predictions. 12.2 Computation/Estimation <i>12.2.1</i> Students will solve theoretical and applied problems using numbers in equivalent forms, radicals, exponents, scientific notation, absolute values, fractions, decimals, and percents, ratios and proportions, order of operations, and properties of real numbers. <i>12.2.2</i> Students will justify solutions to mathematical problems. <i>12.2.3</i> Students will perform estimations and computations of real numbers mentally, with paper and pencil, and with technology.</p>

<p>Teaching Strategies, Procedures and Activities</p>	<p style="text-align: center;"><u>Day 1</u></p> <p>Outcome: Students will identify the different types of economic systems and compare and contrast their similarities and differences and their strengths and weaknesses.</p> <p>NOTE: To access any underscored activities, assessments, etc in this unit, hit “Cntrl” and “left mouse button” to move to that link!</p> <p>Step 1: Draw a line on the board. Label the left side “Pure Centrally Planned Economy.” Explain that the line represents the range from the most free to the most government controlled economic system.</p> <p>Step 2: Ask students if they know of any other types of economies. Where would the U.S. fall on this line? Introduce the lesson for the day.</p> <p>Step 3: PowerPoint (<i>Economic Systems and Tools</i>) Lecture – (Section 2.1 worksheet)</p> <p>Step 4: Students go to the board and fill in the rest of the line with the different types of economies that were discussed in the lecture</p> <p>Step 5: Assessment question (IN-CLASS) Discuss each question and answer in class. (See questions below)</p> <p>Step 6: Assignment: In Class Review Worksheet, Section 2.1</p> <p style="text-align: center;"><u>Day 2</u></p> <p>Outcome: Students will explain what a PPF curve is, draw a PPF curve and label the points that are attainable, unattainable, and inefficient.</p> <p>Step 1: Review Day 1 activities</p> <p>Step 2: Sketch a PPF curve on the board. Explain PPF curve.</p> <p>Step 3: Students write key terms on an index card, with definitions on the back. Introduce the lesson.</p> <p>Step 4: PowerPoint Lecture – (Section 2.2)</p> <p>Step 5: Complete section assessment questions in class. Have students use Microsoft Excel to graph.</p> <p>Step 6: Assignment: Section 2.2 Worksheet</p> <p style="text-align: center;"><u>Day 3</u></p> <p>Outcome: Students will explain the difference between “absolute” and “comparative” advantage. They will calculate who has the absolute and comparative advantage in assigned problems. They will explain why specialization of labor is important for businesses.</p> <p>Step 1: Review PPF curves (quiz)</p> <p>Step 2: Introduce comparative and absolute advantage.</p> <p>Step 3: PowerPoint Lecture – (Section 2.3)</p> <p>Step 4: Introduce specialization of labor. Discuss how specialization would benefit business.</p> <p>Step 5: Review concepts: Section 3 assessment questions.</p>
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	<p>Step 6: Assignment: Section 2.3 Worksheet</p> <p style="text-align: center;"><u>Day 4</u></p> <p>Outcome: Students will explain how specialization of labor increases profit and productivity. They will be able to calculate production cost and revenue.</p> <p>Step 1: S'Mores assignment introduced and assigned</p> <p>Step 2: Discuss the advantages of specialization of labor. Calculate the number of s'mores made with specialization and without. Calculate the potential profit made with specialization and without.</p> <p style="text-align: center;"><u>Day 5</u></p> <p>Outcomes: Students will be able to identify and explain important terms and concepts within the unit.</p> <p>Step 1: Review game assignment: Jeopardy or Pyramid (students can choose) Give students the option to create any type of review mechanism they would like. Some suggestions, create a video using Windows Movie Maker, Create a PowerPoint Jeopardy game, create a board game, etc.</p> <p style="text-align: center;"><u>Day 6</u></p> <p>Continue working on games.</p> <p style="text-align: center;"><u>Day 7</u></p> <p>Students show their games/creations to the class, with fellow students playing along!</p> <p style="text-align: center;"><u>Day 8</u></p> <p>Step 1: Test</p>
<p>Assignments</p>	<p>Section 1 – 2.1 Worksheet</p> <p>Section 2 – 2.2 Worksheet</p> <p>Section 3 – 2.3 Worksheet</p> <p>Section 4 – S'Mores Activity</p> <p>Section 5 – Review and Create Review Activity.</p> <p>Give students the option to create any type of review mechanism they would like. Some suggestions, create a video using Windows Movie Maker, Create a PowerPoint Jeopardy game, create a board game, etc.</p> <p>UNIT TEST</p> <p>Assignment 1: In Class Review Check for understanding by discussing the following questions from the lecture and examples given in class. Section 2.1</p> <p>Assignment 2: Creating and analyzing a PPF curve. Have students create a PPF curve with the information given in the worksheet that follows. Have them answer the questions based on their PPF curves. Section 2.2 Assessment</p>

	<p>Assignment 3: Specialization and Comparative Advantage After demonstrating and discussing examples that show specialization and comparative advantage, hand out the following worksheet and have students figure out the situations presented. Section 2.3 Assessment</p> <p>Assignment 4: S'Mores Activity Materials needed: Graham Crackers, Large Marshmallows, Hershey's Chocolate Bars, Aluminum Foil, Ziploc Bags, Labels, Pen or Pencil, rubber gloves, and stop watch or clock.</p> <p>The Process: Give each student two graham crackers, a Hershey bar, two marshmallows, some aluminum foil, two zip lock bags, labels, a pair of gloves, and a pen or pencil (markers will work also). Start with one student and have them create their own s'mores. They must put it together, wrap it in aluminum foil, put it in the bag, close the bag, attach a label and write the appropriate description. After they have completed that, they need to take it to the drop off station (you designate where you want that to be) and then hand the labels and writing utensil to the next person. Continue on until everyone is finished (make sure they are wearing their rubber gloves so the students can eat the s'mores when they are finished.) Time from when the first person starts to when the last person finishes. Record the time and number of s'mores created (that should be the number of students times 2).</p> <p>Now you can try the process again using specialization. Have each student decide where they want to be in the assembly line. Tell them to start the process. When they are finished, record the time and number of s'mores again. Now you can incorporate math into the project! S'Mores Activity Worksheet</p> <p>Assignment 5: Review all concepts After reviewing in class, have students create their own review games/videos/worksheets. (They will be used in class for review). Let them be creative! They can use Windows Movie Maker, PowerPoint, create a board game, crossword puzzles or activities, etc.</p>
Math Applications	<p>Assignment 2: Assignment 2 assesses students understanding of the Production Possibilities Frontier. Students must create a graph and label areas that are attainable, unattainable and inefficient. After creating the graph, students must answer questions based on the graph and perform calculations for total revenue and decide which option would be the best for the company.</p> <p>Assignment 3: In section 3, students must figure who has the comparative advantage and who has the absolute advantage by using the correct mathematical calculations.</p>

	<p>Assignment 4: The S'Mores Activity is designed to reinforce specialization of labor and show students why it is the most effective method. They must calculate the number of s'mores made with and without specialization, total revenue, and cost of production.</p> <p>Assignment 5: Assignment 5 is designed to spark student's creativity. This assignment (since it is the student's choice) may or may not contain math concepts. The main goal of the assignment is to encourage students to implement creative ways to review and understand the material presented in the unit. Award bonus points if math applications, graphing, etc are included in student review game.</p>																
Assessment	<p>Students will be assessed in the following areas:</p> <table border="1" data-bbox="743 663 1349 978"> <thead> <tr> <th>Lesson/Unit Evaluation Criteria</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>Student Participation</td> <td>15</td> </tr> <tr> <td>Assignment 1: In-Class Review 2.1</td> <td>30</td> </tr> <tr> <td>Assignment 2: Worksheet 2.2</td> <td>25</td> </tr> <tr> <td>Assignment 3: Worksheet 2.3</td> <td>30</td> </tr> <tr> <td>Assignment 4: S'Mores Activity</td> <td>50</td> </tr> <tr> <td>Assignment 5: Student-Created Review Game</td> <td>50</td> </tr> <tr> <td>Total Possible Unit Pints</td> <td>200</td> </tr> </tbody> </table> <p>Grading Scale: A= 93-100% B= 85-92% C= 78-84% D= 69-77% F= 68% or below</p> <p>Instructor Comments:</p>	Lesson/Unit Evaluation Criteria	Points	Student Participation	15	Assignment 1: In-Class Review 2.1	30	Assignment 2: Worksheet 2.2	25	Assignment 3: Worksheet 2.3	30	Assignment 4: S'Mores Activity	50	Assignment 5: Student-Created Review Game	50	Total Possible Unit Pints	200
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School	Andes Central School, Lake Andes, SD																

Review Game Grading Rubric			
	Excellent	Satisfactory	Needs Improvement
Accuracy /10	7-10 No mistakes, misspellings or incorrect data	3-6 Some mistakes made. Data is somewhat accurate	0-2 Made several mistakes. Inaccurate mathematical data or calculations.
Demonstrated learning and understanding /20	14-20 Activity indicates students understood the material well. Realistic information was presented/used. Followed directions.	7-13 Activity indicates student understood most of the material. Reasonable information used. Followed most of the directions.	0-6 Activity indicates student did not understand the material at all. Unreasonable information used. Did not follow directions.
Neat and orderly /10	7-10 Attractive design. Appearance adds understanding	3-6 Moderately neat. Acceptable appearance.	0-2 Lacks neatness and order. Hard to understand
Creativity /5	4-5 Was very creative. Used original ideas and features.	2-3 Was somewhat creative. Used some original ideas and features.	0-1 Was not creative. Used no original ideas or features.
Participation /5	4-5 Spent time on task. Turned work in on time.	2-3 Used time well for the most part. Turned work in on time.	0-4 Did not use time wisely. Did not turn work in on time.
Total Points /50			
Project Grade for Activity	A = 47-50 B = 43-46 C = 39-42 D = 35-38 F = <34		Grade Received
Grading Scale			Comments

Section 2.1 In-Class Review Questions

1. Review the three basic economic questions. Make a diagram that compares the answers to the questions to these questions between each type of system discussed in class. Examples: Pure Market Economy, Transitional, etc.

2. Who presented the idea of the “invisible hand?”

How does the invisible hand guide production?

3. Why do we have property rights? What would happen if we didn't have any property rights?
4. What are some problems that might occur in each type of economy?
5. Name one country that would fall under each type of economy that was discussed in section 1.

Section 2.2 Worksheet

Graphing

Otten Industries is able to produce either DVD players or CD players from a fixed amount of resources it has each month. It can also produce different combinations of these products. However, for each additional amount of one of these products is produced, it must give up some of the other (opportunity cost). Create a graph (PPF curve) using the following table of information. Label each point on the graph (Hint: there should be one point that is inefficient and one that is unattainable.)

Combination	DVD Players	CD Players
A	800	300
B	600	400
C	400	450
D	460	225
E	800	500

Answer the following questions by using your graph:

1. If Otten Industries produces 800 DVD players, how many CD players can it produce?
2. If Otten Industries chooses to produce 400 DVD players instead of 800, roughly how many more CD players can it make?
3. If Otten Industries chooses to produce 500 CD players instead of 460, why must it give up the production of 400 DVD players?
4. If Otten Industries is producing at point D on the graph, what can you say about the efficiency of its production?
5. Why isn't Otten Industries able to produce at point E given the current situation?
6. If Otten Industries makes \$40 on each DVD player and \$38 on each CD player, which option would be the best profit maximizing?

Section 2.3 Worksheet

1. Why does specialization require people to complete exchanges?
2. How does money help people complete exchanges?
3. How is a division of labor accomplished?
4. What advantages may be offered by a division of labor in addition to allowing workers to become more accomplished at the tasks they complete?

Graphing Exercise:

5. Joel and Jamal work together at a bakery. In one hour Joel can ice ten cakes or prepare 5 pies. In the same time Jamal can ice 8 cakes or prepare only 1 pie. Draw bar graphs (or create them in Excel) to represent production of iced cakes or prepared pies for each of the following situations. Explain how your graphs demonstrate the law of comparative advantage.
6. Figuring the law of comparative advantage:
Situation A – Joel spends one hour icing cakes and three hours preparing pies. Jamal does the same.

Situation B – Joel spends four hours preparing pies, while Jamal spend four hours icing cakes.

Fill in the following table. Who has the comparative advantage to ice the cakes?
 Who has the comparative advantage to make pies?
 Which situation is the best? Why?

	Situation A		Situation B	
	Icing Cakes	Making Pies	Icing Cakes	Making Pies
Joel				
Jamal				
Total				

S'Mores Activity

Materials needed: Graham Crackers, Large Marshmallows, Hershey's Chocolate Bars, Aluminum Foil, Ziplock Bags, Labels, Pen or Pencil, rubber gloves, and stop watch or clock.

The Process: Give each student 2 graham crackers, a Hershey bar, 2 marshmallows, some aluminum foil, 2 ziplock bags, labels, a pair of gloves, and a pen or pencil (markers will work also). Start with one student and have them create their own s'mores. They must put it together, wrap in aluminum foil, put in the bag, close the bag, attach label and write what needs to be on it. After they have completed those steps, they need to take bag to a designated "drop-off station" and then hand the labels and writing utensil to the next person. Continue on until everyone is finished (make sure they are wearing their rubber gloves so the students can eat the s'mores when they are finished!) Time from when the first person starts to when the last person finishes. Record the time and number of s'mores created (that should be the number of students times 2).

Now you can try the process again using *specialization*. Have each student decide where they want to be in the assembly line. Tell them to start the process. When they are finished, record the time and number of s'mores again. Now you can incorporate math into the project.

1. Have students figure out the number of s'mores they can create in an hour without specialization (take the information from above). For example: If they created 20 s'mores in 10 minutes they would be able to produce 120 s'mores in an hour (20x6).
2. Have students figure out the number of s'mores they can create in an hour with specialization. For example: If the students were able to make 20 s'mores in 2 minutes then they should be able to create 600 s'mores in an hour.
3. Have students figure out totals for each for the day and the month (using a five day work week/8 hours a day). How many more s'mores can be made with specialization in a month?
4. If you made a \$1.00 profit on every s'more created, how much revenue could you potentially make in a month without specialization? With specialization?
5. If you had 10 employees and you paid each of them \$6.00 per hour for their work, what would the cost for labor be?
6. Material cost: \$2.00 per box of graham crackers, \$1.50 per box of 50 bags, \$.50 per bag of marshmallows, \$15 per box of 50 candy bars, \$1.75 per role of 50 ft. aluminum foil, \$10 per box of 100 rubber gloves, \$10 per 1000 labels. What would the material cost per s'more be? (You will have to estimate how many of each you will need based on your activity above.)
7. What would be the total cost of production (excluding utilities, etc.)?
8. What would the total cost of production be for the s'mores?
9. If you wanted to make a profit of \$1.00 on each s-more, what should you charge? (Hint: use your cost of production)
10. Why do most businesses use specialization of labor? How is it beneficial?
11. Now you can heat up your s'mores and enjoy!