“Economic literacy is crucial because it is a measure of whether people understand the forces that significantly affect the quality of their lives.”

- Gary H. Stern, President
  Federal Reserve Bank of Minneapolis

Section I
Economic Basics
The Four Factors of Production and Their Rewards

Students often understand the concept of scarcity as it relates to 'not enough' of something. The jump to understanding the essential economic factors of production as the true 'scarce' resources is often more difficult. The concept of resources that cannot be replaced is more challenging, but basic to a broad understanding of economics. This lesson attempts to define those factors as well as apply and demonstrate the use of the factors in a hands-on, possible real life situation.

The lesson can be used to introduce the subject of economics, or to develop an understanding of the four factors of production. It can also be used as a spring board for introducing allocation of scarce resources, types of businesses, job investigation, entrepreneurship, income and profit, supply and demand, management and even macro economic concepts such as supply of money, investing, fiscal policy or monetary policy. It provides a real world example of the decisions necessary to start a business, gather the resources, keep records and determine profit and taxes.
The Four Factors of Production and Their Rewards

NCSCOS Civics and Economics Goal and Objective(s):

7.01 Describe the basic factors of production such as land, labor, capital, and entrepreneurial skills and their impact on economic activities.
7.02 Explain how scarcity influences producers and consumers to make choices.
7.03 Compare examples of tradeoffs and opportunity costs of economic choices.

Warm-Up/Bell Ringer Activity:
Ask the students to think about assets or things of value. Have each student make a list of items which meets this criteria. Go around the room, taking one idea from each child, and writing them on the board. Group the assets/things of value into categories of wants and needs. Point out that because we have more wants than resources, we must make choices about how to spend or use our resources.

Key Questions:
1. What really provides income in our economy?
2. What are the basic costs in our economy?

Materials Needed:
“Four Factors of Production and Their Rewards” Overhead Transparency
“Four Factors of Production” Student Activity
“Tuck’s Bicycle Business” Story
“Tuck’s Bicycle Business” Graphic Organizer
“Income and Expenses” Overhead Transparency and Answer Key
“Income and Expenses” Student Activity
Overhead Projector

Time/Pacing:
One class period
Link(s) to Prior Learning:
Assess students' knowledge of prior learning by asking the following questions:
- What is economics?
- What is scarcity?
- What are opportunity costs and tradeoffs?

Purpose/Objective of this Lesson:
Students will be able to:
- Understand the rewards for the scarce resources of economics
- Identify ways that those resources provide for costs and rewards
- Understand the use of resources in modern society

Teacher Input:
The teacher will use the students' previous knowledge of economics, assets, and scarcity. The teacher will review using the handout titled, “Four Factors of Production and Their Rewards.”

Continuous Assessment:
Ask students for examples as the overhead transparency titled, “Four Factors of Production” is reviewed.

Strategies for Differentiation:
- Ask students to develop their own story, illustrating it on a poster.
- For advanced-level students, link this lesson to Gross Domestic Product spending and income approach (GDP = Consumer Spending + Investment Spending + Government Spending + Net Exports = Wages Earned + Rent Earned + Interest Earned + Profit Earned)
- Discuss the underground economy (not recorded by government) and black market (illegal trading).
**Class Activity**

**Guided Practice:**
Hand out and ask the students to read “The Four Factors of Production” student activity sheet. Discuss each factor and review the reward. Ask for examples and discuss each one. The teacher will ask individual students for their answers to the Income and Expenses activity sheet. The teacher will write the student answers on the overhead transparency template which is provided.

**Independent Practice:**
Ask students to read the story about Tuck and complete the graphic organizer which provides students an opportunity to apply the newly learned economic concepts.

**Summary/Closure:**
Review the “Income and Expenses” activity sheet.

**Homework:**
Have students read affiliated materials in their textbook.
Financial Literacy

Secondary Education Division
North Carolina Department of Public Instruction
2006

Four Factors of Production and their Rewards
(Overhead Transparency)

Economics is the study of how societies (groups of people or nations) allocate or distribute their scarce resources. While an individual’s scarce resources may include time, money, transportation or food, in economic terms, there are four scarce resources. These are also called THE FOUR FACTORS OF PRODUCTION.

Each factor of production has a cost if used by someone else, or a reward, if someone uses something that belongs to someone else.

For example, if Grey uses land that belongs to Blue, Grey will pay Blue RENT as a cost, and Blue receives RENT as income.

If Yellow takes care of Red’s three children, Yellow receives WAGES as INCOME, and Red pays Wages as cost.

If Green borrows $100,000 from First Savings and Loan to buy a delivery van for a florist business, Green pays INTEREST on the $100,000 as a cost of borrowing money, and First Savings and Loan receives the INTEREST as a reward for loaning money.
### Student Activity

#### “Four Factors of Production”

<table>
<thead>
<tr>
<th>Factor</th>
<th>Description</th>
<th>Example</th>
<th>Reward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>Land, timber, water, oil, minerals, ores</td>
<td>Raw diamonds found in South Africa; oil found in Louisiana; trees cut down in North Carolina to build houses</td>
<td>Rent</td>
</tr>
<tr>
<td>Labor</td>
<td>Human work, physical, mental, emotional</td>
<td>Work of a day laborer to build a road; work of a doctor to diagnose and treat a patient; work of a minister to tend to his congregation</td>
<td>Wages</td>
</tr>
<tr>
<td>Capital</td>
<td>Money that is used for investment to buy equipment or tools used in the production of other goods/services</td>
<td>Money borrowed from a bank to purchase a delivery van; money from savings used to buy a computer to process claims; money raised by a public offering to build new plants</td>
<td>Interest</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>Idea for a product or service and taking the risk to put it into action</td>
<td>Planning and starting a house cleaning business; creating a new and important software and selling it to consumers; starting a lawn mowing business</td>
<td>Profit</td>
</tr>
</tbody>
</table>
Tuck’s Bicycle Business

Once upon a time in a land not so far away, gas for cars and trucks was VERY expensive, and more and more people were riding bicycles. Tuck, a smart and creative young woman wanted to set up a bicycle and skateboard repair shop. She needed some equipment and a place to work. Her mom wouldn’t let her have the garage, as they needed a place for the car. She went to 10th Bank of the Forest and asked for a loan. Because she was under the age of 18, the bank was unwilling to lend her money (she had no credit history), but her mom agreed to co-sign for a $1000 loan at 5% interest.

Tuck searched around and found a garage down the street that was not being used. She asked the owner, Mr. Bird, if she could rent it and he said yes, but it would cost $20 a month.

Tuck also knew that she needed several bike stands, an automatic air pump, and some additional tools. She also bought some spray painting equipment, and decals.

The business grew pretty quickly, fixing flats, replacing handlebars, adjusting brakes, rebalancing wheels, and painting the skateboards. She decided to hire some friends who were pretty handy with bikes and boards, Marty and Robin. They agreed to work for about $12 an hour, about ten hours a month.
Tuck's Bicycle Business

Directions: Students will get into groups of three to discuss how the terms in the graphic organizer below apply to Tuck's Bicycle Business. The group will select a coordinator, recorder and reporter. As students discuss their findings, the recorder will record them in the graphic organizer, the coordinator will make sure everyone participates and stays on task, and the reporter will report out to the class.
### Income and Expenses Activity

**Overhead Transparency**

<table>
<thead>
<tr>
<th>Income</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent for 12 months ($20 x 12)</td>
<td>$</td>
</tr>
<tr>
<td><strong>Wages for Marty and Robin</strong></td>
<td>$</td>
</tr>
<tr>
<td>(each worked 10 hours a month for 12</td>
<td></td>
</tr>
<tr>
<td>months at $12 per hour)</td>
<td></td>
</tr>
<tr>
<td>Interest + Loan ($1,000 x 1.05)</td>
<td>$</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>$</td>
</tr>
<tr>
<td>Income After</td>
<td>$</td>
</tr>
<tr>
<td>Expenses</td>
<td></td>
</tr>
</tbody>
</table>
### Income and Expenses Activity Sheet

<table>
<thead>
<tr>
<th>Income</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent for 12 months ($20 x 12)</td>
<td>$240</td>
</tr>
<tr>
<td>Wages for Marty and Robin (each worked 10 hours a month for 12 months at $12 per hour)</td>
<td>$2,880</td>
</tr>
<tr>
<td>Interest + Loan ($1,000 x 1.05)</td>
<td>$1,005</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td><strong>$4,125</strong></td>
</tr>
<tr>
<td>Income After Expenses</td>
<td><strong>$1,875</strong></td>
</tr>
</tbody>
</table>
Candy Bar Economics

If you are nervous about how to begin an economics unit with your students, the following lesson is a quick and easy way to introduce many fundamental economic concepts, all by using a candy bar. This lesson plan is a fun and interactive way to introduce the often mysterious and fear-provoking study of economics to students by using a familiar item.

Students often respond that economics is about “money,” and while true, using a candy bar you can introduce several major economic concepts including the four factors of production, scarcity, trade-off, opportunity cost, and entrepreneurship.
Candy Bar Economics

NCSCOS Civics and Economics Objective(s):

7.01 Describe the basic factors of production such as land, labor, capital, and entrepreneurial skills and their impact on economic activities.
7.02 Explain how scarcity influences producers and consumers to make choices.
7.03 Compare examples of tradeoffs and opportunity costs of economic choices.

Warm-Up/Bell Ringer Activities:
Ask the students how a single candy bar can explain the study of “economics”?
Revisit this question at the end to wrap-up the activity.

Continuous Assessment - Tools/Strategies:

Oral Questions
The teacher will have students share their answers to the questions. After each question, the teacher should pause and lead the class in reviewing the answers.

Key Questions:
1. What type of choices do consumers have to make in the marketplace?
2. What is involved in the production of goods?

Materials Needed:
Students provide their own candy bars.
“How Does a Candy Bar = Economics?” activity Sheet

Strategies for Differentiation:
Have students swap items, or ask students to bring any manufactured item to give a different view on the activity.
Time Allowed for this Activity:
20-30 minutes of a single class period.

Purpose/Objective of this Lesson:
Following this lesson, students will understand that economics is the study of choices, resources, and scarcity.

Teacher Input:
Have students share their answers as to what they think “economics” is, what they will learn during the unit of study, and how candy bars are related to economics. Using the students’ answers the teacher will begin the activity sheet, pausing after each question for student input. As the teacher reaches an economic concept that the class will spend more time on later (i.e., scarcity, trade-off, four factors of production), the teacher will use the question and student answers to give a simple definition.

Example:
After question #8 that asks what is needed to manufacture your candy bar, the teacher will define the four factors of production, and explain how for every manufactured product, all four items are necessary.

Class Activity
Guided Practice:
The teacher reads each question aloud, and then allows students time to think, write, and respond.

Independent Practice:
The teacher could extend this activity to a comparison between two different items.

Summary/Closure:
Refer back to the warm-up question and ask students to redefine their original definition of “economics” and to explain how a candy bar = the study of economics.

Homework:
This activity can be assigned as homework and then reviewed by the class the following day to introduce the same economic concepts.

Resource: Kim Reece, Lee County Senior High School, for the original idea for this lesson

Secondary Education Division
North Carolina Department of Public Instruction
2006
How Can a Candy Bar = Economics?

Directions: For each statement or question, write your answer in the space provided.

1. In your own words, define what you think "Economics" means.

2. Why do we eat candy bars and other foods?

3. What type of candy (candy bar or other food) did you bring to class today?

4. What type of choice did you have to make when purchasing this candy?
Student Activity

5. What was your second choice if the item you purchased was not available?

6. Are there more people wanting food in the world than there is a supply? What is this economic concept called?

7. Why do stores sell candy bars?

8. What was needed to manufacture your candy bar? Be sure to list all of the things you think had to happen before the candy you bought could be sitting on your desk today. Candy does not just “grow on trees.”

9. How many people do you think were involved in the production of your candy bar?

10. Did your definition of economics change from question # 1? Describe how economics affects you!