Grade 05 Social Studies Unit 11 Exemplar Lesson 02: Supply and Demand

This lesson is one approach to teaching the State Standards associated with this unit. Districts are encouraged to customize this lesson by supplementing with district-approved resources, materials, and activities to best meet the needs of learners. The duration for this lesson is only a recommendation, and districts may modify the time frame to meet students’ needs. To better understand how your district may be implementing CSCOPE lessons, please contact your child’s teacher. (For your convenience, please find linked the TEA Commissioner’s List of [State Board of Education Approved Instructional Resources](http://www.tea.state.tx.us/index2.aspx?id=6148) and [Midcycle State Adopted Instructional Materials](http://www.tea.state.tx.us/index2.aspx?id=6148).)

Lesson Synopsis

Students learn about supply and demand and how it affects consumers. The lesson includes a simulation activity and creating a graph based on data.

**TEKS**

The Texas Essential Knowledge and Skills (TEKS) listed below are the standards adopted by the State Board of Education, which are required by Texas law. Any standard that has a strike-through (e.g. sample phrase) indicates that portion of the standard is taught in a previous or subsequent unit. The TEKS are available on the Texas Education Agency website at [http://www.tea.state.tx.us/index2.aspx?id=6148](http://www.tea.state.tx.us/index2.aspx?id=6148).

| 5.12 | Economics. The student understands the impact of supply and demand on consumers and producers in a free enterprise system. The student is expected to:
| 5.12A | Explain how supply and demand affects consumers in the United States.
| 5.12B | Evaluate the effects of supply and demand on business, industry, and agriculture, including the plantation system, in the United States.
| 5.13 | Economics. The student understands patterns of work and economic activities in the United States. The student is expected to:
| 5.13E | Explain the impact of American ideas about progress and equality of opportunity on the economic development and growth of the United States.
| 5.17 | Citizenship. The student understands important symbols, customs, celebrations, and landmarks that represent American beliefs and principles and contribute to our national identity. The student is expected to:
| 5.17D | Describe the origins and significance of national celebrations such as Memorial Day, Independence Day, Labor Day, Constitution Day, Columbus Day, and Veterans Day.
| 5.17E | Explain the significance of important landmarks, including the White House, the Statue of Liberty, and Mount Rushmore.
| 5.23 | Science, technology, and society. The student understands the impact of science and technology on society in the United States. The student is expected to:
| 5.23A | Identify the accomplishments of notable individuals in the fields of science and technology, including Benjamin Franklin, Eli Whitney, John Deere, Thomas Edison, Alexander Graham Bell, George Washington Carver, the Wright Brothers, and Neil Armstrong.
| 5.23C | Explain how scientific discoveries and technological innovations in the fields of medicine, communication, and transportation have benefited individuals and society in the United States.

Social Studies Skills TEKS

| 5.24 | Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
| 5.24C | Organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps.

GETTING READY FOR INSTRUCTION

**Performance Indicators**

**Grade 05 Social Studies Unit 11 PI 02**

Write a proposal to form a new business, offering a new product to United States consumers. The proposal should include information about the demand for the product, how you will create the product to produce a supply, and a graph reflecting your anticipated sales over the next year.

**Standard(s):** 5.12A , 5.12B , 5.13E , 5.24C

**ELPS**

ELPS.c.1C , ELPS.c.5B

**Key Understandings**

- Supply and demand for products drives the need for trade.
- How does supply and demand affect consumers in the United States?
— What are the effects of supply and demand on business, industry, and agriculture in the United States?
— What impact have American ideas about progress and equality of opportunity had on the economic development and growth of the United States?
— Why is it important to establish good trade relations with other nations?

Vocabulary of Instruction

• supply and demand  
• vaccine  
• pasteurization

Materials

• 2 stacks of paper (25 sheets or so per stack)  
• Optional: hard hat (2, for factory supervisors)  
• Optional: visors (2, for team captains)  
• pencil colors  
• picture of model T automobile  
• plain white paper

Attachments

All attachments associated with this lesson are referenced in the body of the lesson. Due to considerations for grading or student assessment, attachments that are connected with Performance Indicators or serve as answer keys are available in the district site and are not accessible on the public website.

Handout: Transportation and Trade (1 per teacher and 1 per group of 4)  
Handout: Response to Transportation and Trade (1 student)  
Teacher Resource: Response to Transportation and Trade KEY  
Handout: Advertisement (1 per group)  
Handout: Supply and Demand Economy (1 per student)  
Teacher Resource: Supply and Demand Chart KEY  
Handout: The Vaccine (1 per student)  
Handout: Labor Day (1 per student)

Resources

• None identified

Advance Preparation

1. Become familiar with content and procedures for the lesson.
2. The Engage piece requires advanced preparation and planning.
3. Refer to the Instructional Focus Document for specific content to include in the lesson.
4. Select appropriate sections of the textbook and other classroom materials that support the learning for this lesson.
5. Preview materials and websites according to district guidelines.
6. Prepare materials and handouts as needed.

Background Information

The time period from the late 1800s to the early 1900s was marked by vast change. After the Civil War, the availability of natural resources, new inventions, and a receptive market combined to fuel an industrial boom. The promise of free land resulting from the Homestead Act of 1862 brought immigrants from economically depressed countries in Europe, while the completion of the transcontinental railroad improved access to the West. The United States experienced an economic boom fueled by inventions, immigrants, mass production, interchangeable parts and international trade.

GETTING READY FOR INSTRUCTION

Teachers are encouraged to supplement and substitute resources, materials, and activities to meet the needs of learners. These lessons are one approach to teaching the TEKS/Specificity as well as addressing the Performance Indicators associated with each unit. District personnel may create original lessons using the Content Creator in the Tools Tab. All originally authored lessons can be saved in the “My CSCOPE” Tab within the “My Content” area.

INSTRUCTIONAL PROCEDURES
1. Show students a picture of a Model T automobile (project it on a screen or board.)
2. Distribute one white sheet of paper to each student.
3. Each student sketches the Model T automobile on the white sheet of paper. This should only take a few minutes. Encourage students to keep it simple.
4. After students complete their sketch, review the sketches, and select a prototype. Make several copies of the prototype or project the prototype on the screen or board for all students to view throughout this activity.
5. Students form two groups.
6. Desks need to be arranged in the following format:

   ![Desk Layout]

7. Explain to students that each team is a set of factory workers on an assembly line. Team members work together to draw an exact replica of the prototype drawing of the Model T automobile.
8. Appoint a team captain for each team. The team captain encourages the team to draw better and go faster. (1 team captain for each team)
9. Appoint a factory supervisor for each team. The supervisor picks up the final products and decides which ones pass the quality check. It has to be good enough to sell.
10. Each team member draws one part of the drawing, such as the front wheel or bumper, or light. Students draw only that one part each time a new paper comes their way. They then pass the paper on to the next worker. (Note: explain to students that by drawing only one part of the car, over and over, they are specialized and become experts at the one task.)
11. Begin the activity with the team captains. Each team captain has a clean stack of paper at his/her desk. The captain starts the drawing each time and passes it down the line. The last person in the row keeps the stack of papers to turn in to the factory supervisor.
12. Set a time limit. At the end of the set time, the factory supervisor counts to see which team has the most acceptable matches to the prototype.
13. After the simulation is over, facilitate a discussion about working on an assembly line as opposed to each person drawing the entire car. How does the assembly line affect the supply of a product? How do assembly lines work today? (Possible answers may include an increase use of robotics technology.)
14. Explain that this lesson will help students understand how supply and demand affects consumers.

EXPLORE/EXPLAIN – Transportation and Trade

1. Distribute the Handout: Transportation and Trade to each student.
2. Distribute the Handout: Response to Transportation and Trade to each student.
3. Read aloud the Handout: Transportation and Trade while students follow along.
4. This is an interactive activity so it is necessary to pause at the appropriate time for discussion and to allow for students to write responses on their Handout: Response to Transportation and Trade.

Materials:
- 2 stacks of paper (25 sheets or so per stack)
- picture of model T automobile
- Optional: visors (2, for team captains)
- Optional: hard hat (2, for factory supervisors)

Purpose:
- Students gain insight as to how an assembly line works and how it affects supply.

TEKS:
- 5.12A

ENGAGE – Supply and Demand

Notes for Teacher

Suggested Day 1 – 20 minutes

Materials:
- Handout: Transportation and Trade (1 per student)
- Handout: Response to Transportation and Trade (1 per student)

Purpose:
- Students learn about the impact of transportation and trade.

TEKS:
- 5.12A; 5.12B; 5.13E; 5.24C
1. Group students into three or four.

2. Distribute the Handout: Advertisement (1 per group).

3. Students explore and discuss the advertisements within their learning groups.

4. Facilitate a discussion by asking optional/possible questions such as:
   - What do you notice about the advertisements? (Answers might include that
     the two stores are advertising the same jeans.)
   - Why is that significant? (Answers might include that consumers need to be
     careful when observing advertisements.)
   - Which product is more appealing to purchase? Why? (Answers might include
     that consumers should make responsible choices.)
   - What would someone who disagreed with you say? (Answers might include
     that all people have free choice to shop wherever they choose)
   - What would be some reasons that could support this thought? (Answers
     might include that the store may be closer, may have a better reputation, may
     belong to someone known to the consumer.)
   - Based on this information, what could you say would be an additional
     economic freedom? (Answers might include that businesses are free to
     compete with other businesses.)
   - Let us look at this more in depth.

EXPLORE/EXPLAIN – Supply and Demand

1. Students remain in groups.

2. Distribute the Handout: Supply and Demand to each student.

3. Read page one orally or ask for student volunteers to read. Pause after each
   paragraph and engage students in a discussion about free enterprise, supply and
   demand.

4. After reading page one, students sketch a Frayer model or other type of graphic
   organizer for the words: supply, demand.

5. Continue to read page two orally or ask for student volunteers to read. Pause after
   each section and engage students in a discussion about equilibrium. Students add to
   their vocabulary graphic organizer by including the word: equilibrium.

6. Explain to students that page three is a group activity. Students read, discuss, and
   develop the chart based on the information provided. Students also discuss and
   answer the questions listed on page three.

7. Teachers may use the Teacher Resource: Supply and Demand Chart KEY to
   assist in evaluating students’ charts and graphs.

8. After groups complete the activity/chart on page three, groups share their findings
   with one other group and discuss data and conclusions.

   - What economic freedom does supply and demand explain? (Answers might
     include that profit is one of the major elements of our economic system.)
   - Along with these freedoms, what responsibilities do we have? (Answers
     might include the responsibilities to be honest and deal fairly with others.)
   - How might supply and demand affect trade with other countries? (Answers
     might include that a greater demand from other countries creates more jobs and
     profit for the producers.)

ELABORATE – A Jingle!

1. In small groups, students create a “jingle” that advertises a free enterprise economy
   by including supply, demand, equilibrium, profits, competition, and trade with other
   nations.

2. Students can showcase their jingle (sharing with the whole class) by singing it as a
   group through choral reading/singing.

Attachments:

Handout: Advertisement (1 per group)

Purpose:

Students compare advertisements and discuss competition in a free market society.

TEKS: 5.12A, 5.12B; 5.13E; 5.24C

Instructional Note:

Other advertisements may be substituted for the one included in this lesson, perhaps from a local
newspaper.

Attachments:

Handout: Supply and Demand Economy (1 per student)

Teacher Resource: Supply and Demand Chart KEY

TEKS: 5.12A, 5.12B; 5.13E; 5.24C

Instructional Note:

Provide examples of jingles/songs from television commercials based on what students might already
be familiar with.
<table>
<thead>
<tr>
<th>EXPLORE/EXPLAIN – Read and Summarize</th>
<th>Suggested Day 3 – 25 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Distribute the Handout: <em>The Vaccine</em> to each student and read it aloud as students follow along.</td>
<td>Attachments:</td>
</tr>
<tr>
<td>2. Facilitate a discussion based on the importance of medical discoveries during the Industrial Revolution such as pasteurization, the vaccine, and their effect on health and medicine today.</td>
<td>• Handout: <em>The Vaccine</em> (1 per student)</td>
</tr>
<tr>
<td>3. Students reflect and discuss effects of the short supply of a vaccine when the demand is high because of an outbreak of a disease.</td>
<td><strong>TEKS:</strong> 5.12B; 5.23C</td>
</tr>
<tr>
<td>4. Each student completes a &quot;graffiti summary&quot; that reflects a summary of what they learned about vaccines through a graphic, graffiti representation. Students may use words, illustrations, or a combination of each to reflect their summary.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXPLORE/EXPLAIN – Labor Day, Statue of Liberty and Ellis Island</th>
<th>Suggested Day 4 – 25 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Distribute the Handout: <em>Labor Day</em> (1 per student pair) and ask students to buddy read the information.</td>
<td>Attachments:</td>
</tr>
<tr>
<td>2. Partners take turns reading the handout, one paragraph at a time. After each paragraph is read, students add to a graphic organizer that reflects the following information: Who, What, When, Where, and Why.</td>
<td>• Handout: <em>Labor Day</em> (1 per student)</td>
</tr>
<tr>
<td>3. Students view the images on page two of their handout.</td>
<td><strong>TEKS:</strong> 5.17E</td>
</tr>
<tr>
<td>4. Facilitate a discussion by asking questions such as:</td>
<td>Instructional Notes:</td>
</tr>
<tr>
<td>• What do you already know about the Statue of Liberty? Where is it located? Why is it named Statue of Liberty? What does the statue represent?</td>
<td>• Provide students with a graphic organizer (5 Ws) or sketch it on the board for students to use as a model. (See example below.)</td>
</tr>
<tr>
<td>• When viewing the second image, what are the people doing? Where might they be coming from? What is the connection between the Statue of Liberty and the people in the second image?</td>
<td></td>
</tr>
<tr>
<td>5. Explain to students the relevance and importance of the Statue of Liberty and Ellis Island.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ELABORATE – Then and Now</th>
<th>Suggested Day 4 – 25 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students create a two-fold paper organizer.</td>
<td>Materials:</td>
</tr>
<tr>
<td>2. On the left side, the title should read: Then</td>
<td>• pencil colors</td>
</tr>
<tr>
<td>3. On the right side, the title should read: Now</td>
<td>• plain white paper</td>
</tr>
<tr>
<td>4. Students write a bulleted list comparing the United States from the late 1800s and early 1900s to contemporary times.</td>
<td><strong>TEKS:</strong> 5.12A; 5.12B; 5.13E; 5.17E; 5.24C</td>
</tr>
<tr>
<td>5. Students consider the following important points:</td>
<td></td>
</tr>
<tr>
<td>• Immigration (from previous lesson)</td>
<td></td>
</tr>
<tr>
<td>• Inventions/Innovations</td>
<td></td>
</tr>
<tr>
<td>• Methods of Transportation</td>
<td></td>
</tr>
<tr>
<td>• Vaccines</td>
<td></td>
</tr>
<tr>
<td>• Methods of Shopping</td>
<td></td>
</tr>
<tr>
<td>• Advertisement</td>
<td></td>
</tr>
<tr>
<td>• Competition</td>
<td></td>
</tr>
<tr>
<td>• Labor Day</td>
<td></td>
</tr>
<tr>
<td>• Trade with other countries</td>
<td></td>
</tr>
<tr>
<td>• Assembly Line</td>
<td></td>
</tr>
</tbody>
</table>
6. Students participate in a “Stand-Stroll-Stay” activity.
   - Students stand with their completed “Then/Now” chart.
   - Students stroll around the room randomly until the teacher says, “Stop!”
   - Students stay where they are and then form a partner with the person closest to them.
   - Students share ideas, adding new information they learn from their partner to their original list.

7. The teacher takes responses from students to clarify/verify as appropriate.

<table>
<thead>
<tr>
<th>EVALUATE – Performance Indicator</th>
<th>Suggested Day 5 – 50 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 05 Social Studies Unit 11 PI 02</td>
<td>TEKS: 5.12A, 5.12B; 5.13E; 5.24C</td>
</tr>
</tbody>
</table>

Write a proposal to form a new business, offering a new product to United States consumers. The proposal should include information about the demand for the product, how you will create the product to produce a supply, and a graph reflecting your anticipated sales over the next year.

Standard(s): 5.12A, 5.12B, 5.13E, 5.24C

ELPS ELPS.c.1C, ELPS.c.5B
Transportation and Trade

During the Industrial Revolution, the hard work of many creative entrepreneurs in America caused big changes in business and society. People were discovering, inventing, and selling many new products. Big department stores opened for the first time in cities. People traveled to cities to buy what they needed and wanted. As the population in America grew, the need for goods grew. As immigrants arrived in America, they began working, earning money, and then spending that money at department stores and local businesses. Additionally, trade with other countries in the world was very valuable to the American economy. More and more people in America and in the world were becoming consumers.

Sears-Roebuck and Montgomery Ward both began to publish new mail order catalogs which made shopping for and buying new products easily available to everyone. Now, consumers could buy things without having to leave their homes. Nicknamed “wish books,” when the catalogs arrived in the mail, people were excited to see pictures and explanations of the goods that were available. People would order what they wanted, and the products would be shipped right to their house through the mail.

Department stores increased the production of goods from American factories, and this mass production brought the prices down. Most Americans could now afford to buy clothing, shoes, furniture, and all kinds of household items because they were sold at an economical price.

Also, during the Industrial Revolution another entrepreneur, Henry Ford, was working hard to improve the motored car. In 1903, Mr. Ford established the Ford Motor Company in an effort to build a car that was practical and available to more Americans. He and his friends began producing Model A Ford cars in small teams, one car at a time. It took each team about 12 ½ hours to complete one car. The team noticed that as fast as a car was built, it was sold.

The Ford cars were known for their quality, but only the rich could afford to buy one at that time. The first cars driven down the streets frightened horses and people as they whizzed by. It took some time for people to get used to the new machines.

Mr. Ford continued improving his cars and trying to reduce the price so more people could afford a car. Finally, Mr. Ford developed an idea to produce the cars that would make them more affordable: the assembly line. On the assembly line, each worker had just one specialized
job. One worker would install just one part and then the car would pass it down the line. The next worker would install the next part. The parts rolled from one worker to the next on a large conveyor belt. By 1914, as the assembly line became more and more efficient with interchangeable parts, the workers could now assemble a Model T car in an hour and thirty minutes! Because the cars were produced more efficiently, the price came down to $360.00 a car. By 1916, the price for a Model T dropped even further to $250.00. Now almost everyone in America could afford to buy a car. Mass production increased the number of Ford cars built in a year to 585,000. More and more consumers were driving cars. More and more consumers were buying gas and oil. More and more consumers were driving to cities to shop and spend money. The economy was thriving.

Though work on the assembly line can seem repetitive, assembly line factories of all kinds were producing more goods quickly. Mr. Ford had changed the world. He modeled how to produce factory goods more efficiently. Many goods, such as clothing and kitchen wares, were being mass produced. Now many more people could afford to buy what they needed and wanted.

Production of goods through the assembly line process and the use of interchangeable parts flooded the market with products. Selling products to people in other nations became appealing to entrepreneurs. And, yet there was another important discovery happening at the same time in the transportation arena in America. Mr. Ford’s cars allowed people to travel many different regional places, railroads were taking people all across the United States, and now it looked as though people would be taking to the skies to fly from place to place.

Orville and Wilbur Wright were brothers from Dayton, Ohio, who owned a bicycle shop. Both brothers were determined to build an airplane that would lift off the ground with its own power while carrying a person. After much hard work on many experiments, re-designing and trial runs, in 1903, the brothers finally flew. The bi-plane was only airborne for a few feet, but it was a start. Now the brothers worked hard to improve the design. Finally, at a French airshow in 1908, thousands of people at a racetrack saw Wilbur fly in his airplane. With this new innovation people could travel by car, by train, and now by airplane, which opened up the ability for people to travel all over the world purchasing goods and services worldwide.

Adapted from:
## Response to Transportation and Trade

<table>
<thead>
<tr>
<th>Innovation</th>
<th>Impact on Consumers</th>
<th>Impact on Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Stores</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catalog Shopping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affordable Cars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assembly Line Production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased Railroads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interchangeable Parts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Response to Transportation and Trade **KEY**

<table>
<thead>
<tr>
<th>Innovation</th>
<th>Impact on Consumers</th>
<th>Impact on Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Stores</td>
<td>Competition between stores led to lower prices.</td>
<td>Increased in demand called for more labor for production, shipping, and sales</td>
</tr>
<tr>
<td>Catalog Shopping</td>
<td>Gave consumers a way to purchase goods from home. People in rural areas were able to purchase product without traveling to the city.</td>
<td>Increased demand called for more labor for production of goods, designing a catalog, shipping, and receiving merchandise.</td>
</tr>
<tr>
<td>Affordable Cars</td>
<td>Consumers had the opportunity to own and drive cars.</td>
<td>Increased demand for cars resulted in more factory jobs, increased need for building more roads, and an increased need for gasoline, tires, car parts, etc.</td>
</tr>
<tr>
<td>Assembly Line production</td>
<td>Produced goods quickly, less expensively, and brought down the cost of goods.</td>
<td>Assembly line workers did not need to be skilled (like artisans), so more jobs opened to non-skilled laborers.</td>
</tr>
<tr>
<td>Increased Railroads</td>
<td>Goods and people were transported across the country.</td>
<td>There was an increase in railroad jobs (brakeman, switchmen, engineers); an increased need for more steel workers; and an increased need to build more trains, lay more tracks, repair engines, and open more restaurants on along the train stop routes.</td>
</tr>
<tr>
<td>Interchangeable Parts</td>
<td>Getting repairs was made much simpler and less expensive; less expensive production of goods passed along savings to the consumer.</td>
<td>Less artisans or specialists were needed, but more repair work was created with ordering and replacing parts.</td>
</tr>
</tbody>
</table>
$50.00
Regularly $100.00

Prince and Princess Jeans Company
Style #98765
Newest Fashion!

On sale now!!
at Excellent Jeans Shop

Half Price!!
Prince and Princess Jeans Company
Style #98765

$35.00
Buy Today At Terrific Tom’s Clothing Store

Image Source:
Supply and Demand

Ruby Sue has developed an awesome video game handset! She has decided to go into business for herself, as guaranteed by the free enterprise system. Also as part of the free enterprise system, she plans to charge an amount that she chooses for her product.

Ruby Sue decided to make 500 handsets, started to take orders, and began selling her product at $100.00 each. The problem was that she only received orders for 25 handsets! What was wrong?

Ruby Sue decided to read about supply and demand. This is what she found out:

Supply is the number (quantity) of items that a supplier has available to sell. Usually, the higher the price, the greater the number of goods a supplier is willing to supply. Some things that may impact the supply are price, availability, and time required for manufacture.

Demand is the number of goods that consumers (YOU) are willing to purchase. Consumers normally want more goods at a lower price, and fewer goods at a higher price.
Ruby Sue remembered her friend Connor. He’s an awesome baseball player! He really wanted a new bat for his birthday, but the bat was $200.00. His dad refused to buy it. He said that he needed to be responsible with the money that he had. His dad said that the price of the bat would be lower in a few months, when people didn’t buy them. Was he right? Ruby Sue checked.

If supply is greater than demand, then the person producing those goods lose since they produced too many items which are not selling. This increases the costs. If supply is less than demand, then the consumer (Connor!) may be unhappy since he cannot get the product he wants. This may make the consumer unhappy with the supplier.

The best situation is when supply equals demand, also called equilibrium. This occurs at the price where supply and demand are equal.
Ruby Sue decided to use her math skills and decide where supply and demand were equal. She wanted to find the place where she and her customers would be happy. She took a survey and asked people if they would buy her video handset at a particular price. These are her results:

<table>
<thead>
<tr>
<th>Selling Price</th>
<th>Number Ordered</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20.00</td>
<td>491</td>
<td></td>
</tr>
<tr>
<td>$30.00</td>
<td>382</td>
<td></td>
</tr>
<tr>
<td>$40.00</td>
<td>187</td>
<td></td>
</tr>
<tr>
<td>$50.00</td>
<td>123</td>
<td></td>
</tr>
<tr>
<td>$60.00</td>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>

Cost to manufacture and distribute: $15.00

1. Plot the points for the selling price and number ordered on the graph. Draw a line through these points.

2. What does the data show? __________________________________________

3. Determine the profit for Ruby Sue at each price and complete the chart.

4. What does the data show? __________________________________________

5. Decide where supply and demand are equal (in equilibrium) and Ruby Sue would make the greatest profit while keeping her customers happy. Circle this point and identify the selling price and units.

6. What can you conclude? __________________________________________

7. What effect does this have on our economic freedom?

__________________________________________
## Supply and Demand Chart KEY

<table>
<thead>
<tr>
<th>Selling Price</th>
<th>Number Ordered</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20.00</td>
<td>491</td>
<td>$2,455.00</td>
</tr>
<tr>
<td>$30.00</td>
<td>382</td>
<td>$5,730.00</td>
</tr>
<tr>
<td>$40.00</td>
<td>187</td>
<td>$4,675.00</td>
</tr>
<tr>
<td>$50.00</td>
<td>123</td>
<td>$4,305.00</td>
</tr>
<tr>
<td>$60.00</td>
<td>55</td>
<td>$2,475.00</td>
</tr>
</tbody>
</table>

Cost to manufacture and distribute: $15.00
The Vaccine

In the late 1800’s, major discoveries and innovations were made in medicine. Dr. Louis Pasteur was a food chemist who became famous for making communities safer when he found the cause and prevention of diseases. He was the scientist who discovered that germs cause disease. Later, he discovered that heat would kill dangerous germs or bacteria in liquids. If left alone, bacteria could spoil the liquids, but if heated, the germs in the liquid would die. Named after Dr. Pasteur, the process was called pasteurization.

Another invention of Dr. Louis Pasteur was a vaccine that would counter the effects of rabies, a very dangerous disease. Pets are vaccinated against rabies regularly, but humans are only vaccinated if they are bitten by an animal that carries rabies. Still, because of Dr. Pasteur, there is a vaccination available that people can take that prevents them from getting rabies.

In today’s world, people are vaccinated against all kinds of dangerous diseases. From Dr. Pasteur’s example during the Industrial Revolution, doctors have learned to use a germ from the live disease and create a vaccine in just the right proportion so that when people are vaccinated properly, they become immune to the disease. Babies and children are routinely vaccinated against mumps, measles, polio, and tetanus, all diseases that formerly harmed children in the 1800’s.

Interestingly, sometimes when a new disease, or strain of the flu, is discovered and begins to make people sick, the demand for a vaccine or shot can be higher than the supply available. There can be a shortage of the vaccine. The Center for Disease Control must decide who has the highest priority to receive the vaccine. Usually, babies, young children, and the elderly have first priority, but in a severe shortage emergency, they prioritize community helpers like firemen, policemen, doctors, and nurses to receive the vaccine first.

Adapted from:
Labor Day

Labor Day was uniquely created to celebrate the social and economic achievements of American workers. Each year, on the first Monday in September, American people pay tribute to the contributions laborers have made to the strength, prosperity, and well-being of the United States of America.

In 1882, the Central Labor Union adopted a Labor Day proposal and appointed a committee to plan a demonstration and picnic in New York City. This was the first known Labor Day celebration. The Central Labor Union urged similar organizations in other cities to follow the example of New York and celebrate a "workingmen's holiday" on the first Monday of each September. The idea spread with the growth of labor organizations, and in 1885, Labor Day was celebrated in many industrial centers of the country.

Labor Day is more than just a holiday. It represents a very important victory for laborers everywhere. In the mid to late 1800s, workers were forced to deal with extremely harsh, unsanitary, and dangerous working conditions with very low wages, long hours, no breaks, and working when they were sick. Even small children were over-worked, underpaid, and in danger. Workers simply wanted employers to limit the age of workers, limit the hours employees were allowed to work, and provide a safe working environment. Fair wages would be another important and challenging cause for the laborers.

The first Labor Day was one way for workers to show their importance and their concerns by celebrating this holiday. Eventually in this way, along with other major strikes, the labor force was able to gain more rights in the work place.

Laborers were willing to take great risks on their jobs. They would build cars and elevators, walk girders on tall buildings, and ignite dynamite in order to build bridges, railroads, tunnels, and famous American landmarks like the Capitol and Mount Rushmore. So, many of the important achievements that symbolize the United States were not only created from the ideas of innovators but were also created by the excellent labor of dedicated American workers.

Today, because of the Labor Unions that were formed, American workers have a minimum wage, safety regulations, 8 hour workdays, and child labor laws.

Showing our appreciation and patriotism to the United States is to celebrate all our national holidays but also celebrate Labor Day to recognize the hard working people of America.

Adapted from:
Statue of Liberty and Ellis Island
