CHAPTER 3, Lesson 1

Visual 1 The Case of the Pampered Chickens

Scientists are constantly looking for ways to improve our lives. They have little time to waste on nonsense. Yet a Texas A&M agricultural engineer has spent some of his time inventing a contact lens for chickens. Other scientists have experimented with playing classical music to barnyard animals.

Are these the stereotypical mad scientists? Why would scientists waste their time on contact lenses and Mozart for animals when so much really important work needs to be done?

Handy Dandy Guide
1. People choose.
2. People’s choices involve costs.
3. People respond to incentives in predictable ways.
4. People create economic systems that influence individual choices and incentives.
5. People gain when they trade voluntarily.
6. People’s choices have consequences that lie in the future.
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Activity 1  The Case of the Pampered Chickens

Directions. Read the Handy Dandy Guide and the mystery. Read the clues assigned to your group. Be careful. While all the clues are correct, only some are useful in solving the mystery. Decide which clues are most relevant to solving the mystery. Use the clues and one or more of the ideas from the Handy Dandy Guide to figure out a solution to the mystery. Write your solution.

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The Mystery
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The Clues
1. Scientists receive billions of dollars to do agricultural research.
2. The United States government has a variety of programs to keep the price of some agricultural goods artificially high.
3. There is a scarcity of dollars to do scientific research.
4. Finding ways to lower the costs of agricultural production enables producers to earn higher profits while lowering prices for consumers.
5. American chickens produce millions of eggs each year.
6. The number of farms in the United States has been declining for several years—from 6.8 million in 1935 to less than 2 million today.
7. Satellites assist some farmers in providing information about the condition of their crops.
8. Farmers who are able to increase their efficiency and earn more profits benefit because they may keep most of what they earn by their efficiency.

Record your solution and explain it briefly here:
**Lesson Description**
Students describe an economic mystery and discuss various explanations. They use an Activity sheet with a list of clues to help them arrive at a solution for the mystery.

**Procedure**
1. Explain the purpose of this lesson: students will sharpen their reasoning skills by using economic principles and clues to solve an economic mystery.

2. Remind the group that the task is to use economic reasoning. For example, a key economic principle is that people respond predictably to positive and negative incentives. Economic thinking most often entails discovering the incentives that are influencing people’s behavior.

3. Display the Visual to the class. Invite the students to speculate about what the solution to the mystery might be. Briefly review the points of the Handy Dandy Guide.

4. Divide the class into small groups. Ask each group to select a discussion leader. Give each group a copy of the corresponding Activity sheet. Then put the groups to work, with these directions:
   A. Their task is to propose a solution to the mystery, explaining their solution by using economic reasoning.
   B. They should first decide which clues provide useful information. Some do and some do not. The students should not get bogged down in arguing over the truthfulness of the clues themselves. Instead, they are only to decide which clues are relevant to solving the mystery.
   C. Each group has a full set of clues. Assign each group member at least one clue. Each group member is responsible for evaluating the relevance of his or her own clue and for leading a discussion within the group of its relationship to the mystery.

5. Monitor the group discussion. You’ll probably find that many students will be eager to have their clues matter. Some will go to extremes of tortured logic to argue that their clues are crucial. Remind the students in these cases that this exercise involves sorting out the useful from the irrelevant. Not all information is of equal value.

6. Ask each group to report its solution to the mystery and to justify its choice of the relevant clues. See the Teachers’ Guide (pages 9-25) for the correct clues.

**Closure**
Review the main points of the lesson.

**Teacher's Guide for Chapter 3**
**LESSON 1**
**The Case of the Pampered Chickens**
Scientists are constantly looking for ways to improve our lives. They have little time to waste on nonsense. Yet a Texas A&M agricultural engineer has spent some of his time inventing a contact lens for chickens. Other scientists have experimented with playing classical music to barnyard animals.

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Clues 4 and 8 are important for solving this mystery.

**Solution**
Economic thinking suggests that there must be rewards for researchers who indulge in such strange behavior. The rules of our economic system are such that individuals who develop new ways to increase productivity may gain rewards for their work (Clue 8). The contact lens research has to do with making egg production more efficient, providing lower costs and higher profits to producers, and lower prices for consumers (Clue 4). Contact lens research is one of several experiments being con-
LESSON 2
The Credit Card Mystery
Interest rates change. Yet interest rates on credit card balances remain high relative to other rates, often averaging around 17 percent. Several bills have been introduced in Congress to impose a nationwide ceiling on credit card interest rates.

Why do we have high interest rates on credit cards when other interest rates are so much lower?

Clues 2, 3, 4, and 9 are the most important for solving this mystery.

Solution
Credit cards are convenient for consumers. Credit cards are easy to get. Tests for credit-worthiness are simple to pass. Credit cards are easy to use. These points are related to Clue 4.

Credit card risks are high. Levels of credit card theft and fraud are high (Clue 9). Credit cards are often used to purchase things that are consumed or easily hidden, not to purchase cars or houses that can easily be repossessed (Clues 2 and 3).

Credit card providers understand the risks associated with widely available credit, and they charge higher interest rates as compensation for taking these risks. The higher interest rates act as incentives that encourage providers to continue to offer credit card loans.

Ask your class to predict what would happen if the government imposed limits on the amount of interest these providers could charge. Credit card providers would soon impose higher tests for credit and make credit cards available only to wealthier, low-risk people. In other words, such an action would cause a credit shortage.

LESSON 3
Unsafe at Any Level of Protection
Cars today come loaded with safety equipment: padded dashboards, seat belts, collapsible steering columns, anti-lock brakes, air bags, and so forth.

But recent studies show that antilock braking systems are not reducing the number of accidents people suffer or the costs of those accidents. Similarly, auto crash injuries have increased in number since cars have been equipped with airbags.

Why aren’t safer cars producing fewer accidents?

Clue 3 is the most important for solving this mystery.

Solution
Improvements in brakes and other safety features reduce the incentive for safe driving (Clue 3). People are more willing to take risks when they know their cars are safe. Could we change the incentive structure to reward safe driving? Ask your students to explain how driving behavior would change if we were to replace the driver’s air bag with a dagger pointed out toward the driver’s seat.

LESSON 4
Why Airborne Infants Aren’t Required to Buckle Up
Infant airline passengers who ride in their own safety seats fly more safely than those who ride in their parents’ laps. Yet the U.S. government does not require the use of safety seats for infants. It has concluded that establishing such a rule would increase the number of infants killed in accidents while traveling.

Why wouldn’t requiring safety seats save more babies?

Clues 3 and 4 are most important for solving this mystery.

Solution
Parents respond to incentives when they decide how to travel. If traveling by air meant that parents would have to purchase an extra air ticket for their infant,