



Ups And Downs Of Trash*

Activity M.m

GRADE LEVELS: 7 - 8

OBJECTIVES:

Students will be able to:

- Predict how changes in supply or demand affect the price of a product.
- Analyze the effects of increases or decreases in supply and demand on price and quantity of goods.

MATERIALS:

Handout B, or Transparency of Handout B

Handout C, or Transparency of Handout C

PROCEDURE:

1. Ask students the following:

- A. What happens to the price of roses the week before Valentine's Day? (Price goes up.)
- B. What happens to the price of pumpkins and Halloween candy on November 1?
- C. What happens to the price of potato chips when the potato crop fails due to a drought? (Price goes up.)
- D. What happens to the price of watermelons if the watermelon crop is the largest in the last five years? (Price goes down.)

2. Explain to students that the price of any product can change as supply and demand change. Generally, if the demand for a product is greater than the supply of that product, its price will rise. This was the case with the roses and the potato chips. Ask students for other examples. If the supply of a product is greater than the demand for that product, its price will fall. This was the case with the pumpkins, Halloween candy and the watermelons. Ask students for other examples.

3. Place the following headline on the board:

Used Newspaper Demand Increases Recycling Effort

Ask students:

- A. What do you predict will happen to the price for used newspapers? (As the demand for used newspaper rises, the price will increase.)
- B. How will the demand for used newspapers affect consumers' willingness to take their used newspapers to a recycling center? (As the price increases, the incentive will increase for some consumers to take newspapers to a recycling plant.)
- C. How will the demand for used newspapers affect volunteer organizations that rely on newspaper drives to raise money? (As demand for used newspapers increases, organizations

will find it easier to locate buyers for their newspapers. In some areas, newspaper drives will begin to be reinstated because recycling plants will pay for used newspapers.)

D. For each of the five situations below, ask the students to determine whether the supply or demand has changed and then explain what effect this change will have on the price for used newspapers. (See Handout C).

1. More consumers buy items made from recycled newspaper. (Demand for used newspapers to produce items made from recycled newspapers will increase. Price for used newspapers will increase).

2. Farmers use shredded newspapers as a substitute for straw. (Demand for used newspapers increases. Price increases.)

3. Recycling mills for used newspaper will be ready to open in two years. (In the short run, there will be no change. When the mills open, demand for used newspapers will increase and price will increase).

4. People must pay to leave used newspapers at recycling centers. (The amount of newspapers going to recycling centers will drop. the supply of newspapers will decrease. If new uses for recycled newspaper are found, demand will increase. Then price for used newspapers will increase.)

5. Countries in Europe want to buy used newspapers from the United States. (Demand will increase, price will increase. As price increases for used newspaper, more consumers will recycle their newspaper and supply will increase. If supply becomes greater than demand, the price will then drop.)

4. Distribute a copy of Handout B or make a transparency and display on an overhead projector.

5. Ask students the following questions:

A. Why do the products in Group A cost more than the products in Group B? (Products in Group A are made from recycled materials. At the moment, the number of producers of these products is small and the demand is greater than the supply.)

B. If the number of consumers demanding products made from recycled products continues to increase, what do you predict will happen to the supply of these items. (It will increase.) Why? (An increase in demand for products made from recycled materials will raise the price for these products. This will result in more of these products being produced, if everything else stays the same. Producers also will search for new technology to lower their cost of production. Lower cost of production to the producers will result in an increase in supply if everything else stays the same. The increase in supply will result in a lower price for products made from recycled materials.)

C. If price increases, what could happen to the amount of goods made from recycled plastic that consumers will be willing to buy? (It will decrease.) What will happen to the number of recycling plastic businesses? (Some will close.)

D. As new technology is found for sorting used plastics, the recycling plastic business will become less labor intensive and more capital (tools, machine, equipment) intensive. When this happens, what will happen to the cost of production for the producer? (It will decrease.)

How will this decrease affect the supply of recycled plastic? (It will increase.) How will the increase in supply affect the price? (It will decrease.)

E. What can be done to increase the supply of used plastic? (Communities need to establish curbside or site sorting and collection programs similar to those for glass, aluminum, and newspaper.)

*Source: Du Pont Solid Waste Management Curriculum K - 6