THE FUNDAMENTALS OF ECONOMICS

A high school lesson plan provided by the University of Guelph

This activity will allow students to develop an understanding of basic business and economic principles, including the concept of the diminishing rate of marginal returns, best alternative to no agreement (BATNA) and substitutes versus complements. Students will learn through activities designed for hands on learning and will utilize critical thinking skills while working in groups.

Curriculum Alignments and Expectations

- Describe the concepts of, and conditions that affect, supply and demand and explain how needs and wants create opportunities for business
- Summarize the factors that motivate a customer to purchase a product (e.g., discretionary income, peer pressure, social responsibility, evolving needs and wants)
- Describe the process involved in producing a new product or delivering a new service and identify the factors that determine the supply of labour
- Become familiar with communication terms used in a business environment and gain an understanding of basic business concepts

Learning Objectives

- Understand the role of business and economics in the food and agriculture sectors
- Become more confident in individual negotiating abilities
- Critically think about why complements and substitutes are important in food and agricultural production

Assessment Strategies and Success Criteria

- Summary and debrief
- Gallery Walk
- Think-pair-share
- Discussion and debrief

Cross Curricular Links

- Exploring Family Studies – Consumer Awareness
- Food and Nutrition – Food Choices (Availability of Food, Food Security, and Food and Environmental Responsibility)
- Nutrition and Health – Local and Global Issues – Food Production and Supply
- Business Leadership – Management Fundamentals
- Economics – Fundamentals of Economics, Economics Challenges, Global Interdependence and Inequalities
- Career Studies – Exploring and Preparing for the World of Work

Materials

- Books
- Negotiation template print-offs
- Chart paper
- Markers
TEACHER NOTES

1. Begin by discussing the application of business and economics in the agriculture industry. As a diverse industry consisting of many different sectors (farming, processing, food marketing) the agri-food industry employs a variety of business strategies.

   People involved in agriculture and food must have a firm understanding of production methods so that they can choose the one that best suits their needs. They must be able to tailor the products they produce to meet the ever-changing needs of the consumer, and market their product to those consumers to make a profit. Agri-food producers must be able to add value to their product, and they can do so by specializing in what they produce and making it different from their competitors. Employees of the agri-food industry work together as an efficient team, and through understanding the basic concepts of business and economics, they can do so extremely well.

2. Activity 1: Production Line

   Required Materials: 30 books

   Choose ten students from the class and have them come to the front of the room. Divide them into two teams of five. Have each team stand on the same side of the room, next to a pile of about 30 books.

   Each team must move the pile of books from one side of the room to another. Every team member must touch the book at least once. One team will have five members the entirety of the game. The other will be assigned new group members (as you choose additional classmates to stand up and participate). At first, adding team members will help move books but after a certain point, team members will get in the way. This is a timed activity and should take no longer than 10 minutes.

3. This game is meant to introduce students to the economic concept of diminishing marginal returns.

   **Diminishing marginal returns** – states that initially, adding another factor of production will increase output dramatically, but after a certain point, the addition of more factors will result in smaller increases in output.

   Explain the economic concept of diminishing rate of marginal returns, using examples related to the agri-food industry (i.e. show a picture of a double-ten milking parlour, and demonstrate with Google doodle how at first, adding more farmhands [stick figures] to the parlour will increase efficiency, as there is more help to milk cows, but after a certain point, the parlour becomes crowded and less gets done). Get
students involved by asking them for other examples of situations where diminishing rate of marginal returns may exist.

*a virtual tour of the University of Guelph’s Elora Research Station – Dairy Facility will soon be online and may help students understand the concept of a double-ten milking parlour better.

4. **Activity 2: Negotiations**

   **Required Materials:** Negotiation template

   Ask students if they know what a negotiation is. Have them provide ideas of what they think makes a successful negotiation, and if they think of themselves as good negotiators.

   **Negotiation** – a decision-making process where two or more people try to agree on how to allocate resources.

   Briefly explain the concept of best alternative to no agreement (BATNA), reservation price and the negotiators’ goal.

   **BATNA** – best alternative to a no agreement, critical to negotiations so you can make a wise decision knowing what your alternatives are; the standard to keep you from accepting something unfavourable and rejecting offers that would be favourable to accept.

   **Reservation Price** – the least favourable point at which you would accept an offer, your “bottom line”.

   **Negotiators’ Goal** – the target point or aspiration the negotiator is trying to reach, the motivation between engaging in a negotiation.

   Ask students to partner up with the person beside them. Hand out the Negotiations print-offs, making sure the partners are given different handouts (one student will be the retailer, and one the merchandiser). Students will be given 20 minutes to complete this activity. Working with the information provided on the handout, students must work to negotiate an agreement which fills the requirements stated on the handout. Students cannot change the information provided however they can create storylines and reasons of their own.

5. After time has run out, ask students to raise their hands if they met the requirements on their handout. On the chalkboard, draw a simple dot graph, and ask pairs of students the amount of money each one made. Discuss the trend that can be seen on the chart and ask students what they would do differently should the negotiation happen again. Do they still think that they are good negotiators?

6. **Activity 3: Complementary Gallery**

   **Required Materials:** chart paper & markers

   Set up four chart papers around the room. An additional one should be with you at the front of the class, where you will start the
activity by asking students to define the terms complements and substitutes. Have them brainstorm ideas before providing the correct, technical definitions of both.

**Substitutes** – goods/products that are consumed in place of another; when the price of one good increases, the demand for a substitute good will increase and when the price of one good decreases, the demand for the substitute good will decrease.

![Diagram of Substitutes]

**Legend:**
- Blue Line = Supply
- Orange Line = Demand
- Green Line = decrease in demand for a product when the price of a substitute falls
- Yellow Line = increase in demand for a product when the price of a substitute rises

**Complements** – goods/products that are consumed together; when the price of one good increases, the demand for its complement will decrease and when the price of one good decreases, the demand for its complement will increase.

![Diagram of Complements]

**Legend:**
- Blue Line = Supply
- Orange Line = Demand
- Green Line = decrease in demand for a product when the price of a substitute falls
- Yellow Line = increase in demand for a product when the price of a substitute rises

Divide the class into five groups (there should be approximately 4-6 students in each group). Each group should travel to each of the chart papers, all of which will have different questions that the students must answer. Have the students debate amongst themselves the answer to each question, and write down this answer, as well as the reason why. Potential questions for the chart paper are as follows:

- Are schoolwork and extracurriculars substitutes or complements? Why?
- You are looking for a way to enter the food industry by creating a new food product. Do you want to produce a substitute good or a complement good? Explain.
- Provide examples of substitutes and complements.
- To a business owner, are human labour and technology/machinery substitutes or complements? Why?

7. At the end of the session, go over the answers on each piece of chart paper and discuss them as a class. Explain to students the importance of complements and substitutes, about the different affects that a change in price has on each (i.e. when the price of a food product goes up, the demand for its complement decreases, and then demand for its substitute increases).
Additional Resources

- Department of Food, Agricultural and Resource Economics, University of Guelph
- Ontario Agri-Food Innovation Alliance

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