



Economic Impact of Agriculture Issues

Middle School Food and Agricultural Literacy Curriculum

Precepts

- C. Vision
- C2. Conceptualize ideas

National Standards

- CS.09.01. Apply economic principles to AFNR systems (e.g., supply, demand, and profit).
- NL-ENG.K-12.12 – Applying Language Skills
- NSS-EC.5-8.8 – Supply and Demand

Student Learning Objectives

- As a result of this **unit** the student will...
- Discuss the economic impacts of agriculture.
- As a result of this **lesson** the student will...
- Identify how current issues impact the agricultural economy.

Content Outline

- I. **Identify how current issues impact the agricultural economy.**
 - A. Cause and Effect Relationship
 - 1. A direct relationship between an action and a result
 - 2. Example – summer and winter clothing, flip flops
 - B. Supply and Demand
 - 1. When demand is high, the market tries to match demand with the amount supplied
 - 2. When demand is low, the market tries to match demand with the amount supplied
 - C. Current Issues Impacting Agriculture Economy
 - 1. Technology: genetic engineering as it relates to gains in productivity and farmers' incomes.
 - 2. Global population: as the population increases so does the demand for food supply

Time

Instruction time for this lesson: 45 minutes.

Resources

Kohr, Martin. (2004). Third World Network Briefing Paper No. 5. Retrieved April 10, 2010 from Institute of Science in Society website. <http://www.i-sis.org.uk/SACI.php>
National FFA Organization. (2003). LifeKnowledge Precepts and Signs of Success.

Tools, Equipment, and Supplies

Overhead projector/transparencies
Notebooks
Writing utensils
MS.AI.2.1.TM.A – one per teacher
MS.AI.2.1.TM.B – one per teacher
MS.AI.2.1.ASSESS.A -- one per student

Key Terms

The following terms are presented in this lesson and appear in **bold italics**:

Supply

Demand

- D. Land use and availability
 - 1. uneven land distribution
 - 2. urbanization or development

Interest Approach

Students will play "telephone" in this interest approach.

Today is going to be a great day as we think about a concept that affects all of our pocket books! Who can tell us how to play the telephone game?

Elicit responses.

Right! Everyone sits in a circle and one person whispers a statement in the ear of the person sitting next to them. Only the person sitting next to them should be able to hear the statement. The statement cannot be repeated by the person stating it. The goal is for the statement to make it all the way around the circle without changing. The person at the end says the statement aloud and we see how we did.

Let's test our ability. Let's see how accurate we are; but, first we need to take 20 seconds to arrange our seats in a circle.



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Twenty seconds starts now!

Arrange students into a circle.

Who will be the first person to get us started?

Allow for a student to volunteer but set the expectations of acceptable messages before the activity begins. One suggestion is to be the first person to hear the message then pass it along to the next. Determine the amount of times to do this activity based on class size, level of student engagement and/or time constraints.

What were some of the causes for the statement to change?

Possible replies: someone not listening, someone whispering too quietly, too many people in the circle for the statement to go through, the statement was too difficult, etc.

Great responses, everyone! Listen closely as I relate it to the first statement before we began playing:
"Today is going to be a great day as we think about a concept that affects all of our pocket books!"

Summary of Content Outline and Teaching Strategies

Objective 1: Identify how current issues impact the agricultural economy.

There are many reasons which could have caused the statement to change. For whatever reason, it altered the original statement. Changes in the agriculture industry work very similarly to the telephone game. Issues in agriculture, wherever they come from, can alter the **supply** and **demand** of agricultural products. These changes can be beneficial and some can be negative. Today we will look closer at a few key economic principles when it comes to agriculture issues and the impact they have on the agriculture industry.

Before we begin, you should answer three questions in your notebooks: What do I know about the economic impact of agriculture issues, what I think I understand about this topic, and what I don't understand. Take three minutes to answer these questions.

Provide three minutes for students to complete this task.

Time is up! We're not going to discuss your responses right now, but keep these comments nearby because you will be revisiting them at the end of the lesson.

When summertime hits, what changes occur in the types of clothes we wear?

Allow time for students to respond.

Right, we trade our winter sweaters for summer shorts. Cause and effect is a basic principle we can all understand. What is the cause in that example?

Students should say change of season.

Who will identify the effect in that same example?

Student should say wear shorts, loose clothing, etc.

Right! Cause and effect is something we learned at an early age. I bet your mom has told each of you, "If you touch that hot stove you'll get burned!" Right? The cause is a hot stove, the effect is a burn. This is a concept we can wrap our brains around. Let's dig into something that might be more challenging.

When I say IDENTIFY, make a list of the supplies you need to create the ideal summer. The list might include watermelon, flip flops, and popsicles. Take 20 seconds to complete your list. IDENTIFY!

Provide 20 seconds.

What items are on your **supply** list?

Solicit student responses.

Tell me; are those items in such high **demand** in the winter? Why not?

Pause for student responses.

Can you find a good **supply** of flip flops in the winter?

A basic economic principle is one called the **supply** and **demand**. When the **demand** for your summertime flip flops is high, so is the **supply**. Your local favorite store does not want to run out when you are **demanding** new flip flops.



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Using this new information, let's analyze a basic **supply** and **demand** line graph to illustrate the flip-flop industry.

Use **MS.AI.2.1.TM.A** to analyze the supply and demand concept. Notice that the supply line plateaus as a result of not gauging the demand accurately.

Use the *Graphic Artist e-Moment®* to play with the look of a word to capture the word's meaning. Think of it as sculpting with the mess of the water and clay. Students take a word or phrase and visually enhance it so that the meaning is illustrated in the layout.

Supply and **demand** is a basic economic principle, but it is one that is important to understand when we are learning about agriculture issues. It's a concept difficult to predict but necessary to be prepared for. Let's look closer at how agriculture issues can cause a change in **supply** and **demand** in the agriculture industry.

Write the following terms on the writing surface: Technology, Global population/economy, Land use and availability.

When you hear ORGANIZE, take out a sheet of paper and fold it so that you have four boxes. Show an example to the class.

Then record each of these three terms in a different box. What questions do you have? ORGANIZE!

Pause to allow time for students to record.

Great job following directions!

Turn your papers over so that you're looking at the blank side. I'm going to provide a brief explanation of each term while you record the main ideas on the blank side.

You can rewrite the term then write the explanation next to it anywhere on the paper or can record the explanation on the same block where you wrote the term.

Read aloud the explanations of each issue to the class; be mindful of their speed before moving to the next item.

Each of us will draw a visual representation of the meaning of the word using the word's shape and related symbols and explanation.

Display **MS.AI.2.1.TM.B**.

What questions do you have after seeing this example?

When you hear CREATE, you will have 10 minutes to draw and/or color (if time allows) your own representation of the words inside the three boxes. Be sure that the way the word is drawn represents the ideas you recorded on the back side of your paper. What questions are there? CREATE!

Allow time for students to create their graphic representations. If time allows, have students share their ideas with each other.

Excellent work, everyone! I am impressed with the amount of creativity flowing in this room!

Review/Summary

Let's review those three questions we began today with. What have you learned about this topic today? What information has become clearer to you? What do you still not understand? You will have five minutes to review what you wrote and update your answers.

Students should share their thoughts with the class.



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Application

Extended classroom activity:

Students should pick an agriculture product they are familiar with and create a supply and demand chart for it and illustrate when demand for the product is high and therefore when supply is also high.

FFA activity:

Conduct a mock marketing CDE activity.

SAE activity:

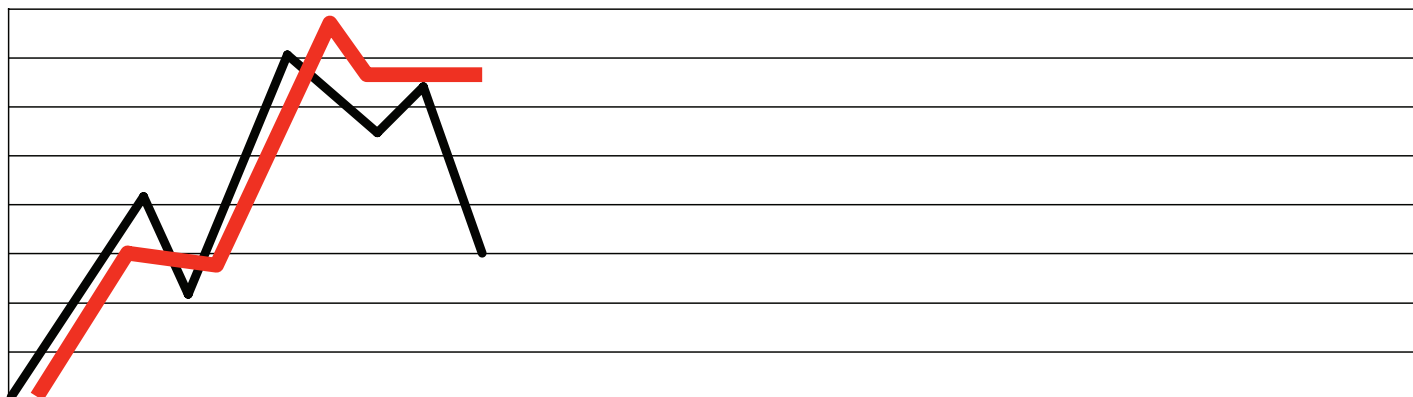
Based on what they now understand about supply and demand, have students design an SAE around an SAE product or activity that meets a demand in their community.

Evaluation

MS.AI.2.1.ASSESS.A

Answers to Evaluation

Students' responses should explain how the world's population is the largest factor in the relationship among these three items. If the population rises, the availability of the land decreases which means genetic engineering would have to become a mainstream production method in order to supply the higher demand for food.



Red Line = Supply
Black Line = Demand



Example 1:

SMALL

Example 2:

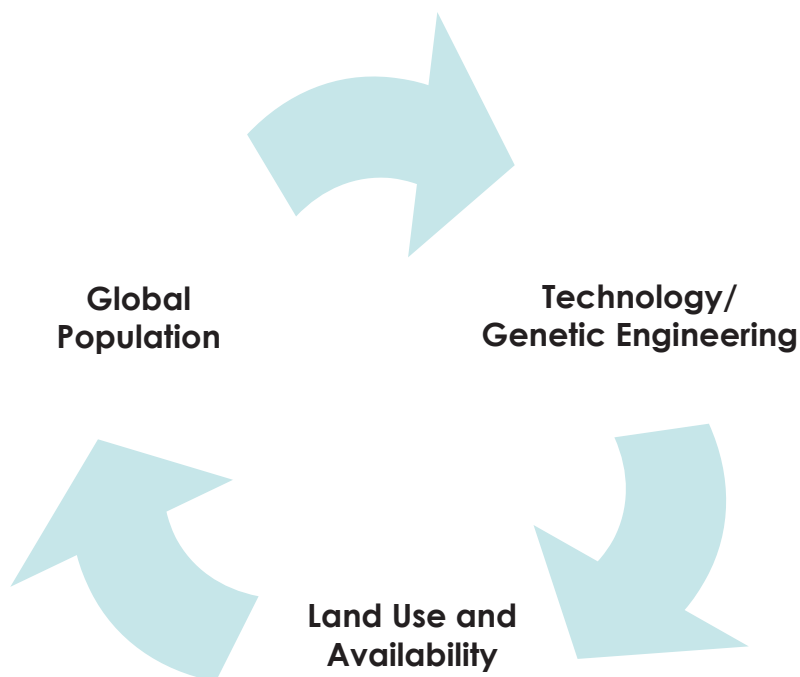
SUNSHINE



Name _____

Short Essay

A. Look at the image below. In a short essay, explain the cause and effect relationship that occurs in all of these areas. Also, predict what would happen to the supply if the demands on the agricultural industry changed. Write your response in the space below the image.



Response:
