

Grade Level: 9-12

Essential Skills: 1, 2, 4, 5, 9

<u>CCSS:</u> 9-10.RI.4, 9-10.RI.7, 9-10. W.1, 11-12.RI.4, 11-12.RI.7, 11-12.W.1

Time: 2 class periods

Materials: Ag Tabloids Kit*

- Beach Ball*
- 7 Agriculture Issues Information Sheets (one per group)*
- Walk in Someone Else's Shoes Worksheet per student
- Message House
 Worksheet per student
- Computer and Internet Access

*Free Kit with materials available to Oregon Educators from our Lending Library

AITC Library Resources:

Literature Circles Guide & Suggested Reading

More Lessons:

Global Food Security
Before the Plate
Journey 2050
Google Lies, Wikipedia Stinks,
and Siri Doesn't Even Go Here
Farm-to-Fork in Augmented
Reality

Lesson adopted from:



Lesson to Grow

Ag Tabloids: What's on the Cover?

Description:

Students will explore issues facing agriculture, analyzing each issue from the perspective of farmers, consumers and lawmakers. Using the perspectives they've gained they will create reliable and knowledge based messaging for each issue.

Background:

Standing in the checkout line at the store, we can all see the latest gossip and news on the covers of tabloids. In this lesson we will determine what's on the cover of agriculture tabloids- what issues and challenges are facing the industry and how we can find common ground between farmers, consumers and lawmakers.

Directions:

Part I: Beach Ball Perspective

Before Class: Write the numbers 1-4 or 1-6 on a ball.

- 1) Standing in the middle of the room, hold up the ball for your students to see. Without rotating the ball, ask students in different locations of the room what numbers they can see. (Students will see all or part of different numbers).
- 2) Ask students: Why if you are all looking at the same object, a ball, are you seeing different numbers?

This is because each or you have a different point of view. Each of you see entire numbers, partial numbers, or no number at all. This is similar to how farmers, consumers and lawmakers see agricultural related issues.

Part II: Agricultural Issues

Today, we are going to look at seven issues facing the agricultural industry in assigned groups.

- 1) Divide students into six groups and then assign roles: each group needs a farmer, consumer and lawmaker. There can be multiple of each role if needed depending on your group sizes.
- 2) Provide each group with one of the agricultural related topics (Food Safety, GMOs, Water & Agriculture, Environment, Labor and Animal Well-Being & Antibiotics). Keep the Food Accessibility topic to use an example study for the class.
- 3) Read the Food Accessibility issue as a class or individually.
- 4) Once students have finished reading, discuss the concerns from each of the perspectives as a class.
- 5) After the example, have students work within their group to do the same process for their agricultural issue. Students will first work individually to read the information provided on the issue then fill in their roles' perspective on the shoe. They may need to do some additional research on the topic using a computer and internet to identify concerns of the stakeholders.
- 6) Once each member of the group has filled in their roles' perspectives have group members share what each other role's were concerned with on that issue.
- 7) When groups have finished compiling their information, have students work together to find shared values for each topic amongst the stakeholders. The shared values of each stakeholder will help students to create a list of common concerns

that each of their perspectives would agree with and list them in the Common Concerns sections of their worksheet.

- 8) Once students are in agreement on common concerns have them start creating consumer approved messaging for their agricultural issue. The Message House worksheet provides guidance and examples of messaging to help students develop their own messaging based on the common concerns their group developed.
- 9)When groups have finished compiling their information, have each group share a summary of the issue presented and the concerns from each of the perspectives, common concerns and the messaging they developed. They can share it in the form of the Message House with concerns on a poster board or powerpoint to share with their classmates.













Agricultural Issue: Food Safety

American consumers deserve to have confidence their food is safe and the best science is used to ensure the most wholesome product possible is produced and offered. Numerous nationwide food recalls have increased consumer awareness and concern of food safety. At issue is whether the current food safety system has the resources, authority and structural organization to safeguard the health of American consumers against foodborne illness. Also at issue is whether federal food safety laws have kept pace with significant changes in food production, processing and marketing, such as new food sources, advances in production and distribution methods and the growing volume of imports.

America's farmers and ranchers are committed to producing safe and affordable food for consumers in the U.S. and around the world. There are several reasons for their strong support for food safety. They have the same desire as other consumers to have a safe, abundant and affordable food supply. They also have an economic interest because the demand for their products is determined by consumer confidence.

[Source: American Farm Bureau Federation Issue Backgrounder]























Agricultural Issue: Water & Agriculture

Water quality is a moving target, depending on the water's intended or designated uses. For a water quality problem to exist, the water must be impaired for one or more uses, such as drinking water supply, fishing, recreation, wildlife habitat, livestock or irrigation. Water quality problems may be localized—such as a fish kill in a pond. Or they may be regional, national or international in scope. Water quality impairment in Lake Erie, for example, affects recreation, drinking water, commercial fishing and other uses in both the United States and Canada. Farmers, consumers and industry all use and have the potential to affect the quality of water, so they have shared concerns.

Water quantity (availability) is also an area of potential conflict between consumers, farmers and industry. We all know we are not getting any more water, and we need to take care of this shared resource. Oregon has very specific laws pertaining to "riparian" rights to water and a Water Use Assessment tool for new and expanding uses in agriculture.

The issue in both water quality and quantity often comes down to the question: what is the appropriate amount of regulation? Farmers and industry will typically have more regulatory burden in water quality and quantity issues than consumers do; often activist groups will say there isn't enough regulation to assure water quality is safe and water isn't being overused by large users. At the same time, farmers and industry will attest that if you create too much regulation, it only takes away private property rights, drives consolidation or impairs economic activity.

[Information partially derived from USDA-NRCS] http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/null/?cid=nrcs143_010881























Agricultural Issue: GMOs

Biotechnology—the application of recombinant DNA science to engineer specific traits in plant varieties—is an important tool for farmers to improve yield and profitability by reducing the use of costly inputs, improving weed management and reducing tillage for better soil, water and air quality. Today, roughly 90 percent of corn, cotton and soybeans grown in the U.S. have been improved through biotechnology, and farmers are choosing biotech traits when growing other crops such as alfalfa, sugarbeets and canola.

Despite rapid adoption by farmers and a strong scientific consensus biotechnology does not pose health and environmental risks, regulatory burdens are slowing research and innovation of new biotech traits and are starting to reduce U.S. farmers' international competitive advantage. In addition, activist groups have repeatedly threatened new traits and use of the technology by blocking science-based regulatory decisions, filing lawsuits and advocating for labeling mandates.

It's important to understand almost all food we (or animals) eat contains DNA and proteins. The DNA and proteins found in food, GMO and non-GM, are released from the food and processed by the digestive system in our gastrointestinal tract. During digestion, GMO and non-GMO DNA is broken down into the four nucleotides that make up all DNA and/or into small nucleotide fragments. Similarly, proteins, again GMO and non-GM, are broken down into one or a few of the 21 amino acids that exist in nature. Many, many studies have been conducted on the potential for GMO DNA or proteins to be transferred into animal tissues. No intact or immunologically reactive protein or DNA has been detected in animal tissue.

[Source: American Farm Bureau Federation Issue Backgrounder & GMO Answers] http://www.cfiengage.com/document_center/download/GMO-Issues-Brief-4-9-FINAL.pdf























Agricultural Issue: Environment

Environmental issues surrounding agriculture include things like air quality and water quality but also general quality of life. The tentacles of environmental concerns can encompass such things as how are deceased livestock handled. Are they buried, landfilled, composted, etc.? Environmental concerns surface in everyday things that happen on farms, whether it is application of fertilizers or crop protection tools for growing crops or the application of livestock manure. In general, farms and agriculture rely on and interact daily with the environment and nature. Consumers share the same resources that are important for farming, so they have concerns about water, air and land resources and the near and long-term impacts of its use. Each of these areas of potential environmental impact could have a separate issue summary, but for purposes of this activity it is important to note that farmers are consistently looking for ways to operate their farms more sustainably, using less water and land to do so. Consumers just want to know that the environment is safe. Lawmakers try to strike a balance of perspectives to come up with regulations that are socially acceptable.























Agricultural Issue: Labor & Jobs

Farmers and ranchers have long experienced difficulty in obtaining workers who are willing and able to work on farms and in fields. Jobs in agriculture are physically demanding, conducted in all seasons and often require moving from location to location. To most U.S. residents seeking employment, these conditions are not attractive. A number of studies document this fact, and farm worker representatives also acknowledged this in recent congressional testimony. Yet, for many prospective workers from other countries, these jobs present real economic opportunities.

In times of labor shortages, farmers have relied on these foreign workers, who are admitted under a government-sponsored temporary worker program known as H-2A or who appear to have legal status to be working in the United States. The demand for foreign workers is heightened due to not only a lack of a domestic workforce, but also the reverse migration of workers from the U.S. to Mexico, historic levels of immigration enforcement and bipartisan congressional commitment to a credible work authorization system through mandatory E-Verify. Those factors, combined with an increasingly rigid and burdensome H-2A program, demonstrate the need for a new approach.

[American Farm Bureau Issue Backgrounder]























Agricultural Issue: Animal Well-Being & Antibiotics

Bacterial resistance to certain antibiotics poses a serious public health threat and prompts wide concern for human health. While all users of antimicrobials contribute to risk for resistance, antibiotic use in animals has not currently been scientifically linked to increases in human antibiotic resistance.

Agriculture has a primary interest in ensuring all animal health products continue to be safe and effective. In order to raise healthy animals, farmers and ranchers need tools to keep animals healthy—including antibiotics or antimicrobials that have been approved by the Food and Drug Administration (FDA). Farmers also have to be judicious about antibiotic withdrawl times when sending animals/products to market. Eliminating access to these important tools will jeopardize animal health and compromise their ability to raise and produce a healthy and safe product.

At the same time, scrutiny about antibiotic use is also taking place in the human health care system. Health care professionals are consistently being advised to be extra judicious with the use of antibiotics to treat common human ailments. Patients are also receiving additional consultation on finishing prescriptions, etc. The question becomes how much does antibiotic use need to be regulated?

[Partially derived from American Farm Bureau Issue Backgrounder]













Walk a Mile in Someone Else's Shoes

In your group, discuss the concerns that each	your assigned perspective of farmer, consumer or lawmaker. perspective has with the associated agricultural issue. List each Then, find common concerns amongst the groups using their
Consumer Concerns: •	Agricultural Issue:
• Farmer Concerns:	
\ .	Common Concerns
Lawmaker Concerns:	•
<i>J</i> : (•













Name:

Message House

Directions: Using the information on agricultural messaging below, develop a message using the common con-

cerns you and your group if House on the back of this p	_	•	als of each of the per	rspectives. Use the Message
	Headli	Headline or Lead ne about this topic ba mon concerns/shared v	sed on	
	Core message #1 Relates to audience and supports headline	Core message #2 Relates to audience and supports headline	Core message #3 Relates to audience and supports headline	
	•	ce, proof points, s		

Consumer Tested Messaging Examples

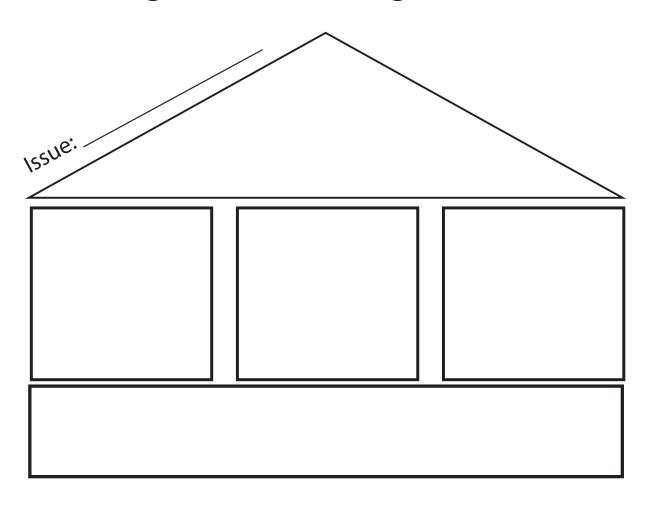
- Technology helps to have a BETTER HARVEST
- Food access is important to have a BALANCED MEAL
- Crop Protection methods are used to OVERCOME THE THREATS OF MOTHER NATURE
- Technology, water access, GMOs, etc. help to ensure a STEADY HARVEST AND ACCESSIBLE FOOD SUPPLY
- Farmers use ______ to have BETTER HARVESTS while using WATER AND LAND MORE SUSTAINABLY

 USE FEWER NATURAL RESOURCES with drought resistance crops

 USE WATER MORE EFFICIENTLY with drought resistance crops or possibly irrigation.
- PROTECTING THE SOIL by using less tillage (minimum till, no-till), fewer pesticides Reducing our environmental footprint today by
- NUTRITIOUS, HIGH QUALITY vs. healthy
- BETTER HARVEST vs. higher yield
- REDUCING THE COST OF BALANCED MEAL vs. affordable
- Antibiotics are use to HELP ANIMALS OVERCOME ILLNESS AND LIVE HEALTHIER LIVES.
 Farmers care for their animals by providing a NUTRITIOUS DIET, GOOD MEDICAL CARE AND HEALTHY LIVING CONDITIONS
- Farmers work closely with VETERINARIANS AND NUTRITIONISTS TO KEEP THEIR COWS HEALTHY AND COMFORTABLE



Agricultural Message House



Reflection Questions

1) What was your number one take away from this session?

2) How can you use the perspectives you took away in this activity to make decisions in your future?