The College of Agriculture and Life Sciences
The University of Arizona

The Department of Agricultural Education

Lesson Plan Format

Area: Agricultural Business Management--Agriscience

AZ Academic Standards: R/W/M/SC

Unit (ADE CTE Standard):			
19.0 Describe Food Safety Processing Practices			

Strand and Concept:

Lesson Title (ADE Competency Indicator):	**S:** **C: R 6**		**S:SC-1** **C: SC4**
19.1 Identifying Food Safety Practices			

Performance Objective

Objectives:	**PO:** **R-4** **R-5**	**PO:**	**PO: 1** **PO: 2** **PO: 3** **PO: 4**
1. **Explaining the role of safe practices in food handling.** 2. **Review basic food handling practices.** 3. **Review basic food storage practices.** 4. **Discuss possible consequences of unsafe food.**			

Bell Work:
See attachment and key.

Methodology (How are you going to teach it?)

- ✓ **Supervised Study, Discussion, Application/Cooperative Learning/Games/etc. or even Assignments (In Class or Homework)**

E-Moment

Bob the Weather Guy (see attached)

I will use this e-moment when we are reviewing food storage practices. I will provide various containers or wrapping material and ask students to determine what to use to safely pack a picnic including fried chicken, deviled eggs, milk and fruit. They will then be asked to create two reports one with a positive result and one with a negative result. Bob the Weather Guy moment utilizes students' linguistic, intrapersonal, interpersonal, and bodily- kinesthetic intelligences.

Food Safety Facts

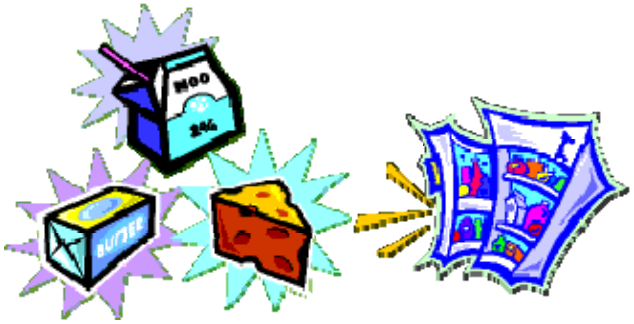
Please answer the yellow highlighted areas!

1 Keep hot foods hot!

If a food is cooked and put out to serve, make sure that you keep the food hot if it is not going to be eaten right away. If you are going to cool the food in the refrigerator, be sure to cool it quickly in a shallow container. Perishable food should never be kept at temperatures between ___°F and ____°F for more than 2 hours. Bacteria can grow well at these temperatures and may grow to levels that could cause illness.

2 Keep cold foods cold!

Cold salads, lunchmeats, dairy products and other foods which require refrigeration should always be kept cold (below ___°F). If they are allowed to warm up, bacteria may be able to grow to dangerous levels.



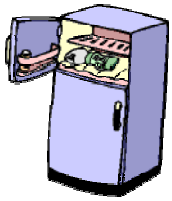
3 Always wash your hands well with soap and warm water, both before and after handling food!

Our hands naturally carry bacteria on them. If we transfer that bacteria to food, the food is a good place for those bacteria to grow! On the other hand, foods contain a certain amount of bacteria on them as well, especially raw foods. It is important not to let the bacteria from raw foods stay on your hands where you may transfer them to _____.

4 Don't cross contaminate!

You cook meat and poultry thoroughly to _____ That is why it is very important to make sure that you don't allow the juices associated with raw meat and poultry to contaminate other areas of your kitchen.

5 Thaw foods safely!

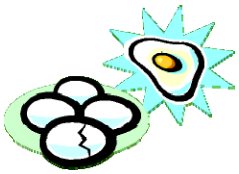


Frozen raw meat and poultry should **never** be thawed by _____. The proper way to thaw such products is to either thaw them in the refrigerator or thaw them in a microwave oven.

6 Wash fresh fruits and vegetables thoroughly!

Because fresh fruits and vegetable are grown outside, they may come in contact with a wide range of bacteria. It is important to realize that fresh fruits and vegetables should be _____thoroughly under running water before you consume them.

7 Keep eggs refrigerated and never eat raw eggs!



Eggs may contain the bacteria _____in their yolks, and so it is very important never to leave eggs at room temperature, or you will allow the Salmonella to multiply and grow.!

8 Cook ground beef thoroughly!

E. coli O157:H7 is a pathogenic bacteria that may be present in raw ground meat. Because of this it is important that hamburgers and other ground meat products be _____ to kill this bacteria. Ground beef must reach an internal temperature of 160°F in order to ensure that the bacteria E. coli O157:H7 has been killed.

9 When in doubt, Throw It Out!

Never taste food which you think may be spoiled. If you are uncertain as to whether or not a food is still safe to eat, _____ eat it!

Food Safety Facts

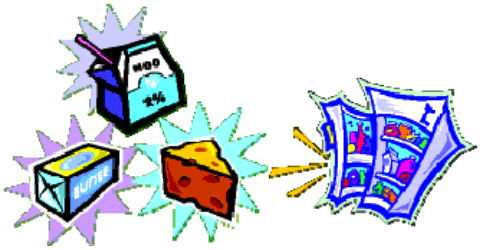
KEY

1 Keep hot foods hot!

If a food is cooked and put out to serve, make sure that you keep the food hot if it is not going to be eaten right away. If you are going to cool the food in the refrigerator, be sure to cool it quickly in a shallow container. Perishable food should never be kept at temperatures between 40°F and 140°F for more than 2 hours. Bacteria can grow well at these temperatures and may grow to levels that could cause illness.

2 Keep cold foods cold!

Cold salads, lunchmeats, dairy products and other foods which require refrigeration should always be kept cold (below 40°F). If they are allowed to warm up, bacteria may be able to grow to dangerous levels.



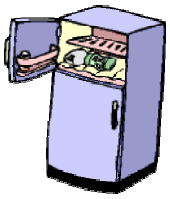
3 Always wash your hands well with soap and warm water, both before and after handling food!

Our hands naturally carry bacteria on them. If we transfer that bacteria to food, the food is a good place for those bacteria to grow! On the other hand, foods contain a certain amount of bacteria on them as well, especially raw foods. It is important not to let the bacteria from raw foods stay on your hands where you may transfer them to your mouth or other foods.

4 Don't cross contaminate!

You cook meat and poultry thoroughly to kill the harmful bacteria that may be on them. That is why it is very important to make sure that you don't allow the juices associated with raw meat and poultry to contaminate other areas of your kitchen. If you do, you may then allow those bacteria to get onto foods that don't get cooked before you eat them.

5 Thaw foods safely!

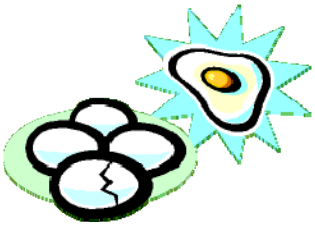


Frozen raw meat and poultry should never be thawed by leaving them on the counter at room temperature. The proper way to thaw such products is to either thaw them in the refrigerator or thaw them in a microwave oven.

6 Wash fresh fruits and vegetables thoroughly!

Because fresh fruits and vegetable are grown outside, they may come in contact with a wide range of bacteria. Most of these bacteria are harmless, but it is important to realize that fresh fruits and vegetables should be washed thoroughly under running water before you consume them.

7 Keep eggs refrigerated and never eat raw eggs!

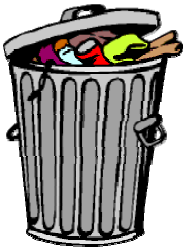


Eggs may contain the bacteria Salmonella in their yolks, and so it is very important never to leave eggs at room temperature, or you will allow the Salmonella to multiply and grow. Because there may be Salmonella in eggs, you should also always make sure that you cook your eggs thoroughly before eating them. This means no runny yellow yolks, and it also means not eating any cookie or cake batters made with raw eggs!

8 Cook ground beef thoroughly!

E. coli O157:H7 is a pathogenic bacteria that may be present in raw ground meat. Because of this it is important that hamburgers and other ground meat products be cooked thoroughly to kill this bacteria. Ground beef must reach an internal temperature of 160°F in order to ensure that the bacteria E. coli O157:H7 has been killed. The interior of the meat may turn brown before this temperature is reached, making it look like the hamburger is done, but you cannot assure it's safety until the temperature reaches 160°F.

9 When in doubt, Throw It Out!



Never taste food which you think may be spoiled. If you are uncertain as to whether or not a food is still safe to eat, do not eat it. Even reheating foods cannot destroy the toxins of some bacteria if a food has been handled incorrectly. Never eat canned food if the can is bulging or looks like it has had a leak. The consequences of food-borne illness are not worth the money you will save trying to salvage the food!

BOB THE WEATHER GUY MOMENT

Summarizing and forecasting, as in a weather report, are two powerful ways to develop your students' higher order thinking skills.

Brief Description

Students present an idea, concept, or process as if it were a weather report. Challenge them to forecast what will happen, show how other people and activities will be affected, and describe what their latest "Doppler Radar" explains about this idea, concept, or process. If your students are new to Bob the Weather Guy Moment, the following setup will create greater success. Otherwise, feel free to begin with step 3.

The Process

1. *Show some samples* . If possible, show a video recording of a recent or series of recent weather reports. (Or select The Weather Channel on your classroom's cable TV.) If a recording is not avail- able, begin with step 2.

2. *Brainstorm.* Lead a quick brainstorm eliciting the characteristics of a weather report—highs, lows, fronts, low pressure, high pressure, winds, temperature, humidity, rain, snow, regions, Doppler radar, and phrases such as "by mid-afternoon we'll expect…," "We'll have partly cloudy skies until tomorrow morning, and then the skies will clear."

3. *Have them create a report.* Direct students to create a 30 second "weather report" using the con- tent from the lesson or unit just studied. This report includes the important vocabulary and concepts they have learned and makes predictions about what would happen when these "weather elements" interact. Students may need about 10 minutes to create their report and may want to work in small groups. Note: This level of higher order thinking utilizes analogy and metaphor. Your students, depending on their previous exposure to this level of thinking, may find this challenging and may need your guidance.

4. *Have them share.* After the specified amount of time, groups present their "weather report."

Smart*Tip*

Bob the Weather Guy Moment utilizes students' linguistic, intrapersonal, interpersonal, and bodily- kinesthetic intelligences.