



Food Safety Curriculum for Secondary School Students

Lesson 3: Separate, Don't Cross Contaminate!
<p>Major concepts from unit:</p> <ul style="list-style-type: none"> • Separate <ul style="list-style-type: none"> * Define “cross-contamination” * Ways to avoid cross-contamination <p>Terminal Objective: To explain ways to avoid cross-contamination when purchasing food, storing food, preparing food, and serving food. (C-C)</p> <p>Establishment of Set: Have the following riddle on the board when students walk in the classroom. <i>Unscramble the letters below to answer the question. What is it called when bacteria is spread from one food to another. SORCS – TANOCOMTIANIN Answer: CROSS-CONTAMINATION.</i> (Give hints as needed: such as the first letter of each word, etc.)</p>

Objective 1 – To explain “cross-contamination”. (C-C)	
Content	Learning Experience
<p>1. Cross-contamination is when bacteria spread from one food to another. For example, let's say you cut up raw chicken on a cutting board. Let's also say that the juice from the chicken has salmonella in it. Then, you cut up vegetables for a salad, using that same cutting board without washing it in between. Now your salad has salmonella in it, too!</p>	<p>1. Students will listen as teacher defines cross-contamination and view definition on transparency. Then students will complete Activity A.</p>

Objective 2 – To explain ways to avoid cross-contamination when purchasing food, storing food, preparing food, and serving food. (C-C)	
Content	Learning Experience
<p>2. To avoid cross-contamination, you must keep potentially hazardous foods like raw meat, poultry and seafood separate from ready-to-eat foods (i.e. foods that don't require cooking, such as a salad). Here are some ways to help you avoid cross-contamination:</p> <p><i>When buying food:</i></p> <p style="padding-left: 40px;">When purchasing raw meat, poultry or seafood at the store, use the plastic bags provided for you in the meat section of the store. Keep raw meat, poultry and seafood separate</p>	<p>2. Students will listen to teacher lecture on the ways to avoid cross-contamination when purchasing food, storing food, preparing food, and serving food. Students will then be divided into four groups. Students can use words and pictures from magazines, or draw a picture. Each group will be given one of the ways to avoid cross-contamination. The group will make a poster on a piece of butcher paper that helps to make others aware of how to avoid that particular way of cross-contamination. Students will be provided the information they need from the content at left on an index card as a reference.</p>



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<p>from the other items in your grocery cart. When bagging items, bag the raw meats/poultry and seafood separately. This includes keeping them separate from deli meats. Deli meats are already cooked and won't be cooked again. They must be kept separate from raw meats.</p> <p><i>When storing food:</i> Quickly put away potentially hazardous foods in the refrigerator because bacteria grow much slower at lower temperatures. Keep raw meat, poultry and seafood in sealed covered containers as close to the bottom of the refrigerator as possible, so that the juices don't drip onto other foods. This prevents any drip from these foods from contaminating other foods. Also, the bottom is the coldest part of the refrigerator.</p> <p><i>When preparing food</i> Wash cutting boards and other utensils in hot soapy water before and after they come in contact with raw meat, poultry and seafood. If possible, use one cutting board for the raw meats and a separate cutting board for the salads or other ready-to-eat items.</p> <p><i>When serving food</i> Never place cooked food on a plate that previously held raw meat, poultry or seafood. The plate must be thoroughly washed with soap and hot water before any cooked items can be placed on it. Also, any sauce that has been used to marinate raw meats, poultry or seafood should not be used on cooked foods.</p>	<p>Students will share their posters with the class.</p>
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Closure – Teacher will ask and discuss the following questions with the class.

- **What is cross-contamination?**
- **How can you avoid cross-contamination when buying food?**
- **How can you avoid cross-contamination when storing food?**
- **How can you avoid cross-contamination when preparing food?**
- **How can you avoid cross-contamination when serving food?**

Resources Needed:

- Copies of Activity A
- 2 clean sponges, cut in the shape of chicken legs
- Red or other brightly-colored poster paint
- Paint brush
- Cutting board
- Cucumber
- Clean, light-colored plate
- Serrated knife
- 4 pieces of butcher paper
- Markers
- Magazines
- Glue
- Scissors
- 4 index cards with info for groups on them
- transparency with definition of cross contamination



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Activity A

USDA Fightbac[®] Activity:

Experiment:

Question? Is there a potential danger in using the same equipment to prepare raw meat and other foods?

My Hypothesis:

Materials Needed:

2 clean sponges, cut in the shape of chicken legs
Red or other brightly-colored poster paint
Paint brush
Cutting board
Cucumber
Clean, light-colored plate
Serrated knife

Procedure

1. Dampen both sponges. Set one sponge aside to represent the "cooked chicken."
2. Paint both sides of the other sponge to represent raw chicken. Pretend that the paint is the juice of the chicken that may have been contaminated with Salmonella.
3. Place the painted sponge on the cutting board and use a knife to cut the sponge in half. Move the painted sponge onto the plate, and don't wash the cutting board.
4. Cut a slice of raw cucumber on the same cutting board you used in Procedure #3.
5. Now, place the clean sponge ("cooked chicken") that was cooked well-done on the plate with the "raw chicken" sponge.

My Observations:



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After #3, this is where I observed the paint (representing Salmonella) on the cutting board: _____

the knife: _____

my hands: _____

the plate: _____

After #4, this is what happened to the cucumber slices:

After #5, this is what happened to the "cooked chicken" sponge:

Chart the path of "Salmonella" paint between each item.

My Conclusions:

This is how I can get rid of the paint "bacteria" on

the cutting board: _____

the knife: _____

my hands: _____

the plate: _____

If I touch something else without washing my hands—or use the knife again—this is what can happen:

To kill the bacteria on the chicken, it is important to:

If someone ate the raw cucumber, this is what could happen:

This is what can happen when cooked chicken is placed on the same plate as raw chicken:

Tip:



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Plastic ("non-porous") cutting boards are easiest to clean.

Tell Your Family ...Remind your family members to wash all cutting boards and utensils between uses in the dishwasher or with hot water and soap.