



Nutrition Education for ESL Programs

LEVEL: **INTERMEDIATE LOW**



Nutrition Standard

Key Message # 6: Students will demonstrate safe food handling practices at home, at school, and on the job.

Content Objective

Students will be able to use safe food handling practices at home, at school and on the job.

Behavior Change Objective

Students will indicate progress in safe food handling practices.

Language Objective

Students will be able to give advice about a problem.

Instructional Approach

Problem Solving using a case study.

Class Length

3 hours

Topic

Food Safety



NUTRITION BACKGROUND INFORMATION FOR TEACHERS

(NOTE: The following background information is intended for teachers only in order to answer students' questions. It is not meant to be the basis of a lesson or to be presented in a lecture to students. Research shows that nutrition education that is skill based is more effective than knowledge based instruction.)

Key Message #6: Students will demonstrate safe food handling practices at home, at school and on the job.

Objective 6.1: Students will be able to use safe food handling practices at home, at school and on the job.

Discussions in round table groups with Latino adult ESL students around the state of California (Prehm and Associates, 2002) indicated that students practice basic kitchen cleanliness. However, they need more information on how to safely handle raw meat, what needs to be refrigerated, how long to keep perishable foods and how to safely thaw foods.

Infectious diseases spread through food and beverages are a common, distressing and sometimes life-threatening problem for millions of people in the United States and around the world. Bacteria, viruses or parasites can cause more than 250 food borne diseases. Some diseases are caused by toxins (poisons) from the disease-causing organism (germ), others by bodily reactions to the organism itself. People infected with food borne germs may have no symptoms or may develop symptoms ranging from mild intestinal discomfort to severe dehydration and bloody diarrhea. (DHHS fact sheet, "Food Borne Diseases," 2005)

The Department of Health and Human Services (DHHS) food safety program, "Fight BAC," identifies four aspects of food safety – clean, separate, cook and chill. Using safe food handling practices will decrease the likelihood that germs/bacteria will grow in food and cause food borne illnesses.

1. Clean hands, food, utensils and work surfaces: Cleanliness and other aspects of food safety can be sensitive topics with adults. Present the topic as something parents should teach their children, so that they are aware and stay healthy, and not as to suggest that adult students do not use proper practices. Keep awareness high throughout the school term by giving food safety guidelines as well as nutrition guidelines for foods brought in for class potlucks. Reinforce basic safe food handling practices, such as washing surfaces and utensils with hot water and soap, refrigerating perishable foods, by talking about why certain food safety practices are important as you actually model them during food tasting in class or other times when food is being prepared or served in the classroom.

Elicit a list of tips on food safety from students and post them in the classroom to study. This validates students' current practice and allows students to share with each other. Here are some examples to add to what students share:

- Wash hands (front, back, between fingers and under nails) for 20 seconds with hot, soapy water before handling food and after using the bathroom, changing diapers and handling pets. To give students an idea of how long 20 seconds is, have them sing the "Alphabet Song" or "Happy Birthday" with their children as they wash their hands, or count to 20.
- Wash cutting boards, dishes, utensils and counter tops with hot, soapy water after preparing each food item and before you go on to the next food. Use plastic and other non-porous (define) cutting boards. These boards should be run through the dishwasher or washed in hot soapy water after use.



NUTRITION BACKGROUND INFORMATION FOR TEACHERS

- Use paper towels to clean kitchen surfaces. Germs can grow on cloth towels and sponges. Wash kitchen towels and sponges often in hot soapy water.
- Wash fruits and vegetables with running water. Use a brush designated to only wash fruits and vegetables, to loosen dirt. Do not use soap on food.
- Store food in clean, covered containers. Tight lids help keep pests from getting into the food.
- Clean the refrigerator often.
- Take garbage outside every day. Store in covered containers.
- Keep cupboards, floors, counters and stove free from insects, mice and rats.
- Never use bug killers on food, dishes, cooking utensils or counters where food is prepared.

2. Separate and handle raw meat, fish and poultry safely to avoid cross-contamination in shopping, cooking and storing:

Cross- contamination is the scientific word for how bacteria can be spread from one food product to another. This is especially true when handling raw meat, poultry and seafood, so tips can be generated on how to keep these foods and their juices away from ready-to-eat foods. For example:

- At the grocery store, put meat, poultry, seafood, fruits and vegetables in separate plastic bags.
- Separate raw meat, poultry and seafood from other foods in the grocery-shopping cart and in the refrigerator.
- Pick up milk and other cold foods last at the store. This will give them less time to warm up before you get home.
- Do not leave food in a hot car. Go home right after shopping. Put food in the refrigerator right away.
- Do not buy cracked eggs or leaking cans or jars.
- If possible, use a different cutting board for raw meat than for vegetables and other foods eaten raw. If not possible, wash cutting board thoroughly with hot, soapy water before the next use.
- Never place cooked food on a plate, which previously held raw meat, poultry or seafood.
- Keep raw meat, poultry and fish separate from other foods in the refrigerator so the juices do not touch other foods.
- Store raw meat (even if in a plastic bag) in a pan on the lowest shelf in the refrigerator.

3. Cook foods thoroughly (i.e., to a high enough temperature) to be safe to eat: (See cooking temperature chart) Food safety experts agree that foods are properly cooked when they are heated for a long enough time and at a high enough temperature to kill the harmful bacteria that cause food-borne illness. Germs grow fastest when food is in the “Danger Zone” – between 40 degrees Fahrenheit (F) and 140° F. Room temperature (70° F) is in the Danger Zone. Do not leave food out at room temperature for more than 2 hours. Keep hot food above 140° F. If possible, use a cooking thermometer to measure the internal temperature of cooked foods. If there is no thermometer, look at the food to see that it is thoroughly cooked. For example, chicken should not be pink and the juice should run clear. Using a food thermometer is strongly recommended to make sure food has been cooked to the proper temperature. They can be purchased relatively inexpensively, for around a couple of dollars at most larger grocery stores.

When cooking in a microwave oven, make sure there are no cold spots in food where bacteria can survive. Cover food when cooking, stir and rotate for even cooking. If there is no turntable, rotate the dish by hand once or twice during cooking.



Cooking Temperature Chart

Product	°F	Product	°F
Eggs	Cook until yolk and white are firm	Poultry	
Egg dishes	160°	Chicken, whole	180°
Ground Meat & Meat Mixtures		Turkey, whole	180°
Turkey, chicken	165°	Poultry breasts, roast	170°
Veal, beef, lamb, pork	160°	Poultry thighs, wings	180°
Fresh Beef		Stuffing (cooked alone or in bird)	165°
Medium Rare	145°	Duck & Goose	180°
Medium	160°	Ham	
Well Done	170°	Fresh (raw)	160°
Fresh Pork		Pre-cooked (to reheat)	140°
Medium	160°	Seafood	
Well Done	170°	Fin Fish	Cook until opaque and flakes easily with a fork.
		Shrimp, lobster, crab	Should turn red and flesh should become pearly opaque.
		Scallops	Should turn milky white or opaque and firm.
		Clams, mussels, oysters	Cook until shells open.

Distributed August 1999 for use in September 1999 as part of the International Food Safety Council's <http://www.foodsafety.gov/september.html> **National Food Safety Education Month.**
<http://www.foodsafety.gov/~fsg/fs-cook.html>



4. Chill foods needing refrigeration properly before and after cooking; and thaw foods properly: Some students come from areas with limited use of refrigeration and may not be aware of how the lack of refrigeration negatively affects the safety of food. Doing a demonstration or showing photos to show food left un-refrigerated for several hours can be dramatic and raise students' awareness about the importance of keeping cold foods cold and hot foods hot. Ask students for examples of foods that spoil easily or safe food handling practices that they are aware of. Examples of food practices that are NOT safe are leaving a large pot of beans on the counter overnight or leaving a lunch of fish and vegetables in the car for several hours.

Refrigerate foods quickly because cold temperatures keep harmful bacteria from growing and multiplying. The refrigerator should be set no higher than 40° F and the freezer at 0°F. Check these temperatures occasionally with an appliance thermometer.

Other tips are:

- Refrigerate or freeze perishables, prepared foods and leftovers within two hours or less.
- Put leftovers in shallow dishes so they cool faster.
- Eat leftovers within 2 days so they do not spoil. Foods that are spoiled may not look, smell or taste bad. If you think a food might be bad, do not taste it. A good motto to use in the kitchen is "When in doubt, throw it out." It is not worth risking one's health by eating food where the safety is in question.
- Never defrost food at room temperature. Thaw food in the refrigerator, under cold running water or in the microwave. If foods are thawed in the microwave, they should be cooked immediately following the thawing process.
- Marinate foods in the refrigerator.
- Do not put a lot of food in the refrigerator or freezer, or "over-stuff" it. Cold air must be able to circulate to keep food safe.

Key Word Search: *food safety*

Websites for more information (2008)

Fight Bac!

http://www.pueblo.gsa.gov/cic_text/food/fight-back/fightbac.htm

Food Safety

www.foodsafety.gov

Wellness Ways Food Safety

<http://web.aces.uiuc.edu/wellnessways/FoodSafety.html>

Food Safety Information that can be shared with students' children:

www.foodsafety.gov/~fsg/Fsgkids.html

American Dietetic Association Food Safety website.

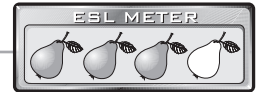
<http://www.homefoodsafety.org/index.jsp>

Poster: Fight BAC! API/Fight BAC & API/BAC store, 4471 Nicole Dr., Lanham, MD 20706.

301-731-6100, http://www.fightbac.org/component/option,com_virtuemart/Itemid,34/



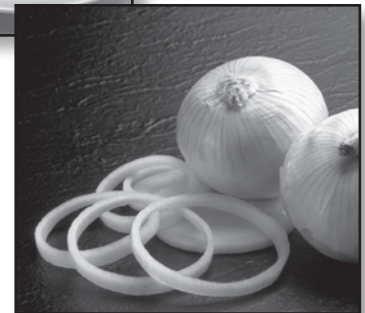
LESSON PLAN



Intermediate Low

Warm-up/Review (15 min.) 

1. Ask students what kinds of **ingredients** they usually put into chicken soup.
 - **Use visuals** to assist with any names of foods that might be **unfamiliar**. Choose between using photos or drawings.
 - Encourage students to name other items they use in chicken soup.
2. Lead students in **describing general preparation steps** (e.g. "First I cut up the chicken. Then I put it into a pot.>").
3. **Elicit from students** whether or not they **use fresh, canned, or frozen products** in food preparation. Have students consider the ingredients in chicken soup and if some items are available either canned or frozen.

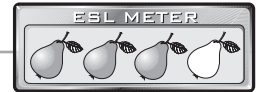


MATERIALS

Warm up food visuals of chicken soup ingredients (photos or drawings)



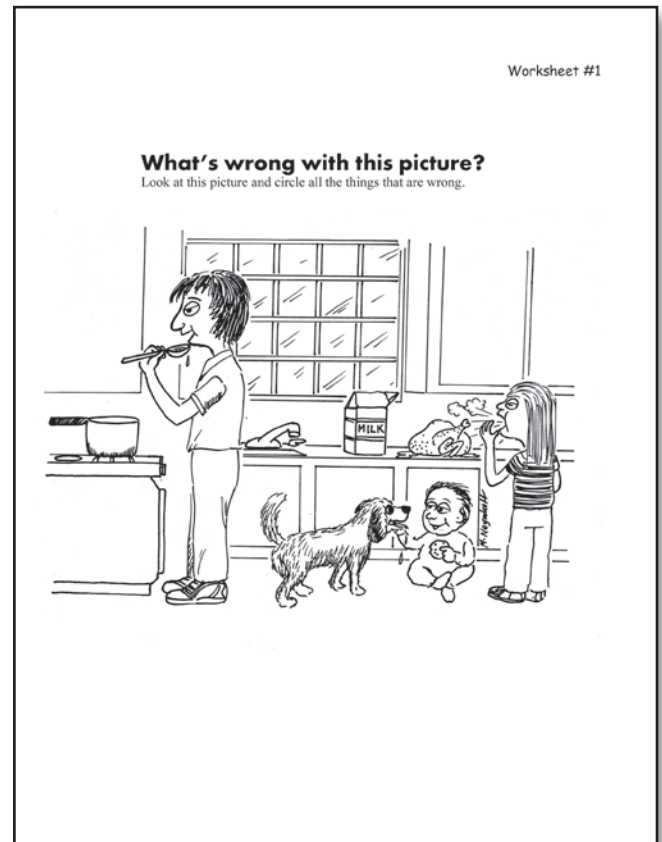
LESSON PLAN



Intermediate Low

Introduction (45 min.) 

- Use Transparency of Worksheet #1** "What's Wrong With This Picture?" to elicit from students **what they already know** about safe food handling practices.
 - Direct students to **work in groups of 4**.
 - Pass out **Worksheet #1** and have students **consider problems** in the kitchen.
 - Have them **identify** all of the **dangerous or unsanitary practices depicted** (e.g. "The chicken is on the counter. The woman is tasting the soup with the stirring spoon.").
 - Use **visuals** to introduce or review **key vocabulary** from the lesson (e.g. freezer, thaw, counter, cupboard, chop, cutting board, can opener, stir, taste, burner, heat, cover, lid, smell, pot, chicken broth, pieces, ingredients). Pantomime or explain those words without a picture such as tastes, smells, heat.
 - **Elicit responses from each group.**
 - **Have groups share problems with whole class.**
- Make the **health connection**
 - Ask students about the **consequences of unsafe food handling**.
 - Have students **talk about symptoms** people may have from **eating bad food** (e.g. vomiting, diarrhea, stomach cramps).
- Announce objective that students will read a story and offer solutions to serious food safety problems.**

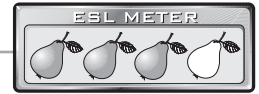


MATERIALS

Visuals of Key vocabulary; Transparency/Worksheet# 1



LESSON PLAN




Intermediate Low

Presentation 1 (20 min.)


1. Pass out the case study, **Worksheet #2**, "What's Wrong With the Soup?".
2. **Read the case study** while students listen.
 - **Explain as you read** to assure that students understand the vocabulary in context. Use Worksheet #2 vocabulary drawings to aid explanation.
 - **Ask comprehension questions** paragraph by paragraph.
3. Have students **read the case study silently**.
4. Direct students to **underline each mistake** the cook makes in food preparation.
5. Have students **read to a partner**.

What's Wrong with the Soup? Worksheet #2




It is winter and Tom has a bad cold. He decides to make some chicken soup. Tom likes chicken soup. It is healthy and tastes delicious.


Tom has all of the ingredients in his kitchen. He has some chicken in the freezer. It needs to thaw so he puts it on the counter. Then Tom goes to work. He will cook the chicken soup when he comes home.




Tom returns home from work and forgets to wash his hands. He picks up the chicken. It feels soft and warm. He cuts the chicken into pieces. Next he chops up some onions, celery, and carrots using the same knife and cutting board. Then he puts the chicken and vegetables into a pot on the stove.




Tom finds a can of chicken broth in the cupboard. He looks for a can opener. It is in the sink. His wife used it this morning to open a can of tuna. The can opener looks a little dirty, but Tom opens the chicken broth.




The soup smells good. Tom stirs the soup and then tastes it using the same spoon. He adds some salt and tastes and stirs the soup again. The hot soup feels good on his sore throat.



Finally the soup is ready, but his wife isn't home yet. Tom turns off the stove and leaves the pot on the burner until she comes home two hours later. Then he heats up the soup again for his wife.



Before Tom goes to bed, he covers the pot with the lid and puts it into the refrigerator. Tom is happy. There is still enough soup for Tom and his wife to eat tomorrow.

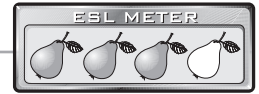


MATERIALS

Transparency/Worksheet #2 "What's Wrong With the Soup?"



LESSON PLAN



Intermediate Low

Practice 1 (25 min.)

1. Check comprehension **ORALLY** by using the true or false questions below. Instruct students to say true or false when you read the questions.

T	It is winter.
F	Tom has the flu.
F	He decides to make tomato soup.
T	Chicken soup is healthy.
T	Tom has all of the ingredients.
F	He puts the chicken in the refrigerator to thaw.
F	Tom washes his hands after work.
T	The chicken feels soft and warm.
F	Tom uses a different knife and cutting board for the chicken and vegetables.
T	Tom finds some chicken broth in the cupboard.
T	The can opener is dirty.
T	Tom tastes and stirs the soup with the same spoon.
T	The hot soup feels good on his sore throat.
F	When the soup is ready, Tom and his wife eat it immediately.
F	Tom puts the soup in a shallow container and puts it in the refrigerator.
T	There is enough leftover soup for Tom and his wife to eat tomorrow.

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2. Have **student partners find the sentence** from the story to correct the **False** answers and read it aloud to the class.

MATERIALS

Transparency/Worksheet #2, "What's Wrong With the Soup?"



LESSON PLAN



Intermediate Low

3. As a whole group, **brainstorm** the specific **problems** that were found in the story:

- **Thaws meat on the counter**
- **Forgets to wash his hands**
- **Uses chicken that feels warm**
- Uses the same knife and cutting board for meat and vegetables
- Uses a dirty can opener
- Stirs/tastes soup with the same spoon
- Heats up soup that has been sitting on the stove for 2 hours
- Leaves soup in the pot and puts it into the refrigerator

4. List those problems on a tear sheet in chart form like below. (Solutions to the problems will be added later in the class.)

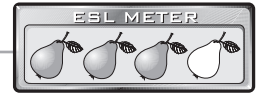
Problems	
1. He thawed the chicken on the counter. 2. He didn't wash his hands. 3. He used the same knife for chicken and vegetables. etc.	

MATERIALS

Tear sheet to record problems



LESSON PLAN



Intermediate Low

Presentation 2

Language - Giving Advice (15 min.) 

- 1. Model the language for giving advice** referring to the list of problems on the board.
 - **Problem:** He thawed the chicken on the counter.
 - **Advice:** "He should thaw the chicken in the refrigerator."
- 2. Make a heading on the tear sheet called Solutions. Write the advice (should statement) on the tear sheet next to the problem.**

Problems	Solutions
1. He thawed the chicken on the counter. 2. He didn't wash his hands. 3. He used the same knife for chicken and vegetables. etc.	1. He <u>should thaw</u> the chicken in the refrigerator.

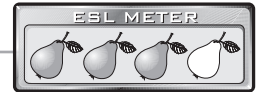
- 3. Guide students in giving advice** for three more problems on the board.
 - **Pose the problem: He didn't wash his hands. "What should he do?"** He should wash his hands before picking up food.
 - **Pose the problem: He used the same knife for cutting chicken and vegetables. What should he do?** He should wash the knife in hot soapy water after cutting the chicken.
 - **Pose another problem and provide solution.**

MATERIALS

Tear sheet to record advice or write on board.



LESSON PLAN



Intermediate Low

Practice 2 (20 min.)

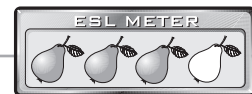
1. Have **students in pairs practice giving advice** for all of the problems, such as:
 - He should clean the can opener before using it.
 - He should use a different knife and cutting board for meat and vegetables.
 - He should stir and taste the soup with different spoons.
 - He should put the soup in the refrigerator before his wife comes home.
2. **Have students stand and share their solutions to the problems in the story.**
3. **Record students' solutions on the tear sheet.**
 - Let students copy the information from the tear sheet.

MATERIALS

Tear sheet to record advice



LESSON PLAN



Intermediate Low

Assessment (15 min.)


1. Pass out Worksheet #3, "Quiz."
2. Direct students to circle at least five examples of unsafe food handling.
3. Write solutions on the lines below.

Rubric:

Students score 1 point for correctly identifying an incorrect handling. They score 1 point for each appropriate solution. Passing = 7/10 (70%)

QUIZ Worksheet #3

Directions: Look at the picture. Circle 5 problems. Give advice. What should they do to be safe in the kitchen?



Example: The waitress should go outside to smoke.

1. _____
2. _____
3. _____
4. _____
5. _____

Application (20 min.)

1. Pass out "My Nutrition Journal" or Worksheet #4, Part 1. Refer to a transparency to guide the activity.
2. Read the list of tips one by one and call on volunteer students to pantomime the tips.
3. After each pantomimed tip, direct students to check the "Before this lesson, I..." column if they already do it.
4. Model the following activity on how to set goals for improving food safety in their homes:
 - Have students work with a partner.
 - Designate partners as A or B.
 - Partner B will look at partner A's checklist.
 - Partner B will give advice for anything not checked in the "Before this lesson, I..." column.

Example: "You should thaw chicken in the refrigerator."

Worksheet #4
Journal
Part 1

My Goal: Over the next 3 days, I will try food safety tips. _____

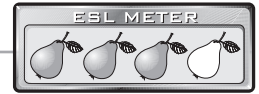
BEFORE this lesson, I...	TIPS	IN THE FUTURE, I will...	NOW, I...
<input type="checkbox"/>	... wash my hands for 20 seconds with hot water and soap.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	... thaw chicken or meat in the refrigerator.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	... use one cutting board for chicken or meat and another for other food.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	... wash the cutting board and utensils with hot water and soap.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	... wash the knife after I cut meat and before cutting other food.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	... wash the can opener with hot soapy water after I use it.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	... taste and stir using different spoons.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	... refrigerate leftover food immediately.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	... throw away chicken or other meat if it has been out of the refrigerator for more than 2 hours.	<input type="checkbox"/>	<input type="checkbox"/>

MATERIALS

Transparency/Worksheet #3, "Quiz"; Journal or Transparency/Worksheet #4, Part 1



LESSON PLAN



Intermediate Low

Application (cont.)

- Partner A will make a check mark for food safety tips to try at home "In the future I will..." column.
 - Repeat for Partner B.
6. Direct students to the goal statement at the top of the page.
 - Have students fill in the numbers of the food safety tips they will try at home.
 7. For a Warm-up/Review activity 3 days later, pass out Journal or Worksheet #4, Part 2 and provide time for students to complete "My Report."
 - Have students fill in the column "Now I ..." (Part 1)
 - Provide time for students to write "My Report."
 - Direct students to read their report to a partner.

Worksheet #4
Journal
Part 2

My Report Date:

1. Make a list of all of the things you do to keep food safe in your home:

2. People get sick from unsafe food. What will you do in the future so you or your family will not get sick from food?

MATERIALS

My Nutrition Journal or
Transparency/Worksheet#4, Part 1 and Part 2

