



Simply Good Eating
for English Language Learners
Microwave Safety



MICROWAVE SAFETY

Behavioral Goal: Participants will use their microwave ovens safely.

Vocabulary List

burn
container
foil
leftover
microwave
plastic wrap
Styrofoam
wax paper

Teaching Vocabulary

- a. List the vocabulary words on the board or on an overhead transparency at the beginning of the lesson.
- b. Explain each vocabulary word when it is used in the lesson activities. Have participants say each word and read aloud the definition and the example. Repeat if necessary. Do *not* go through the vocabulary words all at once. You may want to check off the words one by one as you move through the lesson activities, or cover all the words and then uncover each one as you teach it.
- c. Pass out copies of the Vocabulary List at the *end* of the lesson.
- d. Encourage the ELL teacher to review the Vocabulary List later.

Objectives

Participants will be able to:

- Describe at least two safety precautions when using a microwave
- List at least two products or containers that are safe to use in the microwave and two that are not safe



Before You Start: Review the concepts from your last lesson.

Activity 1: How Does a Microwave Oven Work?

Purpose: To assess participants' familiarity with microwave technology

Needed from kit: Nothing

Estimated time: 5 minutes

Activity 2: What Can I Put in the Microwave?

Purpose: To have participants understand the basic safety precautions and usage guidelines for the microwave

Needed from kit: Educator Reference: "Which Things Can I Use in the Microwave?"
Materials: Overhead transparency of the handout "Container Identification" from the **Safe Food Storage** lesson; color-coded headers: "Not safe to use" (red), "Use carefully" (yellow), "Safe to use" (green); felt board or display board (optional); microwave containers placed in a grocery bag or box

Estimated time: 20 minutes

Activity 3: Cooking

Purpose: To provide participants the opportunity to use a microwave oven and apply concepts from the lesson

Needed from kit: *Simply Good Eating Recipe Cards*

Suggested foods and recipes: Cabbage and Hamburger Casserole, Hot Chocolate Mix, microwave-steamed vegetables (fresh or pre-packaged frozen selection of your choice)

Microwave Safety Kit Contents

Educator Reference

- “Which Things Can I Use in the Microwave?” (see Handouts below)

Handouts

- “Which Things Can I Use in the Microwave?” (for educator and ELL teacher **only**)
- “Microwave Safety Vocabulary List” (distribute at end of lesson)
- “Microwave Safety: Review and Writing Practice” (for ELL teacher)

Materials to Gather (see Materials section)

- Overhead transparency of the handout “Container Identification” from the **Safe Food Storage** lesson
- Color-coded headers: “Not safe to use” (red), “Use carefully” (yellow), “Safe to use” (green)
- Felt board or display board (optional)
- Microwave containers placed in a grocery bag or box
- *Simply Good Eating Recipe Cards, Volumes 1 and 2*

The microwave oven prepares food quickly and safely, if used properly. We have found however, that many immigrants have had accidents or bad experiences when using the microwave, including fires and burns. Many had never used one before moving to the United States. This suggests that education about microwave safety and the proper use of microwave ovens is necessary.

Microwave cooking is different from cooking with gas or electric ovens. Electromagnetic waves cause water inside foods to move. This movement makes heat to cook the food. The following is a list of safety tips that we suggest you cover sometime during this lesson:

- Supervise children when they use the microwave.
- Be careful of steam from hot, covered foods. It can cause serious burns to hands and face.
- Use hot pads or pot holders when taking food out of the microwave oven.
- Reheat leftovers until they are very hot (165°F), all the way through, not just warm enough to eat.
- Do not heat baby foods and bottles of formula or milk in a microwave oven. They can easily burn the baby's mouth. Table foods being cooked for babies, such as vegetables, can be heated in the microwave, but stir the food well to prevent hot spots. Always test the food by placing it on your wrist to be sure it is not too hot.
- Do not use plastic wrap on high-fat foods. The higher-fat foods microwave faster and can break down the wrap. This can put harmful chemicals into the food.
- Do not cook eggs in their shells. They may explode. Tightly closed containers may also explode.
- Do not use the microwave to heat jars bought in the grocery store that have food in them.
- Paper plates or dishes should be used only to reheat foods that need less than four minutes of cooking.
- Use only plain or white paper products in the microwave, not paper with printed designs.
- Don't reheat take-out food in its original container, unless the container is labeled as microwave safe.
- When you heat frozen or packaged foods in their microwave trays, use them only one time and only for the food they came with.
- Heat foods in the microwave for the minimum amount of time. Products heated too long in the microwave can start a fire.
- Superheated liquids in the microwave are very dangerous. Superheating happens when the liquid reaches the boiling temperature but does not bubble. Then when the water is disturbed (by adding instant coffee or putting in a spoon, for example), the liquid will boil violently, often spraying out of the cup. To avoid this, do not heat liquids too long and handle liquids in the microwave carefully.

Activity 1***How Does a Microwave Oven Work?*****Needed from Kit**

Nothing

1. Introduction

To help participants understand how a microwave works, say, “Rub your hands together fast and hard. How do your hands feel? Are they getting warmer? Microwave ovens work the same way. They make very small parts inside the food rub together and warm up.”

2. Discussion

Ask participants, “Did you ever use a microwave oven before coming to the United States? Do you use a microwave now? Why or why not? Have you ever had any problems using a microwave?” Participant’s responses will allow you to focus your teaching for the rest of the lesson.

3. Conclusion

Explain, “Microwave cooking is different from all other kinds of cooking. It is very convenient because it’s fast and we don’t have to wash a lot of pans. But we need to know how to use a microwave oven safely. We want to avoid starting fires, burning ourselves or our children, eating harmful chemicals, and damaging the microwave oven.”

Activity 2***What Can I Put in the Microwave?***

Note: *If participants have low-level English, we recommend that you teach “Activity 1: Container Identification” from the **Safe Food Storage** lesson before teaching this activity.*

Needed from Kit

Educator Reference:

- “Which Things Can I Use in the Microwave?” (see Handouts section)

Materials:

- Overhead transparency of the handout “Container Identification” from the **Safe Food Storage** lesson
- Color-coded headers: “Not safe to use” (red), “Use carefully” (yellow), “Safe to use” (green)
- Felt board or display board (optional)
- Microwave containers placed in a grocery bag or box

Preparation

Arrange the headers “Not safe to use (red),” “Use carefully (yellow),” and “Safe to use (green),” on a display board, felt board, or table so everyone can see them.

1. Introduction

- a. Explain to participants, “We see microwave ovens in a lot of kitchens and school and employee lunchrooms. Many people don’t really know what is safe to put into a microwave and what is not safe. Today we are going to learn more about microwave safety. First, we are going to check our memory about containers.”
- b. As a review, use an overhead transparency of the handout “Container Identification” from the **Safe Food Storage** lesson. Ask participants to name the various containers.

2. Participant Activity

- a. Explain what the colors of the headers mean. Pass the box/bag around the classroom, asking each participant to take out one item. Ask participants to decide whether each item can be safely used in the microwave. Have them place each item next to the header for the correct category.
- b. After everyone has had a chance to place their containers or products next to the headers, ask if anyone would make any changes. Encourage discussion. Explain the correct microwave use of each item, and add related suggestions or information as needed.

3. Summary

Remind participants, “You need to know what kinds of items you can put into the microwave. This will keep you and your family safe and prevent accidents.”

Activity 3 Cooking

Needed from Kit

Materials:

- Microwave-steamed vegetables (fresh or pre-packaged frozen selection of your choice)
- Suggested recipes from *Simply Good Eating Recipe Cards*: Cabbage and Hamburger Casserole, Hot Chocolate Mix

1. Introduction

Tell participants, “Today we are going to make a recipe using the microwave. Let’s review some of the safety precautions before we get started.” Some items you may wish to emphasize are:

- Using hot pads
- Heating the ingredients the minimum amount of time
- Using the correct dishes and covering materials

2. Food Preparation

- a. Have all participants (including yourself) wash their hands.
- b. Lay out the recipe ingredients. Go over the recipe with participants, being sure to explain the steps and introduce unfamiliar foods.
- c. If this recipe requires several steps, organize participants into teams and assign one step to each team. For example, ask one team to chop vegetables, one to chop meat and/or brown meat, one to open cans and cartons, one to arrange tables and paper products, and one to clean up.
- d. While participants are cooking, assist as needed.

3. Summary

Ask, “Did anyone learn something new today? Will you use your microwave differently next time?” Allow time for discussion. Encourage participants to use their microwave ovens safely.

Suggestions for Follow-up and Review

1. Leave “Microwave Safety: Review and Writing Practice” with the ELL teacher. Encourage the teacher to use within the next few days.
2. Ask, “Did you use a microwave oven in the past week? What did you heat? What kind of container did you use? Did you do anything differently than you usually do?”
3. Leave “Which Things Can I Use in the Microwave?” with the ELL teacher to review with participants. Emphasize that the handout is for the teacher’s reference and is not to be passed out to participants.

Headers (Activity 2)

Use heavy paper or card stock to make headers that participants can read from anywhere in the room. Color-code the headers, as listed below. We suggest laminating the headers. You may wish to bring your own display board or felt board and attach the headers using Velcro®. The titles for the headers, with color-coding in parentheses, are:

- Not safe to use (red)
- Use carefully (yellow)
- Safe to use (green)

Microwave Containers (Activity 2)

Select a variety of containers and products commonly used in the microwave, with examples from each of the three categories used in the educator reference “Microwave Safety Chart.” Place the sample containers and products in a grocery-style brown paper bag(s) or a large box.

Simply Good Eating Recipe Cards, Volumes 1 and 2 (Activity 3)

University of Minnesota Extension. *Simply Good Eating Recipe Cards, Volume 1*. Item MI-06641. Revised 2000. Available from The Extension Store online at <http://shop.extension.umn.edu/> (and search for 06641), or call toll free at 1-800-876-8636.

University of Minnesota Extension. *Simply Good Eating Recipe Cards, Volume 2*. Item MI-07391. Created 1999. Available from The Extension Store online at <http://shop.extension.umn.edu/> (and search for 07391), or call toll free at 1-800-876-8636.

Handout 1: “Microwave Safety Vocabulary List”

Handout 2: “Which Things Can I Use in the Microwave?”
(for educator and ELL teacher reference *only*)

Handout 3: “Microwave Safety: Review and Writing Practice”
(for ELL teacher)

MICROWAVE SAFETY VOCABULARY LIST

burn – an injury caused by heat or fire

Example: Baby food heated in a microwave can **burn** a baby's tongue.

container – a cup, glass, plate, tray, or bowl that holds food or drink

Example: It isn't safe to use a metal **container** in the microwave.

foil – a very thin, light sheet of metal, usually aluminum, used to wrap food

Example: I wrapped the cheese in **foil** and put it in the refrigerator.

leftover – the food that is not eaten during a meal and that is saved for later

Example: We had **leftover** chicken and potatoes for dinner last night.

microwave – an oven or way of cooking that heats food faster than a normal oven

Example: We warmed up the leftover rice in the **microwave**. I will also **microwave** the frozen dinner for 8 minutes.

plastic wrap – a very thin sheet of clear plastic used to cover food

Example: We covered the cold pasta with **plastic wrap** before putting it in the refrigerator.

Styrofoam – a light, thick plastic used to make disposable cups, plates, and trays.




Example: Do not use **Styrofoam** in the microwave.

wax paper – special paper that can be used to wrap food because it keeps water out

Example: It is safe to cover food in the microwave with **wax paper**.

WHICH THINGS CAN I USE IN THE MICROWAVE?

(For educator and ELL teacher reference only)

<p>STOP! Not safe to use</p> 	<p>SLOW! Use carefully</p> 	<p>GO! Safe to use</p> 
Styrofoam and foil plates or trays	Napkins and paper towels without printed designs	Glass cookware
Baby food and bottles of formula and milk	Table foods cooked to serve to babies	Waxed paper
Reusing microwave trays from frozen dinners	Plastic wrap	“Microwave-safe” containers
Paper bags		Paper plates that say “microwave safe” on the package
Deli containers		Dishware that says it is “microwave safe”
Margarine tub		
Containers with metallic edges or glaze		
Glass food containers, such as baby food jars, canning jars		
Napkins and paper towels with printed designs		

MICROWAVE SAFETY: REVIEW AND WRITING PRACTICE

For ELL teacher's use

Tell participants to write EVERY WORD in each sentence they hear. Read a sentence through completely. Then break it into smaller chunks, repeating as many times as needed. Finish by re-reading the full sentence.

If you wish to give students a printed copy to take home, cut copies of the handout on the next page along the dotted line.

1. Do not heat baby bottles in a microwave oven because the milk can get very hot and burn the baby's mouth.
2. Dishes with the words "microwave safe" on the back are safe to use in the microwave oven.
3. If you put metal or foil in a microwave, it can damage the oven.
4. Do not use deli or margarine containers in a microwave.
5. Be careful when handling food from the microwave because it can be very hot.

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