

No Time to Train

Short Lessons for School Nutrition Assistants

Equipment How To's: Combination (Combi) Oven

LESSON OVERVIEW

Lesson Participants: School Nutrition assistants/technicians/food preparation staff

Type of Lesson: Face to face, hands-on session in kitchen working with a combination oven, commonly referred to as a combi oven. Limit participation to the number of staff who can safely work with available equipment in the kitchen. It is recommended to assign no more than 8 participants per combi oven during the lesson.

Time Needed to Conduct Lesson: 15 minutes

Lesson Description: In this lesson, participants will learn techniques for safe use of the combi oven and to improve quality of foods produced in the School Nutrition Program.

Lesson Objectives:

At the end of this lesson, participants will be able to:

1. Confidently operate and maintain a combi oven while producing quality foods.
2. Identify menu items appropriate for preparation using a combi oven.

GET READY TO TEACH

Review the preparation checklist and make a plan to gather all supplies. Review operation manual for the combi oven and information posted here: <http://www.doe.in.gov/nutrition/indiana-no-time-train-lesson-plans>.

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PREPARATION/PLANNING CHECKLIST

Use this Preparation Checklist to prepare for the training session. Track your progress by checking off tasks as they are completed.

Done	
<input checked="" type="checkbox"/>	Tasks
	Before the Training
<input type="checkbox"/>	Review the Instructor's Script.
<input type="checkbox"/>	Review the operation of combi ovens.
<input type="checkbox"/>	Identify the cooking time and temperature for use of combi mode when preparing frozen pizza.
<input type="checkbox"/>	Prepare Certificates of Completion, if desired.
<input type="checkbox"/>	Create a sign-in sheet to record attendance at the in-service.
<input type="checkbox"/>	Copy Evaluation Form and gather pencils.
<input type="checkbox"/>	Gather supplies for work stations at each combi oven: <ul style="list-style-type: none">• 2-inch perforated pan, a full or half-size sheet pan and tongs• Parchment paper – 1 sheet• Broccoli florets, fresh, 2 pounds• Pizza, prepared, frozen – 2 slices• Thermometer• Gloves, disposable• Hot pads
	On Training Day
<input type="checkbox"/>	Remind participants of scheduled training.
<input type="checkbox"/>	Set up work stations for participants near combi oven(s).
<input type="checkbox"/>	Set up Instructor's table with script and supplies.

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LESSON AT A GLANCE (15 minutes)

Time	Topic	Task	Materials
1 minute	Introduction and Overview	The instructor will explain the advantages and safety features of using the combi oven.	Instructor's Script
13 minutes	Proper operation and use of the Combi oven	The instructor will: <ul style="list-style-type: none">Describe the operation of a combi ovenReview the oven settingsDemonstrate blanching fresh broccoli florets (2 lbs) using steam mode.Demonstrate and practice baking prepared frozen pizza using combi mode setting.	<ul style="list-style-type: none">Instructor's ScriptParchment paper – 1 sheetBroccoli florets, fresh, 2 poundsPizza, prepared, frozen – 2 slicesThermometerDisposable glovesHot pads
1 minute	Wrap Up	Re-cap and Evaluation	Evaluation Form

Resources and references:

- Institute of Child Nutrition “Using Equipment Safely and Efficiently” - 2002 BLT available for view or download at <http://www.theicn.org/ResourceOverview.aspx?ID=116>.

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INSTRUCTOR SCRIPT FOR COMBI OVEN

SAY: I am glad you are here to learn how we can safely and effectively use the combination oven, commonly called a combi oven, in our kitchen. By learning the proper ways to use the combi oven, you will see how to accomplish a lot more in less time and prepare food of better quality. Learning how to use the oven will help us work smarter, not harder and students will be influenced with improved appearance and aroma!

DO and SAY: Gather around and take a look. This is a combination of a convection oven and a pressure steamer although it operates without pressure. There are three distinct settings – hot air (like the convection oven); steam (like the steamer) and combi cooking (combination of hot air with super-heated steam). The type of food to be cooked determines the setting to use.

SAY: This oven is easy to operate. Simply turn the knob to the desired setting, and press the “Play” button. Some combi ovens allow steaming at temperatures higher than 212°F – in fact, many models allow steaming up to 265°F. The higher the temperature, the less moisture in the cavity, and the faster the cooking time; however, if your product (such as brown rice) needs additional moisture, reduce the steaming temperature to 230°F.

DO and SAY: Let’s practice using the steam mode by blanching fresh broccoli florets.

ASK: What temperature would be best for blanching broccoli?

LISTEN: Allow participants to state various temperatures.

SAY: Ideally, broccoli may be blanched from 235°F to 248°F.

DO and SAY: Up to 3 pounds of fresh florets in each 2-inch perforated pan allows for even cooking and produces a quality product. Today we are using 2 pounds. To blanch, simply steam for 45 seconds to 1 minute until your florets have turned a beautiful, bright green. The florets are still uncooked, but blanching creates an appealing color and sweeter taste. Next, cool quickly in a refrigerator or blast chiller. For faster chilling place florets on a full size sheet pan before placing in refrigeration unit. Blanched florets may be used with dips or in salads and salad bars immediately after cooling or the next day.

ASK: Do you think blanching improved the color of the broccoli?

LISTEN: Allow participants to comment.

DO and SAY: Let’s practice using the combi mode to prepare frozen pizza. We are setting the oven temperature to _____ and the amount of steam in the cavity to _____. Now, let’s “combi” bake our pizza. We will set the timer for _____ minutes.

(Optional Activity: If a convection oven is available, bake 2 slices of pizza to compare with pizza baked in combi oven).

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SAY: While the pizza is baking, let's talk about maintenance. It's very important to use only approved chemicals in the stainless steel cavity of the combi oven. Avoid damage to the oven by using only a soft cloth to wipe the interior. Many combi ovens have a self-clean option – does this one? Be sure to cool the oven to below 150°F or the unit will not enter cleaning mode. Daily cleaning will reduce the need to self-clean for hours. Occasionally, you may notice mineral buildup on the glass; to remove, create a 50/50 mixture of vinegar and water and wipe away the buildup. Remember to leave the door open when not in use so that the gasket will not create a memory.

Note to Instructor: If time permits, demonstrate cool down.

SAY: You can tell the difference between a convection oven and a combi oven by looking for the water hose. This hose is a handy source for water in the cook area and it also helps to clean the cavity or cool the walls of the unit. Be sure not to spray your co-workers! (Instructor points handle to simulate spraying).

SAY: Another advantage to combi cooking is there is no flavor transfer between products. If a pan of onions was cooking next to our pizza, the flavors would not be absorbed. The combi mode allows for less moisture and weight loss -- both are money down the drain! The reduction in moisture loss maintains quality, particularly when reheating leftovers.

SAY: Let's see if our pizza is ready.

DO: Have participants practice removing pizza and taking the internal temperature to be sure product is 135°F or above (or required temperature for your product). Discuss product quality among team members.

Note to Instructor: *If optional activity is implemented, compare pizza cooked in convection oven to pizza cooked with combi mode.*

ASK: Any suggestions to share with the others?

SAY: It is time to wrap up our session. Thanks for taking the time to practice. These new techniques should help make your work easier and increase meal appeal to our students. Today you earned 15 minutes of Food Production (2100) Training. Be sure you signed in for the session and remember to file your Certificate of Completion with other training documents.