



Hot and Cold Foods Temperatures

Lesson Overview

Lesson Participants: School nutrition assistants

Type of Lesson: Short face-to-face training session

Time Needed to Conduct the Lesson: 15 minutes

Lesson Description: This lesson explains the importance of keeping foods safe by identifying the temperatures in the temperature danger zone.

Lesson Objectives

At the completion of the lesson the participant will be able to

1. Take active steps to reduce the amount of time food is held in the temperature danger zone.

Get Ready to Train

The format for the food safety lesson plans include an overview, preparation checklist, lesson-at-a-glance with timeline for conducting the lesson, script, and lists of references and other resources. The instructor will use the script to present the lesson to the participants. Each script gives directions to the instructor—**DO, SAY, ASK**—to deliver the lesson.

Trainer Tip: The amount of time indicated in this lesson plan does not include the time needed to conduct the Practice Application. To complete the activity, the manager-trainer will coach the school nutrition assistant on the job.

Preparation Checklist

Directions: Use the Preparation Checklist to get ready for the training session. Keep track of your progress by checking off tasks as they are completed.

Done <input checked="" type="checkbox"/> Lesson Tasks	
	Gather Materials Materials Needed:
<input type="checkbox"/>	<ul style="list-style-type: none"> • Trainer’s Script
<input type="checkbox"/>	<ul style="list-style-type: none"> • Food Safety Fact Sheet: <i>Temperature Danger Zone</i> (one for each participant; accessible at http://www.nfsmi.org/DocumentSearch.aspx?searchType=advanced)
<input type="checkbox"/>	<ul style="list-style-type: none"> • <i>Keep Hot Foods Hot! Keep Cold Foods Cold!</i> mini-poster (accessible at http://www.nfsmi.org/DocumentSearch.aspx?searchType=advanced)
<input type="checkbox"/>	<ul style="list-style-type: none"> • <i>On the Serving Line</i> mini-poster (accessible at http://www.nfsmi.org/DocumentSearch.aspx?searchType=advanced)
<input type="checkbox"/>	<ul style="list-style-type: none"> • <i>Refrigerate for Safety!</i> mini-poster (accessible at http://www.nfsmi.org/DocumentSearch.aspx?searchType=advanced)
<input type="checkbox"/>	<ul style="list-style-type: none"> • <i>Practice Taking Temperatures Activity Sheet Handout 1</i>(one for each participant)
<input type="checkbox"/>	<ul style="list-style-type: none"> • International food safety icons for Refrigeration/Cold Holding and Hot Holding available at www.foodprotection.org/resources/food-safety-icons/icons.php
<input type="checkbox"/>	<ul style="list-style-type: none"> • Pens or pencils (one for each participant)
<input type="checkbox"/>	<ul style="list-style-type: none"> • Session Evaluation/Feedback Form (one for each participant)

**Preparation Checklist
(continued)**

	Prepare for Lesson
	Before the Training:
<input type="checkbox"/>	Make enough copies of Handout 1: Practice Taking Temperatures Activity Sheet for each participant.
<input type="checkbox"/>	<ul style="list-style-type: none"> • Make copies of Session Evaluation/Feedback Form (one for each participant). You may use the sample NFSMI evaluation form provided at the end of the lesson.
	On Training Day:
<input type="checkbox"/>	<ul style="list-style-type: none"> • Place pens or pencils on tables (one for each participant).
<input type="checkbox"/>	<ul style="list-style-type: none"> • Distribute the food safety fact sheet <i>Temperature Danger Zone</i> (one for each participant).
<input type="checkbox"/>	<ul style="list-style-type: none"> • Distribute <i>Practice Taking Temperatures Activity Sheet Handout 1</i> (one for each participant).
	On the Trainer's Table:
<input type="checkbox"/>	<ul style="list-style-type: none"> • Trainer's Script
<input type="checkbox"/>	<ul style="list-style-type: none"> • Food Safety Fact Sheet: <i>Temperature Danger Zone</i>
<input type="checkbox"/>	<ul style="list-style-type: none"> • <i>Keep Hot Foods Hot! Keep Cold Foods Cold!</i> mini-poster
<input type="checkbox"/>	<ul style="list-style-type: none"> • International food safety icons for Refrigeration/Cold Holding and Hot Holding available at • www.foodprotection.org/resources/food-safety-icons/icons.php
<input type="checkbox"/>	<ul style="list-style-type: none"> • Trainer's copy of the International Food Safety Icons
<input type="checkbox"/>	<ul style="list-style-type: none"> • <i>Practice Taking Temperatures Activity Sheet Handout 1</i>
<input type="checkbox"/>	<ul style="list-style-type: none"> • Session Evaluation/Feedback Forms

Lesson at a Glance
(15 minutes)

Time	Topic	Task	Materials
2 minutes	Introduction and Overview	Introduce topic	<ul style="list-style-type: none"> • Trainer’s Script
3 minutes	Objective 1: Take active steps to reduce the amount of time food is held at these temperatures	Discuss the temperature danger zone for hot and cold foods.	<ul style="list-style-type: none"> • Trainer’s Script • Fact Sheet: <i>Temperature Danger Zone</i> • <i>Keep Hot Foods Hot! Keep Cold Foods Cold!</i> mini-poster.
6 minutes		Discuss the refrigeration and serving temperature for food to keep food safe.	<ul style="list-style-type: none"> • Trainer’s Script • Mini-poster <i>Refrigerate for Safety!</i> • Mini-poster <i>On the Serving Line</i> • Food Safety Icon <i>Refrigeration/Cold Holding</i> • Food Safety Icon
		Conduct Activity: Name the Icon	
2 minutes	Summary and Close	Review Key Points Discuss Practice Application	<ul style="list-style-type: none"> • Script • <i>Practice Taking Temperatures Activity Sheet Handout 1</i>
2 minutes	Session evaluation/feedback	Conduct a short evaluation of the lesson.	<ul style="list-style-type: none"> • Sample evaluation/feedback form or standard form used in your child nutrition program

References

U.S. Department of Agriculture, Food and Nutrition Service, & National Food Service Management Institute. (2000). *Food safety mini-posters*. University, MS: Author Available at: <http://www.nfsmi.org/ResourceOverview.aspx?ID=74>

U.S. Department of Agriculture, Food and Nutrition Service, & National Food Service Management Institute. (2005). *Thermometer information resource*. University, MS: Author. Available at: <http://www.nfsmi.org/documentlibraryfiles/PDF/20080215082332.pdf>

International Association for Food Protection (2005). *Food safety icon*. Des Moines, IA: Author. Available at: <http://www.foodprotection.org/Icons/Iconhome.htm>

Hot and Cold: The Importance of Temperature in Foodservice

Introduction

(2 minutes)

Temperature maintenance of food and equipment is very important for food safety. We know that bacteria grow very rapidly between 41 °F and 135 °F—the temperature range known as the temperature danger zone. At every step from receiving to serving, it is important to limit the time that food is in the temperature danger zone.

Objectives

(3 minutes) **Temperature Danger Zone**

At the end of the lesson, you will be able to

1. Take active steps to reduce the amount of time food is held in the temperature danger zone.

SAY:

Let's begin by reviewing the temperature danger zone. Print the food safety fact sheet, *Temperature Danger Zone* and the *Keep Hot Foods Hot! Keep Cold Foods Cold!* mini-poster.

DO:

Show the *Keep Hot Foods Hot! Keep Cold Foods Cold!* mini-poster.



SAY:

The temperature danger zone is the temperatures between 41 °F and 135 °F. This is the temperature range in which bacteria multiply most rapidly. If food is held in the temperature danger zone for too long, bacteria counts can grow high enough to cause a foodborne illness. That is why foodservice employees take active steps to reduce the amount of time food is held at these temperatures.

SAY:

Let's review the temperatures on the temperature mini- poster.

Q. What is the low and high temperature in the temperature danger zone?

A. 41 °F to 135 °F

Q. What is the temperature for holding foods?

A. 41 °F or below

Temperature danger zone.

(6 minutes)

SAY:

It is important to keep food safe when stored in the refrigerator. Let's review some ways that will help ensure safe food during refrigeration.

DO:

Show the mini-poster *Refrigerate for Safety*



SAY:

Refrigerated food should be stored at 41 °F or below. Temperatures of the refrigerator and food should be checked and documented routinely.

DO:

Show the mini-poster *On the Serving Line*



SAY:

At the serving step, hot food should be kept at 135 °F or above and cold food should be kept at 41 °F or below. Cooling and reheating should be done as quickly as possible to limit the time that the food is in the temperature danger zone.

Temperature is even important in clean up! Water temperature is important when washing, rinsing, and sanitizing dishes.

Activity: Name the Icon

DO:

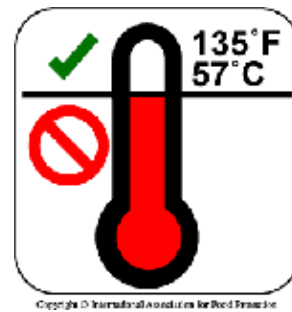
Show each icon. Ask participants to identify the message in the icon. Provide the correct answers. Relate the discussion to the lesson.

Note to Trainer: A larger template of the icons is provided on the Food Protection web site at <http://www.foodprotection.org/resources/food-safety-icons/icons.php>



Answer

Refrigeration/Cold Holding



Answer

Hot Holding

Practice Application

(2 minutes)

SAY:

Checking the temperature of food and the temperatures of equipment is important. During the next week, let's practice taking and recording temperatures in the kitchen. We want to be sure the foods we are storing and serving to students is held safely. Go through the kitchen and use *Practice Taking Temperatures Activity Sheet Handout 1* to record temperatures of the food in the areas listed. Compare the temperature you record to the safe temperature range given. How are we doing? It takes all of us to keep food safe and out of the temperature danger zone.

ASK:

Are there any questions or comments about what we have discussed today?

Session Evaluation

(2 minutes)

DO:

Distribute the session evaluation/feedback form.

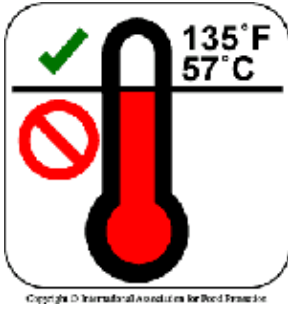
SAY:

Thank you for participating in the lesson today. Please take a couple of minutes to complete the session evaluation/feedback form. Thank you for your input.

Identify the Icon Activity



Identify the Icon Activity



Practice Taking Temperatures Activity Sheet

Handout 1

Directions: Record the temperatures for hot and cold foods. Once you have reviewed the temperatures, answer the questions at the end of the table.

Food Item	Safe Temperature Range	Current Temperature
Cold Holding Temperature	41 °F or lower	
Hot Holding Temperature	135 °F or higher	

Are there any temperatures that are out of the safe range?

Name an action to take to correct any problem with temperatures? (For example, the problem with the equipment was reported to the manager)



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Training Session Evaluation

Instructions:

Completely fill in the circle of your answer. Use a #2 pencil.

Please select only one response for each statement. Do not fold or crease this sheet.

Title of Meeting: _____
 Session Topic: _____
 Date: _____ Time Slot: _____ Location: _____ Length of Event _____ (hrs/min):
 _____ hours

Attendee Status:

- | | | |
|--|---|--|
| <input type="radio"/> District director | <input type="radio"/> Major city director | <input type="radio"/> Private consultant/trainer |
| <input type="radio"/> State agency staff | <input type="radio"/> Site-level manager | <input type="radio"/> Foodservice assistant |
| <input type="radio"/> Educator | <input type="radio"/> Other (please list) _____ | |

Reaction to this Training Session	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Please read the following statements related to the training session. Rate your level of agreement by using the scale 5 (Strongly Agree) to 1 (Strongly Disagree).					
The session objectives were clearly presented.					
The session objectives were achieved.					
The session provided me with an opportunity to actively participate.					
The content was organized.					
The activities supported learning.					
The activities held my attention.					
I can apply what I learned about this session to my job.					
The trainer(s) answered questions adequately.					
The training activities helped me to understand the content.					
The handouts provided will be useful reference materials.					
Attending the session increased my knowledge on the topic.					
Attending the session increased my skill on the topic.					
I would recommend this session to others.					
Overall, the training session met or exceeded my expectations.					

Comments about this Session

The information I found MOST useful was:

Please share any additional comments:

