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.

<table>
<thead>
<tr>
<th>Done</th>
<th>Lesson Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑</td>
<td></td>
</tr>
</tbody>
</table>

### Gather Materials

**Materials Needed:**

- Trainer’s Script
- *Practice Taking Temperatures Activity Sheet Handout 1* (one for each participant)
- Pens or pencils (one for each participant)
- Session Evaluation/Feedback Form (one for each participant)
### Preparation Checklist (continued)

#### Prepare for Lesson

**Before the Training:**

- [ ] Make enough copies of Handout 1: Practice Taking Temperatures Activity Sheet for each participant.

- [ ] 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:

- [ ] Place pens or pencils on tables (one for each participant).

- [ ] Distribute the food safety fact sheet *Temperature Danger Zone* (one for each participant).

- [ ] Distribute *Practice Taking Temperatures Activity Sheet Handout 1* (one for each participant).

#### On the Trainer’s Table:

- [ ] Trainer’s Script

- [ ] Food Safety Fact Sheet: *Temperature Danger Zone*

- [ ] *Keep Hot Foods Hot! Keep Cold Foods Cold!* mini-poster

- [ ] International food safety icons for Refrigeration/Cold Holding and Hot Holding available at

- [ ] Trainer’s copy of the International Food Safety Icons

- [ ] *Practice Taking Temperatures Activity Sheet Handout 1*

- [ ] Session Evaluation/Feedback Forms
Lesson at a Glance
(15 minutes)

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Task</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 minutes</td>
<td>Introduction and Overview</td>
<td>Introduce topic</td>
<td>• Trainer’s Script</td>
</tr>
<tr>
<td>3 minutes</td>
<td>Objective 1: Take active steps to reduce the amount of time food is held at these temperatures</td>
<td>Discuss the temperature danger zone for hot and cold foods.</td>
<td>• Trainer’s Script • Fact Sheet: Temperature Danger Zone • Keep Hot Foods Hot! Keep Cold Foods Cold! mini-poster.</td>
</tr>
<tr>
<td>6 minutes</td>
<td></td>
<td>Discuss the refrigeration and serving temperature for food to keep food safe.</td>
<td>• Trainer’s Script • Mini-poster Refrigerate for Safety! • Mini-poster On the Serving Line • Food Safety Icon Refrigeration/Cold Holding • Food Safety Icon</td>
</tr>
<tr>
<td>2 minutes</td>
<td>Summary and Close</td>
<td>Review Key Points Discuss Practice Application</td>
<td>• Script • Practice Taking Temperatures Activity Sheet Handout 1</td>
</tr>
<tr>
<td>2 minutes</td>
<td>Session evaluation/feedback</td>
<td>Conduct a short evaluation of the lesson.</td>
<td>• Sample evaluation/feedback form or standard form used in your child nutrition program</td>
</tr>
</tbody>
</table>
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.

References


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

SAY:
The temperature danger zone is the temperatures between 41 ºF and 135 ºF. 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 ºF to 135 ºF

Q. What is the temperature for holding foods?  
A. 41 ºF 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*

![Refrigerate for Safety poster](image)

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*

![On the Serving Line poster](image)

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

![Thermometer Icon]

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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.

<table>
<thead>
<tr>
<th>Food Item</th>
<th>Safe Temperature Range</th>
<th>Current Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold Holding Temperature</td>
<td>41 ºF or lower</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hot Holding Temperature</td>
<td>135 ºF or higher</td>
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<td></td>
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</tbody>
</table>

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)
# 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:

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______________________________________________________________
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## Session Topic:

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______________________________________________________________
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## Date:

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__________________________
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## Time Slot:

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__________________________
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## Location:

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__________________________
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## Length of Event ___(hrs/min):

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hours
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## Attendee Status:

- [ ] District director
- [ ] Major city director
- [ ] Private consultant/trainer
- [ ] State agency staff
- [ ] Site-level manager
- [ ] Foodservice assistant
- [ ] Educator
- [ ] Other (please list) _________________________

## Reaction to this Training Session

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).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The session objectives were clearly presented.</td>
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<tr>
<td>The session objectives were achieved.</td>
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<td>The session provided me with an opportunity to actively participate.</td>
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<tr>
<td>The content was organized.</td>
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<tr>
<td>The activities supported learning.</td>
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<tr>
<td>The activities held my attention.</td>
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<tr>
<td>I can apply what I learned about this session to my job.</td>
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<tr>
<td>The trainer(s) answered questions adequately.</td>
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<tr>
<td>The training activities helped me to understand the content.</td>
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<tr>
<td>The handouts provided will be useful reference materials.</td>
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<tr>
<td>Attending the session increased my knowledge on the topic.</td>
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<td>Attending the session increased my skill on the topic.</td>
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<td>I would recommend this session to others.</td>
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<td>Overall, the training session met or exceeded my expectations.</td>
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## Comments about this Session

The information I found MOST useful was:

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______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
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Please share any additional comments:

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______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
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