Using a Metal Stem Thermometer

Lesson Overview

Lesson Participants: School Nutrition Assistants/Technicians

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

Time Needed to Conduct the Lesson: 10 minutes

Lesson Description: This lesson covers use of a metal stem thermometer to take accurate internal food temperatures in a school nutrition environment. Practice-based activities are used to identify the steps required to take accurate internal food temperatures to prevent food borne illness. Participants will also learn the methods they should use to take accurate internal temperatures of specific foods commonly used in school meal programs.

Lesson Objectives:
At the end of this lesson the participant will be able to:

1. Identify the sequence of steps required to take accurate internal food temperatures with a metal stem thermometer.
2. Identify methods for taking accurate internal temperatures of specific food types commonly used in school meal programs.

Get Ready to Train

The format for the **No Time to Train** lessons includes an overview, preparation checklist, lesson at a glance with timeline for conducting the lesson, lists of sources, references, and an instructor's script. The manager/instructor will use the script to present the lesson to the participants. The script gives directions to the manager/instructor—**DO, SAY, ASK, LISTEN, AND ACTIVITY**—to deliver the lesson.

No special audiovisual or electronic equipment is needed to conduct the lesson. The lesson can be presented in the cafeteria, media center, or classroom.

Preparation Checklist

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

Done ☑	Lesson Tasks
	Gather Materials Materials Needed:
☐	• Instructor's Script
☐	• Handout 1: Steps to Take Accurate Internal Food Temperatures Using a Metal Stem Thermometer (one for each participant)
☐	• Handout 2: Methods for Taking Accurate Internal Temperatures of Specific Foods Using a Metal Stem Thermometer (one for each participant)
☐	• Pencils (one for each participant)
☐	• Session Evaluation form (one for each participant)
	Prepare for Lesson Before the Training:
☐	• Make copies of Handouts 1 and 2 (one for each participant).
☐	• Make copies of Session Evaluation form (one for each participant).
	On Training Day:
☐	• Place pencils on tables (one for each participant).
☐	• Distribute Handouts 1 and 2 to each participant as outlined in Instructor's Script.
	On the Instructor's Table:
☐	• Instructor's Script
☐	• Handout 1: Steps to Take Accurate Internal Food Temperatures Using a Metal Stem Thermometer
☐	• Handout 2: Methods for Taking Accurate Internal Temperatures of Specific Foods Using a Metal Stem Thermometer
☐	• Answers to Handouts 1 and 2
☐	• Session Evaluation forms

Lesson at a Glance
(10 minutes)

Time	Topic	Task	Materials
1 minute	Introduction and Overview	Instructor introduces lesson.	Instructor's Script
3 minutes	Objective 1: Identify the correct sequence of steps to achieve accurate food temperatures with a metal stem thermometer.	Participants use a sequence activity to identify the correct order of steps necessary to achieve accurate food temperatures with a metal stem thermometer.	Handout 1: Steps to Take Accurate Internal Temperatures Using a Metal Stem Thermometer A metal stem thermometer for each group to use as reference plus one for the instructor.
3 minutes	Objective 2: Identify methods to take temperatures in specific types of food.	Participants will use a matching activity to identify correct methods of taking temperatures in specific types of food commonly used in school nutrition programs.	Handout 2: Methods for Taking Accurate Internal Temperatures of Specific Foods Using a Metal Stem Thermometer
2 minutes	Wrap up and Review	Instructor asks for a volunteer to summarize the importance of mastering the sequence of steps to take accurate internal food temperatures with a metal stem thermometer; and another volunteer to summarize the importance of using different methods to achieve accurate internal temperatures in a variety of foods.	
1 minute	Session Evaluation	Conduct a short evaluation of the lesson.	Session Evaluation form

Notes to Instructor:
Prior to introducing the lesson, ask the participants to work together in groups of 3-4.

References

Central District Health Department. (2009). *How to use a thermometer to check food temperatures.* Retrieved February 12, 2010, from http://www.cdhd.ne.gov/UserFiles/File//Food%20Info/Info%20-%20UsingThermometer.pdf

National Food Service Management Institute (2009). *Serving it safe seminar trainer's guide (3rd ed).* University, MS: Author.

Instructor's Script

SAY:
A well trained child nutrition team is essential to meeting the important goal of feeding children healthful, nutritious meals through a sound school nutrition program. Healthful and nutritious meals must also be safe for customers to eat. Just one case of food borne illness (food poisoning) can have a devastating effect on a school nutrition program. The perception that food prepared and served in the program is not safe to eat can lower participation. Lower participation reduces program revenues and may ultimately impact jobs and the overall effectiveness and stability of the school nutrition program. All child nutrition team members must take an active role in promoting and achieving the program priority of serving safe meals.

The first objective of the training today is identifying the correct sequence of steps to take accurate internal food temperatures using a metal stem thermometer. The second objective is identifying methods for taking accurate internal temperatures of specific foods commonly used in school meal programs using a metal stem thermometer.

Let's get started!

DO:
Give each participant a copy of **Handout 1: Steps to Take Accurate Internal Food Temperatures Using a Metal Stem Thermometer**. Ask participants to keep the handout face down.

SAY:
Foods need to be cooked and served to specific temperatures to prevent students and other consumers from becoming sick. All foods need to be kept out of the danger zone – temperatures between 41 and 135 degrees – to be safe to eat. A metal stem thermometer is an important kitchen tool for monitoring food temperatures during cooking, cooling, reheating, cold holding, and hot holding of foods.

DO:
Instruct the participants to turn over **Handout 1: Steps to Take Accurate Internal Food Temperatures Using a Metal Stem Thermometer**.

Ask participants to take the thermometer and follow along as you highlight the following components of the thermometer: ***dial, protective sleeve (remove), temperature sensing dimple,*** and ***insertion point.***

SAY:
Are there any questions about the parts of the metal stem thermometer?

ASK:
May I have a volunteer read the instructions for the activity in **Handout 1: Steps to Take Accurate Internal Temperatures Using a Metal Stem Thermometer**?

LISTEN:
Listen to the participant read the directions aloud.

SAY:
You will have approximately 3 minutes to read the statements and put them in the correct sequence. We will check answers at the end of the 3 minutes. I encourage you to work together.

ACTIVITY:
Participants will complete **Handout 1: Steps to Take Accurate Internal Temperatures Using a Metal Stem Thermometer**.

DO:
Following the 3 minutes, choose a group to share their answers. Ask for input from the other groups.

Based on the feedback, reinforce the correct sequence.

SAY:
It is important to learn and follow this sequence each and every day, whenever food temperatures are taken during cooking, cooling, reheating, cold holding, and hot holding. As we all know, serving safe food is a child nutrition program priority.

Do you have any questions about the steps for using a metal stem thermometer to take accurate internal food temperatures?

LISTEN:
Listen to individual responses. Answer questions to the best of your ability. If there are questions you can't answer, tell the participants you will find out the answer and let them know later. If you need assistance in finding answers, please call the National Food Service Management Institute at 800-321-3054.

DO:
Give each participant a copy of **Handout 2: Methods for Taking Accurate Internal Temperatures of Specific Foods Using a Metal Stem Thermometer.**

ASK:
May I have a volunteer read the instructions for the activity in **Handout 2: Methods for Taking Accurate Internal Temperatures of Specific Foods Using a Metal Stem Thermometer?**

SAY:
Groups will have approximately 3 minutes to read the methods, select the most correct answer, and record it opposite the food item.

ACTIVITY:
Participants will complete **Handout 2: Methods for Taking Accurate Internal Temperatures of Specific Foods Using a Metal Stem Thermometer.**

DO:
Following the 3 minutes, ask each group to read their choices for two food items, starting at the top of the listing. After all answers have been shared ask for feedback. Reinforce the correct answers.

SAY:
Remember to record all temperatures taken according to program procedures. This provides documentation for the Health Department and parents if food safety questions or concerns arise.

Do you have any questions about methods for taking temperatures of specific foods?

LISTEN:
Listen to individual responses. Answer questions to the best of your ability. If there are questions you can't answer, tell the participants you will find out the answer and let them know later. If you need assistance in finding answers, please call the National Food Service Management Institute at 800-321-3054.

DO:
Distribute the Session Evaluation form.

SAY:
Thank you for participating in the lesson today. Please take a couple of minutes to complete the Session Evaluation. Thank you for your input.

Handout 1: Steps to Take Accurate Internal Food Temperatures Using a Metal Stem Thermometer

Instructions: Read the steps listed below and put them in the correct sequence. Place the number 1 next to the first step, 2 next to the second step, and so on.

SEQUENCE	STEPS
	Locate the sensing dimple on the stem (the thermometer must be inserted in foods to just past the dimple (approximately 2 inches)
	Clean and sanitize the thermometer stem if you aren't sure it was cleaned and sanitized after its previous use
	Insert the stem, point first, into the thickest part of the food being careful not to touch the bottom of the pan (also avoid bones or fat in the food if applicable)
	Record the temperature according to kitchen procedures
	Clean and sanitize the thermometer stem after each use, according to kitchen procedures*
	Hold the thermometer by the dial with the point facing away from you
	Check the temperature in more than one thick area of the food
	Wait until the thermometer reading has stabilized (stopped changing) and then read the temperature
	Remove the thermometer from the protective sleeve

Suggested Answers
Handout 1: Steps to Take Accurate Internal Food Temperatures Using a Metal Stem Thermometer

Instructions: Read the steps listed below and put them in the correct sequence. Place the number 1 next to the first step, 2 next to the second step, and so on.

SEQUENCE	STEPS
4	Locate the sensing dimple on the stem (the thermometer must be inserted in foods to just past the dimple (approximately 2 inches)
2	Clean and sanitize the thermometer stem if you aren't sure it was cleaned and sanitized after its previous use
5	Insert the stem, point first, into the thickest part of the food being careful not to touch the bottom of the pan (also avoid bones or fat in the food if applicable)
8	Record the temperature according to kitchen procedures
9	Clean and sanitize the thermometer stem after each use, according to kitchen procedures*
3	Hold the thermometer by the dial with the point facing away from you
7	Check the temperature in more than one thick area of the food
6	Wait until the thermometer reading has stabilized (stopped changing) and then read the temperature
1	Remove the thermometer from the protective sleeve

***Instructor's Note:** A kitchen procedure on cleaning and sanitizing a metal stem thermometer prior to each use should be developed. Processes may include:

- Cleaning the metal stem with water and soap (do not completely immerse the thermometer) and air dry.
- Cleaning the metal stem with an individual alcohol wipe

Handout 2: Methods for Taking Accurate Internal Temperatures of Specific Foods Using a Metal Stem Thermometer

Instructions: Match the temperature taking method to the food type.

Remember – the sensing point (the dimple) on the stem must be inserted in the food for a temperature to register.

Methods

A. Insert metal stem into the side of the product

B. Insert the metal stem between the crust and the topping

C. Insert the metal stem into the end of the product

D. Stack several pieces together and insert metal stem through center of stack

E. Insert the metal stem into several thick areas of the product, being careful not to touch the bottom of the pan with the stem

F. Insert the metal stem into the thickest part of the product (avoiding bone and fat if applicable)

Method	Food Type
	Pizza
	Soups and Stews
	Hot Dogs, Egg Rolls, or Mini Corn Dogs
	Hamburger, Chicken, or other Meat Patties
	Taco Meat
	Turkeys (whole or roasts), Beef Roasts, or Chicken Pieces
	Casseroles (like Macaroni & Cheese, Lasagna, Mashed Potatoes, Rice, Spaghetti Sauce, Pasta)
	Chicken or Beef Nuggets

Suggested Answers
Handout 2: Methods for Taking Accurate Internal Temperatures of Specific Foods Using a Metal Stem Thermometer

Instructions: Match the temperature taking method to the food type.

Remember – the sensing point (the dimple) on the stem must be inserted in the food for a temperature to register.

Methods

A. Insert metal stem into the side of the product

B. Insert the metal stem between the crust and the topping

C. Insert the metal stem into the end of the product

D. Stack several pieces together and insert metal stem through center of stack

E. Insert the metal stem into several thick areas of the product, being careful not to touch the bottom of the pan with the stem

F. Insert the metal stem into the thickest part of the product (avoiding bone and fat if applicable)

Method	Food Type
B	Pizza
E	Soups and Stews
C	Hot Dogs, Egg Rolls, or Mini Corn Dogs
A	Hamburger, Chicken, or other Meat Patties
E	Taco Meat
F	Turkeys (whole or roasts), Beef Roasts, or Chicken Pieces
E	Casseroles (like Macaroni & Cheese, Lasagna, Mashed Potatoes, Rice, Spaghetti Sauce, Pasta)
B	Chicken or Beef Nuggets

National Food Service Management Institute
The University of Mississippi

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: _____ Trainer's Code: _____
Date: _____ Time Slot: _____ Location: _____ Length of Event (hrs/min): _____

Attendee Status:

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

	Reaction to this Session Please read the following statements related to the session. Rate your level of agreement by using the scale 5 (Strongly Agree) to 1 (Strongly Disagree).	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	The session objectives were clearly presented.	⑤	④	③	②	①
2.	The session objectives were achieved.	⑤	④	③	②	①
3.	I can apply what I learned in this session to my job.	⑤	④	③	②	①
4.	Attending the session increased my skill on the topic.	⑤	④	③	②	①
5.	Attending the session increased my knowledge on the topic.	⑤	④	③	②	①
6.	I would recommend this session to others.	⑤	④	③	②	①
7.	Overall, the session met or exceeded my expectations.	⑤	④	③	②	①

Comments about this Session

The information I found MOST useful was:

_____
_____
_____

Please share any additional comments:

_____
_____
_____

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