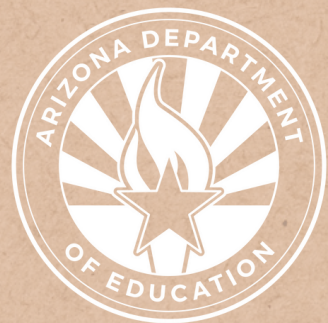


# How to Develop a School Food Safety Program Based on the Process Approach to HACCP Principles



Health and Nutrition Services  
Arizona Department of Education





# Disclaimer

This training was developed by the Arizona Department of Education (ADE) Health and Nutrition Services Division (HNS). The content in this training is intended for professionals operating one or more USDA Child Nutrition Programs in Arizona under the direction of ADE. The information in this training is subject to change. Attendees are encouraged to access professional development materials directly from the training library to prevent use of outdated content.

# Intended Audience

**This training is intended for School Food Authorities (SFAs) operating the National School Lunch Program (NSLP).**

# Objectives

**At the end of this training, attendees should be able to:**

- Understand the minimum elements that must be included in a food safety program based on Hazard Analysis Critical Control Point (HACCP) principles; and,
- Effectively develop a School Food Safety Program based on the Process Approach to the HACCP Principles.

## **TRAINING HOURS**

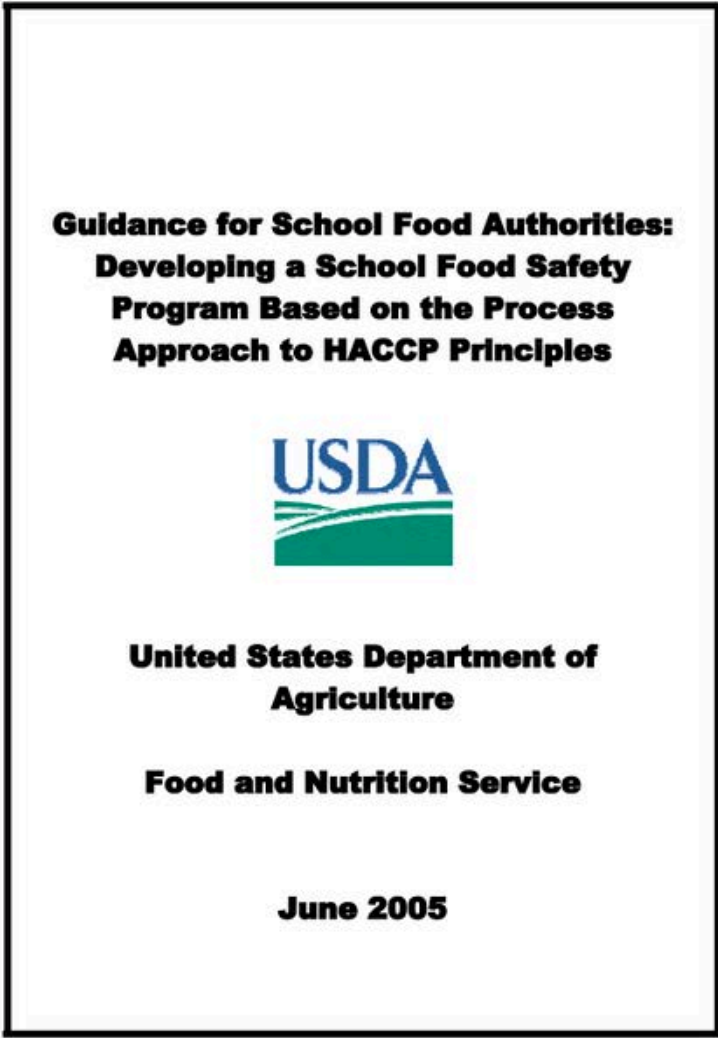
Information to include when documenting this training for Professional Standards:

**Training Title:** How to Develop a School Food Safety Program Based on the Process Approach to HACCP Principles

**Key Area:** 2000 - Operations

**Learning Code:** 2620

**Length:** 75 minutes



The instruction within this Online Course is based on USDA's manual - Guidance for School Food Authorities: Developing a School Food Safety Program Based on the Process Approach to HACCP Principles.

In addition to completing this course, HNS recommends reviewing USDA's manual for complete guidance.

[Click here](#) to access the manual.

# Quiz Time



Throughout this guide, there will be comprehension quiz questions to test your knowledge and help you apply what you're learning. Be sure to review these quiz questions and answers available within the guide.

The question mark icon below will indicate a comprehension quiz question.



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The following slides will only cover how-to instructions developing a School Food Safety Program based on the HACCP Principles. Additional training on food safety requirements will be available on HNS' NSLP Training Library soon.

# Definitions

## **Hazard Analysis**

Review of your food service operation to find areas where food safety problems might occur

## **Control Measures**

Steps you take to reduce the likelihood of food contamination

## **Critical Control Points**

Points in food preparation and processing where controlling a step (such as cooking) is essential to assure food safety

## **Critical Limits**

The time and temperature ranges for food preparation and service (either cold or hot) that keep food safe

## **Process Approach**

A method of grouping menu items into one of three processes depending on the number of times the food goes through the temperature “danger zone.” which is between 41°F and 135°F (per the amendment to the 2001 FDA Food Code issued in August 2003)

## **Standard Operating Procedure (SOP)**

Written instructions for a food service task that reduce food safety hazards

## **Hazard Analysis and Critical Control Point (HACCP)**

A prevention-based food safety system that identifies and monitors specific food safety hazards that can adversely affect the safety of food products.

## **HACCP Plan**

A written document that is based on the principles of HACCP and describes the procedures to be followed to ensure the control of a specific process or procedure

# Introduction to School Food Safety Programs & HACCP



SECTION 1



# School Food Safety Program

## **PURPOSE OF A SCHOOL FOOD SAFETY PROGRAM**

The purpose of a school food safety program is to ensure the delivery of safe foods to children in the school meals programs by controlling hazards that may occur or be introduced into foods anywhere along the flow of the food from receiving to service (food flow).

An effective program will help control food safety hazards that might arise during all aspects of food service (receiving, storing, preparing, cooking, cooling, reheating, holding, assembling, packaging, transporting and serving).



# School Food Safety Program

## **KEY POINTS TO DEVELOP A SCHOOL FOOD SAFETY PROGRAM**

Three main points are essential to developing a School Food Safety Program: **sanitation, temperature control, and Standard Operating Procedures (SOPs).**

- **Sanitation:** Be sure that all of your food preparation areas are clean and sanitary, such as workers' hands, utensils, and food contact surfaces. Avoid cross contamination.
- **Temperature control:** keep cold foods cold and hot foods hot. Cook to proper temperatures and hold at proper temperatures, and be sure to record those temperatures. A basic, properly calibrated food thermometer (digital or dial) is all you need to check for proper temperatures.
- **Standard Operating Procedures (SOPs):** can be used both for sanitation and to verify that proper temperatures are being observed, as well as other aspects of a foodservice operation.

# School Food Safety Program

## FOUNDATION OF HACCP

Safe steps in food handling, cooking, and storage are essential to preventing foodborne illness. You cannot see, smell, or taste harmful bacteria that may cause illness.

An effective School Food Safety Program must have clear plans to address each of the key steps in food preparation, including the guidelines to keep food safe.

### Four Basic Guidelines:

- **Clean:** Wash hands and surfaces often.
- **Separate:** Do not cross contaminate.
- **Cook:** Cook to proper temperatures, verifying temperatures with a food thermometer.
- **Chill:** Refrigerate properly.



# Developing a School Food Safety Program

## **THE PROCESS APPROACH TO HACCP**

HACCP is a systematic approach to construct a food safety program designed to reduce the risk of foodborne hazards by focusing on each step of the food preparation process - from receiving to service.

The Process Approach categorizes food preparation into three broad categories based on how many times each menu item moves through the temperature danger zone. USDA recommends that SFAs use the Process Approach to HACCP because it gives them flexibility to create a program suitable for a variety of situations.

This training focuses on the Process Approach, which is found to be more practical for school foodservice operations.

- More information regarding the traditional approach to HACCP may be found at <https://www.fsis.usda.gov/inspection/compliance-guidance/haccp>.

# School Food Safety Program

## **WHAT IS HAZARD ANALYSIS CRITICAL CONTROL POINT (HACCP)?**

A HACCP is a prevention-based food safety system that identifies and monitors specific food safety hazards that can adversely affect the safety of food products.

A methodical and logical method for food safety involves:

- Evaluating possible hazards
- Identifying critical control points in food processing
- Creating monitoring procedures to ensure effective control of the identified hazards



# School Food Safety Program

## WHY IS HACCP IMPORTANT IN FOOD SERVICE?

Implementing an effective HACCP is vital in school food service. It helps ensure that the food served to children is safe.

- Foodborne illness outbreaks are major financial and public relations cost to the food service industry.
- Children are vulnerable.
- Visual inspections of food project cannot detect pathogens.
- Documented HACCP controls can prevent foodborne illness from occurring.



# School Food Safety Program

## **HACCP PRINCIPLES**

The seven principles of Hazard Analysis and Critical Control Points (HACCP) are:

- **Hazard analysis:** A multi-step process that involves identifying, evaluating, and controlling potential hazards
- **Critical control point (CCP) identification:** Establishing where prerequisites are under control
- **Critical limits establishment:** Establishing limits to monitor
- **Monitoring procedures:** Establishing procedures to monitor
- **Corrective actions:** Establishing steps to take when a critical limit is exceeded
- **Verification procedures:** Establishing procedures to validate that the system is producing the intended results
- **Record-keeping and documentation:** Establishing procedures to create a detailed plan that shows the food is safe

# School Food Safety Program

## TYPES OF HAZARDS

There are two types of hazards - specific and nonspecific:

- **Specific Hazards:** ones specific to the preparation of the food, such as improper cooking for the specific type of food (beef, chicken, eggs, etc.)
- **Nonspecific Hazards:** nonspecific ones that affect all foods, such as poor personal hygiene.

Specific hazards are controlled by identifying Critical Control Points (CCPs) and implementing measures to control the occurrence or introduction of those hazards. Nonspecific hazards are controlled by developing and implementing SOPs.





# School Food Safety Program

## **REQUIREMENTS OF A SCHOOL FOOD SAFETY PROGRAM**

A school food safety program should control both specific and nonspecific hazards and consist of SOPs and a written plan for applying the basic HACCP principles. It must include the following elements:

- **Documented SOPs:** SOPs are a very important factor and serve as a basic food safety foundation and aim to control hazards not outlined specifically in the HACCP plan. *For example, soiled and unsanitized surfaces of equipment and utensils should not come into contact with raw or cooked (ready-to-eat) food. Proper procedures to prevent this occurrence should be covered by an SOP.*
- **Written plan for applying HACCP principles at each food preparation and service site that includes:**
  - Documenting menu items in the appropriate HACCP process category
  - Documenting Critical Control Points of food production
  - Monitoring
  - Establishing and documenting corrective actions
  - Recordkeeping
  - Reviewing and revising the overall food safety program periodically

# Developing a School Food Safety Program Based on the Process Approach to HACCP Principles



SECTION 2

# Developing a School Food Safety Program

Before developing your food safety program, you should review the food service operations within your SFA and describe the facility, functions, and standard procedures for each.

Some basic information to consider when doing this initial review includes:

- Types of facilities in your SFA
- Existing SOPs
- Number and type of employees at each site
- Types of equipment
- Processes for food preparation
- Menu items

# Developing a School Food Safety Program

## **SEVEN STEPS TO HELP DEVELOP FOOD SAFETY PROGRAM**

- 1** Develop, document in writing, and implement SOPs.
- 2** Identify and document in writing all menu items according to the Process Approach to HACCP.
- 3** Identify and document control measures and critical limits.
- 4** Establish monitoring procedures.
- 5** Establish corrective actions.
- 6** Keep records.
- 7** Review and revise your overall food safety program periodically.

# Develop, Document in Writing, and Implement SOPs



STEP 1

# Develop, Document, and Implement SOPs

Standard Operating Procedures (SOPs) are crucial for establishing the foundation of your school's overall food safety program.

- SOPs consist of detailed written guidelines for regular food service duties that impact food safety, covering tasks like correct dishwashing methods and those integrated into the HACCP-based plan, such as proper cooking procedures.
- Each SOP should outline monitoring, documentation, corrective measures, and regular reviews of the procedures they address.

Following SOPs enables food service managers and staff to efficiently manage and avoid hazards.

To view sample SOPs, see Appendix I in USDA's manual - [Guidance for School Food Authorities: Developing a School Food Safety Program Based on the Process Approach to HACCP Principles.](#)

# SOP Elements

Each SOP must have 4 sections:

- 1 Purpose
- 2 Scope
- 3 Key Words
- 4 Instructions

## Cooling Potentially Hazardous Foods

(Sample SOP)

- 1 **Purpose:** To prevent foodborne illness by ensuring that all potentially hazardous foods are cooled properly
- 2 **Scope:** This procedure applies to foodservice employees who prepares, handles, or serves food.
- 3 **Key Words:** Cross-Contamination, Temperatures, Cooling, Holding
- 4 **Instructions:**
  1. Train foodservice employees who prepare or serve food on how to use a food thermometer and how to cool foods using this procedure.
  1. Modify menus, production schedules, and staff work hours to allow for implementation of proper cooling procedures.
  2. Prepare and cool food in small batches.
  3. Chill food rapidly using an appropriate cooling method:

Visit the [Institute of Child Nutrition's webpage](#) to view a series of SOPs applicable to school food service establishments.

# Develop, Document, and Implement SOPs

## **TYPES OF STANDARD OPERATING PROCEDURES**

### General Safety Considerations:

- Keep chemicals separate from food and food-related items.
- Do not allow bare hand contact with ready-to-eat (RTE) foods.

### Personnel:

- Ensure handwashing after using the restroom, sneezing, coughing, or cleaning.
- Establish guidelines for ill employees in food production or preparation zones.

### Product Procurement:

- Adhere to vendor selection guidelines like State distributing agency vendor certification protocols.
- Create buyer product specifications.



# Develop, Document, and Implement SOPs

## **TYPES OF STANDARD OPERATING PROCEDURES**

### Receiving:

- Reject all cans with swollen sides or ends, flawed seals, seams, rust, or dents.
- Put perishable foods into the refrigerator or freezer immediately.

### Storing:

- Store all food and paper supplies 6 to 8 inches off the floor.
- Label all food with name of the school and delivery date.

### Transporting:

- Preheat transfer carts prior to use.
- Limit transport travel time to a maximum of 2 hours.

# Develop, Document, and Implement SOPs

## TYPES OF STANDARD OPERATING PROCEDURES

### Holding:

- Keep hot foods hot (above 135°F)
- Keep cold foods cold (below 41°F)

### Preparation:

- Do not keep food in the “danger zone” (between 41°F and 135°F) for more than 4 hours.
- Handle food with utensils; clean, gloved hands; or clean hands.
  - *Bare hand contact with food during preparation should be limited. Bare hand contact with RTE (ready to eat) foods should be prohibited.*

### Cleaning/Sanitizing:

- Use clean water, free of grease and food particles.
- Keep wiping cloths in sanitizing solution while cleaning.

# Develop, Document, and Implement SOPs

## **TYPES OF STANDARD OPERATING PROCEDURES**

Cooking and documenting temperatures:

- Record all temperatures when they are taken.
- Use only a clean and sanitized thermometer when taking internal temperatures of foods.

Cooling:

- Cool rapidly by storing food in small batches in individual containers; cover loosely so that heat can escape quickly.
- Keep cold foods cold by pre-chilling ingredients for salads.

Reheating:

- Transfer reheated food to hot-holding equipment only when the food reaches the proper temperature.
- Use only cooking ranges, ovens, steamers, and microwave ovens to reheat foods. Use hot-holding equipment only to maintain temperature and not for rapidly heating food.

# Identify and Document in Writing all Menu Items According to the Process Approach to HACCP

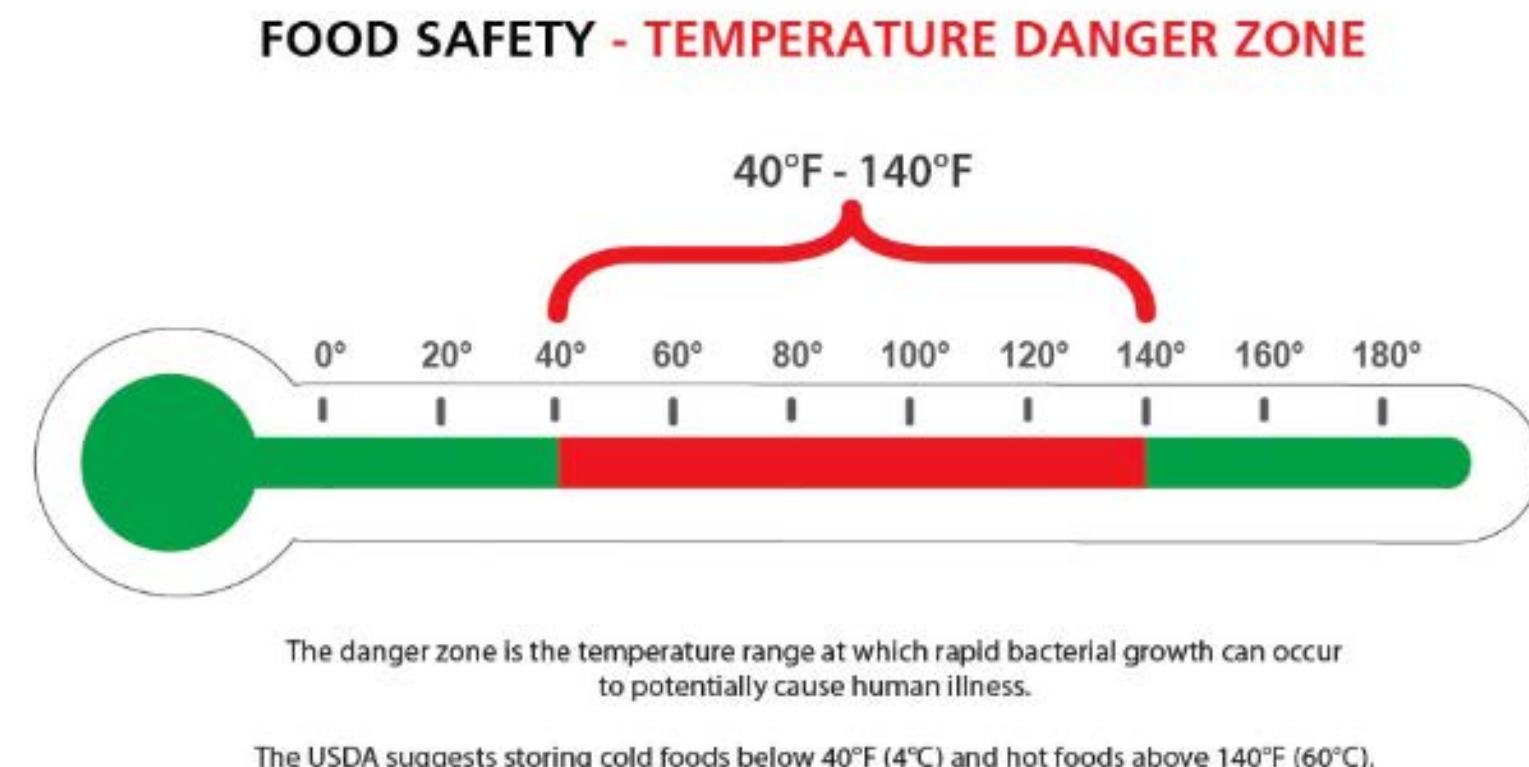


STEP 2

# Identify and Document

The Process Approach to HACCP is a method of classifying food preparation into three broad categories. These categories are based on the number of times a menu item makes a complete trip through the temperature danger zone. The way food is prepared at each site determines into which of the three food preparation processes it will fall.

Temperature, if not controlled properly during food preparation and service, can contribute to a higher risk of foodborne illness. Therefore, it is critical to manage the temperature of food. In order to protect foods from potential hazards, it is important to keep hot foods hot and cold foods cold. It is most important to **keep food out of the temperature danger zone** (41°F - 135° F).



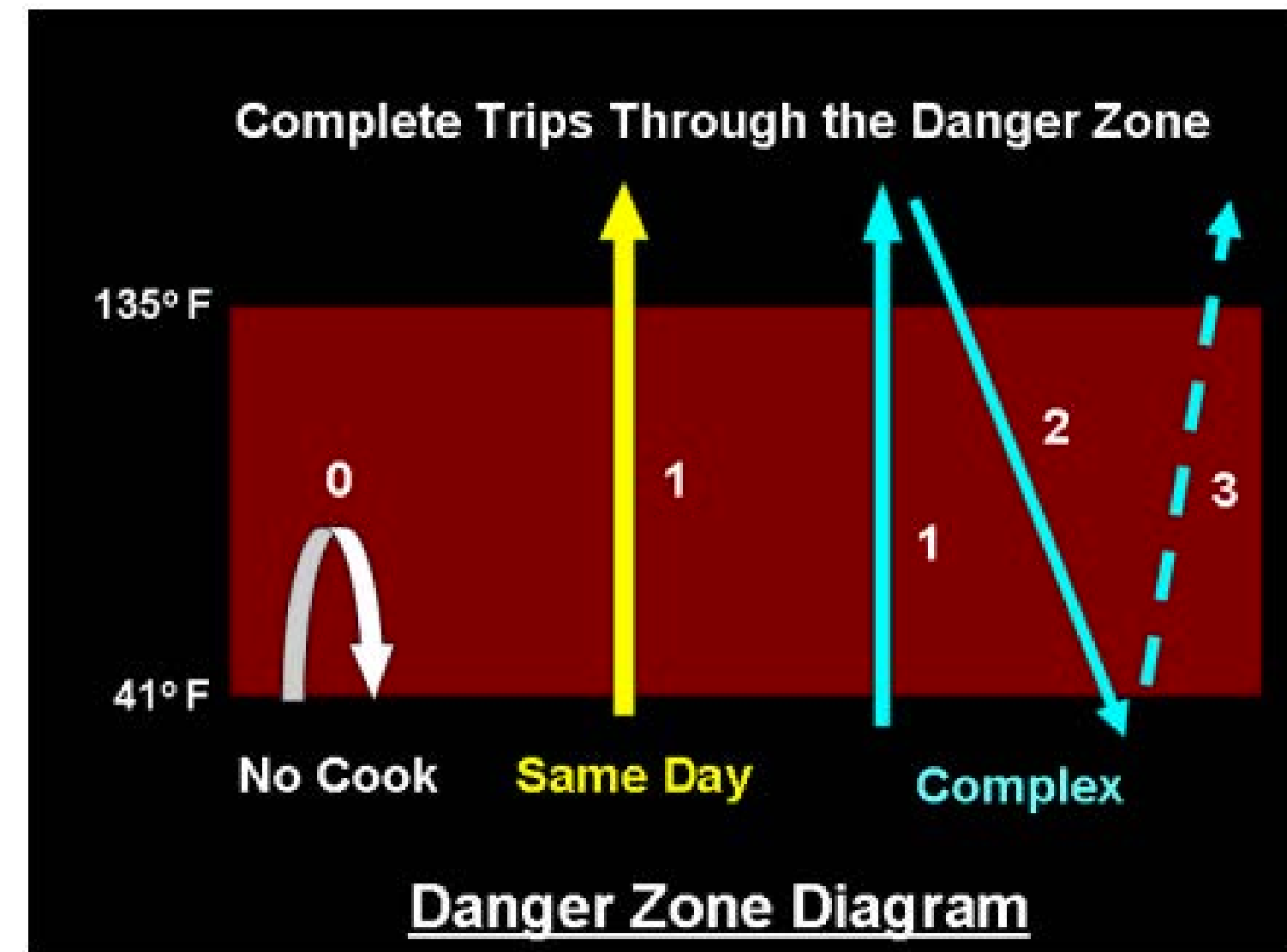
# Identify and Document

## DANGER ZONE DIAGRAM

When assigning menu items to one of the three processes, assess the food preparation methods in your school district's facilities. Decide if the menu items require no cooking step, are cooked for immediate service, or need additional cooling and reheating after cooking. This categorization will help you allocate each menu item to the correct process.

Determine how many times each menu item passes through the danger zone (41°F - 135°F) and categorize them into the following food preparation processes:

- Process #1: No Cook
- Process #2: Same Day Service
- Process #3: Complex Food Preparation



# Identify and Document

## PROCESS #1 - NO COOK

The menu item does not go completely through the danger zone in either direction.

Receiving → Store → Prepare → Hold → Serve

- Example: Fruit Salad with ready to eat ingredients



### Process 1: NO COOK

#### Example: Fruit Salad

##### RECEIVE

Control Measures: Known Source, Receiving Temperatures



##### STORE

Control Measures: Proper Storage Temperatures, Prevent Cross Contamination, Store away from chemicals



##### PREPARE

Control Measures: Personal Hygiene, Restrict Ill Employees, Prevent Cross Contamination

##### CCP: COLD HOLDING

Critical Limit: Hold at 41°F or Below.\*  
Check and record temperatures.



##### SERVE

Control Measures: No Bare Hand Contact with Ready to Eat Food, Personal Hygiene, Restrict Ill Employees



Thermometer icon means that taking a temperature is necessary.



Clipboard icon means recording data is necessary.

# Identify and Document

## PROCESS #2 - SAME DAY SERVICE

The menu item takes one complete trip through the danger zone (going up during cooking) and is served.

Receiving → Store → Prepare → **Cook** → Hold → Serve

- Example: Baked Chicken was made from frozen, raw ingredients that involved the cook step.



### Process 2: SAME DAY SERVICE

#### Example: Baked Chicken





# Identify and Document

## PROCESS #3 - COMPLEX FOOD PREPARATION

The menu item goes through both heating and cooling, taking two or more complete trips through the danger zone.

Receiving → Store → Prepare → **Cook** → **Cool**  
**Reheat** → Hold → Serve

Menu items in the Beef and Bean Tamale Pie have preparation steps which require cooling and reheating prior to being served.



### Process 3: Complex Food Preparation

#### Example: Beef and Bean Tamale Pie

**RECEIVE**  
 Control Measures: Known Source, Receiving Temperatures



**STORE**  
 Control Measures: Proper Storage Temperatures, Prevent Cross Contamination, Store away from chemicals



**PREPARE**  
 Control Measures: Personal Hygiene, Restrict Ill Employees, Prevent Cross Contamination



**CCP: COOK**  
 Critical Limit: Cook to 165°F for at least 15 seconds.\*  
 Check and record temperatures.



**CCP: COOL**  
 Critical Limit: Cool to 70°F within 2 hours and from 70°F to 41°F or lower within an additional 4 hours.\*  
 Check and record temperatures.



**CCP: REHEAT**  
 Critical Limit: Heat to 165°F for at least 15 seconds.\*  
 Check and record temperatures.



**CCP: HOT HOLD**  
 Critical Limit: Hold for hot service at 135°F or higher.\*  
 Check and record temperatures.



**SERVE**  
 Control Measures: No Bare Hand Contact with Ready to Eat Food, Personal Hygiene, Restrict Ill Employees



Thermometer icon means that taking a temperature is necessary.



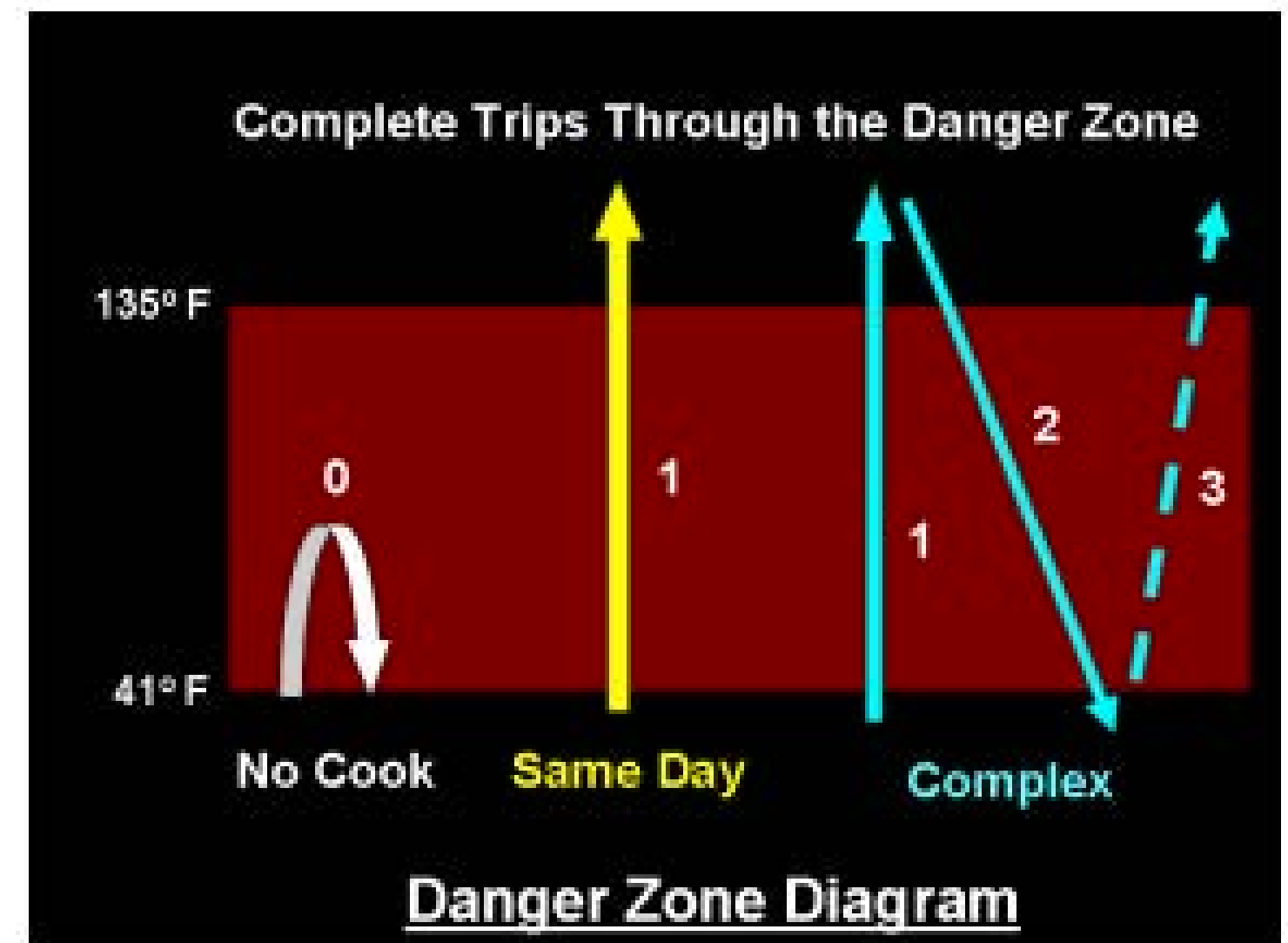
Clipboard icon means recording data is necessary.

# Identify and Document

## DOCUMENTATION

You should document the appropriate process for each menu item. This can be done in a variety of ways, including writing the process number directly on the recipes, or developing a list of menu items in each of the processes.

If the menu item does not appear to fit into any of the processes, it still needs to be handled and prepared correctly.



# Identify and Document

## DOCUMENTATION

Remember that with fresh produce, it's crucial to avoid direct contact with ready-to-eat items using bare hands. SOPs for handling fresh fruits and vegetables must be integrated into your food safety strategy. Detailed instructions on receiving, storing, and preparing whole fruits, vegetables, and salad bar ingredients can be found in the Best Practices for Handling Fresh Produce in Schools guide.



[USDA Best Practices for Handling Fresh Produce in Schools Guide.](#)

# Identify and Document

## DOCUMENTATION

Salad bar ingredients, like freshly cut fruits and vegetables ready for consumption or served whole should be documented as **Time/Temperature Control for Safety (TCS) foods**.

- Verify that the temperature of equipment is at 41 °F or below before use.
- Check to be sure the bottom of the pan comes into contact with the ice or ice pack, when using them for temperature control.
- Chill foods to an internal temperature of 41 °F or below before placing on the salad bar.
- Check and record internal temperatures of each food item with a clean, sanitized, and calibrated thermometer before placing it on the salad bar. Check at least every two hours to verify that it remains at or below 41 °F.



USDA Best Practice on Handling Fresh Produce on Salad Bars

# Identify and Document

## DOCUMENTATION

It is crucial to consider the entire process involved when a menu item is prepared at one location and served at another to anticipate and manage potential risks. Many school districts employ a combination of central and satellite kitchens. In such cases, the SFA needs to outline the overall food preparation process for menu items and create a specific plan for each site to define responsibilities clearly.

- For instance, a central kitchen may cook a menu item like Broccoli, Cheese, and Rice Casserole (classified as a Process #2 item) and deliver it hot to a satellite kitchen for same-day service. The central kitchen is responsible for recipe adherence and following control points and SOPs. The satellite kitchen is accountable for site-specific control points, such as checking food temperatures upon receipt and maintaining safe food temperatures until serving. Both kitchens must comply with all relevant SOPs.

Additionally, some foodservice establishments utilize leftovers after initial food preparation. A procedure for handling leftovers must be established. Leftovers typically fall under Process #3, having been cooked, cooled, stored, and reused.

# Quiz Time

Which of the following is not an example of a critical control limit?

- A** Cook chicken breast to an internal temperature of 165°F.
- B** Store uncooked chicken breasts at 41°F.
- C** Discard cooked chicken breasts if they remain between 41°F and 135°F for more than four hours.
- D** Hold chicken hot for service at 135°F.



# Quiz Time

Which of the following is not an example of a critical control limit?

- A** Cook chicken breast to an internal temperature of 165°F.
- B** Store uncooked chicken breasts at 41°F.
- C** Discard cooked chicken breasts if they remain between 41°F and 135°F for more than four hours.
- D** Hold chicken hot for service at 135°F.

**This is not an example of a critical control limit because it is a recommended storage temperature for uncooked chicken, rather than a specific requirement that must be met to ensure food safety. Critical limits are specific thresholds that must be reached or maintained to prevent the growth of harmful bacteria or other food safety hazards.**



# Identify and Document Control Measures and Critical Limits



STEP 3



# Control Measures & Critical Control Points

Control measures encompass all actions aimed at preventing, eliminating, or minimizing hazards. These measures consist of SOPs, Critical Control Points (CCPs), and the specific critical limits set for each of the three processes.

After identifying the suitable process for each menu item, establish the necessary control measures to avert hazards at every phase of food preparation, from receiving to serving. Determine which control measures are vital to guaranteeing food safety.



# Control Measures & CCPS

## KEY CONTROL MEASURES AT CRITICAL POINTS IN FOOD PREPARATION

To manage specific hazards (physical, chemical, or biological) during food preparation, it is crucial to implement control measures at critical points, referred to as CCPs.

These CCPs are pivotal junctures where action can be taken to mitigate a food safety hazard to a safe level. Failure to control these points adequately could pose health risks.

Despite varying hazards, the control measures employed to address hazards in all menu items across the three processes are generally alike.

### Process #1 – No Cook:

- Maintain cold holding or limit time in the danger zone to prevent bacterial growth and toxin production (e.g., discard after holding at room temperature for 4 hours).

### Process #2 – Same Day Service:

- Cook to eliminate bacteria and pathogens.
- Employ hot holding or limit time in the danger zone to avoid spore-forming bacteria growth.

### Process #3 – Complex Food Preparation:

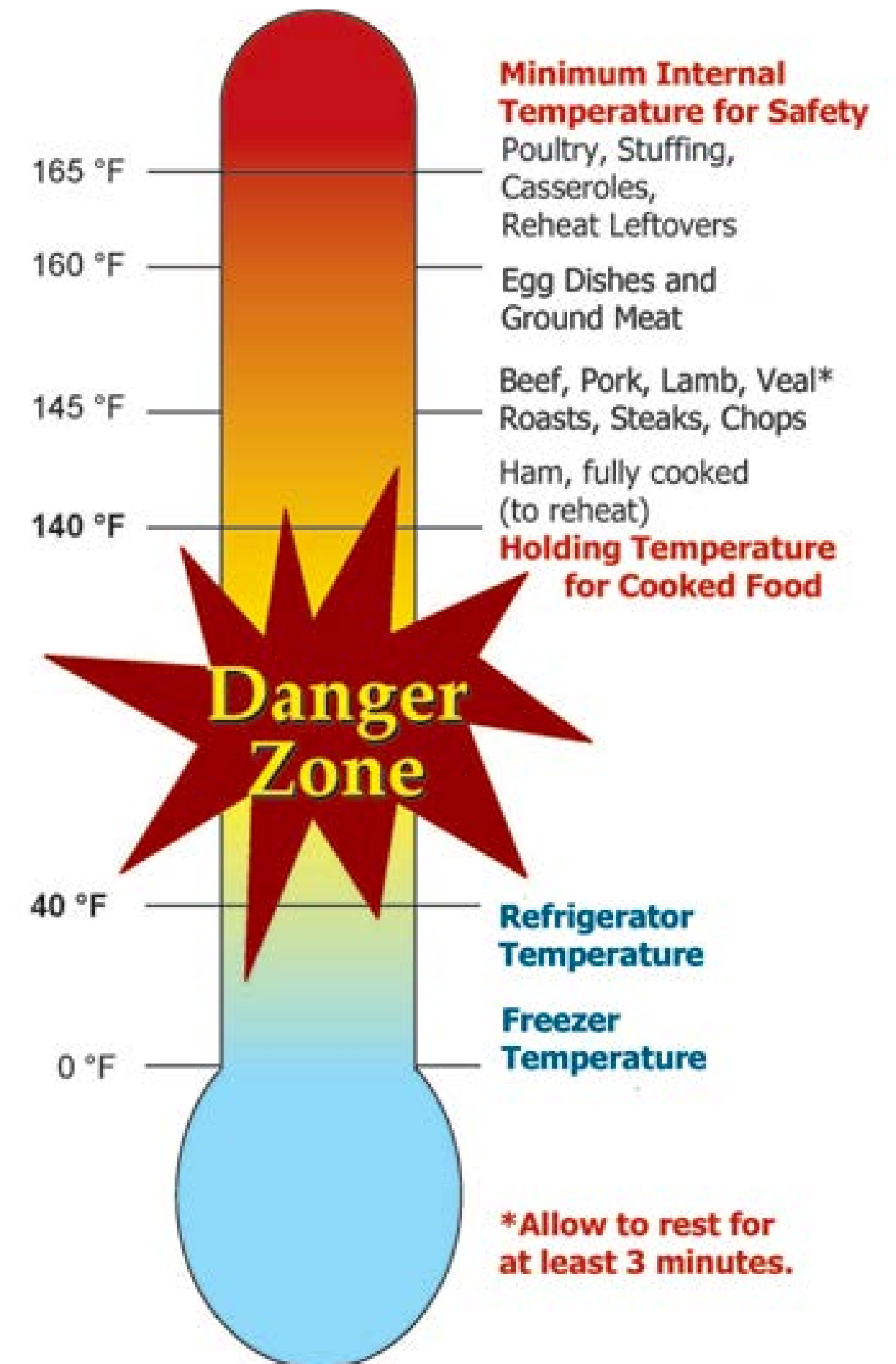
- Cook to eliminate bacteria and pathogens.
- Cool to prevent spore-forming bacteria growth.
- Implement hot and cold holding or limit time in the danger zone to prevent bacterial growth and toxin formation.
- Reheat for hot holding, if necessary.

# Control Measures & CCPS

## CCPS AND CORRESPONDING CRITICAL LIMITS

Each Critical Control Point (CCP) is established with safety boundaries, known as critical limits, to manage food safety hazards effectively. These critical limits specify the necessary time and/or temperatures to ensure food safety. Failure to meet these critical limits can compromise the safety of the food being prepared.

These critical limits, in terms of time and temperature, are quantifiable and observable. The accompanying diagram illustrates the minimum temperatures and holding times (critical limits) for various common food items on the menu.



# Temperature Rules!

## COOKING, HOLDING AND REHEATING

Cooking food to proper internal temperatures (e.g., poultry to 165°F) prevents foodborne illnesses.

Hot holding at 140°F or above is crucial to avoid bacterial growth.

Reheating leftovers to 165°F will destroy bacteria.

Using equipment like steam tables helps maintain safe temperatures for enjoyable and healthy meals.

USDA U.S. DEPARTMENT OF AGRICULTURE

Is it done yet? You can't tell just by looking!

Use a food thermometer to check for the safe minimum internal temperature.

<b>Fish</b> 	<b>Red Meat</b> 	<b>Ground Meat</b> 	<b>Egg Dishes</b> 	<b>Poultry</b> 
	Beef, Pork, Veal & Lamb (Steaks, Roasts & Chops)	Beef, Pork, Veal & Lamb (Ground)		Turkey, Chicken & Duck (Whole, Pieces & Ground)
<b>145°F</b>	<b>145°F</b> <small>(with a 3-minute rest time)</small>	<b>160°F</b>	<b>160°F</b>	<b>165°F</b>

Have more questions? Visit our website at [www.FSIS.USDA.gov](http://www.FSIS.USDA.gov)  
or contact the USDA Meat and Poultry Hotline at 1-888-MPHotline (1-888-674-6854) or [MPHotline@usda.gov](mailto:MPHotline@usda.gov)

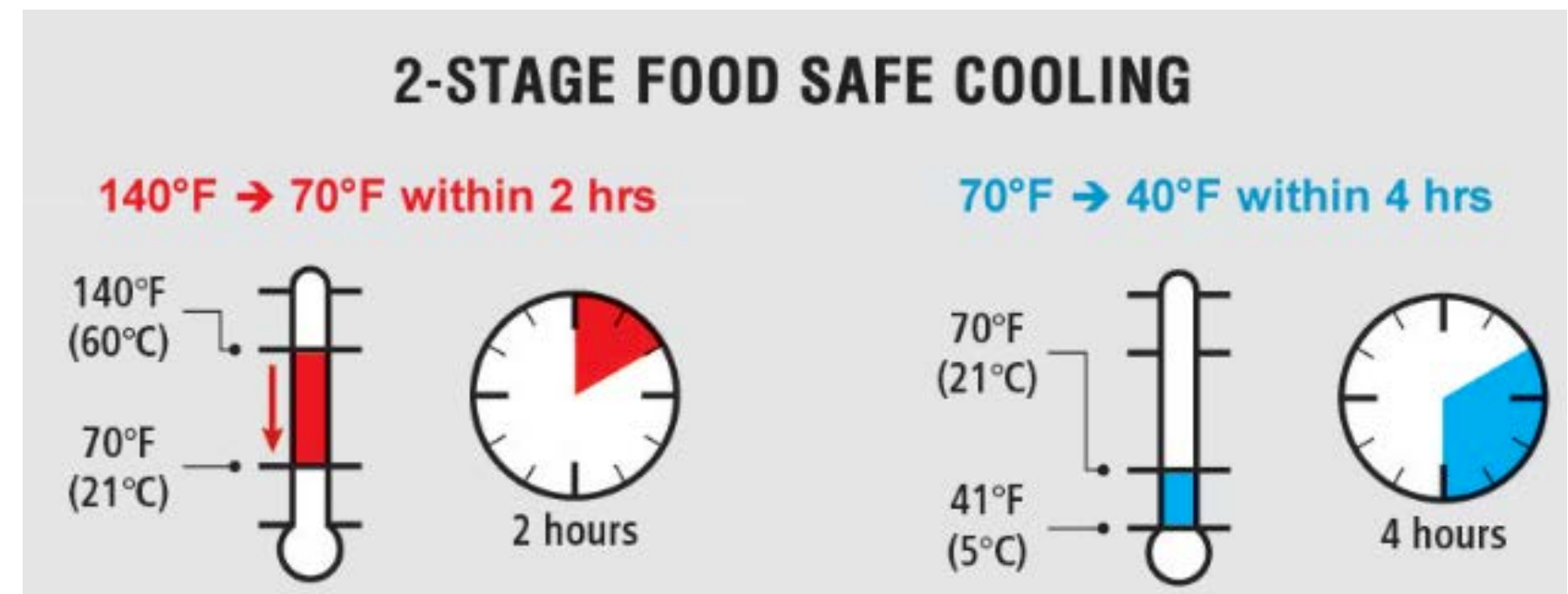
# Temperature Control

## COOLING

### 2-Stage Food Safe Cooling

It can take a long time to get through the danger zone when cooling a large batch of chili, soup, or stew. To be safe, food must:

- Cool down from **140°F to 70°F** within **2 hours**; and
- Cool down from **70°F to 40°F** or below within **4 hours**.



### Initial 2-hour Cool is Critical

The initial 2-hour cool is the most critical time period since the food is passing through the temperature range that supports the most rapid microorganism growth. If food has not reached 70°F within 2 hours, it must be reheated to 165°F for 15 seconds and then cooled again or thrown away.

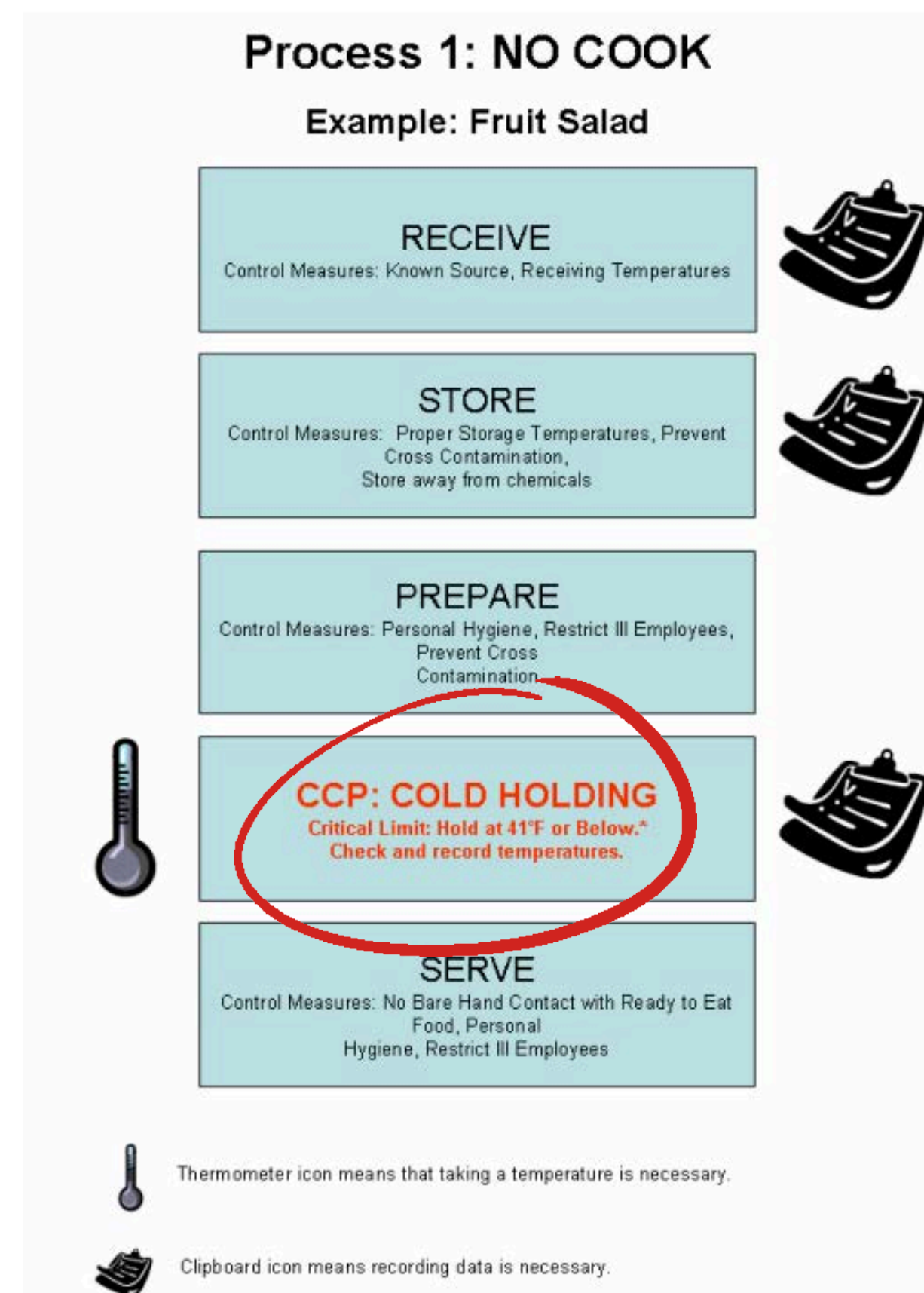
# Critical Control Measures & Limits

## PROCESS 1: NO COOK

Receive → Store → Prepare → **Cold Holding** → Serve

Example: Fruit Salad

- Critical Limit: Internal Temperature of 41°F
- Check & Record Temperatures



# Critical Control Measures & Limits

## PROCESS 2: SAME DAY SERVICE

Receive → Store → Prepare → **CCP: Cook** → **CCP: Hot Hold** → Serve

Example: Baked Chicken

- **Cook:**

- Critical Limit: Internal Temperature of 165°F for 15 seconds
- Check & Record Temperatures

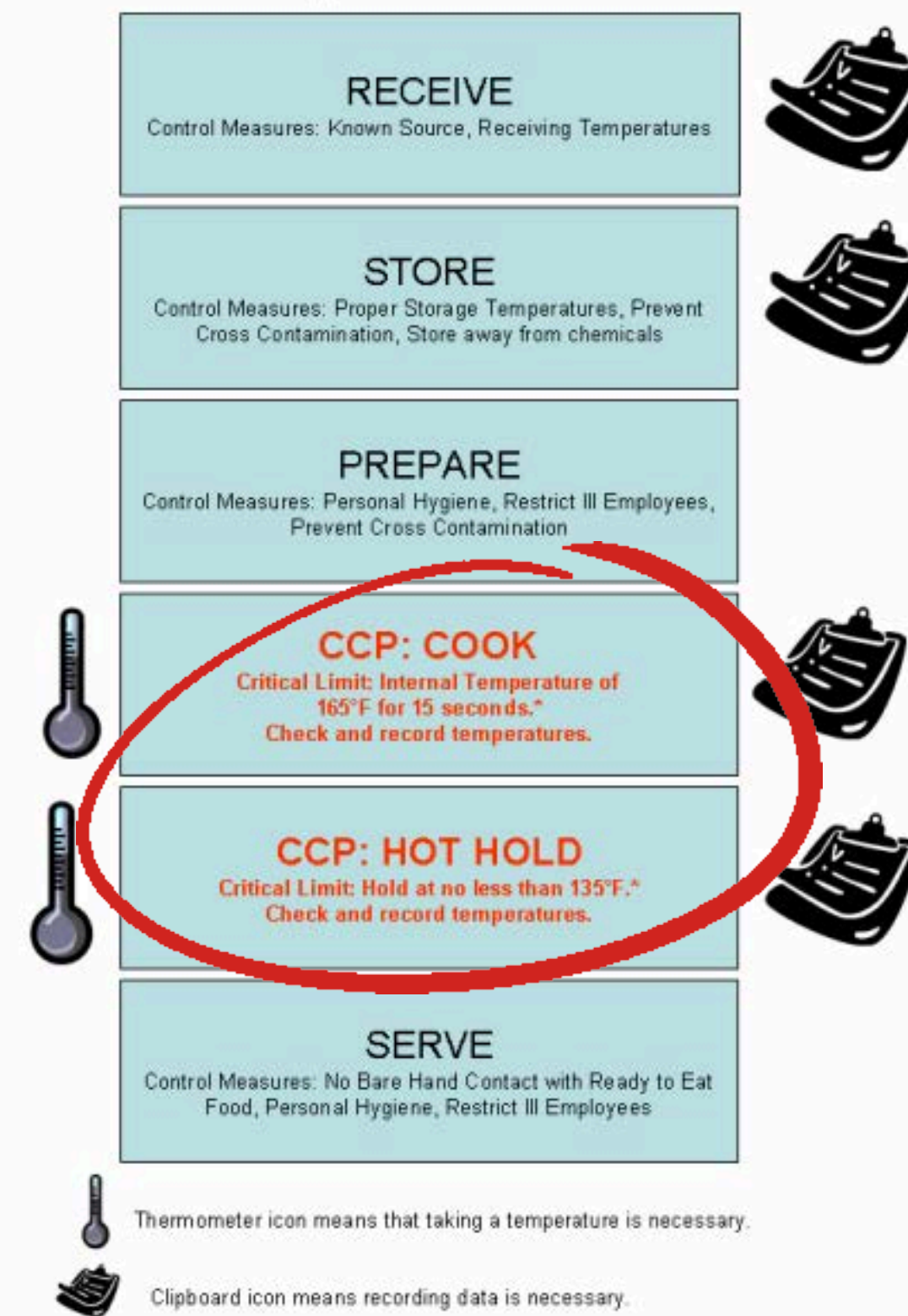
- **Hot Hold:**

- Critical Limit: Hot hold at no less than 135°F
- Check & Record Temperatures

- **Serve**

### Process 2: SAME DAY SERVICE

Example: Baked Chicken



# Critical Control Measures & Limits

## PROCESS 3: COMPLEX FOOD PREPARATION

Receive → Store → Prepare → **CCP: Cook** → **CCP: Cool** → **CCP: Reheat** → **CCP: Hot Hold** → Serve

- **Cook:**

- Critical Limit: Internal Temperature of 165°F for 15 seconds
- Check & Record Temperatures

- **Cool:**

- Critical Control Point: Cool from 135°F to 70°F within 2 hours and from 70°F to 41°F or lower within an additional 4 hours.
- Check & Record Temperatures

- **Reheat:**

- Critical Control Point: Reheat, Heat to 165°F for at least 15 seconds.
- Check & Record Temperatures

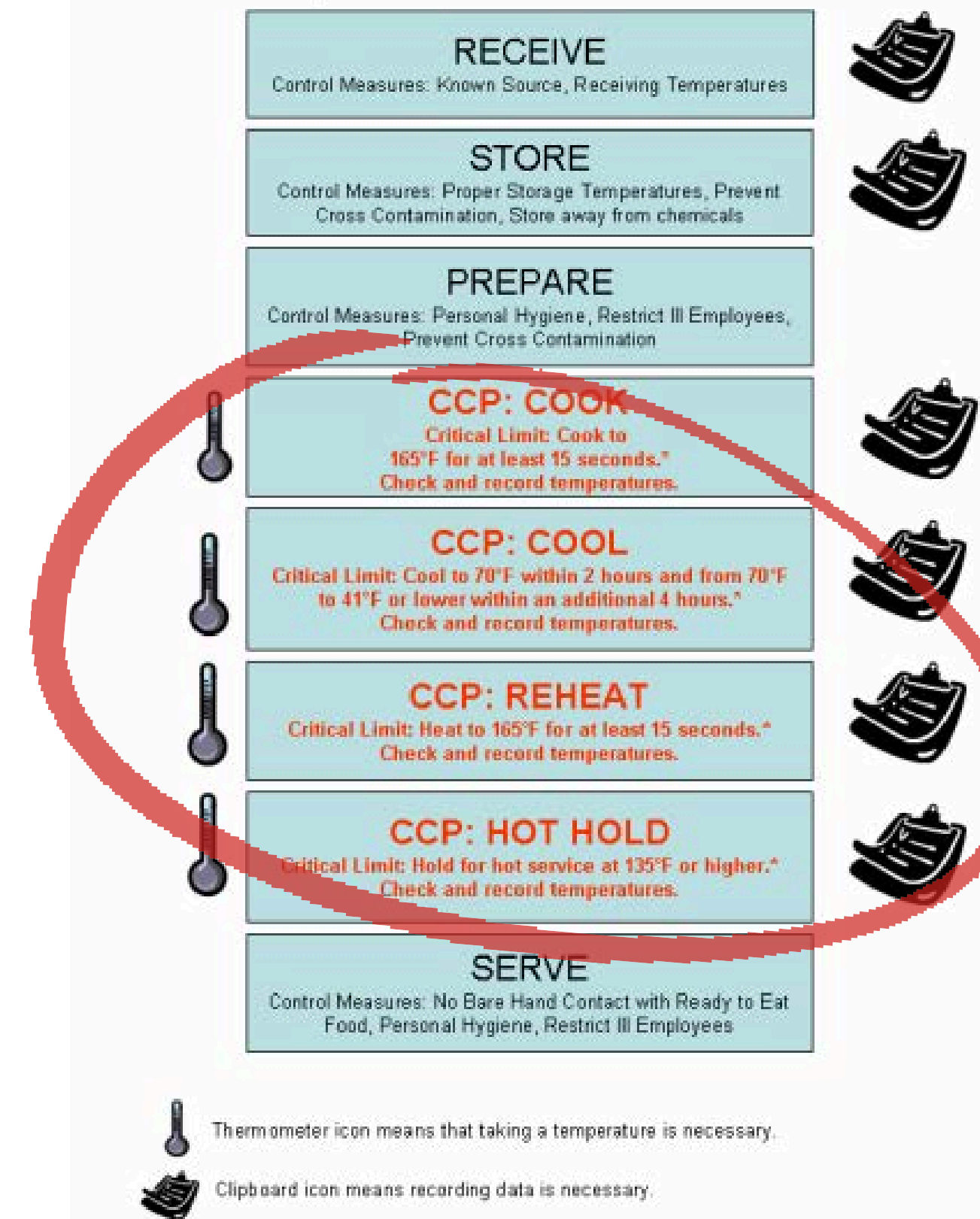
- **Hot Hold:**

- Critical Limit: Hot hold at no less than 135°F
- Check & Record Temperatures

- **Serve**

## Process 3: Complex Food Preparation

### Example: Beef and Bean Tamale Pie





# Critical Control Measures & Limits

## DOCUMENTING CCPS AND CRITICAL LIMITS

When identifying CCPs, it's crucial to take into account the entire process employed at each school or site. This comprehensive approach aids in assessing the necessity of CCPs when adjusting recipes or when recipes are not available.

- For example, even if a recipe doesn't mention cooling, a school may still cool leftover chicken. In such cases, it is essential to establish and record a CCP for the cooling process.



# Critical Control Measures & Limits

## USING SOPS TO COMPLEMENT THE PROCESS APPROACH

Standard Operating Procedures (SOPs) are valuable tools that should be implemented when utilizing the Process Approach.

- Adhere to relevant SOPs for the preparation and serving of all menu items alongside the CCPs for each of the three processes.
- SOPs act as a broad control method for nonspecific hazards.
- SOPs enhance the Process Approach by offering a general safety mechanism. In contrast, the CCPs assigned to each of the three processes protect against specific hazards.

To view sample SOPs, see Appendix I in USDA's manual - [Guidance for School Food Authorities: Developing a School Food Safety Program Based on the Process Approach to HACCP Principles](#). Additionally, visit the [Institute of Child Nutrition's webpage](#) to view a series of SOPs applicable to school food service establishments.



# Quiz Time

Which statement best describes a (critical control point) CCP?

- A** The point at which food arrives at the door of your school.
- B** The temperature to which food should be reheated.
- C** The last step at which you can prevent, eliminate, or reduce the risk of food hazards.
- D** The point at which you decide whether food should be served to the customer.



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**A CCP (Critical Control Point) is the final step in the food production process where measures are taken to prevent, eliminate, or reduce food hazards, ensuring food safety by controlling potential risks of foodborne illnesses.**



# Establish Monitoring Procedures



STEP 4

# Establish Monitoring Procedures

## HOW WILL YOU MONITOR?

Monitoring plays a crucial role in ensuring the effectiveness of a food safety program.

Control measures, such as CCPs and SOPs, need to be monitored, controlled, and documented systematically. This process entails observing directly or measuring to confirm compliance with the food safety program.

For instance, CCPs are overseen by maintaining the specified critical limits. Monitoring helps detect any loss of control, prompting the necessary corrective actions.



# Establish Monitoring Procedures

## HOW WILL YOU MONITOR

When setting up your monitoring procedures, keep these questions in mind:

- In what way will you monitor the CCPS and SOPs?
- At what intervals and frequency will you conduct monitoring?
- Who will be in charge of the monitoring process?



# Establish Monitoring Procedures

## **HOW WILL YOU MONITOR**

What you need to monitor is determined by the critical limits linked to each CCP for a menu item. Monitoring the final temperature and time measurements is crucial, and you must establish an effective way to oversee these critical limits.

Selecting the proper method for monitoring is key. If equipment is chosen to monitor a specific CCP, it must be accurate. Additionally, the equipment selected should be suitable for the monitoring task at hand.

When deciding on the frequency of monitoring, ensure that the intervals are reliable enough to control hazards effectively. Your monitoring procedure should be straightforward and easy to follow.

Designate managers, line supervisors, or other reliable employees to be responsible for monitoring activities. Provide employees with the necessary training and equipment to carry out monitoring tasks correctly.



# Establish Monitoring Procedures

## MONITORING EXAMPLES

The CCP for cold foods is cold holding. The critical limit is holding at 41°F or below. The temperature of the refrigerator must be recorded on a refrigeration temperature monitoring chart at least 3 times a day to make sure the temperature is at or below 41°F.

A CCP for chicken breast is cooking. The critical limit is cooking at 165°F for 15 seconds. The internal temperature of the chicken breast must be monitored and recorded to make sure that it is at or above 165°F for 15 seconds.



# Quiz Time

Checking the internal temperature of a pork roast may be an example of which HACCP principle?

- A** Verification
- B** Monitoring
- C** Record Keeping
- D** Hazard Analysis



# Quiz Time

Checking the internal temperature of a pork roast may be an example of which HACCP principle?

**A** Verification

**B** Monitoring

**C** Record Keeping

**D** Hazard Analysis

Monitoring the internal temperature of a pork roast is crucial for food safety, ensuring it reaches the proper temperature to kill bacteria and prevent illnesses. It involves continuous observation and measurement to meet critical control points and adhere to established procedures for safe food handling.



# Corrective Action



STEP 5

# Establish Corrective Actions

## **HOW WILL YOU HANDLE CORRECTIVE ACTIONS?**

When a critical limit is not met, an immediate corrective action is necessary. This action could be as simple as ensuring food is heated to the required temperature. However, more complex corrective actions might involve rejecting incorrectly delivered food items or disposing of food left without proper temperature control for too long.

Your food safety program should detail these corrective actions. Employees should be familiar with these procedures and trained to make the right choices. This proactive method lies at the core of HACCP. Challenges will surface, but it's crucial to identify and resolve them before they lead to illness or harm. Remember to document all corrective actions taken.

# Establish Corrective Actions

## **CORRECTIVE ACTION EXAMPLE**

### **Cooler not maintaining 41°F temperature**

- Is the cooler working properly?
- Is the thermometer calibrated?
- Report temperature reading to supervisor if cooler is not working properly.
- Supervisor goes through proper procedures to have the cooler repaired.
- Dispose of anything that is above the appropriate temperature

# Establish Corrective Actions

## HOW WILL YOU HANDLE CORRECTIVE ACTIONS?

These actions should be specific, measurable, and achievable, ensuring that they effectively address any deviations from the set standards. It's crucial to document each corrective action taken, along with the person responsible for its implementation and the timeline for completion. Regular reviews of these actions will help assess their effectiveness and make necessary adjustments to enhance the overall safety and quality of the food served in your school. Collaboration and communication with the entire team are key to successfully implementing corrective actions and fostering a culture of continuous improvement.



# Keep Records



STEP 6



# Record Keeping

## HOW TO KEEP RECORDS

Certain written records or types of documentation are essential for confirming the effectiveness of the food safety program. These records typically include the food safety plan and any monitoring, corrective action, or calibration records generated during the implementation of the food safety program following HACCP principles.

Keeping records also serves as a foundation for regular evaluations of the entire food safety program. If your business is linked to a foodborne illness, maintaining documentation of monitoring and corrective actions can demonstrate that due diligence was practiced in running your facility.



# Record Keeping

## HOW TO KEEP RECORDS

- Monitor and record cooking, cooling, and reheating temperatures along with other Critical Control Points (CCPs) during food preparation.
- Simplify documentation to facilitate easy record-keeping for staff.
- Utilize current paperwork like delivery invoices to note down product temperatures when receiving food items, instead of creating new records.

Employees play a crucial role in creating straightforward and efficient record-keeping systems.

# Record Keeping

## HOW TO KEEP RECORDS

Establish which records need to be retained, where to store them, and assign the responsible staff member(s) for upkeep. Some essential record types to maintain are:

- Documents outlining the Standard Operating Procedures (SOPs)
- Monitoring records for time and temperature
- Records of corrective actions taken
- Verification or review documentation
- Calibration records
- Logs for training sessions
- Logs for incoming goods



# Review and Revise Your Overall Food Safety Program



STEP 7

# Review & Revise Food Safety Plan

## **REGULAR EVALUATION OF FOOD SAFETY PROGRAM OPERATIONS**

To maintain adherence to the food safety plans at each school, it is vital to consistently review the outlined activities. Assigned personnel, such as managers, should routinely oversee employees' monitoring duties, calibrate equipment and temperature devices, assess records and actions, and have conversations with the staff about procedures. These regular inspections are critical to ensuring that the food safety program adequately addresses any issues. If needed, adjustments or enhancements should be taken into account.

# Review & Revise Food Safety Plan

## **HOW TO REVIEW AND REVISE A FOOD SAFETY PROGRAM**

Review and revise food safety plan at least annually or as often as necessary to reflect any changes.

- Changes may include:
  - New equipment
  - New menu items
  - Different vendors
  - New programs
  - Reports of illness
  - Comments on a health inspection report
  - Other factors or changes in procedures

# Other Factors in the Success of Your Food Safety Program

SECTION 3



# Other Factors in the Success of Your Food Safety Program

The success of a food safety program relies on facilities, equipment, and personnel. Facilities and equipment should be chosen or designed to encourage safe food handling practices by employees. Assess your facilities and address any obstacles to safe food preparation. For instance, issues like faulty plumbing or missing thermometers can hinder safe food handling.

Proper training for managers and staff is essential in reducing foodborne risks. A successful food safety program requires every employee to understand their role and be dedicated to its success. Additionally, take into account challenges like high turnover rates or communication barriers when creating and executing a food safety initiative.





# Other Factors in the Success of Your Food Safety Program

The key practices that enhance a successful food safety program include:

- Conducting continuous food safety training for all staff members.
- Reviewing food safety principles, such as SOP guidelines, with all employees annually.
- Mandating initial food safety training for new hires, substitutes, and volunteers before they handle food.
- Keeping records of training and attendance for all employees at each site.
- Holding facility managers accountable for upholding employee training requirements.



Ensure all Food Safety-related policies and procedures are compiled into a Food Safety Book. Ensure the Food Safety Book is stored in a common place and everyone knows where to access it.

# CONTACT US

If you have a question or require additional assistance, please contact your assigned specialist or contact HNS.



602-542-8700



ContactHNS@azed.gov



[www.azed.gov/hns](http://www.azed.gov/hns)





# Congratulations

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**Learning Code: 2620**

**Length: 75 minutes**

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Please click the button to complete a brief survey about this online training. Once the survey is complete, you will be able to print your certificate of completion from Survey Monkey.



Information to include when documenting this training for Professional Standards:

**Training Title:** How to Develop a School Food Safety Program Based on the Process Approach to HACCP Principles

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**Key Area: 2000 - Operations**

**Learning Code: 2620**

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