

Writing a HACCP-Based Food Safety Plan for Schools

Participant's Workbook

PROJECT COORDINATOR

Liz Dixon, MS

EXECUTIVE DIRECTOR

Aleshia Hall-Campbell, Ph.D., MPH



Key Area: 2 Operations

USDA Professional Standards Code: 2600 Food Safety and HACCP

2020

Institute of Child Nutrition

The University of Mississippi

The Institute of Child Nutrition was authorized by Congress in 1989 and established in 1990 at the University of Mississippi in Oxford and is operated in collaboration with The University of Southern Mississippi in Hattiesburg. The Institute operates under a grant agreement with the United States Department of Agriculture, Food and Nutrition Service.

PURPOSE

Improve the operation of child nutrition programs through research, education and training, and information dissemination.

VISION

Lead the nation in providing research, education, and resources to promote excellence in child nutrition programs.

MISSION

Provide relevant research-based information and services that advance the continuous improvement of child nutrition programs.

This project has been funded at least in part with Federal funds from the U.S. Department of Agriculture, Food and Nutrition Service through an agreement with the Institute of Child Nutrition at the University of Mississippi. The contents of this publication do not necessarily reflect the views or policies of the U.S. Department of Agriculture, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. government.

The University of Mississippi is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA Employer.

In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability.

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights; Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

© 2020, Institute of Child Nutrition, The University of Mississippi, School of Applied Sciences

Except as provided below, you may freely use the text and information contained in this document for nonprofit or educational use with no cost to the participant for the training providing the following credit is included. These materials may not be incorporated into other websites or textbooks and may not be sold.

Suggested Reference Citation:

Institute of Child Nutrition. (2020). *Writing a HACCP-based food safety plan for schools*. University, MS: Author.

The photographs and images in this document may be owned by third parties and used by the University of Mississippi under a licensing agreement. The University cannot, therefore, grant permission to use these images.

Please contact helpdesk@theicn.org for more information.

06/05/2019

Table of Contents

Introduction	1
Functional Area and Competencies	Error! Bookmark not defined.
Professional Standards	Error! Bookmark not defined.
Workshop Objectives	2
Ground Rules	3
Key Terms	4
Day 1	5
Lesson 1 – Before You Get Started	7
Lesson 2 – Creating Your Food Safety Plan.....	25
Writing Your HACCP-Based Food Safety Plan.....	25
Day 2.....	49
Group Breakout Session 1 Discussion Topics	51
Group Breakout Session 2 Discussion Topics	55
Day 3.....	63
Lesson 3 – Implementation of a HACCP-Based Food.....	65
Resources	73
References	73

Introduction

Welcome to the Institute of Child Nutrition's (ICN) *Writing a HACCP-Based Food Safety Plan for Schools*. ICN and United States Department of Agriculture (USDA) developed this workshop in response to the need for school nutrition directors and food safety personnel to have time and resources to develop a school-specific, Hazard Analysis Critical Control Point (HACCP)-based food safety plan.

The purpose of a food safety plan is to ensure the food served to children in the Child Nutrition Programs is safe. By controlling hazards that may occur or may be introduced into foods, school nutrition employees can safeguard food. An effective food safety program will help control food safety hazards that might occur during all points in foodservice – receiving, storing, preparing, cooking, cooling, reheating, holding, packaging, transporting, and serving. A truly effective food safety plan needs to be developed for a specific school nutrition program (SNP). By developing a food safety plan for the specs of a school (equipment, staff, physical location, etc.), the number of hazards can be significantly reduced for that site.

The goal of this 2.5-day workshop is for participants to take a detailed draft of a school-specific, HACCP-based food safety plan back to their SNPs. It begins with a basic overview of HACCP principles and food safety. Next, it details how to design a school-specific, HACCP-based food safety plan. Participants will be provided with interactive templates and sample documents to help with development. They will have the opportunity to complete these templates for their SNPs during the workshop.

The *Writing a HACCP-Based Food Safety Plan for Schools* workshop provides the time and resources needed to develop a school-specific, HACCP-based food safety plan. Participants will have access to an experienced trainer to help guide them through the development process. They will also be given the opportunity to network with other school nutrition directors and food safety personnel to help troubleshoot challenges. By incorporating an interactive experience, participants will create a school-specific HACCP-based food safety plan. This instructor-led training incorporates individual work, group discussion, partner work, pre-made templates, and other resources.

Functional Area and Competencies

Functional Area 4: Food Security, Sanitation, and Safety

Competency 4.1: Establishes policies and procedures to ensure food is prepared and served in a sanitary and safe environment.

Knowledge Statements:

- Knows basic principles and techniques of foodservice sanitation and food safety.
- Knows Federal, State, and local sanitation and food safety requirements.
- Knows principles of foodborne illness prevention.
- Knows fundamentals of Hazard Analysis Critical Control Point (HACCP)-based standard operating procedures.

Competency 4.2: Provides leadership in creating a safe work environment for school nutrition operations.

Knowledge Statements:

- Knows principles for selecting, storing, using, and maintaining chemical supplies and other hazardous materials.
- Knows principles of creating and maintaining a safe work environment.

Source: Institute of Child Nutrition. (2009). *Competencies, knowledge, and skills for district-level school nutrition professionals in the 21st century*. <https://theicn.org/icn-resources-a-z/CKS-district-school-professionals>

Professional Standards

FOOD SAFETY AND HACCP TRAINING – 2600

Employee will be able to effectively utilize all food safety program guidelines and health department regulations to ensure optimal food safety.

2610 – Practice a HACCP-based program.

2620 – Practice general food safety procedures.

2630 – Practice Federal, State, and local food safety regulations and guidance.

2640 – Promote a culture of food safety behaviors in the school community (includes training on food allergens).

Key Area: 2

Workshop Objectives

At the end of this workshop, participants will be able to accomplish the following objectives:

1. Explain HACCP.
2. Demonstrate the importance of a HACCP-based food safety plan for schools.
3. Evaluate prerequisite programs needed for developing a HACCP-based food safety plan.
4. Compose the overview of the school nutrition program and a description of each school site.
5. Examine and construct the components of a food safety plan.
6. Investigate the current resources available to assist in developing a HACCP-based food safety plan.
7. Integrate the HACCP-based food safety plan into your school nutrition program.
8. Write an action plan for training and implementing the food safety plan.
9. Create a plan for validating and updating your HACCP-based food safety plan in the future.

Ground Rules

The following are ground rules and expectations for this training:

1. Show up on time and come prepared.
2. Stay mentally and physically present.
3. Let everyone participate.
4. Listen with an open mind.
5. Think before speaking.
6. Attack the problem, not the person.

Key Terms

Key Terms	Definition
Critical control point	The point in the flow of food where a hazard can be prevented, eliminated, or reduced to a safe level
Critical limits	Minimum or maximum limits that must be met to prevent the hazard or reduce it to a safe level
Internal cooking temperature	The recommended final internal cooking temperature for time and temperature control for safety in foods such as meat, poultry, eggs, and fish
Flow of food	Path food takes through a kitchen beginning with purchasing through receiving, storage, production, holding, serving, cooling, and reheating
Hazard Analysis Critical Control Point (HACCP)	A specific approach for identifying food safety hazards that involves finding potential food safety issues in your program and implementing preventive measures
National School Lunch Program (NSLP)	A federally assisted meal program operating in public and nonprofit private schools and residential child care institutions; established under the National School Lunch Act, signed by President Harry Truman in 1946
Prerequisite Food Safety Programs	Necessary food safety programs to have in place to address operational and sanitation conditions
Risk factor	A hazard that increases a person's chances of developing a disease
Standard Operating Procedure (SOP)	Written best practices and procedures for producing safe food that addresses basic cleaning and sanitation programs and each step in the foodservice process (purchasing, receiving, storing, preparing, cooking, serving and holding, cooling, reheating, and transporting)
Safety Data Sheet (SDS)	Documents produced by a chemical manufacturer that contain information about the chemical such as physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical
School Food Authority (SFA)	The governing body responsible for the administration of one or more schools; has the legal authority to operate the program therein, or be otherwise approved by FNS, to operate the program
Time/Temperature Control for Safety Foods (TCS)	Foods that require control of time and temperature to limit pathogenic microorganism growth or toxin formation

Day 1		
Time	Topic	Work Style
30 minutes	Introduction	Trainer
1.5 hours	Lesson 1 – Before You Get Started	Trainer
3 hours	Lesson 2 – Creating Your HACCP-Based Food Safety Plan	Trainer
2.5 hours	Writing HACCP-Based Food Safety Plan	Individual Work
30 minutes	Wrap Up	Trainer
8 hours		

Lesson 1 – Before You Get Started

Introduction

In Lesson 1, we will discuss the programs and processes that need to be in place before starting the development of a school-specific, HACCP-based food safety plan. We will discuss prerequisite programs, and develop a school nutrition program overview and school site descriptions.

Objectives

1. Explain HACCP.
2. Demonstrate the importance of a HACCP-based food safety plan for schools.
3. Evaluate prerequisite programs needed for developing a HACCP-based food safety plan.
4. Compose the overview of the school nutrition program and a description of each school site.

Importance of HACCP

According to the Centers for Disease Control and Prevention (CDC, 2018), each year:

- One in six Americans get sick (roughly 48 million people)



- 128,000 are hospitalized



- 3,000 die from foodborne illnesses



CDC data reveals that the incidence of many foodborne illnesses has not changed significantly in recent years.

- Half of the reported cases of foodborne illnesses occur in children under 15 years of age.



Food safety is a key responsibility of every school nutrition employee, manager, and director.

Hazard Analysis Critical Control Points

HACCP is a specific approach for identifying food safety hazards.

- Find potential food safety issues in your program and implement preventative measures.
- Seven HACCP Principles:
 1. Conduct a hazard analysis.
 2. Determine the critical control points (CCPs).
 3. Establish critical limits.
 4. Establish monitoring procedures.
 5. Establish corrective actions.
 6. Establish verification procedures.
 7. Establish recordkeeping and documentation procedures.

Process Approach

- Food and Drug Administration (FDA) developed the Process Approach to help implement a HACCP-based food safety plan.
- USDA adopted this modified form of HACCP when they developed the Guidance for School Food Authorities: Developing a School Food Safety Program Based on the Process Approach to HACCP Principles.
- The Process Approach is a practical method for writing a HACCP-based food safety plan.

Children in Schools

On an average day, over 30 million children are served school meals. School nutrition meals have the potential of affecting large numbers of children.

- Young children, especially those in elementary schools, are at risk for foodborne illness.
 - Developing immune systems → lowers their ability to fight infection
 - Lower body weight → reduces the dose of a pathogen needed to sicken them
 - Limited control over diet and related food safety risks
 - Reduced stomach acid production → decreases their capacity to kill harmful bacteria
- Children with food-related disabilities.
 - Young age and disabilities → vulnerable to foodborne illness
 - Food allergies and intolerances, celiac disease, diabetes, PKU, need for modified texture foods, etc.

A food safety plan that describes how to provide safe meals for these children is especially needed.

Child Nutrition Programs and HACCP

- *Child Nutrition Reauthorization Act of 2004*: requires a food safety program based on HACCP principles for school nutrition programs
- *Richard B. Russell National School Lunch Act*: amended and includes the food safety requirements established in the Healthy, Hunger-Free Kids Act of 2010, and the Child Nutrition and WIC Reauthorization Act of 2004
 - Requires School Food Authorities (SFAs) to implement a food safety program based on HACCP principles
 - Food safety program must apply to all locations where food is stored, prepared, or served throughout the school

Prevention, the Heart of HACCP

Sanitation

- Proper sanitation helps prevent foodborne illness outbreaks.
- Write out good sanitation practices and cleaning schedules.

Personal Hygiene

- Good personal hygiene practices help prevent foodborne illness.
- Prevent the spread of foodborne illness by:
 - Washing hands properly
 - Not touching ready-to-eat food with bare hands
 - Not coming to work sick

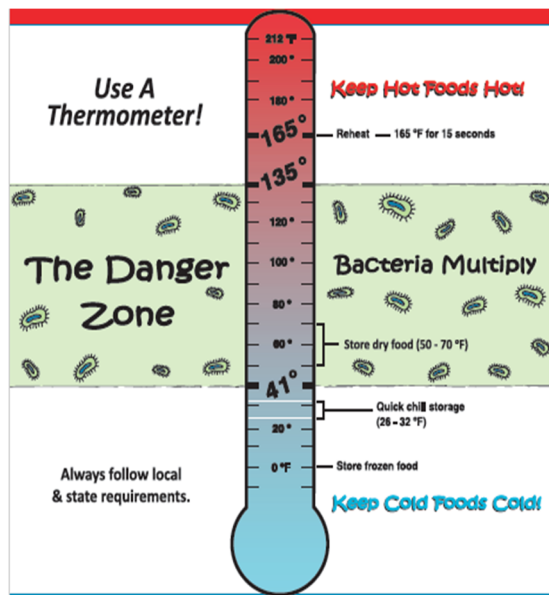


Temperature Control

- Controlling the temperature of food helps prevent the growth of bacteria.
- Keep food out of the temperature danger zone (TDZ) (41 °F – 135 °F).
 - Bacteria can grow rapidly, doubling in number every 20 minutes.
- Foods such as meat, poultry, fish, cut tomatoes, cut melons, and leafy greens are particularly susceptible.

References

- Centers for Disease Control and Prevention. (2018). *Burden of foodborne illnesses in the United States*. <https://www.cdc.gov/foodborneburden/burden/index.html>
- Institute of Child Nutrition. (2018). *Keep it clean*. www.theicn.org/foodsafety
- Institute of Child Nutrition. (2018). *Personal hygiene*. www.theicn.org/foodsafety
- Institute of Child Nutrition. (2015). *Temperature mini-poster*. www.theicn.org/foodsafety
- U.S. Food and Drug Administration. (2017). *HACCP principles & application guidelines*. <https://www.fda.gov/food/hazard-analysis-critical-control-point-haccp/haccp-principles-application-guidelines#princ>



Temperatures Through Food Production

Important Temperatures	Why It Is Important	Best Practices
Purchasing		
<ul style="list-style-type: none"> • Cold food: 41 °F and below • Hot food: 135 °F and above 	<p>Buy from vendors that have good food safety practices in place to ensure the food you purchase has not been temperature abused.</p>	<ul style="list-style-type: none"> • Buy from reputable vendors. • Include food safety standards in purchasing agreements.
Receiving		
<ul style="list-style-type: none"> • Refrigerated food: 41 °F and below • Frozen food: at or below 32 °F • Hot food: held at or above 135 °F 	<p>Cold foods must be received at 41 °F or below so that it is not in the temperature danger zone. Frozen food must be frozen and contain no ice crystals. Ice crystals are a sign that the food has been thawed and refrozen.</p>	<ul style="list-style-type: none"> • Keep the receiving area clean. • Inspect the delivery truck. Make sure it is clean and free of odors. Check food temperatures, paying particular attention to frozen and refrigerated products. • Look for signs of contamination and container damage. Reject damaged packages; their contents may also be contaminated or damaged. • Check for the separation of raw and ready-to-eat or prepared foods during transport. • Store foods immediately.

Important Temperatures	Why It Is Important	Best Practices
Storing		
<ul style="list-style-type: none"> • Dry storage areas: between 50 °F and 70 °F • Refrigerated storage areas: at or below 41 °F • Deep chilling storage areas: between 26 °F and 32 °F • Freezer storage areas: between -10 °F and 0 °F 	<p>Storing food out of the temperature danger zone assists in preserving food quality and decreases the likelihood of bacterial growth. However, dry storage items are shelf-stable in the temperature danger zone because bacteria present in the sealed container is eliminated during processing and because conditions in the food (like pH or water activity) do not support the growth of bacteria.</p>	<ul style="list-style-type: none"> • Use the First-In, First-Out (FIFO) principle. Older products should be used first. • Store products in original packaging. Label foods with the delivery date. • Keep raw foods separate from cooked or ready-to-eat products. • Store foods at least 6 inches off the floor and 6 inches away from the wall. • Keep storage areas clean, dry, and pest-free. • Store chemicals away from foods and food-related supplies. • Maintain, monitor, and record refrigerator, freezer, and dry storage room temperatures.
Preparing		
<ul style="list-style-type: none"> • Pre-chill ingredients for cold foods to 41 °F or below before combining with other ingredients. • Limit the preparation time of any ingredients to no more than 30 minutes at room temperature before cooking, serving, or returning to the refrigerator. 	<p>These methods prevent food from being in the temperature danger zone for too long.</p>	<ul style="list-style-type: none"> • Wash hands frequently, properly, and at appropriate times. • Avoid cross-contamination. • Keep foods out of the temperature danger zone. • Use batch cooking to limit the time between preparation and service. • Thaw foods properly. • Chill all cold foods as quickly as possible. • Prepare foods as close to serving time as the menu will allow.

Important Temperatures	Why It Is Important	Best Practices
Cooking		
<ul style="list-style-type: none"> • 165 °F – poultry, stuffing, stuffed meats, stuffed pasta, casseroles, leftovers • 155 °F – ground meats, such as hamburger, ground pork, sausage, eggs for hot holding • 145 °F – beef roasts, pork roasts, beef steaks, ham, fish • 135 °F – ready-to-eat foods taken from a commercially processed, hermetically sealed package; vegetables (frozen or canned) 	<p>Cooking foods to the correct internal temperature will destroy existing bacteria, even though it may not kill toxins or bacterial spores. Minimizing time in the TDZ will discourage the production of toxins and spores.</p>	<ul style="list-style-type: none"> • Avoid cross-contamination. • Cook foods to the proper internal temperature for the appropriate time. • Use a clean and calibrated food thermometer. • Record internal food temperature.
Holding and Serving		
<ul style="list-style-type: none"> • Cold food: held at or below 41 °F • Hot food: held at or above 135 °F 	<p>These temperatures keep food out of the temperature danger zone and prevent pathogen growth.</p>	<ul style="list-style-type: none"> • Avoid cross-contamination. • Keep foods out of the temperature danger zone. • Monitor and record food temperatures. • Monitor the temperature of hot holding and cold holding equipment.

Important Temperatures	Why It Is Important	Best Practices
Cooling		
<ul style="list-style-type: none"> Hot food must be cooled from 135 °F to 70 °F within 2 hours. If not, the food must be reheated to 165 °F for 15 seconds or discarded. Food must be cooled within a total of 6 hours from 135 °F to 41 °F (if step one is achieved). Foods that start at room temperature (70 °F) must be cooled to 41 °F within 4 hours. 	<p>These are the time and temperature regulations specified by the <i>Food Code</i> to cool foods safely to prevent bacterial growth.</p>	<ul style="list-style-type: none"> Speed up cooling by using techniques such as: <ul style="list-style-type: none"> Stirring frequently Dividing food into small quantities Using shallow pans Using ice water baths or ice paddles whenever possible Use a clean and calibrated food thermometer to check temperatures. Monitor and record food temperatures during the cooling process. Store foods appropriately – covered and labeled with product name and date prepared.
Reheating		
<p>165 °F for 15 seconds within 2 hours</p>	<p>This is the temperature and time required to kill any bacteria that may be present in the food.</p>	<ul style="list-style-type: none"> Reheat to an internal temperature of 165 °F for 15 seconds within 2 hours or less. Monitor and record internal temperatures of foods. Never reheat food in hot holding equipment. Recommended to reheat food one time; quality diminishes each time.
Transporting		
<p>Refer to temperatures for holding</p>		

Prerequisite Program Checklist

Date _____ Observer _____

Directions: Use this checklist to evaluate your foodservice for prerequisite programs. Check “yes” if you have the program in place, check “no” if you need to develop the program.

VENDOR EVALUATION	Yes	No
Vendor licensed	<input type="checkbox"/>	<input type="checkbox"/>
Vendor provides letters of assurance of sanitation standards, or vendor warehouse visited	<input type="checkbox"/>	<input type="checkbox"/>
Dairy	<input type="checkbox"/>	<input type="checkbox"/>
Grocery	<input type="checkbox"/>	<input type="checkbox"/>
Produce	<input type="checkbox"/>	<input type="checkbox"/>
Bakery	<input type="checkbox"/>	<input type="checkbox"/>
PERSONNEL POLICIES	Yes	No
Uniform policy	<input type="checkbox"/>	<input type="checkbox"/>
Procedure for employee calling in due to illness	<input type="checkbox"/>	<input type="checkbox"/>
CLEANING SCHEDULE	Yes	No
A regular cleaning schedule is in place for all surfaces	<input type="checkbox"/>	<input type="checkbox"/>
PREVENTATIVE MAINTENANCE PROGRAM	Yes	No
Equipment in each school inventoried	<input type="checkbox"/>	<input type="checkbox"/>
Equipment regularly calibrated	<input type="checkbox"/>	<input type="checkbox"/>
Schedule of service for compressors and condensers of refrigerators, freezers, milk coolers	<input type="checkbox"/>	<input type="checkbox"/>
Schedule for cleaning hoods	<input type="checkbox"/>	<input type="checkbox"/>
Schedule for cleaning grease traps	<input type="checkbox"/>	<input type="checkbox"/>
PEST CONTROL	Yes	No
Licensed pest control operator contracted for regular service	<input type="checkbox"/>	<input type="checkbox"/>

Prevention Maintenance Schedule Sample

It is highly recommended that schools have a preventive maintenance schedule – edit according to the operational needs of each school kitchen. Consult equipment vendors, flooring manufacturer, cleaning product vendor, facility staff, etc.

School	Weekly	3 Months	6 Months	Yearly	Vendor List	Notes
Walk-in refrigerator: service compressor/condenser						
Walk-in freezer: service compressor/condenser						
Milk cooler: service compressor/condenser						
#1 Refrigerator: service compressor/condenser						
Pump grease trap						
#1 Oven: calibrate						
Combi oven: delime, calibrate						
Hood: degrease interior, check exterior function						
Dishwasher: delime						
Dishwasher: calibrate						
Steam jacketed kettle: delime						
Hot holding equipment: calibrate						
Transport equipment: replace missing latches and worn gaskets, calibrate						
Department trucks: change oil, replace tires, lube lifts, replace worn latches and straps						
Scales: calibrate						
Ice machine: delime, clean bin						

Adapted from Template.net. (n.d.). 39+ Preventive maintenance schedule templates – Word, Excel, PDF. <https://www.template.net/business/schedule-templates/preventive-maintenance-schedule-template/>

Cleaning Schedule Sample

Area or Equipment	How Often	Day to Clean	Chemicals	Directions	Personal Protective Equipment	Cleaning Completed		Manager's Inspection Signature
						Date	Initial	
Back Dock/Storeroom								
Floors	Weekly	Friday		Sweep and mop				
Doors								
Racks								
Dishroom								
Dishwasher	Daily	M-F		Clean outside, wash tubes and jets				
3-compartment sink								
Hand sink								
Transport cart								
Food Prep								
Tabletops	Every 4 hours			Clean every 4 hours or when changing task				
Shelves								
Ovens					Eye protection			
Mixers								
Kettle								

Area or Equipment	How Often	Day to Clean	Chemicals	Directions	Personal Protective Equipment	Cleaning Completed		Manager's Inspection Signature
Microwave								
Slicers								
Doors								
Refrigerator/freezer doors & handles								
Refrigerator/freezer floors								
Refrigerator/freezer shelves								
Ice machine								
Lights								
Walls								
Service								
Serving line – front and glass								
Serving line – back								
Warming equipment								
Lights								
Walls								
Food counter								

Adapted from: Pinterest. (n.d.). *Kitchen cleaning schedule*. <https://www.pinterest.com/pin/388013324130811614/>

Program Overview

Directions: Complete the Program Overview chart based on the school nutrition program for your school district.

District name	
Location	
List of schools	
Average Daily Participation	
Food Code used	
Vendors	
Vendor assurance of food safety program	
Use of district or department warehouse	
Warehouse delivery: equipment and frequency	
Satellite delivery: equipment used	
Internal Cooking Temperature Standards	
Use of leftovers	
Types of thermometers and temperature monitoring systems	
Laundry facilities or contract	
Pest control contract	Frequency of service

School Site Description 1

Directions: Complete the chart based on the operation of one specific school.

Name of school	
Location of school	
Production type	
Vendors	
Vendor delivery schedule/time	
Hours open	
Meals served/time	
Staffing	
Food safety training for staff	
Equipment	
Condition of equipment	
Menu description	
Production type and satellite service to other schools	

School Site Description 2

Directions: Complete the chart based on the operation of one specific school.

Name of school	
Location of school	
Production type	
Vendors	
Vendor delivery schedule/time	
Hours open	
Meals served/time	
Staffing	
Food safety training for staff	
Equipment	
Condition of equipment	
Menu description	
Production type and satellite service to other schools	

School Site Description 3

Directions: Complete the chart based on the operation of one specific school.

Name of school	
Location of school	
Production type	
Vendors	
Vendor delivery schedule/time	
Hours open	
Meals served/time	
Staffing	
Food safety training for staff	
Equipment	
Condition of equipment	
Menu description	
Production type and satellite service to other schools	

*Additional copies of the school descriptions are available on the USB drive. Create as many as needed for each school.

Lesson 2 – Creating Your Food Safety Plan

Introduction: For Lesson 2, we are going to walk through developing your plan. We will create SOPs that provide control measures, critical limits, monitoring procedures, corrective actions, recordkeeping procedures, date-marking, and reviews and revisions. Logs used for documentation will be matched to support SOPs. Sorting menus by process approach category will also be discussed.

Objectives:

1. Examine and construct the components of a HACCP-based food safety plan.
 - a. Develop, document, and implement SOPs.
 - b. Identify and document all menu items.
 - c. Identify and document control measures and critical limits.
 - d. Establish monitoring procedures.
 - e. Establish corrective actions.
 - f. Keep records.
 - g. Review and revise.
2. Investigate the current resources available to assist in developing a HACCP-based food safety plan.

Personal Hygiene SOP (Sample)

PURPOSE: To prevent the contamination of food by school nutrition employees.

SCOPE: This procedure applies to school nutrition employees who handle, prepare, or serve food.

KEY WORDS: Personal Hygiene, Cross-Contamination, Contamination

INSTRUCTIONS:

1. Train school nutrition employees on using the procedures in this SOP.
2. Follow State or local health department requirements.
3. Follow the Employee Health Policy. (Employee Health Policy is not included in this resource.)
4. Report to work in good health, clean, and dressed in clean attire. Report any illnesses to your manager.
5. Change apron when it becomes soiled.
6. Wash hands properly, frequently, and at the appropriate times.
7. Keep fingernails trimmed, filed, and maintained.
8. Do not wear artificial fingernails and fingernail polish.
9. Wear single-use gloves if artificial fingernails or fingernail polish are worn.
10. Do not wear any jewelry except for a plain ring such as a wedding band.
11. Treat and bandage wounds and sores immediately. When hands are bandaged, single-use gloves must be worn.
12. Cover a lesion containing pus with a bandage. If the lesion is on a hand or wrist, cover with an impermeable cover such as a finger cot or stall and a single-use glove. Show a supervisor any lesion before working.
13. Eat, drink, or chew gum only in designated break areas where food or food contact surfaces may not become contaminated.
14. Taste food the correct way:
 - Place a small amount of food into a separate container.
 - Step away from exposed food and food contact surfaces.
 - Use a teaspoon to taste the food. Remove the used teaspoon and container to the dish room. Never reuse a spoon that has already been used for tasting.
 - Wash hands immediately.
15. Wear suitable and effective hair restraints while in the kitchen.

MONITORING:

1. The kitchen supervisor will inspect employees when they report to work to be sure that each employee is following this SOP.
2. The kitchen supervisor will monitor that all school nutrition employees are adhering to the personal hygiene policy during all hours of operation.

CORRECTIVE ACTION:

1. Retrain any school nutrition employee found not following the procedures in this SOP.
2. Discard affected food.

RECORD KEEPING AND VERIFICATION:

The school nutrition manager will verify that school nutrition employees are following this SOP by visually observing the employees during all hours of operation. The school nutrition manager will complete the Food Safety Checklist daily. School nutrition employees will record any discarded food on the Damaged or Discarded Product Log. The Food Safety Checklist and Damaged or Discarded Product Logs are to be kept on file for a minimum of 1 year. Contact your State agency for retention guidelines specific to your state.

DATE IMPLEMENTED: _____ **BY:** _____

DATE REVIEWED: _____ **BY:** _____

DATE REVISED: _____ **BY:** _____

Standard Operating Procedure Checklist

Date: _____ Observer: _____

Directions: Use this checklist to evaluate your foodservice for potential hazards. Check “yes” if you have a Standard Operating Procedure to address the hazard, check “no” if you need to add a Standard Operating Procedure to your food safety plan.

PURCHASING	Yes	No	SOP Needed
Purchased food only from licensed vendors	<input type="checkbox"/>	<input type="checkbox"/>	_____
When purchasing from local growers, producers are providing food safety assurance	<input type="checkbox"/>	<input type="checkbox"/>	_____
Meat and poultry inspected by USDA or appropriate State agencies	<input type="checkbox"/>	<input type="checkbox"/>	_____
Purchased only pasteurized milk, juice, and cider	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inspected food delivery trucks for cleanliness and temperature control	<input type="checkbox"/>	<input type="checkbox"/>	_____
Written specifications used to determine the quality, packaging, and quantity of products	<input type="checkbox"/>	<input type="checkbox"/>	_____
<hr/>			
RECEIVING	Yes	No	SOP Needed
Products evaluated to ensure they match order specifications and quality	<input type="checkbox"/>	<input type="checkbox"/>	_____
The temperature of refrigerated and frozen foods taken and recorded	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packaging checked for damage and protection of the food	<input type="checkbox"/>	<input type="checkbox"/>	_____
Rejected any food that does not meet quality or temperature standards	<input type="checkbox"/>	<input type="checkbox"/>	_____
Time and temperature control for food safety (TCS) foods are stored immediately and kept out of the temperature danger zone	<input type="checkbox"/>	<input type="checkbox"/>	_____
All food or food packaging dated with the date received	<input type="checkbox"/>	<input type="checkbox"/>	_____

STORAGE

REFRIGERATORS, FREEZERS, MILK COOLERS

	Yes	No	SOP Needed
Thermometers are available and accurate	<input type="checkbox"/>	<input type="checkbox"/>	_____
Temperature is appropriate for pieces of equipment	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food is stored at least 6 inches above the floor or in walk-in cooling equipment	<input type="checkbox"/>	<input type="checkbox"/>	_____
Refrigerator and freezer units are clean and neat	<input type="checkbox"/>	<input type="checkbox"/>	_____
All food is properly wrapped, labeled, and dated	<input type="checkbox"/>	<input type="checkbox"/>	_____
Using FIFO (First-In, First-Out) method of inventory management	<input type="checkbox"/>	<input type="checkbox"/>	_____
The ambient air temperature of all refrigerators and freezers monitored and documented at least at the beginning and end of each shift	<input type="checkbox"/>	<input type="checkbox"/>	_____

FOOD STORAGE AND DRY STORAGE

	Yes	No	SOP Needed
The temperature of the dry storage area is between 50 °F and 70 °F or state public health department requirement	<input type="checkbox"/>	<input type="checkbox"/>	_____
All food and paper supplies stored at least 6 inches above the floor	<input type="checkbox"/>	<input type="checkbox"/>	_____
All food labeled with name and received date	<input type="checkbox"/>	<input type="checkbox"/>	_____
Open bags of food stored in containers with tight-fitting lids and labeled with the common name; TCS and ready-to-eat (RTE) foods date-marked	<input type="checkbox"/>	<input type="checkbox"/>	_____
Using FIFO (First-In, First-Out) method of inventory management	<input type="checkbox"/>	<input type="checkbox"/>	_____
There are no bulging or leaking canned goods	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food protected from contamination	<input type="checkbox"/>	<input type="checkbox"/>	_____
All food surfaces are clean	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemicals clearly labeled and stored away from food and food-related supplies	<input type="checkbox"/>	<input type="checkbox"/>	_____
There is a regular cleaning schedule for all food surfaces	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food stored in the original container or a food-grade container	<input type="checkbox"/>	<input type="checkbox"/>	_____

FOOD PRODUCTION	Yes	No	SOP Needed
All food stored or prepared in the facility is from approved sources	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food equipment, utensils, and food contact surfaces are properly washed, rinsed, and sanitized before every use	<input type="checkbox"/>	<input type="checkbox"/>	_____
Frozen food thawed under refrigeration, cooked to proper temperature from a frozen state, or thawed in cold running water	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food preparation planned, so ingredients are kept out of the temperature danger zone to the extent possible	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food tasted using the proper procedure	<input type="checkbox"/>	<input type="checkbox"/>	_____
Procedures are in place to prevent cross-contamination	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food handled with suitable utensils, such as single-use gloves or tongs	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food is prepared in small batches to limit the time it is in the temperature danger zone	<input type="checkbox"/>	<input type="checkbox"/>	_____
Clean reusable towels used only for sanitizing equipment and surfaces and not for drying hands, utensils, or floor	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food cooked to the required safe internal temperature for the appropriate time; test temperature with calibrated food thermometer.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The internal temperature of cooking food is monitored and documented	<input type="checkbox"/>	<input type="checkbox"/>	_____

HOLDING	Yes	No	SOP Needed
HOT HOLDING			
Hot holding unit is clean	<input type="checkbox"/>	<input type="checkbox"/>	_____
Heat food to the required safe internal temperature before placing it in hot holding	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hot holding units are not used to reheat time/temperature control for safety foods	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hot holding unit is pre-heated before hot food placed in the unit	<input type="checkbox"/>	<input type="checkbox"/>	_____
The temperature of hot food held is at or above 135 °F	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food protected from contamination	<input type="checkbox"/>	<input type="checkbox"/>	_____

COLD HOLDING

	Yes	No	SOP Needed
Refrigerators kept clean and organized	<input type="checkbox"/>	<input type="checkbox"/>	_____
The temperature of cold food held is at or below 41 °F	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food protected from contamination	<input type="checkbox"/>	<input type="checkbox"/>	_____

TRANSPORTING FOOD

	Yes	No	SOP Needed
Truck used for transporting food is neat and clean	<input type="checkbox"/>	<input type="checkbox"/>	_____
Evaluated transported food for tampering at the pickup and delivery site	<input type="checkbox"/>	<input type="checkbox"/>	_____
Covered food during transport	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food transported in equipment to maintain temperature and prevent cross-contamination and cross-contact	<input type="checkbox"/>	<input type="checkbox"/>	_____
The temperature recorded at loading	<input type="checkbox"/>	<input type="checkbox"/>	_____
The temperature recorded at delivery	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hot food temperature maintained at 135 °F or higher	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cold Food temperature maintained at 41 °F or lower	<input type="checkbox"/>	<input type="checkbox"/>	_____
Separated chemicals transported to sites from food and paper goods	<input type="checkbox"/>	<input type="checkbox"/>	_____

SERVING FOOD

	Yes	No	SOP Needed
Use of disposable dishes	<input type="checkbox"/>	<input type="checkbox"/>	_____
Temperature of food recorded before service	<input type="checkbox"/>	<input type="checkbox"/>	_____
Temperature of food recorded during service	<input type="checkbox"/>	<input type="checkbox"/>	_____
No bare hand contact with food during service	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hot food served at 135 °F or higher	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cold food served at 41 °F or lower	<input type="checkbox"/>	<input type="checkbox"/>	_____
Monitored temperature of TCS foods for field trips	<input type="checkbox"/>	<input type="checkbox"/>	_____
Monitored temperature of TCS foods served in the classroom	<input type="checkbox"/>	<input type="checkbox"/>	_____
Monitored food returned for a share table for temperature and cross-contamination	<input type="checkbox"/>	<input type="checkbox"/>	_____

COOLING FOOD	Yes	No	SOP Needed
Cooled leftover food to 70 °F within 2 hours, and less than 41 °F in an additional 4 hours	<input type="checkbox"/>	<input type="checkbox"/>	_____
All leftover food is covered, dated, and labeled	<input type="checkbox"/>	<input type="checkbox"/>	_____
A policy for reserving leftover food is in place	<input type="checkbox"/>	<input type="checkbox"/>	_____

REHEATING FOOD	Yes	No	SOP Needed
Reheated hot food to 165 °F for 15 seconds in less than 2 hours	<input type="checkbox"/>	<input type="checkbox"/>	_____
Policy for discarding reheated food is in place	<input type="checkbox"/>	<input type="checkbox"/>	_____

CLEANING AND SANITIZING			
UTENSILS AND EQUIPMENT	Yes	No	SOP Needed
Three-compartment sink is properly set up for ware washing	<input type="checkbox"/>	<input type="checkbox"/>	_____
Dishmachine is working properly (gauges and chemicals are at recommended levels and checked for accuracy)	<input type="checkbox"/>	<input type="checkbox"/>	_____
Water is clean and free of grease and food particles	<input type="checkbox"/>	<input type="checkbox"/>	_____
Water temperatures are correct for washing and rinsing	<input type="checkbox"/>	<input type="checkbox"/>	_____
All small equipment and utensils, including cutting boards and knives, are cleaned, sanitized, and allowed to air dry before use	<input type="checkbox"/>	<input type="checkbox"/>	_____
For heat sanitizing, the utensils are immersed in 171 °F water for 30 seconds	<input type="checkbox"/>	<input type="checkbox"/>	_____
For chemical sanitizing, sanitizer mixed correctly, and a sanitizer strip used to test chemical concentration	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stored wiping cloths in sanitizing solution while in use	<input type="checkbox"/>	<input type="checkbox"/>	_____
Work surfaces cleaned and sanitized before use	<input type="checkbox"/>	<input type="checkbox"/>	_____
Thermometers cleaned and sanitized before and after each use	<input type="checkbox"/>	<input type="checkbox"/>	_____
Thermometers calibrated on a routine basis	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cleaned and sanitized the can opener before use	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cleaned and sanitized drawers and racks before use	<input type="checkbox"/>	<input type="checkbox"/>	_____
Clean utensils handled in a manner to prevent contamination of areas that will be in direct contact with food or a person's mouth	<input type="checkbox"/>	<input type="checkbox"/>	_____

LARGE EQUIPMENT

	Yes	No	SOP Needed
Cleaned and sanitized the food slicer after every use	<input type="checkbox"/>	<input type="checkbox"/>	_____
Exhaust hoods and filters are clean	<input type="checkbox"/>	<input type="checkbox"/>	_____

GARBAGE STORAGE AND DISPOSAL

	Yes	No	SOP Needed
Kitchen garbage cans are clean and kept covered	<input type="checkbox"/>	<input type="checkbox"/>	_____
Emptied garbage cans as necessary, at least daily	<input type="checkbox"/>	<input type="checkbox"/>	_____
Removed boxes and containers from the site	<input type="checkbox"/>	<input type="checkbox"/>	_____
Loading dock and area around dumpster are clean and dumpsters have tight-fitting lids	<input type="checkbox"/>	<input type="checkbox"/>	_____

PEST CONTROL

	Yes	No	SOP Needed
Outside doors (1) have screens, (2) are well sealed, and (3) are equipped with self-closing devices	<input type="checkbox"/>	<input type="checkbox"/>	_____
No evidence of pests is present	<input type="checkbox"/>	<input type="checkbox"/>	_____

PERSONAL HYGIENE

	Yes	No	SOP Needed
Employees wear clean and proper uniform, including shoes	<input type="checkbox"/>	<input type="checkbox"/>	_____
Effective hair restraints are properly worn	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fingernails are short, unpolished, and clean (no artificial nails)	<input type="checkbox"/>	<input type="checkbox"/>	_____
Jewelry is limited to a plain ring, such as a wedding band	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hands are washed properly, frequently, and at appropriate times	<input type="checkbox"/>	<input type="checkbox"/>	_____
Burns, wounds, splints, sores, scabs, and waterproof bandages on hands are bandaged and completely covered with a single-use glove while handling food	<input type="checkbox"/>	<input type="checkbox"/>	_____
Eating, drinking, and chewing gum allowed only in designated areas	<input type="checkbox"/>	<input type="checkbox"/>	_____
Employees use disposable tissues when coughing or sneezing and then immediately wash their hands	<input type="checkbox"/>	<input type="checkbox"/>	_____
Employees appear in good health	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hand sinks are unobstructed, operational, and clean	<input type="checkbox"/>	<input type="checkbox"/>	_____

Stocked hand sinks with soap, disposable towels, and warm water	<input type="checkbox"/>	<input type="checkbox"/>	_____
Posted a handwashing reminder sign	<input type="checkbox"/>	<input type="checkbox"/>	_____
Employee restrooms are operational and clean	<input type="checkbox"/>	<input type="checkbox"/>	_____
Policy for visitors in the kitchen	<input type="checkbox"/>	<input type="checkbox"/>	_____

OTHER	Yes	No	SOP Needed
Procedures for a food recall	<input type="checkbox"/>	<input type="checkbox"/>	_____
Emergency meal plan	<input type="checkbox"/>	<input type="checkbox"/>	_____
Procedures in the event of foodborne illness	<input type="checkbox"/>	<input type="checkbox"/>	_____
Special dietary needs	<input type="checkbox"/>	<input type="checkbox"/>	_____
Food defense (different plan but incorporate basics)	<input type="checkbox"/>	<input type="checkbox"/>	_____
Facility security	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing prepared food	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing stored food	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stocked hand sinks with soap, disposable towels, and warm water	<input type="checkbox"/>	<input type="checkbox"/>	_____

SOPs Needed for Food Safety Plan

Instructions: Write down the food safety topics for which you need to find and/or create an SOP.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

14.

15.

16.

17.

18.

19.

20.

The Process Approach

Process Approach Category	Temperature Danger Zone (TDZ)	Important Temperatures	Specific Best Practices	General Best Practices
No Cook	Food does not go through the TDZ.	Food must be kept at or below 41 °F.	<ul style="list-style-type: none"> • Follow standardized recipes. • Verify food temperatures during cold holding. 	<ul style="list-style-type: none"> • Purchase foods from approved sources. • Receive foods properly. • Store foods properly, including separating food from chemicals. • Use good personal hygiene. • Follow proper handwashing practices. • Prevent cross-contamination. • Limit time food is held in the temperature danger zone. • Use a sanitized, calibrated thermometer to take food temperatures. • Serve food so that there is no bare hand contact. Use appropriate utensils, deli paper, or single-use gloves. • Restrict ill employees from working with food.
Same Day Service	Food goes through the TDZ once.	<ul style="list-style-type: none"> • Heat food to the required internal temperature. • Cool food using proper cooling methods. 	Verify food temperatures during hot holding.	
Complex	Food goes through the TDZ two or more times.	<p><i>Two times through TDZ</i></p> <ul style="list-style-type: none"> • Cook food to the required internal temperature. • Cool food using proper cooling methods. <p><i>Three times through TDZ</i></p> <ul style="list-style-type: none"> • Cook food. • Cool food. • Reheat food to 165 °F for at least 15 seconds. • Hold food at 135 °F or above. 	Verify food temperatures during cooking, cooling, reheating, and hot holding.	

Chicken Alfredo with a Twist

Ingredients Directions	50 Servings		100 Servings		Process #2: Same Day Service
	Weight	Measure	Weight	Measure	
Water		6 gal		12 gal	1. Heat water to a rolling boil.
Rotini pasta, whole grain, dry	4 lb	5 qt 1 ½ cups	8 lb	2 gal 2 ¾ qt	2. Slowly add pasta. Stir constantly, until water boils again. Cook about 8 minutes or until al dente; stir occasionally. DO NOT OVERCOOK. Drain well. 3. Pour into steam table pans (12" x 20" x 4"). For 50 servings, use 2 pans. For 100 servings, use 4 pans. Critical Control Point: Hold pasta at 135 °F or higher.
Low-fat, reduced-sodium cream of chicken soup, condensed	9 lb 6 oz	1 gal ¾ qt (3 No. 3 cans)	18 lb 12 oz	2 gal 1 ½ qt (6 No. 3 cans)	4. Combine soup, half and half, pepper, garlic, Parmesan cheese, and chicken. Cook over medium heat for 5–10 minutes, stirring often. Critical Control Point: Heat to 165 °F or higher for at least 15 seconds.
Fat-free half and half		3 qt		1 gal 2 qt	
Ground white pepper		2 tsp		1 Tbsp 1 tsp	
Garlic powder		1 tsp		2 tsp	
Parmesan cheese, grated	1 lb 1 oz	1 ½ qt	2 lb 2 oz	3 qt	
Frozen, cooked diced chicken, thawed, ½" pieces	6 lb 8 oz	1 gal 1 ¼ qt	13 lb	2 gal 2 ½ qt	
					5. Combine noodles and sauce immediately before serving.
					6. Critical Control Point: Hold for hot service at 135 °F or higher.
					7. Portion with 8 fl oz spoodle (1 cup).

Process Approach Category

Instructions: Using your school menus, decide which Process Approach Category the food item should be categorized based on the processes used in your school. Examples are provided to get you started.

Menu Item	No Cook	Same Day Service	Complex Food
Peas and Carrots		X	
Romaine Salad	X		
Lasagna			X
Spaghetti w/ Meat Sauce		X	X

Cooking and Reheating Temperature Log

Instructions: Record product name, time, the two temperatures, and any corrective action taken on this form. The school nutrition manager will verify that school nutrition employees have taken the required cooking temperatures. By visually monitoring school nutrition employees and preparation procedures during the shift and reviewing, initialing, and dating this log daily, it will ensure all procedures are done. Maintain this log for a minimum of 1 year, but refer to your State agency for retention guidelines specific for your state.

Date and Time	Food Item	Internal Temperature	Internal Temperature	Corrective Action Taken	Initials	Verified By/Date

Sample Standard Operating Procedures and Logs List

The Standard Operating Procedures (SOPs) and logs included on this list are samples. Some SOPs are in more than one category as the employees may use the same food safety practices throughout food service. Samples must be adapted to each facility.

SOP	Corresponding Logs	Location
Receiving		
Receiving Deliveries	Receiving Log	www.theicn.org/foodsafety
Storing		
Date Marking and Ready-to-Eat, Time/Temperature Control for Safety Foods	Food Safety Checklist	www.theicn.org/foodsafety
Preventing Cross-Contamination During Storage and Preparation	<ul style="list-style-type: none"> • Damaged or Discarded Product Log • Food Safety Checklist • Refrigeration Log 	www.theicn.org/foodsafety
Storing and Using Poisonous or Toxic Chemicals	<ul style="list-style-type: none"> • Damaged or Discarded Product Log • Food Safety Checklist • Safety Data Sheets 	www.theicn.org/foodsafety
Preparation		
Controlling Time and Temperature During Preparation	<ul style="list-style-type: none"> • Food Safety Checklist • Production Log 	www.theicn.org/foodsafety
Preventing Cross-Contamination During Storage and Preparation	<ul style="list-style-type: none"> • Damaged or Discarded Product Log • Food Safety Checklist 	www.theicn.org/foodsafety
Using Suitable Utensils When Handling Ready-to-Eat Foods	<ul style="list-style-type: none"> • Damaged or Discarded Product Log • Food Safety Checklist 	www.theicn.org/foodsafety
Washing Fruits and Vegetables	Food Safety Checklist	www.theicn.org/foodsafety
Cooking		
Cooking Time/Temperature Control for Safety Foods	Cooking and Reheating Temperature Log	www.theicn.org/foodsafety
Reheating Time/Temperature Control for Safety Foods	Cooking and Reheating Temperature Log	www.theicn.org/foodsafety
Using and Calibrating Thermometers	<ul style="list-style-type: none"> • Food Safety Checklist • Thermometer Calibration Log 	www.theicn.org/foodsafety

SOP	Corresponding Logs	Location
Holding		
Hot and Cold Holding for Time/Temperature Control for Safety Foods	<ul style="list-style-type: none"> • Hot and Cold Holding Temperature Log • Refrigeration Log 	www.theicn.org/foodsafety
Transporting		
Transporting Food to Remote Sites (Satellite Kitchens)	<ul style="list-style-type: none"> • Food Safety Checklist • Hot and Cold Holding Temperature Log • Receiving Log 	www.theicn.org/foodsafety
Service		
Preventing Contamination at Food Bars	<ul style="list-style-type: none"> • Damaged or Discarded Product Log • Food Safety Checklist • Hot and Cold Holding Temperature Log 	www.theicn.org/foodsafety
Serving Food	Food Safety Checklist	www.theicn.org/foodsafety
Serving Safe Food to Students with Food Allergies		www.theicn.org/foodsafety
Using Suitable Utensils When Handling Ready-to-Eat Foods	<ul style="list-style-type: none"> • Damaged or Discarded Product Log • Food Safety Checklist 	www.theicn.org/foodsafety
Using Time Alone as a Public Health Control to Limit Bacteria Growth in Time/Temperature Control for Safety Foods	Food Safety Checklist	www.theicn.org/foodsafety
Cooling		
Cooling Time/Temperature Control for Safety Foods	Food Safety Checklist Production Log	www.theicn.org/foodsafety
Cleaning and Sanitizing		
Assembling a Body Fluid Cleanup Kit	<ul style="list-style-type: none"> • Damaged or Discarded Product Log • Employee Food Safety Training Record 	www.theicn.org/foodsafety
Cleaning and Disinfecting Body Fluid Spills	<ul style="list-style-type: none"> • Damaged or Discarded Product Log • Employee Food Safety Training Record 	www.theicn.org/foodsafety
Cleaning and Sanitizing Food Contact Surfaces	<ul style="list-style-type: none"> • Damaged or Discarded Product Log • Food Contact Surfaces Cleaning and Sanitizing Log • Food Safety Checklist 	www.theicn.org/foodsafety

SOP	Corresponding Logs	Location
Personal Hygiene		
Communicating Norovirus Prevention Methods	Employee Food Safety Training Record	www.theicn.org/foodsafety
Personal Hygiene	<ul style="list-style-type: none"> • Damaged or Discarded Product Log • Employee Food Safety Training Record • Food Safety Checklist 	www.theicn.org/foodsafety
Washing Hands	<ul style="list-style-type: none"> • Employee Food Safety Training Record • Food Safety Checklist 	www.theicn.org/foodsafety
Other		
Communicating During a Foodborne Illness Outbreak	Employee Food Safety Training Record	www.theicn.org/foodsafety
Handling a Food Recall	Damaged or Discarded Product Log	www.theicn.org/foodsafety

Table of Contents

Food Code	X
Program Overview	X
Site Descriptions	X
School: Rock Island High School	X
School: Edison Junior High	X
School: Thomas Jefferson Elementary	X
School 4: XXX	X
School 5: XXX	X
Menu	X
Menu Categorization	X
No Cook Process	X
Same Day Process	X
Complex Process	X
Standard Operating Procedures (select the SOPs describing your operation)	X
Purchasing	X
Receiving	X
Storage	X
Food Production	X
Service	X
Cleaning and Sanitizing	X
<i>Cleaning and Sanitizing Food Contact Surfaces</i>	X
Personal Hygiene	X
<i>Washing Hands</i>	X
Other	X
<i>Communicating During a Foodborne Illness Outbreak</i>	X
Logs (select logs documenting your SOPs)	X
Appendix	X

Writing a HACCP-Based Food Safety Plan

HACCP-Based Plan Creation

Instructions: Use the next 2 hours to work individually on developing your school-specific, HACCP-based food safety plans. Using the lessons and worksheets from Day 1, work on creating the following parts of your food safety plan. The **HACCP-Based Plan Creation** handout matches the food safety topic areas with its corresponding worksheet or handout in the Participant's Workbook.

HACCP-Based Plan Item	Day 1 Worksheet
Table of Contents	Table of Contents
Prerequisite Program List	<ul style="list-style-type: none"> Prerequisite Program Checklist Prevention Maintenance Schedule Sample Cleaning Schedule Sample
District Description	Program Overview
School Site Descriptions	<ul style="list-style-type: none"> School Site Description 1 School Site Description 2 School Site Description 3 (One School Site Description per school in district)
Standard Operating Procedures	<ul style="list-style-type: none"> Standard Operating Procedure Checklist SOPs Needed for Food Safety Plan Sample Standard Operating Procedures and Logs List
Logs	<ul style="list-style-type: none"> Standard Operating Procedure Checklist Sample Standard Operating Procedures and Logs List
Recipes	Participant Provided Recipes
Separate Recipes Into Process Approach Categories	<ul style="list-style-type: none"> The Process Approach Process Approach Category

Day 2		
Time	Topic	Work Style
15 minutes	Welcome	Trainer
1 hour	District Size Challenges and Solutions	Group Work
1 hour	School Location Challenges and Solutions	Group Work
2 hours	Edit Food Safety Plan from Group Work	Individual Work
1 hour	Emergency Plan Challenges and Solutions	Group Work
1 hour	Food Production Type Challenges and Solutions	Group Work
2 hours	Edit Food Safety Plan from Group Work	Individual Work
15 minutes	Wrap Up	Trainer
8 hours		

Introduction: Day 2 involves both group and individual work. We will break up into groups to help problem solve challenges and issues, and share ideas and solutions. Then, you will have the opportunity to work on your own school-specific, HACCP-based food safety plan.

Group Breakout Session 1 Discussion Topics

District Size Challenges

Instructions: Below are some food safety issues to consider that are meant to help spark conversation. The discussion is not limited to these items. These groups provide the opportunity to learn from peers and problem-solve similar challenges. Be open-minded, ask questions, and take notes.

- Procuring Foods
 - Are a sufficient number of vendors available for the procurement process? To handle the capacity of your business?
 - Is the delivery frequency adequate?
 - What are the benefits and limitations of state and district cooperatives?
 - Number of deliveries to meet the needs of all schools
 - Packaging size
- Food Preparation
 - How are you preparing food?
- Staff Training
 - What are the challenges in maintaining staff training?
 - Is the availability of skilled staff a concern?
 - Is turnover an issue in keeping staff trained and following procedures?
 - Are employees serving in different roles within the district?
 - Are opportunities for professional development/training limited, particularly in the area of food safety?
- Food transportation
 - What obstacles are created with the use of a district warehouse?
 - What issues exist in packing transported food?
- Equipment
 - Is equipment adequate for food safety needs and in good repair?
 - Is equipment used properly?
 - Is industrial equipment used? What are some of the unique food safety issues? (i.e., Some sanitarians request a variance when non-porous film is used for individual packaging per *2017 Food Code*)

District Size Challenges and Solutions

Challenges that Occur in SNP	Food Safety Hazards	Possible Solutions

School Location

Instructions: Below are some food safety issues to consider that are meant to help spark conversation. The discussion is not limited to these items. These groups provide the opportunity to learn from peers and problem-solve similar challenges. Be open-minded, ask questions, and take notes.

- Vendors
 - What are the food safety risks with utilizing Farm to School (food safety aspects such as Good Agricultural Practices/Good Handling Practices [GAP/GHPs])?
 - Are a sufficient number of vendors available for the procurement process?
 - Are your schools in an area inaccessible to vendors and contractors?
- Deliveries
 - What are the food safety risks created with satellite sites and long routes?
 - Is the delivery frequency adequate?
 - Are you in a food desert?
 - Is it difficult to get delivery trucks on-site?
- Is your district in a high poverty area? What are the added food safety risks?
- What are the unique problems of very small/large school districts and schools?
 - Are lunchrooms crowded and multiple lunch service times required?
 - Are specialty food requests and special dietary accommodations creating food safety challenges?

School Location Challenges and Solutions

Challenges that Occur in SNP	Food Safety Hazards	Possible Solutions

Group Breakout Session 2 Discussion Topics

Emergency Situation

Instructions: Below are some food safety issues to consider that are meant to help spark conversation. The discussion is not limited to these items. These groups provide the opportunity to learn from peers and problem-solve similar challenges. Be open-minded, ask questions, and take notes.

- What kind of threats do you need to prepare for?
 - External threats
 - Community health crisis
 - Food recalls
 - Food supply delivery disruption
 - Bioterrorism
 - Labor disputes
 - Internal threats
 - Interruption of service
 - Water outage
 - Construction
 - Boil water
 - Power outage
 - Internet/phone breakdown
 - Hostile school environment
 - Facility lockdown (i.e., angry parent)
 - Active shooter (i.e., person in building)
 - Disruptive students
 - Unsafe school location
 - Crime in surrounding area
 - Aging infrastructure
 - Power
 - Sewage
 - Water pipes and purity
 - Foodborne illness outbreak
 - Equipment failure (i.e., freezer goes down)
 - Sewage backup
 - Natural Disasters

- What are some unique weather conditions your school may handle?
 - Hurricanes
 - Tornadoes
 - Flooding
 - Wildfires
 - Earthquakes
 - Blizzards
 - Etc.
- Other
 - Are emergency meals needed?
 - What food safety plans do you have in place?

Emergency Situation Challenges and Solutions

Challenges that Occur in SNP	Food Safety Hazards	Possible Solutions

Food Production Type

Instructions: Below are some food safety issues to consider that are meant to help spark conversation. The discussion is not limited to these items. These groups provide the opportunity to learn from peers and problem-solve similar challenges. Be open-minded, ask questions, and take notes.

- What food safety challenges are created by using scratch cooking?
 - What are the unique concerns in time management for food safety?
 - Is there adequate equipment for thawing, cooking, cooling, etc.?
 - Do employees have the necessary skills for safely preparing food?
 - How is food handled outside the cafeteria?
 - Field trips
 - Breakfast-in-the-classroom
 - Correct equipment
 - Time and temperature control
 - How is food served to child care? What are the unique food safety problems?
 - Correct equipment
 - Time and temperature control
 - Correct food size/texture to prevent choking
- What food safety problems are created with the use of a central kitchen?
 - Do employees have the necessary skills for safely preparing food?
 - Are staff adequately trained on larger equipment?
 - What concerns are created when transporting food?
 - Proper transporting equipment – trucks, packing, carriers?
 - Are foods date-marked?
 - How are time and temperature controlled? How is it monitored?
 - Is there adequate space in the kitchen and dock for transporting carriers and coolers?
 - What are the temperature controls?
 - Cooking – final temp
 - Cooling
 - Do portioning and sealing packages require a variance?
 - How is food handled outside the classroom?
 - Field trips
 - Breakfast-in-the-classroom

- How is food served to child care? What are the unique food safety problems?
 - Correct equipment
 - Time and temperature control
 - Correct food size/texture to prevent choking
- What food safety issues are created with heat and serve production system?
 - Do employees have the necessary skills for safely preparing food?
 - Is food reheated properly? How do you monitor reheating?
 - Do you have the proper equipment for a Heat and Serve production system?
 - No reheating in the hot holder
 - Cold holding equipment
 - Thawing
 - Does portioning and sealing packages require a variance?
 - How is food handled outside the classroom?
 - Field trips
 - Breakfast-in-the-classroom
 - How is food served to child care? What are the unique food safety concerns?
 - Correct equipment
 - Time and temperature control
 - Correct food size/texture to prevent choking
- What food safety issues are created with a satellite system?
 - Do employees have the skill for safely preparing food?
 - Is food reheated properly?
 - Do you have the proper equipment for transporting, holding, and reheating food?
 - No reheating in the hot holder
 - Cold holding equipment
 - Hot holding equipment
 - Thawing
 - How is food handled outside the classroom?
 - Field trips
 - Breakfast-in-the-classroom
 - How is food served to child care? What are the unique food safety concerns?
 - Correct equipment and food size
 - Time and temperature control

Food Production Type Challenges and Solutions

Challenges that Occur in SNP	Food Safety Hazards	Possible Solutions

Day 3		
Time	Topic	Work Style
15 minutes	Welcome	Trainer
1.75 hours	Validating the Food Safety Plan	Partner Work
1.5 hours	Lesson 3 – Implementation of HACCP-Based Food Safety Plan	Trainer
30 minutes	Wrap Up	Trainer
4 hours		

Lesson 3 – Implementation of a HACCP-Based Food Safety Plan

By the end of this lesson, you will be able to describe the methods for successfully implementing and maintaining a HACCP-based food safety plan, including staff engagement, training, validating, and updating the plan.

Objectives

- Integrate a HACCP-based food safety plan into your school nutrition program.
- Write an action plan for training and implementing the food safety plan.
- Create a plan for validating and updating your HACCP-based food safety plan.

Manager and Staff Buy-In and Engagement

Instructions: List methods and activities you can do to get manager and staff buy-in and engagement with implementing your food safety plan. Put a star next to the ideas you want to implement first.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.

Tips for Creating a Food Safety Culture

- Create buy-in from the top down.
 - Make food safety your priority too!
 - Let your school board know about your HACCP-based plan.
- Make food safety part of the daily conversation.
 - Create open dialogue where questions can be asked.
 - Make good food safety practices a habit.
- Purchase equipment for staff to follow food safety procedures successfully.
 - Cleaning equipment, hot and cold holding equipment, etc.
- Be consistent in training on current and new food safety practices and procedures.
 - Food safety culture begins with new hire orientation and never goes away.
 - Continuous training is needed to keep managers and staff up-to-date on the best food safety practices.
- Involve staff in the creation of the plan.
 - An example process could be:
 1. Director describes the goal of where to be.
 2. Director distributes the draft plan to managers and staff.
 3. Managers and staff are given a chance to edit and voice concerns.
 4. Director addresses concerns and incorporates edits.
 - This creates buy-in and a stronger program.
- Revisit the process regularly to make sure it is working.
- Create a peer-based food safety awareness.
 - Mentor employees and have them mentor each other.
- Empower front line employees to make decisions about food safety.
 - Take corrective actions when needed.
 - Ask questions when they have a food safety concern.

Every employee has the opportunity to be a food safety advocate for his or her school!

Source: Safe Food Alliance. (n.d.). *The importance of food safety culture*. <https://safefoodalliance.com/management/the-importance-of-food-safety-culture>

HACCP-Based Food Safety Implementation Planner

Instructions: Determine the date you want to start the district HACCP program. List all the action items required to get the school nutrition program ready for the HACCP-based food safety plan implementation. The worksheet has listed a few tasks needed for program implementation, but there are blank spaces to add your own. Once this worksheet is completed, transfer the dates to the **HACCP-Based Food Safety Planning Calendar**.

Years:

Director:

School District:

Project Phase	Starting Date	Ending Date
Prerequisite programs		
Write HACCP plan draft		
Review and revise the plan		
Purchase equipment		
Develop a training plan		
Orient staff		
Start the HACCP program		
Review program implementation		
Revise plan		
Yearly plan update		

HACCP-Based Food Safety Planning Calendar

S	M	T	W	T	F	S

S	M	T	W	T	F	S

S	M	T	W	T	F	S

S	M	T	W	T	F	S

S	M	T	W	T	F	S

S	M	T	W	T	F	S

S	M	T	W	T	F	S

S	M	T	W	T	F	S

S	M	T	W	T	F	S

S	M	T	W	T	F	S

S	M	T	W	T	F	S

S	M	T	W	T	F	S

Resources

- Iowa State University Extension. (2019). *School foodservice HACCP resources*.
<https://www.extension.iastate.edu/foodsafety/haccp-school-foodservice>
- Kim, S.A., Yun, S.J., Lee, S.H., Hwang, I.G., & Rhee, M.S. (2013). *Temperature increase of foods in car trunk and the potential hazard for microbial growth*. *Food Control*, 29, 66-70.
- Kwon, J., Roberts, K. R., Sauer, K., Cole, K. B., & Shanklin, C. W. (2014). *Food safety risks in restaurants and school foodservice establishments: Health inspection reports*. *Food Protection Trends*, 34(1), 25-35.
- Martins, M., & Rocha, A. (2014). *Evaluation of prerequisite programs implementation at school's foodservice*, *Food control*. 39, 30-33. <https://doi.org/10.1016/j.foodcont.2013.10.040>
- Mortimore, S. & Wallace, C. (2013). *HACCP: a practical approach*, 3rd Edition. New York: Springer.
- Roberts, K. R., Sauer, K., Sneed, J., Kwon, J., Olds, D., Cole, K., & Shanklin, C. (2014). *Analysis of school food safety programs based on HACCP principles*. *Journal of Child Nutrition & Management*, 38(1). <http://schoolnutrition.org/JCNM/>
- Sneed, J., & Patten, E. (2015). *Current practices for providing school field trip meals: Perspectives of school nutrition managers and teachers*. *Journal of Child Nutrition & Management*, 39(1). <http://schoolnutrition.org/JCNM/>
- U.S. Food and Drug Administration. (2018) *Adoption of the FDA Food Code by State and Territorial agencies responsible for the oversight of restaurants and retail food stores*.
<https://www.fda.gov/media/107543/download>
- Venuto, M., Garcia, K., & Halbrook, B. (2015). *Analyses of the contributing factors associated with foodborne outbreaks in school settings (2000-2010)*. *Journal of Environmental Health*, 77(7), 16-20. <https://fns-prod.azureedge.net/sites/default/files/FS-JEH-2015-Analyses-of-Contributing-Factors-Associated-with-FBO-in-School-Settings.pdf>
- Wang, C. Van Fleet, D., & Van Fleet, W. (2014). *Social networking as a strategy for improving food safety: a pilot study*. *Journal of Business Strategies*. 31(2), 357-378.

References

- Centers for Disease Control and Prevention. (2018). *Burden of foodborne illnesses in the United States*. <https://www.cdc.gov/foodborneburden/burden/index.html>
- Engage for Success. (n.d.). *What is employee engagement?*
<https://engageforsuccess.org/what-is-employee-engagement>
- Food Research and Action Center. (n.d.) *National school lunch program*.
<http://frac.org/programs/national-school-lunch-program>
- Institute of Child Nutrition. (2017). *Food safety fact sheet: Complex process*.
www.theicn.org/foodsafety
- Institute of Child Nutrition. (2017). *Food safety fact sheet: No cook process*.
www.theicn.org/foodsafety
- Institute of Child Nutrition. (2017). *Food safety fact sheet: Same day service process*.
www.theicn.org/foodsafety
- Institute of Child Nutrition. (2015). *Food safety in schools*. www.theicn.org/foodsafety
- Institute of Child Nutrition. (2016). *HACCP-based standard operating procedures*.
www.theicn.org/foodsafety
- Institute of Child Nutrition. (2017). *Keep it clean* [poster]. www.theicn.org/foodsafety
- Institute of Child Nutrition. (2017). *Personal hygiene* [poster]. www.theicn.org/foodsafety
- Institute of Child Nutrition. (2017). *Temperature* [mini-poster]. www.theicn.org/foodsafety
- Merriam-Webster. (n.d.). *Buy-in*. <https://www.merriam-webster.com/dictionary/buy-in>
- PEW Charitable Trust. (2014). *Young children and foodborne illness*.
<https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2014/11/young-children-and-foodborne-illness>
- Pinterest. (n.d.). *Kitchen cleaning schedule*.
<https://www.pinterest.com/pin/388013324130811614/>
- Safe Food Alliance. (2019). *The importance of food safety culture*.
<https://safefoodalliance.com/management/the-importance-of-food-safety-culture/>
- Template.net. (n.d.). *39+ Preventive maintenance schedule templates – Word, Excel, PDF*.
<https://www.template.net/business/schedule-templates/preventive-maintenance-schedule-template/>

United States Department of Agriculture. (2005). *Guidance for school food authorities: Developing a school food safety program based on the Process Approach to HACCP principles*. <https://www.fns.usda.gov/guidance-school-food-authorities-developing-school-food-safety-program-based-process-approach-haccp>

U.S. Department of Education, National Centers for Education Statistics. (2019). *Digest of education statistics, 2017*. <https://nces.ed.gov/fastfacts/display.asp?id=84>

U.S. Food and Drug Administration. (2017). *Food code 2017*. <https://www.fda.gov/media/110822/download>

U.S. Food and Drug Administration. (2017). *HACCP principles & application guidelines*. <https://www.fda.gov/food/hazard-analysis-critical-control-point-haccp/haccp-principles-application-guidelines#princ>



The University of Mississippi
School of Applied Sciences

800-321-3054

www.theicn.org