

# Screen 1



## HACCP

### Screen description

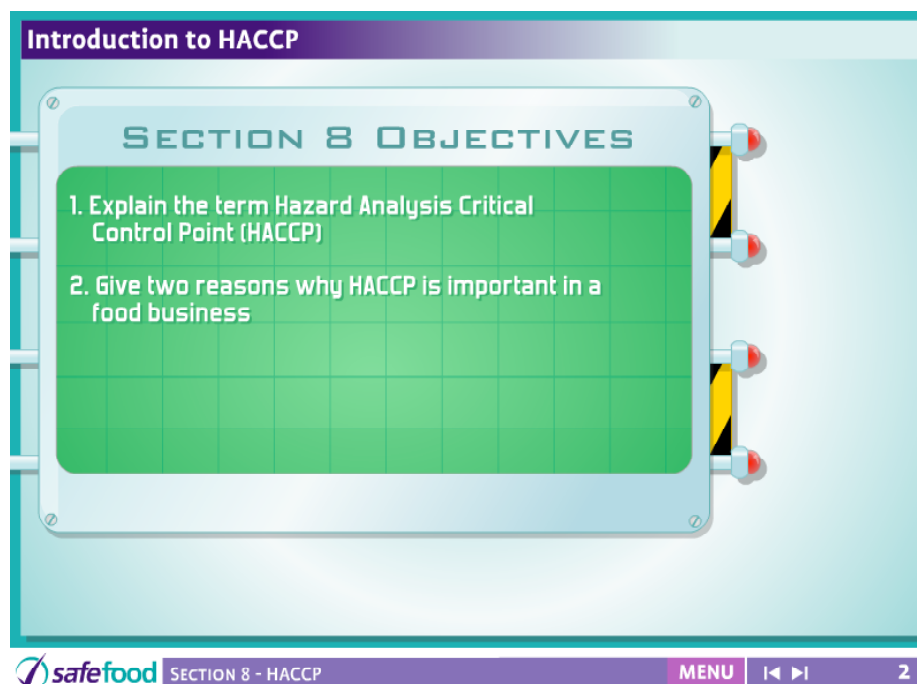
Food hygiene legislation requires food businesses to have a food safety management system such as HACCP or a system based on HACCP principles. HACCP involves identifying and controlling any potential hazards that may occur at any stage, from the food production stage to processing, delivery, storage, preparation and serving.

The system and procedures put in place must be adequate to control hazards and must be verified. The system introduced depends on the risk, nature and extent of the food business and this will be assessed by the EHO.

### Teacher

Explain to the students that we will be looking at the hazards and controls during each step in the food production process.

# Screen 2



## Objectives

### Screen description

This screen lists the objectives of the chapter

1. Explain the term Hazard Analysis and Critical Control Point (HACCP)
2. Give two reasons why HACCP is important in a food business

### Teacher

Ask: What can you do as a food worker to ensure that a chicken is safe for consumption?

Answers elicited may include:

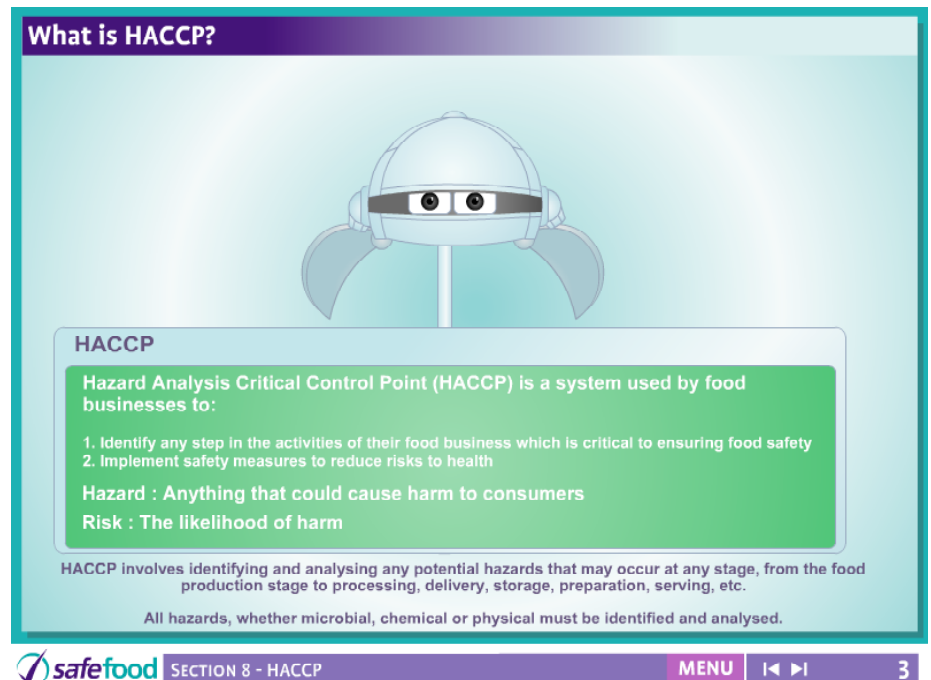
1. Proper storage
2. Proper temperature control (both hot and cold)
3. Thorough cooking
4. Good operational hygiene
5. Good personal hygiene

### 6. Safe food handling

#### Background Information

The Pillsbury Company developed HACCP in 1959. At the time they were planning the food for the American space programme. They had to ensure that the food that was taken on the space mission was free of any potential hazards, i.e. pathogenic bacteria or toxins.

# Screen 3



## Definition of HACCP

### Screen description

This screen gives a definition of HACCP.

### Teacher

Ask the students to explain HACCP in their own words. If they are not able to, they do not understand it and it must be explained again until they do.

### What is Hazard Analysis and Critical Control Point (HACCP)?

Hazard Analysis and Critical Control Point (HACCP) is a system used by food businesses to:

1. Identify any step in the activities of their food business which is critical to ensuring food safety
2. Implement safety measures to reduce risks to health

### Definition:

### Hazard

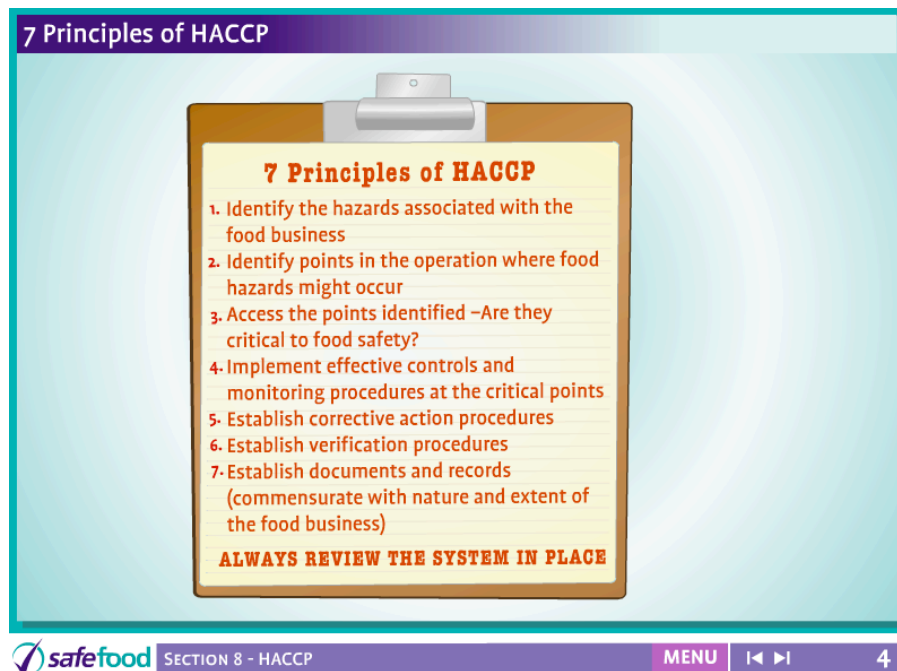
*Anything that could cause harm to consumers*

### Risk

*The likelihood of harm*

A hazard is a constant, but the risk is determined by the situation. For example, a tiger is always a hazard to humans, but if it is locked in a cage, then the risk is minimal. In the same way, *Campylobacter* is a hazard that is commonly found in raw chicken, but if the chicken is properly cooked and cross-contamination is prevented then this hazard is of no risk.

# Screen 4



## 7 principles of HACCP

### Screen description

Interactive screen, with an area to display the students' suggestions.

### Teacher

As each point is read ask the students to give examples, e.g.

1. The hazard could be a chemical contaminant
2. The hazard may occur if the food is left out when cleaning
3. It is critical to ensuring safety
4. Keep the food covered at all times
5. Is the cover working, should the food be moved?
6. Do you have a record to trace back all stages of the process?

The points can be entered on screen. When you're ready click the 'Reveal' button to see the definitive answers.

### Glossary

**Risks:** the likelihood of harm

**Hazard:** A biological, physical or chemical agent in, or condition of, food with the potential to cause an adverse health effect.

**Hazard Analysis:** The process of collecting and evaluating information on hazards and the conditions leading to their presence to decide which are significant to food safety and therefore should be addressed in the HACCP plan.

**Control Measure:** Any action or activity that can be used to prevent or eliminate a food safety hazard or to reduce the risk to an acceptable level.

**Critical Control Point:** A step at which a control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level.

## **Five basic steps in HACCP**

1. Identifying the food hazards associated with the food business operation (i.e. microbial, physical, chemical)
2. Identify the points in the operation where food hazards may occur
3. Deciding which of the points identified is critical to ensuring safety of the food
4. Implementing effective control and monitoring procedures at the critical points
5. Reviewing the system periodically, and whenever there is a change in the food business operation, e.g. new food ingredient, new cleaning agents etc.

# Screen 5



## The use of a documented food safety management system

### Screen Description

The screen shows information on using documentation as part of a food safety management system

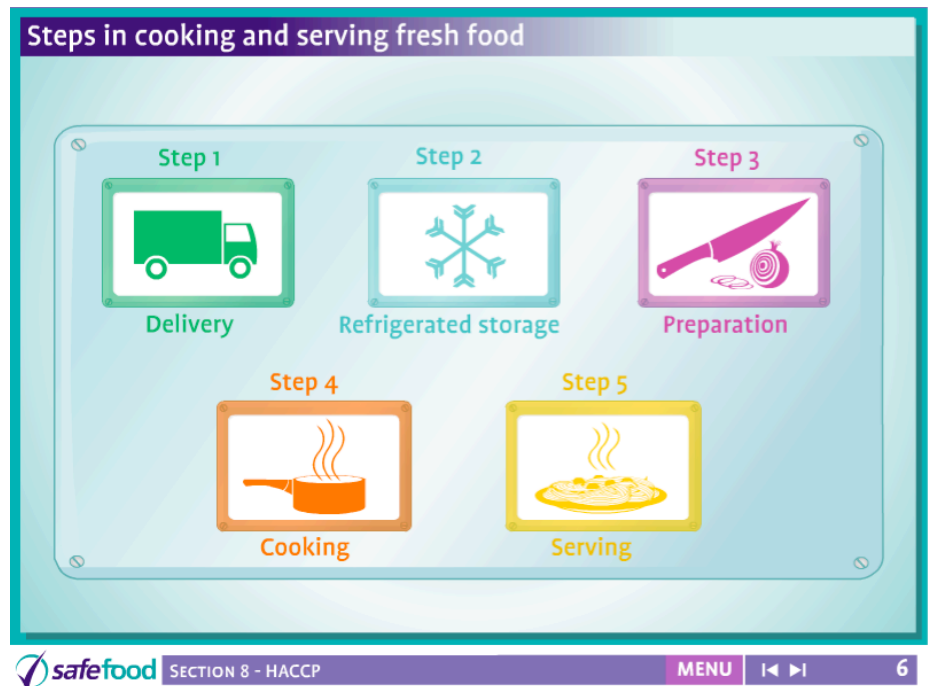
### Teacher;

Ask the students: Why is documentation an important part of a food safety management system?

### Dealing with documentation

- Some types of records might include refrigerated storage, cooking and holding temperatures, cleaning records, staff training records, pest control and 'goods in' delivery temperatures and maintenance records.
- It is a legal requirement to keep records as part of a food safety management system.
- Record keeping helps to ensure that the business complies with the law and provides evidence of how the food is produced and handled.
- It is essential to know what you are doing and why and keep accurate records.
- Your records need to show that the steps in the production and sale of food that are critical to safety are being controlled.

# screen 6



## Steps involved in cooking and serving fresh food

### Screen description

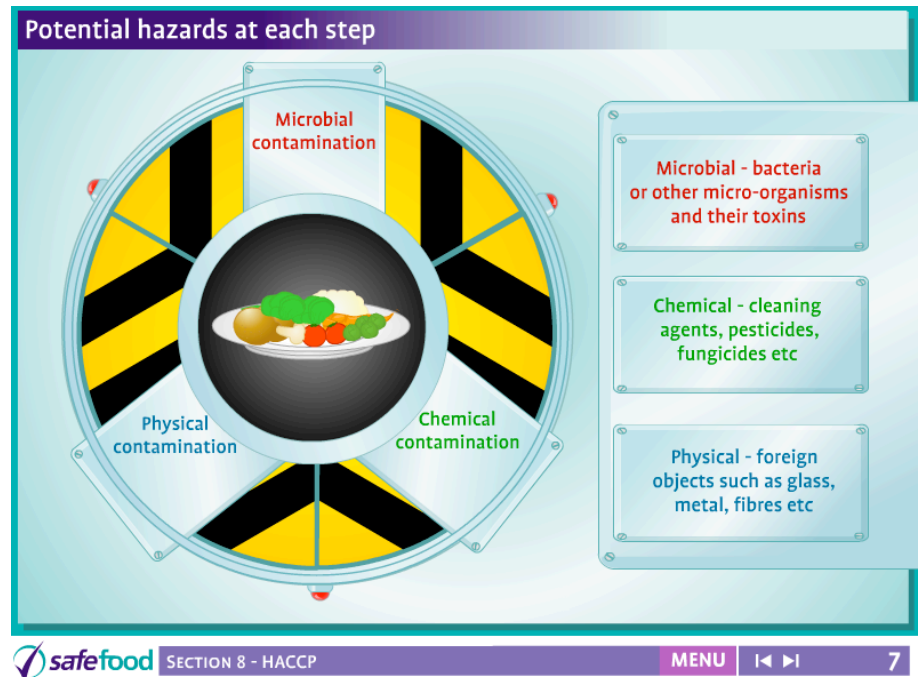
This screen shows each of the steps involved in a sample food production process. The hazards and controls need to be identified at each of these steps

### Teacher

Explain points to the students

1. Delivery
2. Storage in refrigerator
3. Preparation
4. Cooking
5. Serving

# Screen 7



## Potential hazards at each step

### Screen description

As a reminder this screen lists the potential hazards that should be considered at each step

### Teacher

Ask the students to list other examples.

At each step there are likely to be several hazards which must be controlled to ensure food safety.

The three main hazards (as discussed in Session 2) in relation to food are:

1. Microbial – bacteria or other micro-organisms, and their toxins
2. Physical – foreign objects such as glass, metal, fibres etc
3. Chemical – cleaning agents, pesticides, fungicides etc



# Screen 8



## Delivery

### Screen description

Interactive screen. Hazards and controls are listed.

### Teacher

The hazards associated with delivery are listed. Ask the students to suggest controls. When you're ready click the '?' button to reveal the controls.

The microbial (i.e. not physical and chemical) hazards associated with delivery are listed.

HAZARD	CONTROL
Microbial contamination	<ul style="list-style-type: none"> <li>• Use a reputable supplier</li> <li>• Check cleanliness of delivery vehicle and driver</li> <li>• Train staff in temperature controls</li> <li>• Check delivery for broken packaging</li> <li>• Specify delivery requirements especially time/temperature</li> <li>• Ensure temperature on arrival to premises is between 0°C and 5°C</li> </ul>
Microbial growth	<ul style="list-style-type: none"> <li>• Minimise time for unloading and storage</li> <li>• Check 'use by' and 'best before' dates</li> </ul>

# Screen 9



## Storage

### Screen description

Interactive screen. Hazards and controls in the temperature danger zone (5°C to 63°C) where bacteria can easily grow

### Teacher

The hazards associated with storage are listed. Ask the students to suggest controls. When you're ready click the '?' button to reveal the controls.

Ask the students which they believe to be the most important point and why.

Fridge must be below 5°C in order to prevent the foods being stored in the temperature danger zone.

HAZARD	CONTROL
Microbial growth	<ul style="list-style-type: none"> <li>• Refrigerator must operate at below 5°C</li> <li>• System of stock rotation in place</li> <li>• Cleaning/disinfecting</li> <li>• Staff training</li> </ul>

# Screen 10



## Preparation

### Screen description

Interactive screen. Hazards and controls are listed.

### Teacher

The hazards associated with preparation are listed. Ask the students to suggest controls. When you're ready click the '?' button to reveal the controls.

Ask: Why are control measures necessary?

To prevent contamination

HAZARD	CONTROL
Microbial Contamination	<ul style="list-style-type: none"> <li>• Good personal hygiene/training</li> <li>• Good operational hygiene</li> <li>• Cleaning/ disinfecting</li> </ul>

HAZARD	CONTROL
Microbial growth	Minimise time at room temperature

# Screen 11



## Cooking

### Screen description

Interactive screen. Hazards and controls are listed.

### Teacher

The hazards associated with cooking are listed. Ask the students to suggest controls. When you're ready click the '?' button to reveal the controls.

Ask the students to highlight the most critical point here in relation to food safety.

Cook to a minimum core temperature of 75°C

This has to be done to destroy any pathogens that may be present in the foods.

HAZARD	CONTROL
Microbial/toxin survival	<ul style="list-style-type: none"><li>• Minimise time at room temperature</li><li>• Pre-heat oven</li><li>• Cook to a minimum core temperature of 75°C</li><li>• Staff training</li></ul>

# Screen 12



## Serving

### Screen description

Interactive screen. Hazards and controls are listed.

### Teacher

The hazards associated with serving are listed. Ask the students to suggest controls. When you're ready click the '?' button to reveal the controls.

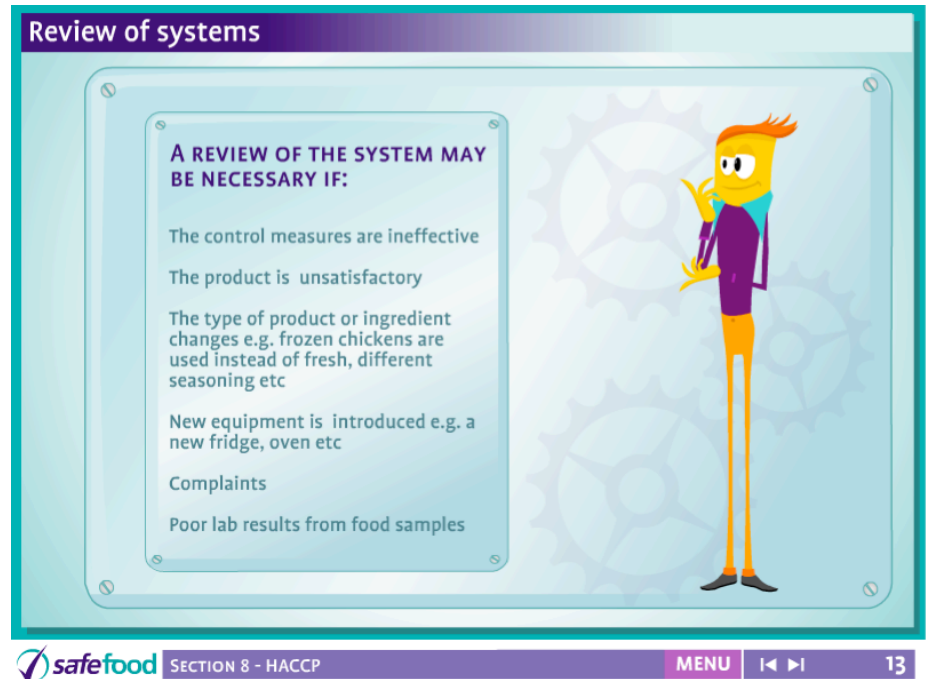
Ask the students how the food could be contaminated after cooking, e.g. dirty utensils, surfaces.

How could microbial growth take place?

If food is held for too long at the wrong temperature.

HAZARD	CONTROL
Microbial contamination	<ul style="list-style-type: none"><li>• Serve immediately or</li><li>• Serve within 90 minutes holding it above 63°C (time/temperature)</li></ul>
Microbial growth	<ul style="list-style-type: none"><li>• Good personal hygiene/training</li><li>• Cleaning/disinfecting</li></ul>

# Screen 13



## Review of the system

### Screen description

This screen shows points relating to reviewing the system.

### Teacher

Ask if anything has been left out.

The system should be reviewed if it fails to prevent contamination of a food.

A review of the Hazard Analysis and Critical Control Point (HACCP) system will be necessary if:

1. The control measures are ineffective
2. The product is unsatisfactory
3. The type of product or ingredient changes, e.g. frozen chickens are used instead of fresh, or different seasonings are used
4. New equipment is introduced, e.g. a new refrigerator, cooker.
5. Complaints are received

6. Poor lab results from food samples.

# 14 Screen

## Sample HACCP plan - Making a cold meat sandwich

STAGE OF PREPARATION	HAZARD	CONTROL
Purchase of supplies e.g. butter, bread and cold meat	Contamination of the raw ingredients	Buy ingredients from a reputable supplier
Delivery of ingredients	Presence of physical contaminants	Visual inspection
Delivery of ingredients	Lack of refrigerated vehicle for transport or incorrect thermostat	Check temperature on delivery
Storage of ingredients	Incorrect storage in refrigerator/dry goods store	Check temperature and location in the fridge/dry goods store
Preparation of sandwich	Cross contamination Physical or chemical contamination	Use zones in the kitchen Ensure that staff have good personal hygiene
Storage of sandwich	Temperature of food on display counter	Check temperature of food counter
Sale of sandwich	The buyer stores the sandwich at room temperature	Put a 'use by' date and time on the wrapper

A HACCP plan is not always required; this depends on the nature & extent of the food business. In some businesses procedures based on HACCP are sufficient.



SECTION 8 - HACCP

MENU



14

## Sample HACCP plan

### Screen description

This screen shows a sample HACCP plan. A HACCP plan is not always required based on the type of food being produced, the associated risk and the size of the business.

### Teacher

Ask: How does HACCP help prevent food poisoning?

By analysing the hazards at each stage of production and by suggesting controls to prevent the hazard.

4. Implement effective controls and monitoring procedures at the critical points
5. Establish corrective action procedures
6. Establish verification procedures
7. Establish documents and records (commensurate with nature and extent of the food business)

**Always review the system in place**

### Seven Basics Steps

1. Identify the hazards associated with the food business
2. Identify points in the operation where food hazards might occur
3. Assess the points identified – Are they critical to food safety?