

# MODULE 17: SAFETY IN THE KITCHEN

## INTRODUCTION

*In this module the students become aware of safety risks in the kitchen and learn how to minimize risks. Be aware that this is an extra long module as a lot of subjects will need to be covered.*

## OVERVIEW



### Knowledge

- The students learn to recognize safety risks and how to minimise them.



### Attitude

- The students start to apply safe practices in the kitchen.



### Learning Goals

- The students learn about the importance of safety and hygiene in the kitchen.



### Skills

- The students are able to operate safely in the kitchen.

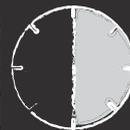
SESSION 17A: How to Work Safely in the Kitchen

SESSION 17B: Food Spoilage

SESSION 17C: Fires, Knives and other Dangers

## BEFORE YOU START, YOU NEED...

- Markers and pens
- Flipbooks in place
- Large pieces of paper
- Printed student diaries
- Print out the attached reviews for every group of 5 people (print it out about 6 times).



• Preparation time (15 min)

• Training time  
Session A: 90 min  
Session B: 90 min  
Session C: 90 min



# SESSION 17A: How to work safely in the kitchen



## Knowledge

- The students know how to prevent accidents and how to maximize hygiene.



## Attitude

- The students become risk averse and consider hygiene important.



## Learning Goals

- The students learn how to work safely in the kitchen.



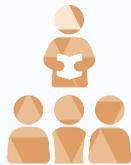
## Skills

- The students are able to work safely.

## AGENDA



**Energizer**  
(15 min)



**Lecture:** Causes of accidents and how to avoid them  
(15 min)



**Discussion:** Personal hygiene risks  
(15 min)



**Drawing exercise:** How to ensure hygiene in the kitchen  
(45 min)



### ASK:

- Can you remember your worst eating experience? What caused it?
- Let some students share experiences.



### SAY:

- Today we will focus on how to work safely in the kitchen. We have looked at kitchen practices before and some parts may sound familiar to you. But kitchen safety is absolutely crucial as it needs to ensure safety for yourself, your clients and your colleagues! Think of fires, accidents and food poisoning: if kitchen safety is not taken seriously, it can have extreme consequences!



## INSTRUCTIONS

### Energizer (15 min)



The energizer team leads an energizer.

### Lecture: Causes of kitchen accidents and how to avoid them (15 min)



#### SAY:

- Accidents often happen for various reasons including incorrect human behaviour.
- The kitchen is an area where accidents happen quite often. Slips, trips and falls cause 30% of these accidents and 75% of the major injuries! Another 30% of the accidents have to do with improper handling and lifting items and machineries like pots & pans, knives etc, and about 16% are caused by exposure to hazardous substances and surfaces, such as boiling water and oil.



#### FACILITATOR'S TIP:

Make 2 columns on the board with "good" and "bad" above them. Write down the bad items as written below. Let the students help you to formulate the good behaviour. Feel free to let the students add even more items than the ones written below.



### Causes of Accidents and How to Avoid Them

Good	Bad
Fix or repair broken equipment	Keep on using broken equipment
Clean slippery floors	Leave slippery floors for what they are
Store sharp knives correctly	Leave sharp knives lingering around
Carry hot pans using protective gear such as a pot holder	Carry hot pans with your bare hands
Dividing heavy loads into smaller ones that are safe to carry, and carry them correctly	Carry as much as possible in one go
Wear protective clothing	Wear the same clothing you would always wear



Use different cutting boards for different types of food items (meat, vegetables, bread, etc.)

Use one cutting board for all food items

Store food correctly, such as cold storage and by using lids or foil, etc.

Leave food items as they are, exposing them to various risks

Clean the kitchen thoroughly, every day

Leave the kitchen dirty

## Kitchen & Personal Hygiene



**SAY:**

- As you have learned before, personal hygiene is very important in this sector. In the kitchen it is especially important because bacteria in our body (skin, nose, mouth or hand) can be transferred to food and the people who eat the food can get sick.
- Therefore, personal hygiene plays an important role in preventing cross contamination.
- Cross contamination is the transfer of harmful microorganisms or bacteria, from one substance to another.

## Discussion in Pairs: Personal hygiene risks (15 min)



### FACILITATOR'S TIP:

Let the students discuss in pairs which type of behaviours could lead to food contamination. After about 5 minutes, let the students make a list together. Add the items below that are not mentioned by the students.

### Personal behaviours that can contaminate food include



Scratching the scalp



Touching the nose



Rubbing an ear



Touching a pimple/sore



Wearing a dirty uniform



Coughing / sneezing into the hand



Spitting



Running fingers through hair



# Drawing exercise: How to ensure hygiene in the kitchen (45 min)



## SAY:

- *We are now going to make a drawing of 2 people: one of a person that does everything correct in terms of personal hygiene and one that does not respect personal hygiene at all. I will start with reading out loud how to draw the person that does everything right. Please draw as I explain it:*

- Wash hands correctly and often (after using the toilet, before entering the kitchen, after a break, after smoking, before handling any food, after coughing, sneezing, touching any parts of the head and hair, handling rubbish, touching any pets and animals).
- Bathe daily.
- Wear clean clothes or uniforms daily and change aprons after they become soiled.
- Eat, drink or smoke only in designated non-food prep areas.
- Don't come to work when sick.

- *Now I am going to read out loud important behaviours of someone that does everything wrong and is not paying attention to personal hygiene at all. And again, draw with me as I go:*

- Spitting, touching the nose, hair, mouth and sores should be avoided.
- Jewelries, rings and watches should not be worn while working in the kitchen.
- Cuts and burns should be covered with waterproof dressing.
- Hair should be properly covered.
- Nails should be short, clean and manicured.
- Ready-to-eat food should not be handled with bare hands.



## FACILITATOR'S TIP:

Let the students draw the 2 people on a piece of paper. After they are finished, let them show their drawings to each other and let them explain what they drew.



# SESSION 17B: Food Spoilage



## Knowledge

- The students will understand why food spoilage is important, how to recognize it and how to prevent it.



## Attitude

- The students take the risk of food spoilage seriously.



## Learning Goals

- The student learn about spoilage and how to prevent it.



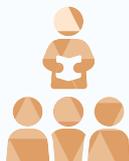
## Skills

- The students are able to store food safely.

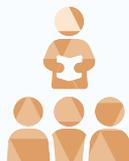
## AGENDA



**Energizer**  
(10 min)



**Lecture:**  
Recognizing food  
spoilage  
(10 min)



**Lecture:**  
Avoiding cross-  
contamination  
(10 min)



**Lecture:**  
Safe storing food  
items  
(10 min)



**Exercise:**  
How do you store  
each food item?  
(50 min)



### SAY:

- *Can you remember your worst eating experience? Of course, it could have been caused by the horrible cooking skills of the person who made it. Or it could have been caused by ingredients that you just really don't like.*
- *But if you really think about your very worst eating experience, it probably involved eating spoiled food, isn't it?*
- *We will now focus on food spoilage: how to recognize it and how to prevent it by storing food safely.*



## INSTRUCTIONS

### Energizer (10 min)



The energizer team leads an energizer.

### Lecture: Recognizing Food Spoilage (15 min)



#### SAY:

- *Food spoilage comes in many forms. It can alter the structure or taste of the food, and also make eating the food dangerous, as is often the case with eating spoiled meat.*
- *Spoiled food is mostly contaminated by things that should not be there: bacteria, viruses, fungi, etc. Sometimes cooking itself is a way to remove those contaminants. Raw chicken, for example, is known for often being contaminated with harmful bacteria and cooking it is a way to kill the bacteria and make it safe to eat. Whilst beef can sometimes be eaten while still a bit raw (as in steak (Medium/Medium-Rare), it is never a good idea to eat chicken that is still slightly raw.*
- *Spoiled food also often changes appearance and starts to smell. Your sense of smell is particularly important for recognizing food spoilage. As eating spoiled food can be dangerous, your body has learned to recognize the smell of spoiled food. So: if food does not smell the way it is supposed to smell, don't eat it!*



#### FACILITATOR'S TIP:

Make 2 columns on the board with "good" and "bad" above them. Write down the bad items as written below. Let the students help you to formulate the good behaviour. Feel free to let the students add even more items than the ones written below.

### Expiry Dates:

- *On packaged food you buy in a shop, an expiration date is normally written. There are two types:*
- **Best before** means that after that date, the quality of the food starts to drop. However, as long as it looks and smells good, you could most of the time still eat it roughly a week after the date. Canned foods can be eaten even far longer.
- **Use by** means that after that date, the food is no longer safe to consume. Never serve anyone food passed the Use by date.

### First-in-first-out

- *In order to minimise food wastage, most companies use the First In, First Out principle.*
- *This means that kitchen staff first use the food/stock that was already present before the new stock came in.*
- *The older stock probably has a nearer expiration date so if the new food is used first, the chances of having to throw away the older food stock are higher. That is why you need to respect the First-in-first-out principle.*



- Though some food items need to look good and be fresh when served directly, some day-old items can still be recycled as ingredients for other dishes.
- Bread for example deteriorates quickly yet most customers will prefer freshly baked bread. Bread that is not very fresh (stale), however, does not necessarily need to be thrown away as it can still be used to make bread crumbs or toast.

## Lecture: **Avoiding Cross-Contamination** (10 min)



### **SAY:**

- Cross-contamination where bacteria are easily transferred from one product to another is a big risk in the kitchen.
- It often happens when raw food such as meat is prepared and the equipment or preparation areas are not cleaned well before ready-to-use food, such as bread or vegetables are handled.

### **ASK:**

- What things do you think you can do to prevent cross-contamination?
- Possible answers are:

- Cross-contaminations is the cause for many food poisonings. That is why you should prevent:
  - Foods touching – such as raw meat touching other food. Use separate packaging and labelling when storing food.
  - Raw meat or poultry dripping onto ready-to-eat-food. Should be packaged appropriately and stored away from cooked foods.
  - Cloths, staff uniforms or equipment getting contaminated. Use the correct protective gear when necessary (e.g. gloves, aprons, hair nets, etc.)
  - Cleaning equipment such as brooms and mops getting contaminated. These should be stored in a cupboard away from the cooking items.
  - Using equipment for raw then cooked food, e.g. chopping boards or knives. Make sure to clean equipment frequently when working but also use separate chopping boards for meat, chicken, vegetables, etc.
  - Hands – touching raw then cooked food, not washing hands between tasks. It is most important to keep washing your hands as you handle food and switch between tasks in the kitchen.
  - Pests spreading bacteria from their own bodies or droppings around the kitchen. Regular pest fumigation as well as through cleaning of the kitchen and work surfaces is advised.
  - Also, make sure to wash items with clean water. Fruits and vegetables should be washed before preparation/peeling and again afterwards. Leafy vegetables may need to be washed in several changes of cold water to remove all of the soil.



## Lecture: Safe Storing Food Items (10 min)



- There are various ways to prevent food spoilage e.g. cooking, canning, pasteurisation, vacuum packaging, chilling, freezing, smoking meat and fish, drying, adding preservatives to food items and many more.
- Often, these methods are combined. Processed milk, for example, is pasteurized. This means that bacteria are killed through the use of heat. However, you also need to store milk in a refrigerator, otherwise it will get spoilt very quickly. 
- Correct food storage depends on the store food items.
- Refrigerated storage means that the food is kept at a temperature where contaminants are unlikely to spread. Frequent power outages however make it difficult to consistent cool the food items thus why its important to always double check for the quality of refrigerated food items before cooking/serving. Among others, meat, dairy and most vegetables need to be refrigerated/frozen. Make sure that refrigerators are cleaned regularly. 
- Other foods that generally have a longer shelf life than those needing refrigerated or frozen storage can be stored in a cool and dry place. These include items such as dry goods and cereal products, (rice, pasta, sugar, flour, grains, etc.) spices and dried herbs, packaged goods, e.g. biscuits, canned goods, bottled items, tea and coffee etc. However, it is important that such items should be kept in clean, covered containers, on shelves to prevent contamination from pests, and to check the quality thoroughly before usage. 
- Cling film and foil are very useful products for storing food hygienically, protecting from cross-contamination and preventing food from drying out. 

## Exercise: How do you store each food item? (45 min)



### FACILITATOR'S TIP:

In this exercise the students in groups of 3 receive the names of 3 different food items like 'eggs', 'bread' or 'pineapple', etc. They will get 10 minutes to discuss among themselves what happens if those items get spoiled and how to store them safely. After the 10 minutes let each group present their findings. In order to make this exercise effective, prepare different cards with a food item written on it before the lecture and give each group 3 cards randomly.



# SESSION 17C: Fires, Knives and other Dangers



## Knowledge

- The students know what different types of dangers there are and how to deal with it.



## Attitude

- The students take fire and knife safety seriously.



## Learning Goals

- The students learn about different fires, knives and other dangers.



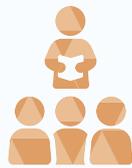
## Skills

- The students are able to perform a proper end-of-the-day cleaning of the kitchen.

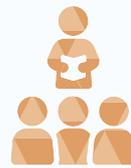
## AGENDA



**Energizer**  
(10 min)



**Lecture:**  
Recognizing food  
spoilage  
(35 min)



**Lecture:**  
Avoiding cross-  
contamination  
(15min)



**Demonstration:**  
How to clean the  
kitchen  
(30 min)



### SAY:

- *This session will be about fires, knives and other dangers. But it will also focus on one of the most important aspects of working in the kitchen: the cleaning of the kitchen at the end of the day!*

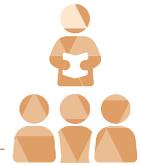


## Energizer (15 min)



The energizer team leads an energizer.

## Lecture: Fires (35 min)



### FACILITATOR'S TIP:

This is an important topic that requires attention. The part about the fire triangle may be a bit complex for some of the students, so take the time to help them understand it. It helps to show Youtube videos of different fires and the effect of different extinguishers.



### SAY:

- *Fires form a considerable risk in any hotel, restaurant or bar. Cooking for clients can get hectic, which is why kitchens in particular are prone to fires. So, when do fires actually start? For that, you need to understand the idea of the Fire Triangle.*

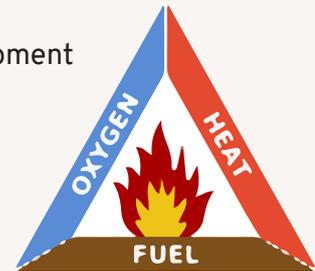
### The Fire Triangle

For a fire to start, three things are needed:

A source of ignition (heat), such as flames, hot surfaces, electric equipment or static electricity

Fuel, such as flammable gasses, liquids or solids

Oxygen, which is present in the air



If any of those 3 is missing, a fire cannot start. Taking steps that help avoid these 3 coming together will reduce the chances of fires occurring.

### For example:

If you want to make a campfire, you need something to burn, right? You need wood, or a paper, or anything - you can see this as the fuel that is being burned. But of course, you can also add oil as extra fuel. Also, if you just place a piece of wood somewhere but there is nothing that causes or ignites the fire, you can wait in vain for the fire to take place. And have you ever tried making a campfire at a place where there is little oxygen, such as in a cave? You will see that it is quite difficult.

- *Whenever you want to stop a fire, you break the Fire Triangle:*
  - *You either reduce the temperature significantly,*
  - *You remove the fuel or whatever it is that is burning, or*
  - *You make sure that no oxygen can reach the flames.*



For example, when you throw water on a campfire, you reduce the heat. When you put a lid on a flaming pan, you make sure that no oxygen reaches the fire anymore. When you shut off the gas from a gas stove, you remove the fuel.

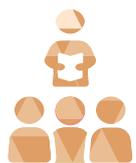
## Types of Fires

- *In order to extinguish a fire, you need to understand the type of fire and you need to know which options you have at your disposal. Time is often limited during a fire outbreak, so it is important to be prepared and aware of the fire extinguishers that are available. Also, make sure you know how to reach the firefighters!*
- *Every establishment should have a portable fire extinguishers in their kitchen which can help to extinguish early-stage fires if used correctly.*
- *There are various kinds of extinguishers, categorized according to the medium they contain. Some contain water, whereas others contain foam, powder, carbon dioxide or vaporising liquids.*
- *But you cannot use any of them for any fire. This is extremely important. You need to understand the type of fire:*
  - ***Fires involving solid materials, including food, paper and wood:** Use water, powder or foam extinguisher.*
  - ***Fires involving liquids, such as alcohol:** Use foam or carbon dioxide extinguishers.*
  - ***Fires involving electric equipment:** Do not use water but remove the power source*
  - ***Fires including cooking oils:** Do not use water! You can use a fire blanket in case it is a small fire.*
- *Many accidents happen when people try to extinguish a fire with water when they should not:*
  - *If you throw water on boiling oil, you will create a dangerous explosion!*
  - *If you throw water on burning electrical equipment, you risk being electrified!*

## Lecture: Kitchen Knife Drill and Safety (15 min)

### SAY:

- *Many accidents in the kitchen are caused by the incorrect use of knives. However, knives are essential in any kitchen! That is why the following reminders are important:*
- *If you want to pass a knife to someone else, place it on the bench instead of giving it directly.*
- *Never hold knives open in the air or place your fingers over the cutting edge.*
- *Never leave knives in sinks or under items. Never store them at the same place as other cutlery. Blades are dangerous when they cannot be seen.*
- *Always keep the knives separate and individually contained.*



### FACILITATOR'S TIP:

The following part about knives can be presented through a Powerpoint presentation. But if possible, show the different knives and explain how to use them. Of course, give a good example by handling the knives safely!



## PRESENT



### TYPES OF KNIVES

#### **Paring Knife**

You can use this knife for various purposes, such as topping and tailing vegetables, removing skins from onions and preparing small fruits.

#### **Steak Knife**

A steak knife is used at the table to cut meats and other tough food.

#### **Filet Knife**

A fillet knife has a blade that is narrow and flexible so it can bend while running along the bone structure of fish.

#### **Boning Knife**

A boning knife has a short to medium blade that is pointed at the end. It should be strong and rigid, not flexible like a filleting knife. The point is designed to get close to bones and cut away the meat.

#### **Chef's Knife**

A chef's knife is a general knife that can be used for various items such as vegetables, fruits, meat and poultry. This knife can be used across a variety of cutting techniques, including chopping, dicing shredding and slicing.

#### **Peeling Knife**

A peeling knife can be used to cut decorative garnishes (such as rosettes or fluted mushrooms), slice soft fruits, or peel skins.

#### **Bread Knife**

This knife has a serrated blade which makes it easy to slide bread.

#### **Butter Knife**

A butter knife is not sharp but is meant to spread butter evenly on a slice of bread.

#### **Butcher's Knife**

Because of its square shape, a butcher's knife can be handled with force. That is why it can be used to chop meat quickly.



# Demonstration: How to clean the kitchen?

(30 min)



## FACILITATOR'S TIP:

If possible, bring the students to a kitchen to give this demonstration. Include the following components. Where possible, show them how to do it or ask a student to do so!



## ASK:

- What things should we clean in the kitchen?
- Have some students share ideas and then add on with the list below.



## SAY:

- In order to ensure kitchen safety the next day, a kitchen needs to be cleaned thoroughly at the end of the day.

- Establish a routine cleaning schedule.
- Maintain good ventilation in the kitchen.
- Report any maintenance issues.
- Use exhaust fans to remove odours and smoke.
- Check exhaust fans/hoods are clean and operating properly.
- Use different cloths and dusters for cleaning the floor and cooking area.
- Clean ceilings, walls and floors in sequence.
- Remove any soot from the ceiling and walls with broom or brush.
- Clean walls around the food preparation area.
- Wash and wipe the stove with detergents.
- Clean and wipe dry the work surface, furniture, cooking range, racks and shelves with a clean cloth.
- Sweep, wash and mop the floors with water and disinfectant.
- Clean up spills immediately.
- Empty the wash the waste bins.
- Clean storage areas.
- Store chemical in original containers away from food with proper labelling.
- Clean the cleaning equipment, dry it and store it appropriately away from the guest area.

