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MAISARA ZAINAL ABIDIN  
ABDUL RAZAK WARI**

# THEORY OF FOOD

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**BOOK 1**

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# Theory of Food

Book 1



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To the writer team, all of us are so great that we are able to give cooperation and contribution of knowledge, energy and find many sources to make sure all of the tasks can be done. Congratulation to us.

Thanks also to our family members for their love, prayers, caring and give moral support so that we can complete this book project. Lots of love to all.

## PREFACE

Knowledge in food and cooking is crucial when one involved in foodservice industry. Although one can search many information in the internet but some people they need a book as their references. Digital book may become as new trend in gathering information and knowledge. As digital book is trending today, it is convenience and easily be store in our phone, tablet or computer as reader will always have this book with them.

This Theory of Food Book 1 consist of 4 chapters that summarize the introduction of the foodservice and catering background. Chapter 1 will discuss about the food service establishment. It is important for foodservice personnel to have knowledge about the area that they will work with. Chapter 2 will discover about kitchen equipment that widely use in most kitchen area where the kitchen staff need to be familiar with the equipment that he wants to use. As a chef or a cook Chapter 3 is important where it will discuss about the cooking technique which they have to familiar in various dishes. Finally, in chapter 4 the reader will get the idea about the *mise en place*, portioning, garnishing and plating. This process can be used as guidance for many cooks and planning throughout their production session.

By using this book, it is hoped that readers and hospitality students will possess the knowledge and skills, as well as right attitude, thus able to understand and performs any task given in their daily life.

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# INTRODUCTION TO FOODSERVICE ORGANIZATION

## OBJECTIVES

After study about this topic, student will be able to:

1. Explain mastery knowledge of foodservice organization
2. Explain the major types of foodservice establishment
3. Identify and describe the kitchen brigade system

# FOODSERVICE ESTABLISHMENT

Foodservice establishment means any venue or place where the dishes are prepared for individual portion and mass production is produced. It can be directly service for the consumer, which the food and drink prepared for sale or for service to the public on or off the premises. It can be point out to three classes; commercial, non-commercial and institutional. Foodservice establishment implies a spot, area, activity, site, or office where food is produced, ready, prepared, bundled, administered, disseminated, sold, served, or offered to the shopper.



## 1 COMMERCIAL FOODSERVICE

Commercial food services are the biggest and famous food establishment in entire world, also known as profit-oriented food services or market-oriented foodservices. Comprises operations primary business is food and beverage. Below is among the categories of commercial foodservice:

**a. Quick service restaurant**  
is formerly known as fast food restaurant, in most situations the food is already cooked and ready to be served and delivered. Normally the customer will order the dish at the counter and later pick up to dine in or takeaway. Fast food restaurant nowadays provide drive-thru service and make the customer to get their food faster without going into the premises.



Kentucky Fried Chicken



Burger King



Mc Donalds



**b. Full service restaurant** has servers and bartenders, host will seat the customer, order are taken, prepared and send to the customers table. The diners can make reservations or walk in without booking and then a host seats guest immediately. The waiter and staff will help guest for entire dining experience from welcoming guest until clearing the table.



**c. Catering** is food business providing food and drinks for group of people or customers with specific order and quantity. Usually these foodservices have two ways of offer; on-premise, and off-premise. On-premise meaning food **was** cooked and served to the same location of group, and off-premise catering refer to food will be transported to the customers or group of people location.



**d. Drinking establishment** is primarily served alcoholic drink like pub, bars, and club.

## NON-COMMERCIAL FOODSERVICE

2

Food and beverages are served, but not the primary business or non-profit oriented. This establishment put more concern on covering their costs rather than making profit. This foodservice is functioning more on supporting on the other establishments like orphan and folks' home, military, and government hospital.



## INSTITUTIONAL FOODSERVICE

3

It is an entity or organization that serves a specific group of people that also goes under non-commercial. It's not a private club, a place like a school cafeteria, hospital dining service, Military foodservice, university, Government College, or another place where people are eating not for fun but as part of a scheduled break at that institution.

Institutional food service management does offer some distinct benefits for those who hold the position. The hours are a lot more regular, often offer on weekday business hours and for selected customer such as students in government school.



# KITCHEN BRIGADE AND JOB SPECIFICATION

## THE MODERN KITCHEN BRIGADE

### Executive chef

Executive chef is head of the kitchen department or culinary department; there some organizations call kitchen director according to the brand. He or she as the higher position will monitor kitchen activities and directs the kitchen staff's training and work efforts. The executive chef plans menus and creates recipes. He or she sets and enforces nutrition, safety and sanitation standards and participates in the preparation and presentation of menu items to ensure that quality standards are rigorously and consistently maintained. He is also responsible for purchasing food items and, often, equipment. In the other words, he monitors all activities related to kitchen.

### Sous chef

The executive chef is assisted by a sous-chef or executive sous-chef, who's having power to make sure that the food is prepared, portioned, garnished and plating according to the executive chef's standards. The sous-chef may be the cook principally responsible for producing menu items and he also supervises the kitchen. In large hotels with multiple dining facilities may have one or more area chefs, each responsible for a specific facility or function. There could be, for instance, an area chef responsible for each of the hotel's restaurants as well as a banquet chef. Area chefs usually report to the executive chef. Each area chef, in turn, has a brigade working under him or her.



### Line cooks

Line cooks or section cooks are responsible for preparing menu items according to recipe specifications. They can be assigned to another specific area, such as the broiler cook, fry cook or pantry station.

### Pastry chef

The pastry chef and sometimes some organizations have an executive pastry chef, is responsible for developing recipes for and preparing desserts, pastries, frozen desserts, and bread. He or she is usually responsible for purchasing the food items used in the bakeshop. Prep cooks, assistants, and apprentices are employed as entry-level workers throughout modern kitchens.

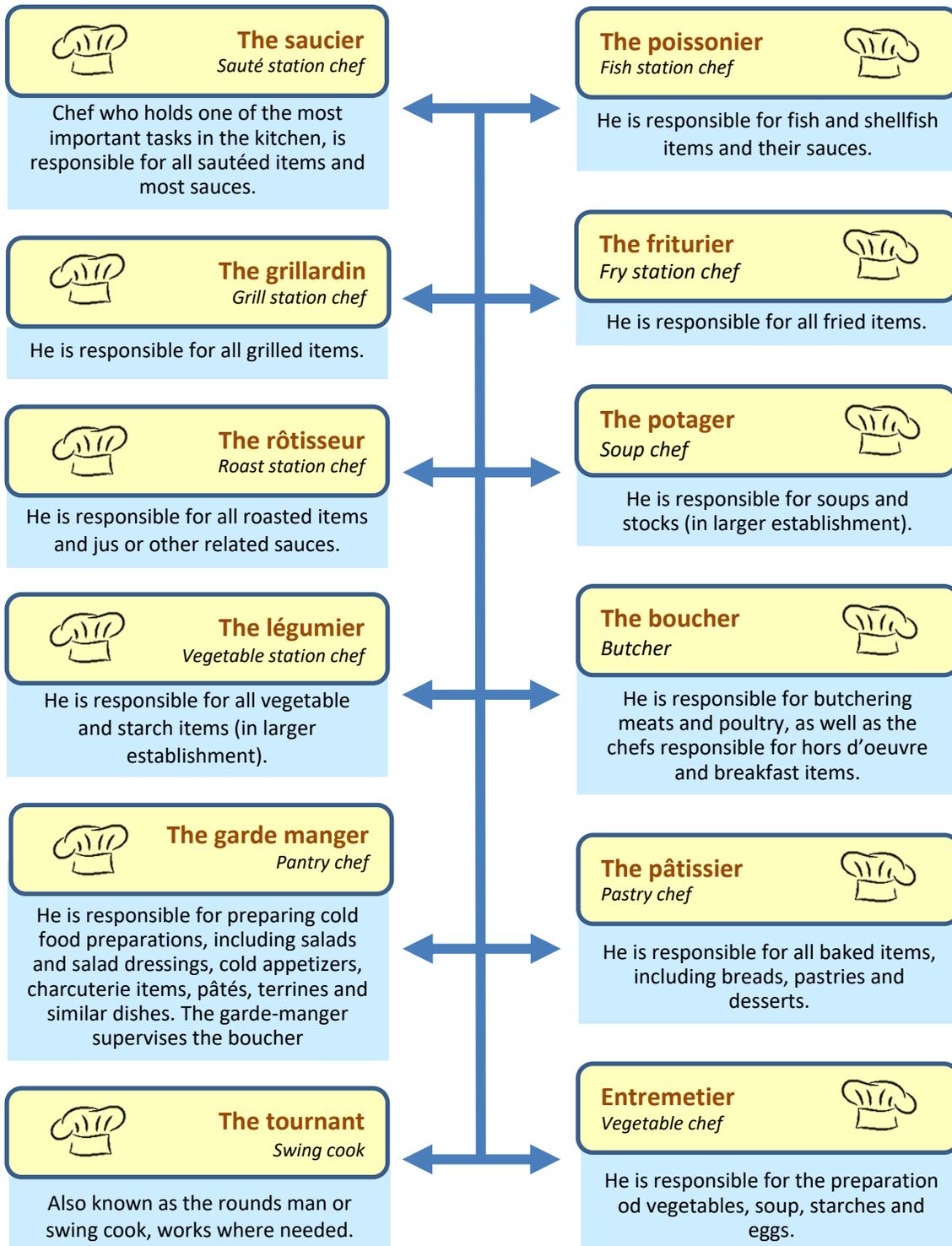
## CLASSIC KITCHEN BRIGADE

Chef Escoffier has created a distinct hierarchy of responsibilities and functions for food service operations. At the top is the chef de cuisine or chef, who is responsible for all operations, developing menu items, and setting the kitchen's tone and tempo. His or her principal assistant is the sous-chef (the under chef or second chef), who is responsible for scheduling personnel and replacing the chef and station chefs as necessary. The sous-chef also often functions as the aboyeur (expediter or announcer), who accepts the orders from the dining room, relays them to the various station chefs and then reviews the dishes before service time.

The chefs de partie (station chefs) produce the menu items under the direct supervision of the chef or sous-chef. Previously, whenever a cook needed an item, he or his assistants produced it; thus several cooks could be making the same sauce or basic preparation.

Under Escoffier's system, each station chef is assigned a specific task based on either the cooking method and equipment or the category of items to be produced. They include the following:





Most of the brigade is still used until today and under the station chef or *chef de partie*, there is cooks position with ***demi-chef de partie***, ***commis 1***, ***commis 2***, ***commis 3*** or sometimes **kitchen helper** or **kitchen apprentice**.

## EXERCISE

Scan QR Code to answer the question





# KITCHEN EQUIPMENT AND UTENSILS

## OBJECTIVES

After study about this topic, student will be able to:

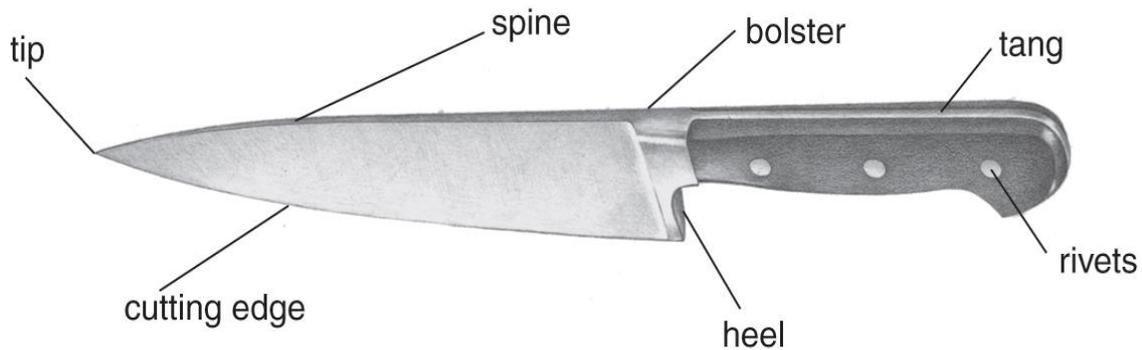
1. Explain the knowledge of kitchen equipment and utensils
2. Identify knives, hand tools, processing equipment, holding and storage equipment, and measuring devices

## KITCHEN EQUIPMENT AND UTENSILS

The basic equipment in the kitchen has many types and functions and it is one of the essential and support productivity activities of the kitchen. Among the most important things to choose kitchen equipment are the materials to ensure the quality and durability for long-term use. One must choose wisely the best kitchen equipment and utensils because lack of these things will disrupt the food preparation process. All the things to be used must be appropriate to their use and function.

### KNIVES

Knives are inseparable from a chef or cook. Nowadays there are a lot of knives which had been developed from time to time. The quality of the knives starts from the material. The highest quality of course making the price costly and the handling of the knife are satisfactory.



**Chef knife or French knife**

## Knife Construction

### 1. Carbon steel



- Knife from carbon steel built up from iron and 0.12 to 2 % carbon.
- Normally, carbon steel knife is more hardened and more suitable for cutting but the weakness is the blade had corrosion effect when cutting acidic item.
- A good care is needed especially used to cut acid ingredients like lemon, tomatoes, oranges and others.

### 2. Stainless steel



- Stainless steel is the most commonly used knife material nowadays because of its durability and resistance to corrosion.
- Generally, it is easy to clean, very strong, and durable.

### 3. High-carbon stainless steel



- A combination the finest highlights of carbon steel and stainless steel, high-carbon stainless steel not one or the other erodes nor discolours and can be honed nearly as easily as carbon steel.
- It is presently the foremost habitually utilized metal for edges.

### 4. Ceramic



- Zirconium oxide is presently in ceramic utilized to form cut edges that are greatly sharp, exceptionally simple to clean.
- With appropriate care, ceramic edges will stay sharp for a long time, but when honing is required, it must be done professionally on extraordinary jewel wheels.
- Maintaining for this kind of material is costly.
- It does not have the adaptability of metal and it is having limited of function.

## Types of knives

A chef will collect numerous blades amid his or her career, numerous with specialized capacities not listed here. This list incorporates as it were the foremost essential blades.



### French or chef's knife

It is an all-purpose knife used for chopping, dicing, slicing and mincing. Most frequently used knife in the kitchen. Blade length is



### Utility knife

Knife used for cutting fruits, vegetables and poultry carving. Its rigid 6 to 8-inch-long blade is shaped like a chef's knife but slender.



### Boning knife

A littler cut with a lean edge utilized to partitioned meat from bone. The edge is ordinarily 5 to 7 inches long and may be adaptable or unbending.



### Paring knife

A brief cut utilized for detail work or cutting natural products and vegetables. The unbending edge is from 2 to 4 inches long. A tournée or bird's-beak cut is comparative to a paring cut but with a bended edge; it is utilized to cut bended surfaces or tournée vegetables.



### Cleaver

A knife with a large, heavy rectangular blade utilized for chopping or cutting over bones.



### Butcher knife

Sometimes known as a scimitar because the rigid blade curves up in a 25-degree angle at the tip, it is used for fabricating raw meat and is available with 6- to 14-inch blades.



### Slicer

A cut with a long, lean edge utilized fundamentally for cutting cooked meat. The tip may be circular or pointed, and the edge may be adaptable or unbending. A comparative cut with a serrated edge is



### Serrated slicer

Like a slicer, but with a serrated edge. Used for cutting breads, cakes, and similar items.



### Clam knives

The short, rigid blades of these knives are utilized to open oyster and clam shells. The tips are limit; only the clam knife encompasses a sharp edge.



### Oyster knife

A short, rigid, blunt knife with a dull edge. Used for opening oysters.



### Butcher Steel

A scored, marginally rough steel bar utilized to sharpen or rectify a blade quickly after and between sharpening.

## JAPANESE KNIVES

Various specialized blades utilized in Japanese cooking are well known inclusion to a chef's toolkit. Conventional Japanese blades have a topsy-turvy edge, essentially level on one side and beveled to a sharp edge on the other side, which encourages exact cutting.



### Usuba

It has a rectangular blade and is used to cut thin vegetable garnishes.



### Yanagiba

has a thin 8 to 14-inch-long Straight blade traditionally used to cut translucent slices of raw fish fillets called sashimi and sushi rolls



### Deba

It has a wide, sturdy 5 to 7-inch-long wedge-shaped blade used for butchering and boning fish.



### Sharpening stone

It also known as a whetstone, a flat brick shape.

## HAND TOOLS AND SMALL EQUIPMENT

Hand devices are outlined to help in cutting, forming, moving or combining food. They have few, in case any, moving parts. Sturdiness, strength and safety are the watchwords when selecting hand instruments. Select apparatuses that can withstand the overwhelming utilize of a proficient kitchen and those that are effectively cleaned.



### **Cook's fork**

Utilize for lifting and turning meats and other food.



### **Skimmer**

Utilize for skimming froths from liquids



### **Wire whip/whisk**

Used for general mixing, stirring and beating.



### **Pie server**

For lifting pie wedges from pan.



### **Spoon: slotted, solid, perforated**

Used for stirring, mixing, and serving. Perforated and slotted spoon used to drain liquid.



### **Tongs**

Used to pick up and handle foods



### **Wide offset spatula**

Utilize for turning and lifting on griddles like pancakes, eggs, meats and so on.



**Vegetable peeler.**

A short tool with a slotted, swiveling blade.  
Used for peeling vegetables and fruits.



**Bench scrapper**

To cut pieces of dough and to scrape  
workbenches.



**Straight spatula / offset spatula**

Mostly used for spreading icing or cream  
to cakes



**Sandwich spreader**

Used for spreading fillings and spreads on  
sandwiches.



**Pastry wheel**

Used for cutting dough and pizza



**Rubber spatula**

Flexible rubber with long handle, used to  
scrape bowl, folding mixture like cakes



**Pastry brush**

Used to brush items like egg wash to bread.



**Zester**

It is used for removing the peels in thin  
strips



**Ball cutter**

Used for cutting fruits and vegetables into a small balls.



**Channel knife**

Used mostly in decorative work



**Box grater**

Used for shredding and grating items like vegetables and cheese



**Micro plane zester**

Can used for grate zest, garlic, and dried item like nutmeg.



**Can opener**

Heavy duty can opener



**Colander**

A large perforated bowl made of stainless steel or aluminum. It is used to drain washed or cooked vegetables, salad greens, pasta, and other foods.



**Chinois**

As a strainer with very fine mesh, having great smoothness of liquid



**China cap**

Used for straining stock, soups, sauces.



### **Strainer**

An expansive punctured bowl used for strain so many foods like cook foods or vegetables.



### **Food mill**

Used for pureeing food



### **Mandolin**

A manual cutting with folding legs functions on the working table at 45 degrees. The blades can be adjusted to control the thickness of the slices. This tool provided with blade for julienne, waffle slice, and gaufrette.



### **Pastry bag and nozzles**

It has a cone-shaped cloths or plastic bags with an open end that can be fitted with metal tubes or tips of various shapes and sizes. Used for shaping and decorating with items such as cake icing, whipped cream, duchesse potatoes, and soft dough.



### **Sieve / tamis**

Utilize for sifting flour and dry herbs

## POTS AND PANS

The material use for cooking is important in an establishment. Some cooking methods are best in certain material for example non-stick pan for preparing omelet. Thick metal is important for most pot compare to thin one. There are many kinds of materials for pots and pans such as aluminum, copper, stainless steel, cast iron, porcelain, non-stick coating, glass and many more that can be used in cooking. Every material will give different conductivity or speed to transfer or disperse heat.



**Stockpot**

A stock pot is a big, deep pot that is commonly used for making stock and preparation healthy meals. Stock is used as a base of soups and sauces. Broth contains no bones, whereas stock does. An adequate stock pot is designed so it heats rapid and simmer for a long time evenly. Sizes: 8 to 200 quarts (liters).



**Saucepot**

Sauce Pots regularly also referred to as Soup Pots) the larger cookware, designed to be used at the stove top, with vertical aspects the identical top as their diameter. Sauce Pots are used for simmering or boiling large quantities of ingredients. They normally have two brief strong handles, so they can be lifted with two hands. Sizes: 6 to 60 quarts (liters).



**Brazier**

A round, broad, shallow, heavy-duty pot with straight sides. Normally used for browning, braising, and stewing meats.



**Saucepan.**

Similar to a small, shallow, light saucepot, but with one long handle instead of two loop handles. May have straight or slanted sides. Used for general range-top cooking.



### **Roasting pan**

A large rectangular pan, deeper and heavier than a bake pan. Used for roasting meats and poultry.



### **Hotel pan**

Also called counter pan, steam table pan, or service pan. A rectangular pan usually made of stainless steel. Designed to hold foods in service counters. Also used for baking, steaming, and subsequent serving. Also used for storage.



### **Bain-marie insert**

Usually called simply bain-marie. A tall, cylindrical stainless-steel container. Used for storage and for holding foods in a bain-marie.



### **Stainless-steel bowl**

It has a round-bottomed bowl. Used for mixing, whipping, and making hollandaise, mayonnaise, whipped cream, and egg white foams. Round construction enables whip to reach all areas. They come in many sizes and quality.



**Straight-sided sauté pan**

It is similar to a shallow, straight-sided saucepan, but heavier. It is used for browning, sautéing, and frying. Because of its broad surface area, the sauté pan is used for cooking sauces and other liquids when rapid reduction is required.

Sizes available :2 ½ to 5 inches (65–130 mm) deep; 6–16 inches (160–400 mm) in diameter.



**Slope-sided sauté pan**

Also called *fry pan*. Used for general sautéing and frying of meats, fish, vegetables, and eggs. The sloping sides allow the cook to flip and toss items without using a spatula, and they make it easier to get at the food when a spatula is used.



**Cast-iron skillet.**

Very heavy, thick-bottomed fry pan. Used for pan frying when steady, even heat is desired.



**Double boiler.**

A pot with two sections. The lower section, similar to a stockpot, holds boiling water. The upper section holds foods that must be cooked at low temperatures and cannot be cooked over direct heat.



**Sheet pan or bun pan**

A shallow rectangular pan (1 inch/25 mm deep) for baking cakes, rolls, and cookies, and for baking or broiling certain meats and fish.



**Bake pan.**

A rectangular pan about 2 inches (50 mm) deep. Used for general baking. Available in a variety of sizes.

## TYPES OF COOKTOPS



### OPEN BURNERS

It available either in electric coils or gas flames. These tops are the fastest to heat and can be turned off after short use but limited to one pot per burner.



### FLATTOP

**Flattop or hot top** (lightweight). Burners covered with steel plate. More cook space is available. Top supports moderately heavy weights.

**Heavy-duty flattop.** Burners covered with heavy cast steel. Able to supports many heavy pots and requires longer preheating. It is capable to set burners for different levels, and easier for moving pots to different spots on the top.



### INDUCTION COOKTOPS

It works by magnetically agitating the molecules in steel or iron cookware, so the cookware becomes hot. The top can be turned instantly when it is on or off. Small, easily portable induction burners are available. These are useful for off-premise catering operations, for buffet service, and even for tableside heating and cooking. Most of does not work traditional aluminum or copper cookware but some manufacturers have followed the demand for producing aluminum and copper to suit with induction.



### **BROILER**

Broilers or overhead broilers generate heat from above, and food items are placed on a grid underneath the heat source. Broiling is a preferred technique of preparing steaks, chops, chicken, and others.

Heavy-duty broilers produce very high heat and consume massive quantities of energy with some broilers can reach to 1,100°C at the burner. Foods must be monitored carefully to avoid burning. Cooking temperature can be adjusted.



### **SALAMANDER**

Salamanders are small broilers used mainly for browning or glazing the top of some items. They may also be used for broiling small quantities during off-peak hours. Salamanders are usually attached above the range.



### **GRILLER**

Grills are used for the same cooking operations as broilers, except the heat source is below the grid that holds the food rather than above it. Many people like grilled foods because of their charcoal taste, which is created by smoke from meat fats that drip into the heat source.

Although smoke from meat fats creates the taste people associate with grilled foods, actual wood-smoke flavors such as hickory or mesquite can be added to foods if those woods are burned in the grill under the food. In order to do this, you must use a grill designed to burn such fuels.

## OVEN

An oven is a chamber used for cooking, heating, baking and grilling meals. They are many styles of ovens starting from domestic ovens, wall ovens, commercial ovens and earth ovens. An oven makes use of both fuel and electricity to prepare dinner meals. They have got temperature manage button to alter the temperature at which particular ingredients will cook at. Additionally they have timers.



### CONVENTIONAL OVEN

A conventional oven is the type of oven that works beneath the principle of upward heat transfer from a set factor either at the lowest or on top of something food you're getting ready in the oven chamber. Heating elements can range from gasoline, electricity, charcoal or wood. It is used to offer the heat which rises to do the magic of baking or roasting.



Deck ovens is conventional oven are commonly a centerpiece of any artisan bread bakery, a deck oven is a vital piece of baking equipment when searching for achieve a lovely, crusty loaf of bread. Having great deck oven is just as important for a bread bakery, as a heavy responsibility spiral mixer. At the same time as these ovens generally tend to soak up extra actual property in a bakery and require professional bakers to perform, a deck oven's capability to provide loaves will make bakers very glad about outcomes.



### Convection oven

A convection oven has a fan and exhaust device that an ordinary oven does not. The fan and exhaust assist blow hot oven air over and across the meals, and then vent it returned out. As an end result, this hot air surrounds the meals in order that it chefs flippantly and speedier.



### Combination oven

A combination oven makes use of steam warmth and convection warmth to cook meals at the appropriate temperature, resulting in juicier, higher-great dishes. Due to the fact a combination oven makes use of three exceptional cooking techniques (steam, convection and combination), it may additionally replace the conventional steamer and convection oven gadgets, decreasing the whole cost of your kitchen device and minimizing standard footprint.



### MICROWAVE OVEN

It is an equipment that uses microwave radiation to heat food. A microwave oven, on the other hand, has a heating element which heats the air inside, which then heats the food.

## OTHER COOKING EQUIPMENT



### Tilting Skillet

Tilting skillet can be referred to as a braising pan. The tilting skillet is an enormously flexible piece of meals preparation equipment. It can be operated using electricity or gas depending on the cooking techniques and types of meals.

It's particularly designed to create massive batches of meals, and it gives a pleasant deep pan. In case of making pasta or soup, the food provider will not fear about whether the skillet is deep enough to add water or broth to cowl the other ingredients.

The versatility of the tilting skillet lets in chefs to cook food using different methods. This makes it best for whipping up massive batches of meals.

The most common uses for a tilting skillet include:

- Steaming
- Frying
- Boiling
- Grilling
- Sautéing



Small kettle



Large kettle

### Steam-jacketed Kettle

A steam-jacketed kettle is much like a double boiler and can cook large portions of meals by using steam heat. It is designed with each an inner and outer metal wall that cooks the food internal by liberating steam into space among the partitions. They are frequently used to prepare dinner meals like inventory, gravy, sauce, or soup, and can be powered by electric or gas. They come in numerous sizes, for installation on the ground, countertop, or wall. Steam-jacketed kettles are frequently used in restaurants and commercial kitchens, in which very huge quantities of meals prepared each day.

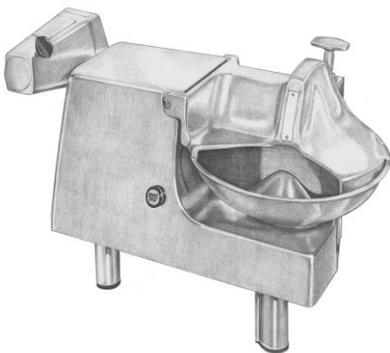
## PROCESSING EQUIPMENT

Processing equipment incorporates both electrical and non electrical mechanical gadgets utilized to purée, cut, and pound or blend nourishments. Before utilizing any hardware, make sure to check its working methods and do enquire for help if needed to.



### SLICER

An electric slicer is helpful for planning direct to expansive amounts of nourishment. An electric slicer is utilized to cut meat, bread, cheese or crude vegetables into uniform cuts. It features a circular edge that turns at high speed. Food is set in a carrier, and after that passed against the edge. Cut thickness is decided by the separate between the edge and the carrier. Since of the speed with which the edge turns, nourishments can be cut into greatly lean cuts exceptionally rapidly.



### FOOD CHOPPER OR BUFFALO CHOPPER

This chopper is utilized to get ready coordinate to tremendous sums of food to a uniform assess, such as chopping onions or processing bread crumbs. The food is put in a sweeping bowl turning underneath a hood, where twisted edges chop it. The gauge of the cut depends on how long the food is cleared out inside the machine. Buffalo choppers are available in floor or tabletop models. The motor can as a run the show be fitted with a grouping of other gadgets such as a meat processor or a slicer/shredder, making it in fact more valuable



### FOOD PROCESSOR

A processor features an engine lodging with a detachable bowl and S-shaped edge. It is utilized, for case, to purée cooked foods, chop nuts, making compound butters and emulsify sauces. The disks can be included that cut, shred or julienne foods. Bowl capacity and engine control could be different according to usage.



### BLENDER

A blender features a tall, narrow food holder and a four pronged edge. Its activity is way better for preparing fluids or liquefying foods rapidly. A blender is utilized to prepare smooth drinks, purée soups and sauces, mix hitters and chop ice.



### IMMERSION BLENDER

A submersion blender, sometimes called a hand blender or wand, are a long shaft fitted with a turning four-pronged blade at the foot. Worked by pressing a button within the handle, and the blender is utilized to purée a delicate food, soup or sauce specifically within the container in which it was arranged, disposing of the got to exchange the food from one holder to another, typically valuable when working with hot foods.

## MIXER

A vertical mixer is irreplaceable within the bakeshop and most kitchens. The three common blending connections are the whip (utilized for whipping eggs or cream), the paddle (utilized for common blending) and the batter snare (utilized for manipulating bread). Most mixers have a few working speeds.



Table Mixer



Table Mixer



Paddle



Whip



Hook



Citrus Juicer



Juice extractor



Reamer juicer

### JUICER

There are two sorts of juicers are: reamers and extractors. Reamers also known as citrus juicers which expel juice from citrus fruits. They can be manual or electric. For manual models it utilizes a lever arm to press the natural product with expanded pressure. They are most regularly utilized to get ready little to direct sums of juice for cooking or refreshments.

### WHIPPING SIPHON

A whipping siphon is outlined to circulate air through and apportion whipped cream. It is composed of a stainless-steel canister to hold the cream and a tight-fitting cover with a single-use cartridge or charger of nitrous oxide gas. Once released into the canister, the gas breaks down within the fat of the cream, pressurizing its substance. When apportioned, the gas turns into discuss bubbles and the cream grows and lightens. This device can also be utilized to form and apportion cold or hot froths made from smooth and light soups, stocks or purées.



Whipping siphon

## HOLDING AND STORAGE EQUIPMENT

### HOT FOOD HOLDING EQUIPMENT

Several types of equipment are used to keep food hot for service. These equipment are designed to hold foods above 135°F (57°C/60°C) to prevent the growth of bacteria.

#### Steam tables

A holding equipment for serving lines. Standard-size counters pans or hotel pans are used as inserts to hold the foods. Flat or domed covers may be used to cover the foods. Check water levels in steam tables periodically to make sure they don't go dry. Electrically heated counters that operate dry—without steam—are also available.



Steam table

#### Bain-marie

Bain-marie is a hot-water bath equipment. It has containers of foods that are set on a rack in a shallow container of water, which is heated by electricity, gas, or steam. The bain-marie is used more in the production area, while the steam table is used in the service area.



Bain-marie

#### Overhead infrared lamps

It is use in service areas to keep plated food warm before it is picked up by the service staff. They are also used for keeping large roasts warm. Foods dry out quickly under holding lamps. This is a disadvantage for almost all foods except French fries and other deep-fried foods, which lose their crispness if they are kept moist.



Overhead infrared lamps

## COLD FOOD STORAGE EQUIPMENT

The quality of the food you serve depends to a great degree on refrigeration equipment. By keeping foods cold, usually below 41°F (5°C), the **refrigerator** (known in the trade as the *cooler* or the *box*) guards against spoilage and bacterial growth.

**Freezers** are used to hold foods for longer times, or to store foods purchased in frozen form. There are so many sizes, models, and designs of refrigeration equipment. Some of the equipment are as below.



Chest freezer



Glass-door chiller/freezer



Table chiller/freezer



Chiller/freezer with drawer



Commercial freezer

**Some tips for refrigerators and freezers to work at top efficiency:**

1. Put things at a sufficient distance and separated from the interior dividers of fridges so air circulation can move efficiently. Coolers, on the other hand, work effectively when they are full.
2. Keep the entryway closed as much as conceivable. When putting away or expelling a thing, do it rapidly and closed the door.
3. Always make sure foods are well wrapped or secured to anticipate drying and exchange of odors. Meats are not listing to this rule.
4. Keep fridges spotlessly clean

## MEASURING DEVICES

The process of calculating and determining the specific amount of solid or liquid ingredient requires using a standard measurement device, such as a weighing scale, measuring spoon, measuring cup or measuring utensil. These devices are available in a variety of sizes and materials.

### Scales

Most recipe ingredients are measured by weight, so accurate scales are important. Portion scales are used for measuring ingredients as well as for portioning products for service. Traditional portion scales are spring-operated and usually have a dial to indicate weight. More accurate digital scales are electrically operated and provide a digital readout.



Analog scale



Digital scale



Bakers' scale



### Volume measures

These devices used for liquids have lips for easy pouring. Sizes are pints, quarts, half gallons, and gallons. Each size is marked off into fourths by ridges on the sides.



### Measuring cups

This set of devices is available in 1 cup (250 ml),  $\frac{1}{2}$  cup (125 ml),  $\frac{1}{3}$  cup (80 ml), and  $\frac{1}{4}$  cup (60 ml) sizes. They can be used for both liquid and dry measures.



### Measuring spoons

Measuring spoons are used for measuring very small volumes: 1 tablespoon (15 ml), 1 teaspoon (5 ml),  $\frac{1}{2}$  teaspoon (2.5 ml), and  $\frac{1}{4}$  teaspoon (1.25 ml). They are used most often for spices and seasonings.



### Ladles

Ladles are widely used for measuring and portioning liquids such as soup. The size in ounces (oz.) or milliliter (ml), is stamped on the handle.



### Scoops

Scoops come in standard sizes and have a lever for mechanical release. They are used for portioning soft solid foods. The number of the scoop indicates the number of level scoopfuls per quart.

## Thermometers

Thermometers measure temperatures. There are different kinds of thermometer for different purposes.



A digital meat thermometer with a black and red plastic casing. The LCD screen displays '73°F' and '170°C'. It has buttons for '+', 'MEAT', 'TIMER', 'MODE', and 'TASTE'. A stainless steel probe is attached to the side.

**Digital meat thermometer**



A round, analog meat thermometer with a stainless steel probe. The dial has two scales: Fahrenheit (140-170) and Celsius (60-77). It includes a red needle and a red arrow. Text on the dial includes 'MEAT THERMOMETER', 'BEEF-WELL', 'VEAL LAMB', 'POULTRY', 'HAM, PORK', 'BEEF-MED', and 'BEEF-MED RARE'. The brand name 'Cuisinart' is at the bottom.

**Meat thermometer**

It indicates internal temperature of meats. It is inserted before cooking and left in the product during cooking.



An instant-read thermometer with a black plastic handle and a stainless steel probe. The LCD screen shows '215°F'. It has buttons for 'OFF', 'ON/OFF', and 'MODE'. The brand name 'Cuisinart' is visible on the handle.

**Instant-read thermometer**

It gives readings within a few seconds of being inserted in a food product. It reads from 0°F to 220°F (0°C to 104°C). Many chefs carry these in their jacket pocket like a pen, ready whenever needed. Instant read thermometers must not be left in meats during roasting, or they will be damaged.



A long, slender thermometer with a black plastic handle and a stainless steel body. It has two scales: Fahrenheit (0-400) and Celsius (0-204). It includes a red needle and a red arrow. The brand name 'Cuisinart' is at the bottom.

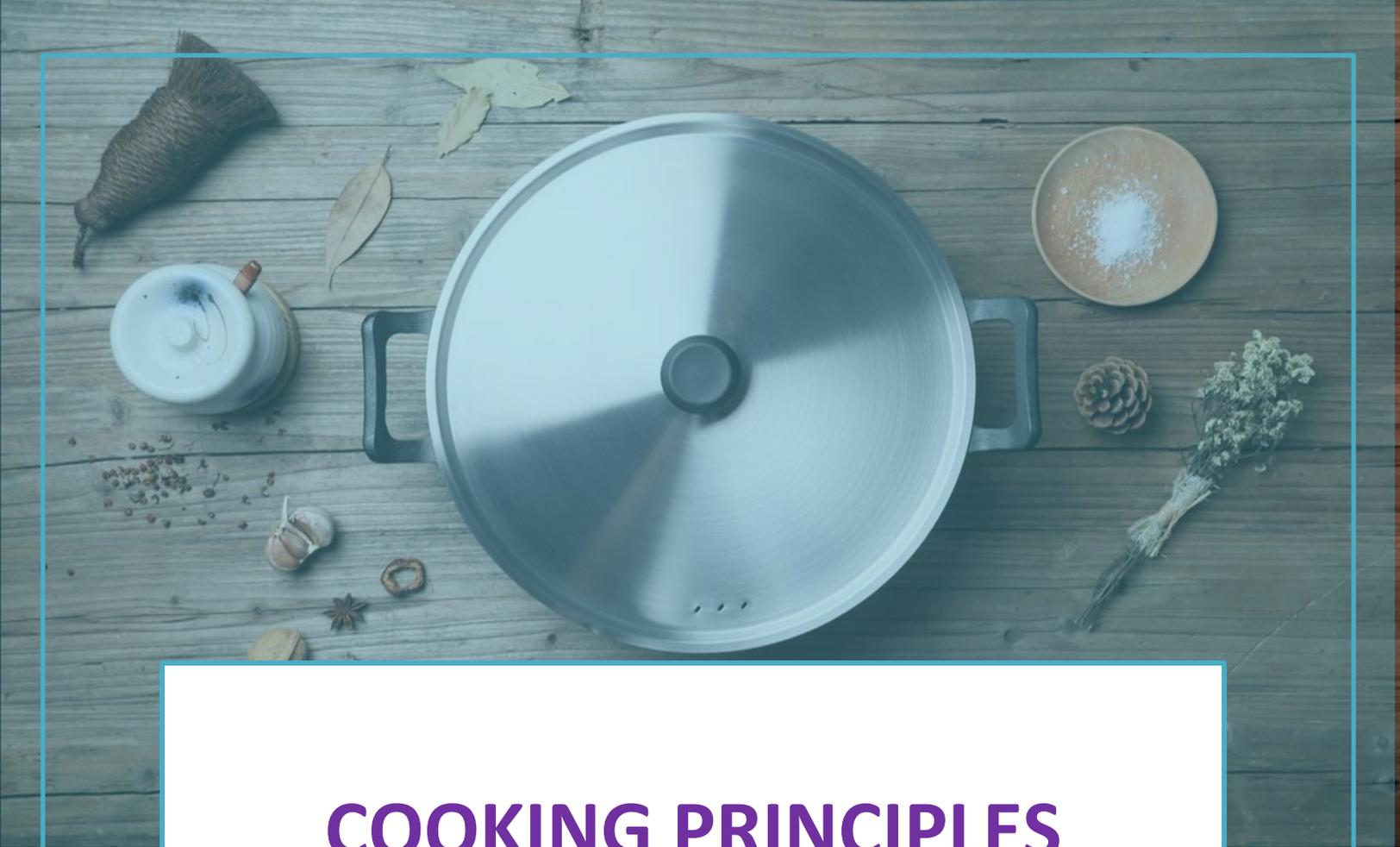
**Fat thermometers and candy thermometers**

This thermometer can test temperatures of frying fats and sugar syrups. They read up to 400°F (204°C).

## EXERCISE

Scan QR Code to answer the question





# COOKING PRINCIPLES

## OBJECTIVE

After study about this topic, student will be able to:

1. Describe cooking technique
2. Describe the knowledge of food taste.

## COOKING

Cooking can be characterized as the exchange of vitality from a heat source to the food. This vitality modifies the food's texture, changing its surface, flavor, smell and appearance. Cooking also act to devastate undesirable microorganisms and make foods less demanding to ingest and digest.

### Heat transfer

To cook food effectively, the person must to begin with get it the ways in which heat is exchanged or transfer: conduction, convection and radiation.

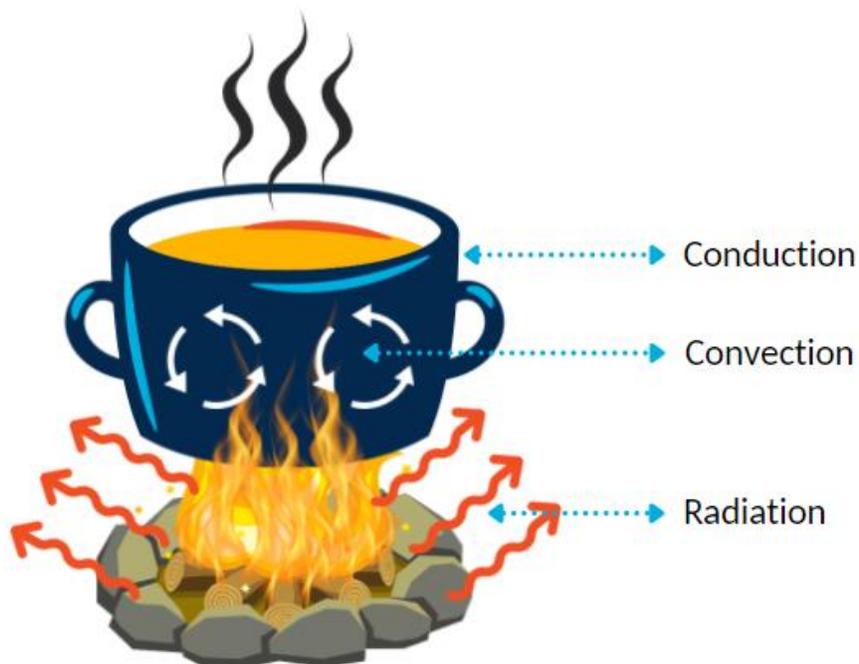


Diagram comparing heat transfer: conduction, convection and radiation

## Conduction

Conduction is coordinate contact with heat. Conduction warming is the exchange of heat vitality from one thing to another through coordinate contact, for the case when the fire of a gas burner touches the foot of a sauté skillet, heat is conducted to the skillet the metal of the skillet at that point conducts the heat to the surface of the food within the skillet.

Conduction is generally a moderate method of heat transfer since physical contact must happen to transfer heat from one particle to adjoining particles, consider what happens to a metal spoon in case put in a pot of stewing soup at to begin with, the soup handle remains cool continuously, be that as it may heat voyages up the handle making it hotter and hotter until it gets to be as well hot to touch.

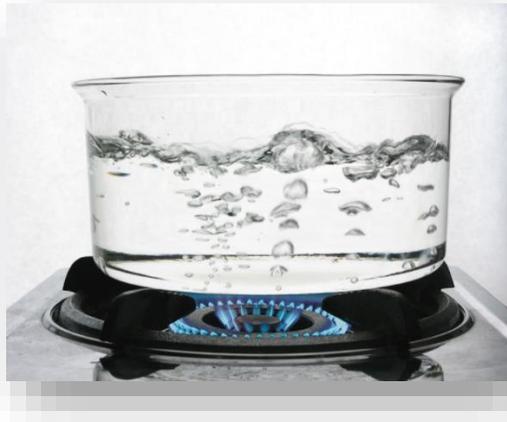
Conduction is imperative in all cooking strategies since it is capable for the development of heat from the surface of the food to its insides.



Sauté



## Convection



Boiling

Convection heating is the transfer of heat vitality through a liquid like water or air by normal or mechanical circulation, convection is actually a mix of conduction and circulation of vitality. Amid conduction the particles of a liquid whether air, water, or fat move from hotter zone to a cooler one.

There are two sorts of convection, **ordinary** and **mechanical**. Typical or ordinary convection happens as a result of the slant of warm liquids and gasses to rise whereas cooler ones drop this

pendant causes a consistent customary spread of warmth for, when a pot of stock is set over a gas burner, the particles at the lower portion of the pot are warmed. These particles rise whereas cooler heavier particles sink after arriving at the pots base the cooler particles are warmed and begin to rise and turn, within the intervals the particles that rise to the top are enough cool to sink once more. This persistent cycle makes streams interior the stock and these streams circulate the warmth all through the stock.

Mechanical convection depends on fans for mixing to flow the warmth all the more rapidly and equally. This clarifies why food warms quicker and all the more equitably when blended. Convection broilers are outfitted with fans to expand the dissemination of air flows. Subsequently, accelerating the cooking system however even customary broilers.



Baking

## Radiation

In contrast to conduction and convection, radiation does not need actual contact between the warmth source and the food being prepared rather energy is moved by electromagnetic waves of energy or light striking the food, two sorts of brilliant warmth are utilized in the kitchen. Infrared and microwave infrared cooking utilizes electronic or ceramic components warmed to such a high temperature that it emits waves of brilliant warmth.



Radiation in microwave

They prepare the food with brilliant heat waves travel at a speed of light at any course, not at all like convection warm which as it were rises until they are ingested by the food. Infrared cooking is commonly utilized with toasters and broilers.

The gleaming coals within the fire are another illustration of brilliant heat microwave cooking relies on radiation that is produced by certain stoves. The radiation enters the food where it shakes the water particles contained inside the food making contact and heats this vitality. At that point spreads all through the food by conduction and by convection and fluids. Microwave cooking is much speedier than other cooking style.

## Effects of heat on food

### Coagulation

**Coagulation** is the unchangeable alteration of proteins from a fluid or semi-liquid state to a strong state. Proteins are large complex molecules found in every living cell plant as well as animal they are formed from amino acids that are chemically bonded into long loosely formed chains. in the presence of heat the protein chains unfold or denature as they are heated the protein chains are then rebound and solidify into a solid mass in other words as proteins cook. They lose moisture, shrink and become firm common; examples of protein coagulation are the firming of meat fibers when cooking, egg whites changing from clear liquid to a solid white.



Egg coagulate when contact with heat

### Gelatinization



Gelatine formation in beef stock

**Gelatinization** is the method by which starch granules are cooked, they retain wetness when put in fluid and cooked as the moist is ingested the items swells frequently and clarify marginally. Gelatinization is the phrase for the cooking of starches. Starches are complex carbohydrates existing in plants and grains such as potatoes, wheat, rice and corn when a

blend of starches and fluid is warmed, exceptional changes happen. The starch granules retain water causing them to swell ease and clarify moderately clearer. The fluid obviously thickens since the water being retained into the starch granules and the granules themselves swell and involve more space gelatinization happens steadily. starch gelatinization occur not only for sauces or liquids to which starches are included for the reason of thickening but additionally any

mix or combination of starch and liquid that is heated, for case the flour or a starch in cake mix gelatinizes by retaining the water from the eggs drain or other elements and drying related with the heated products gelatinization of starch too takes put when beans or pasta assimilate water swell and relax amid the cooking.

## Maillard Reaction

**Maillard** reaction is the process of how sugars shape up in the existence of protein. The process of cooking sugars is called caramelize as sugars cook they gradually darken from golden to deep brown and change flavor. Process caramelize is the process of cooking sugars and the browning of sugar enhances the flavor and appearance of foods. Caramelized sugar is included in many sauces candies and desserts but it is also partly responsible for the flavor and colour of bread crusts and the browning of meats and vegetables. In fact the process of caramelize is responsible for most flavors we associate with cooking. The Maillard reaction named after the French scientist who discovered this principle describes the process of sugar breaking down in the presence of protein. Some of the aromas and flavors of roasted nuts chocolates and coffee derived from the browning. Browning are referring to this process

of caramelize as the internal temperature of food increases water molecules move faster and faster turning water to a gas or steam which vaporizes. The evaporation of moisture and food causes it to dry during cooking all food contains some water yes all food even crackers contain



water some food especially eggs milk and leafy vegetables are almost entirely water as much as 75 percent of raw meat is water as the internal temperature of food increases water molecules move faster and faster until the water turns into a gas or steam and vaporizes this evaporation of water is responsible for the drying it's also responsible for the reduction in volume of things such as sauces and soups and stocks.

## COOKING TECHNIQUES

There are two kinds of cooking techniques or methods:

### Dry Heat Method

It involves air or fat, these are methods such as grilling and broiling, roasting and baking, barbecuing and smoking sweating, sautéing, and stir fry, pan frying and deep-frying.



### Moist Heat Method

It involves water or steam like poaching, simmering, boiling, steaming and sous-vide. The combination cooking can be under moist-heat method which combines dry and moist cooking methods such as brazing and stewing.



## DRY-HEAT METHODS

### Broiling

The food to be broiled is set on a preheated metal grate. The radiant warm from the overhead cooks the food whereas the hot grind underneath makes appealing cross bring forth marks, broil chicken for illustration.



### Grilling



Grilling uses a heat source located below the cooking surface, heat is transferred to the cooking surface the cooking food through infrared radiant heat and conduction between the food and the grill rack itself grills may be electric or gas or they may burn wood or charcoal which is solid metal pans with rigid surfaces may also be used to provide a pan grill food such as vegetables

### Roasting

Roasting is typically a two-step process starting with either high heat for browning then transitioning to a lower heat for thorough. Roasting is also accompanied by placing the food into a roasting pan or other vessel.

### Baking

Baking is defined as putting food directly on the oven's rack or put your food on a baking pan or a baking sheet where the temperature of the oven is rarely adjusted during the cooking process. Generally, in practice, there is a little or no difference at all between roasting and baking.

## Barbecue

Barbecuing is to cook with dry warm made by the burning of hardwood or by the hot coals of this wood, or in other words, barbecuing is roasting or grilling strategy requiring a wood fire. Other than that, food is set in an broiler and covered or a covered barbecue or a semi-enclosed chamber such as a grill pit and cooked over hardwood fire for at low temperatures for smoking food is put into a closed chamber filled with hot dry air.



## Saute

The term sauté comes from the French word meaning to jump or hop is more forceful with medium-high heat in spite of the fact that it is still as it were apply a little sum of fat or oil, the food is regularly bounced around within the dish to anticipate sticking and burnings and so all of the food can cook make by making contact with the pan's surface.



## Stir-fry

Stir-frying like sautéing on the heat is much more smoking than an ordinary stove can deliver alone and indeed the skillet utilized is distinctive. The wok with the thickened foot and the more slender sides incorporates a special shape outlined to have greatly high heat on the foot, this makes a difference the food cook immediately, the food handler must have everything cut measured and arranged ahead of time. It is crucially to have everything needed at arm's length.

## Pan-Fry

Pan-frying foods has body appealing qualities crisp coatings brown surfaces and tender interiors. This technique involves less oil than the fry and the food cook in moderate amount of fat using moderate heat. Use a skillet a sauté pan white with sloped or straight sides choose a heavy bottom pan for evenly distributed heat with no hot spots and prefer nonstick skillet for better use. Flour and breadcrumb is usually use as coating and these coatings help both to create the desired crisp crust and insulate the food to prevent it from overcooking.

## Deep Fry

Deep-frying is the method works by totally submerging food in hot fluid. Depending on the sort of oil chosen and food being fried, a tall temperature of up to 170 degrees or more is kept up to make golden-brown surface surfaces in a brief sum of time. When food item hits the hot oil, the bubbles circulating is appear around it. The moist from the surface of the food turns into steam, permitting the method of outside arrangement to start. Ordinarily the food being browned is bland or coated to begin with a breading or batter. The starches on the surface sometime dry, making a firm crust. Little oil may move inwards when moisture moves out, but it generally sticks on to the exterior of the food. In common, the sum of oil retained into the food is break even with to the sum of water that is evacuated through broiling.



## MOIST HEAT METHODS

### Poaching

Poaching is the first moist cooking methods with two types of poaching which is shallow poaching and submersion poaching.

**Shallow poaching** is as it were engaging a small bit of water on the foot and basically making steam secured the food with a few kinds of cover or a near of a few kinds and letting the moist on the foot to steam upward and through the aromatics and into the food such as poached fish.

**Submersion poaching** is exactly what it appears lower the food in the fluid as far as possible; this is done through the technique for fundamentally setting the entire food into the fluid.



### Simmering

Simmering is a low bubble breaks the surface not aggressive. The temperature goes to 85°C to 96°C.

### Boiling

Boiling is bubbling water very aggressive using high heat with temperature achieved to 100°C, lots of motion in the water.



## Steaming



Steaming that works by bubbling water which vaporizes into steam; it is the steam that carries warm to the dish, cooking it. Steaming the food is kept partitioned from the bubbling water but comes into coordinate contact with the hot steam. Water bubbles at 100°C, so top temperature the food cooks at is 100°C.

## Braise

A braise consists of cooking large pieces of food (portion size) cooked by the braising method (start with dry heat and then continue with moist heat).

## Stew

A stew consists of small pieces of food usually bite-sized or slightly bigger then are cooked either by the braising method (first dry heat then continue with moist heat) or by the simmering method which means moist heat only.

## Sous vide

Sous vide comes from French word meaning “under vacuum”, alludes to the method of vacuum-sealing food in a pack, at that point cooking it to a really precise temperature in a amount of water in special container. This procedure produces comes about that are incomprehensible to attain through any other cooking strategy.

## EXERCISE

Scan QR Code to answer the question





# ***MISE EN PLACE*, FOOD PORTIONING, PRESENTATION AND GARNISHING**

## **OBJECTIVE**

After study about this topic, student will be able to:

1. Describe the concept of *mise en place*
2. Explain how to plan and organize production
3. Describe the preliminary cooking and flavoring
4. Explain food portioning, presentation, and garnishing.

## THE CONCEPT OF MISE EN PLACE

*Mise en place* comes from French word means everything put in place. It apply by the staff who work in food and beverage industry especially kitchen department. In order to prepare and serve food in a timely and proficient way, the chef must have everything what he or she need close or in place. A legitimate *mise en place* requires the culinary expert to consider work designs, ingredients list and equipment needed. It can be simple from only couple of things or huge menu for large quantities.

The *mise en place* will vary from one establishment to the next. The *mise en place* of a banquet chef could include preparing vast quantities of meats, vegetables, salad items, breads, condiments, and pastries for multiple meals with varied menus. Banquet *mise en place* may also entail gathering hot boxes, plates, chafing dishes, tongs, spoons, and ladles, depending on the menu.

As for instance, in coffeehouse there's have different station may be from pantry side, local, and Mediterranean side but they are working under one coffeehouse. The chef at grill station might entail gathering the salt, pepper, prepared sauces, and accompaniments that will be used during cooking or presented with the completed products, as well as correctly storing raw steaks and chops that will be cooked to order.

The chef also do the assemble plates in their work area supply by the steward person. The need to identify which plates will be used for the dish. In coffee house, basically the chef have their own station but working together in term of menu.

For example, if chicken burger is ordered, the chef from grill station will prepare and cook the burger patty, grill the buns, and do the starch like frying French fries. Meanwhile the cook from pantry or appetizer station will prepared the condiments like putting pickles in a small bowl and putting vegetables for the burgers and pass to the grill station.

Proper *mise en place* also requires a good sense of timing. Knowing how long before service to begin a task, or how far in advance of service some preparations can be made, allows a cook to better plan for the efficient execution of his or her duties. In this type of planning, it is also important to consider food safety issues, such as those relating to time and temperature controls.

## PLANNING AND ORGANIZING PRODUCTIONS

In any preparation of food, pre-preparation is essential. For any simple or short recipe, it must have:



Diagram for simple *mise en place*

The steps in planning:

**1. Each menu must be divided according to the level of production.**

- Note that the strategies are separated into a sequence of steps that must be applied a certain arrange to form a finished product.

**2. Determine the procedure must be applied first.**

- Always alert and put the primary preparation must be settled in the first place to avoid any interruption during cooking, for instance, raw item like vegetables and meat have been trim, cut, clean, and, putting in the right place.

**3. Ensure the perfect way at the final step of pre-preparation.**

- The critical part is to avoid any temperature danger zone which can make a bad result. Holding temperature must be observed perfectly until food is served.

**4. Decide how long it takes to get ready each arrange of each formula.**

- Make a production plan starting with the arrangements that take the longest. Many operations can be carried on at once since they don't all require your complete consideration the total time.

**5. Recheck the formula to ensure in case of it can be upgraded to rise up the proficiency and quality.**

- For example, the large quantity of preparing mashed potato in advance must be change to moderate preparation to keep the quality best.

## PRELIMINARY COOKING AND FLAVORING

Advance preparation often requires certain precooking and flavoring of ingredients to make them ready for use in the finished recipe.

### BLANCHING AND PARCOOKING

Partial cooking is a must in preparation. The judgment to implementation when and how much cooking is necessary or desirable require the degree of culinary skills and experience. This Partial cooking can be applied in any moist-heat or dry-heat method like simmering or boiling, steaming, and deep-frying.

#### The reasons behind blanching or par cooking:

##### 1. To increase holding quality.

Heating helps preserve foods by:

- Kill bacteria on food.
- Help to wrecking proteins that discolour food

##### 2. To save time.

Large batches of foods such as vegetables may be blanched and chilled in advance, and individual portions then finished to order.

##### 3. To remove displeasing flavors.

A few assortment meats and certain strong-flavored vegetables are usually blanched to make them milder and more acceptable.

##### 4. To allow the items to be prepared further.

For example, vegetables and fruits such as tomatoes and peaches, as well as some nuts, are blanched to loosen the skins for peeling.

### MARINATING

To marinate means to submerged a food product in a seasoned liquid in order to:

##### 1. Flavor the product.

##### 2. Tenderize the product.

The marinade can be process to be part of the sauce.

Marinades have **three categories** of ingredients:

**1. Oil.**

Oil helps to keep the meat's moisture. The usage of tasteless vegetable oils is suitable when a neutral flavor is required. Specialty oils, such as olive oil or canola oil, are used to add flavor to the marinated item.

**2. Acid from vinegar, lemon juice, wine.**

The acid from the ingredients helps to tenderize protein foods and give flavors but be careful when dealing with strong acid which can lead to coagulation of protein, and affect the taste and structure.

**3. Flavorings—spices, herbs, vegetables.**

Many choices are available, depending on the purpose. The Whole spices gradually release flavors, so they are more suitable for long marinating.

### Kinds of Marinades

**1. Cooked.**

this marinating suitable for long keeping and the best is that spices give more flavorful into the marinade.

**2. Raw.**

Most widely used for long marinating under refrigeration.

**3. Instant.**

This marinating is widely used in any cooking. Can be implemented for a few minutes, hours or overnight then ready for cooking.

**4. Dry**

A dry marinade, also called a dry rub or a spice rub, is a combination of salt, spices, and herbs that is coating the surface of a meat, poultry, or fish item. Sometimes, a little oil or a moist ingredient such as crushed garlic is mixed with the spices to make a paste.

## HOT FOOD PRESENTATION

Apart from filling our stomach and to be sold, the presentation of the food does matter in order for it to be sold. To make the food look appealing, it all comes to the presentation. For example, if the food presentation is messy and not interesting, it might as well influence what we think of the taste. All the small touches and details, surely makes the food a piece of art. Making a dish visually interesting is not just confined to cakes and desserts. The presentation of each course is very important to the overall dining experience; this is what is called plating.

## THE FUNDAMENTALS OF PLATING

### THREE ESSENTIALS OF FOOD PRESENTATION

#### 1. Good Preparation and Cooking Techniques

Proper cut vegetables, meat is trimmed nicely, cooking techniques must be perfect to avoid overcooked and dry especially when dealing with fish. Good blanching vegetables technique required, and sauce must be in the consistency.

#### 2. Professional Work Habits

Serving appealing food is the primary thing after the taste. Art and passion must be put in there. As a professional, everything must look great, the arrangement and plating should be attractive, plate must be hot for hot food, cold for cold food, no thumbprint or any dirt on the plate.

#### 3. Visual Sense

Balance among the colours, arrangement, food, and garnishing.

## BALANCE

### 1. Colours

Two or three colours is very beautiful and appealing

### 2. Shapes

Currently, the chef must look at the shape from all aspects such as from the protein, starch and vegetables. Shape and size of the item must be standardized and look very clean

### 3. Textures

The combination of food texture is well-balanced, for example, the protein cook according the recommendation, not serve with too much sauce or puree or any kind of element, the plate should variety of texture.

### 4. Flavors

Consulting the menu planning will be great to ensure the good flavor for food.

## PORTION SIZE

### 1. Match Portion Sizes and Plates

Portion sizes are vital for plating as well as for costing. Select plates that are huge enough to hold all the things on it make it less crowded. Too small plate makes a full, jumbled, messy presentation. On the other hand, as well expansive a plate may make the portions looking scanty. In case that a plate does not see adequately full, customers may feel not worth it.

### 2. Balance the Portion Sizes of the Items on the Plate

One thing, for the most part a meat, poultry, or fish, is more often the main item on the plate. It is the center of consideration and is bigger than the accompaniments. Do not let the main food get misplaced in the crowded of starch and vegetables. The main item must be appearing clearly on the plate.

## Arrangement on the Plate

### Arrangement 1

The classic arrangement: main item in front, vegetables, starch items, and garnish at the rear.



### Arrangement 2

The main item alone in the center of the plate, sometimes with a sauce or simple garnish.



### Arrangement 3

The main item in the center, with vegetables distributed randomly around it, sometimes with a sauce underneath.



### Arrangement 4

The main item in the center, with neat piles of vegetables carefully arranged around it in a pattern.



### Arrangement 5

A starch or vegetable item heaped in the center; the main item sliced and leaning up against it; additional vegetables, garnish, and/or sauce the center items.



### Arrangement 6

Main item, vegetable and starch accompaniments, and other garnish stacked neatly One a top the other in the center of the plate. Sauces or additional garnish may be, placed around th



### **Arrangement 7**

Vegetable in center of plate, sometimes with sauce; main item (in slices, medallions, small pieces, etc.) arranged around it toward the outside of the plate.

### **Arrangement 8**

Slices of the main item shingled on a bed of vegetables or a purée of vegetables or starch, with, perhaps, additional garnish to one side or around.

### **Arrangement 9**

Asymmetrical or random-looking arrangements that don't seem to follow any pattern.



### **Arrangement 10**

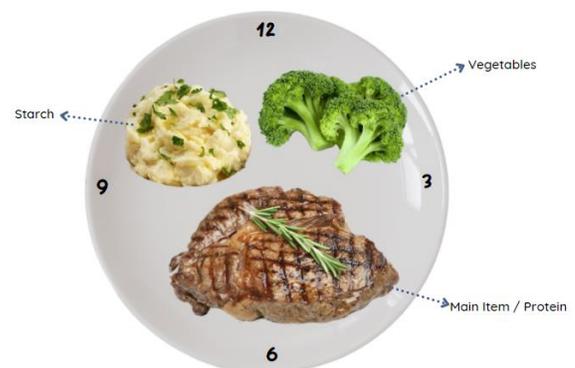
Arrangements resembling abstract art. Carefully cut portions of foods are arranged in an asymmetrical pattern, perhaps on a rectangular or other nonstandard plate, with streaks or ribbons of sauce to unite the various elements.

It is all about arranging food on plate in the most attractive way. We can look at a plate of food as if it were painting with the edge of the plate forming the frame. Figure is often better, let the foods spread out and breathe if the meal is too crowded. It is going to look untidy, mix it up, can we imagine a meal of mashed potato, fish, and cauliflower, all on a white plate, and it looks pale and not appealing at all. Add some colour, usually two or three different colours is good, using a variety of vegetables is a great way to get a different colour palette on the plate. Add some green in there or maybe some orange. If the certain type of menu that is usually a bit bland, always add a garnish like parsley or chervil to liven it up.

A conventional way of laying up food onto the plate to is as a clock place. The starch is put at ten o'clock, the vegetables at two o'clock and the protein at six o'clock. Using this kind of basic system, it cannot go wrong.

If we feel the shapes on the plate are not working as we expected, we have got too many round things or too many square things then we can always dice up the carrots, slice them, or leave them as rounds.

The beauty of food presentation is endless. Even if not much of a cook, we can still adjust the meal. Basic looking meals such as a plain old ice cream. Instead of just putting the ice cream in a bowl, it can be presented beautifully as an ice cream tower. It's the appearance of the food that matters to the eyes. So, plating is important in making the meal as appealing as possible and remember not to overcrowd the plate, mix up the colours so that there is a bit variety or use a garnish to break up similar shades or colours. Cut vegetables into different shapes like sticks or circle for some more diversity.



Classical arrangement

## GUIDELINES FOR PLATING ATTRACTIVELY

1. Keep food off the rim of the plate
2. Arrange the items for the convenience of the customer
3. Keep space between items, unless, of course, they are stacked on one another
4. Maintain unity
5. Make every component count
6. When using a sauce or gravy, add it attractively
7. Keep it simple



## GARNISH

To adorn or to furnish which is the literal meaning from French word garnish. It is a process to enhance or decorate food by other additional items. The term garnish is not only for putting parsley sprigs or sprinkle spring onion on the dish, but more than that the term used for a great, extraordinary, or awesome variety of process and techniques.

### CLASSICAL GARNISH

The term use for garnish or garniture in classic way is similar to accompaniments. It can be described as any things is set on plate or soup bowl, which act as addition to main item. It is also make the dish see more appealing. The classical French chef had amazing elaboration to describe the term of garnishing. Let's look to the name

#### **Rachel**

on the menu meant that the dish was served with artichoke bottoms filled with poached marrow and that

#### ***Tortue* (for Entrées)**

Quenelles, mushroom heads, gherkins, garlic, collops of tongue and calves' brains, small fried eggs, heart-shaped croutons, crayfish, slices of truffles. Tortue sauce.

#### **Portugaise**

meant a garnish of stuffed tomatoes.

#### **Concorde** (for large joints)

Peas, glazed carrots, mashed potatoes.

#### **Primeurs:**

first spring vegetables

#### **Bouquetière**

bouquet of vegetables

#### **Jardinière**

garden vegetables

**Printanière**  
spring vegetables

**Clamart**  
Peas

**Crécy**  
carrots

**Doria**  
cucumbers (cooked in butter)

**Dubarry**  
cauliflower

**Parmentier**  
potatoes

**Fermière**  
carrots, turnips, onions and  
celery, cut into uniform slices

**Vichy**  
carrots

**Florentine:**  
spinach

**Forestière:**  
mushrooms

**Judic**  
braised lettuce

**Lyonnaise**  
onions

**Niçoise**  
tomatoes concassé cooked with garlic

**Princesse**  
asparagus

**Provençale**  
tomatoes with garlic, parsley,  
and, sometimes, mushrooms  
and/or olives

## MODERN GARNISH

From classical, Today the terms or phrase are taken in a more general way showing colourful collections of different new vegetables. Platter decorate or garnish require not be expound or troublesome to prepare. A basic assortment of colourful vegetables, carefully cut and legitimately cooked to hold colour and texture, is appropriate to the foremost rich presentation.

- 1. Vegetables should be in easily served units.**

Varieties of vegetables can be served such as cauliflower, broccoli, boiled tomatoes, asparagus spears, whole green beans, mushroom caps, or anything that comes in large or easy-to-handle pieces.

- 2. Have the proper number of portions of each ingredient.**

Brussels sprouts, tournéed carrots, tournéed potatoes are easily portioned in the dining room if they are arranged in little portion-size piles.

- 3. Arrange the garnishes around the platter to get the best effect from the different colours and shapes.**

- 4. Avoid being too elaborated or complicated.**

Plating should be interesting with good combination of colours but avoid any garnish dominant or over expose the main item.

- 5. Serve extra sauce or gravy in a sauceboat.**

- 6. Serve hot foods hot, on a hot platter.**

The temperature of the food serve must be maintained, make sure the time spends for decorating does not turn the food cold.

## **BUFFET ARRANGEMENT AND APPEARANCE**

The buffet's visual, is remarkably fascinate the customers. Eye appeal of food is extremely important, especially when it comes to buffet, because the appearance makes the dish exclusive

### **LAVISHNESS AND ABUNDANCE**

A buffet should look lavish and plentiful. The sensation when go into the beautiful place will catch the emotion and appetite. There are several ways to create this look.

#### **1. Colour**

Offer variety of colours from the design, menu card, and decoration until the presentation of food.

#### **2. Height.**

The flat presentation of food is not attractive and not presentable.

A centerpiece is an imperative highlight, giving stature and center to the buffet. Ice carvings, fat sculptures, and botanical or natural product shows are a few conceivable outcomes. These must be set on a partitioned table behind the food table. Centerpieces on person platters too include tallness. Expansive food things such as expansive cheeses and entire broils being carved at the table are too compelling. Multilevel tables, when accessible, are utilized to great effect.

#### **3. Full platters and bowls.**

Refill items as they become less or emptied. Do not let nearly empty bowl. Rearrange platters and replenish if needed.

#### 4. Proper spacing.

The arrangement should be interesting, not crowded but do not spread too far apart the table.

#### SIMPLICITY

1. Do not Overdesigned or over decorated food.
2. Excessive garnish is quit disturbing and it looks unprofessional.

### EXERCISE

Scan QR Code to answer the question



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All of the authors are the lecturers from Department of Tourism and Hospitality, Politeknik Merlimau, Melaka. They have been involve in teaching and learning in Culinary courses for many years in the institution.

The need of students to have a pocket reference is crucial as their on the go lifestyle but still attach with education. It is hoped that this book will increase students' knowledge in the basics of culinary, which includes an introduction to kitchen and restaurant operations, equipment, *mise en place* or preparation and culinary arts.

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