

Specified Skilled Worker( i )

Study Materials for Skills Assessment  
Test for Food Service Industry

“Preparation of Food and Drink”

Version 1 (2021 April 15 revision)

Provisional Translation (English)

Japan Foodservice Association

## <Introduction to the translated version>

These "Study Materials for Skills Assessment Test For Food Service Industry" introduce the basic knowledge and skills required to work in the restaurant sector. under the requirements of Specified Skilled Worker( i ). Furthermore, the Japanese vocabulary used in the original materials constitutes a basic requirement to be able to work in the restaurant sector in Japan

The skills assessment test required to obtain a status of residence for Specified Skilled Worker( i ), consists of three subjects.

Hygiene Control Related Matters	“Hygiene Controls”
Matters Predominantly Related to Preparation Tasks	“Preparation of Food and Drink”
Matters Predominantly Related to Customer Service Operations	“Customer Service”

The Study Materials are similarly made up of these three subjects.

This material introduces “Preparation of Food and Drink” which is a matter predominantly related to the preparation tasks deemed necessary to work in food service industry. This material introduces the basic knowledge etc., needed for the tasks; however, some content may differ from the rules etc., applicable in the actual place you work. This is because, while the basic concepts are the same, the way they are carried out may differ depending on the place you work. In this case, please observe the rules that apply in your workplace.

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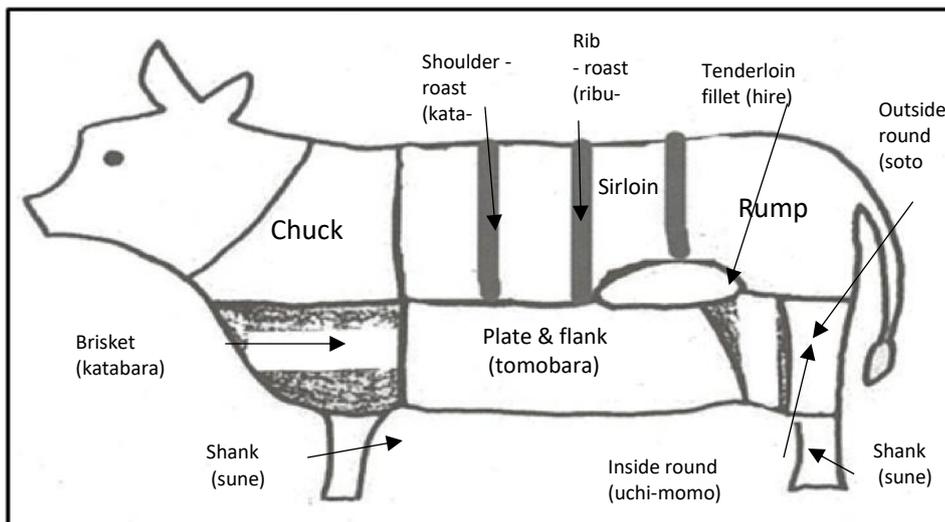
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## I . Knowledge of Ingredients (Raw Ingredients)

# 1. Types of meat

(1) Characteristics of different cuts of beef and the main dishes they are used in



gyu-nikomi



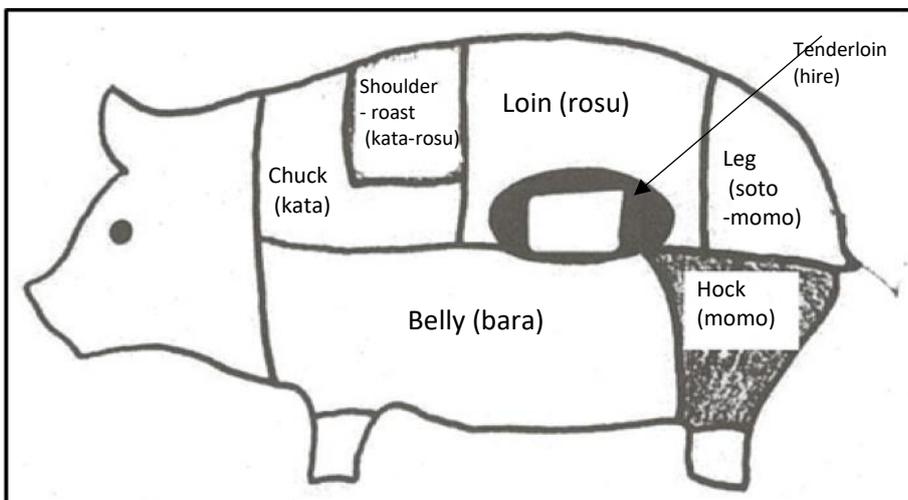
shabu-shabu

Cut	Characteristics	Main dishes
Chuck ( <i>kata</i> )	Lean red meat that is slightly hard. High in extracts and collagen	Used in braised dishes and soups etc.
Brisket ( <i>katabara</i> )	Red meat with fatty layers. A chewy meat	Used in braised dishes etc.
Shoulder - roast ( <i>kata-rosu</i> )	A slightly too many sinews with a moderate amount of fat. A tasty cut.	Used in thin-cut boiled beef ( <i>shabu-shabu</i> ), <i>slow-cooked beef (suki-yaki)</i> and grilled beef BBQ ( <i>yaki-niku</i> ) etc.
Rib - roast ( <i>ribu-rosu</i> )	A delicate texture. Good for dishes that showcase the taste of the meat itself.	Used in thin-cut boiled beef ( <i>shabu-shabu</i> ), <i>slow-cooked beef (suki-yaki)</i> and steaks etc.
Sirloin ( <i>saaroin</i> )	A delicate texture. The quality of the meat is the best.	Used for steaks, and roast beef etc.
Tenderloin fillet ( <i>hire</i> )	A tender cut with a delicate texture. Good for frying, as it has a low fat content.	Used for beef cutlet and steak etc.
Rump ( <i>ranpu</i> )	Tender, red meat with a deep flavor. Used in all sorts of dishes.	Used for steaks, and roast beef etc.
Plate & flank ( <i>tomobara</i> )	Red meat with fatty layers. A coarse texture that tends to be marbled. It has a rich taste.	Used in braised dishes and Korean grilled beef BBQ ( <i>karubi-yaki</i> ) etc.

Inside round ( <i>uchi-momo</i> )	The beef cut with the lowest fat content.	Used for steaks, roast beef etc., grilled beef BBQ ( <i>yaki-niku</i> ), and in braised dishes etc.
Outside round ( <i>soto-momo</i> )	A coarse-textured, chewy meat with low fat content. Good for stir-fries if sliced thinly or diced.	Used in braised dishes, and stir-fries etc.
Shank ( <i>sune</i> )	A hard cut with a lot of sinews. Softens up if boiled for a long time, as the collagen dissolves.	Used in stews, curries and braised dishes etc.

\*Source: From the "Meat Labeling Handbook - 2015" by the All Japan Meat Industry Cooperative Association

(2) Characteristics of different cuts of pork and the main dishes they are used in



*shoga-yaki*



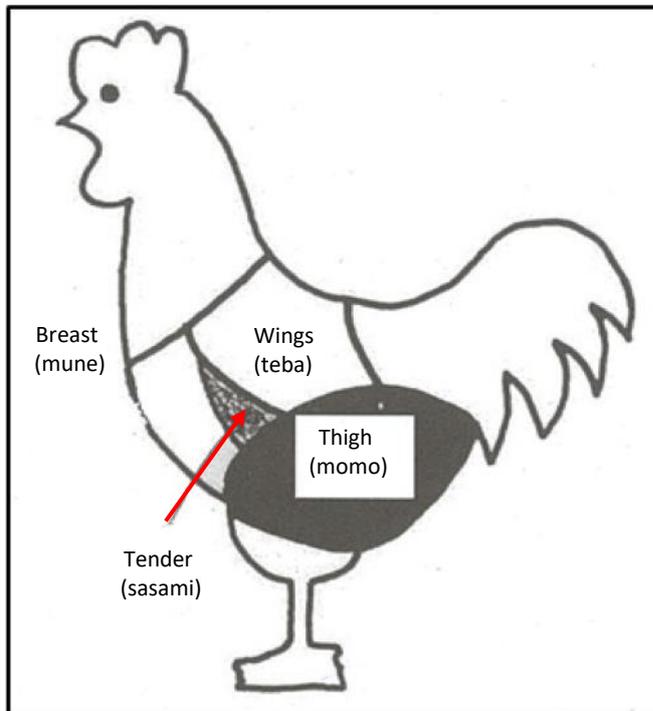
*ton-katsu*

Cut	Characteristics	Main dishes
Chuck ( <i>kata</i> )	A coarse-textured, chewy meat. It has quite a lot of fat, which gives a good flavor if the meat is diced and stewed.	Used in stews and pork & beans etc.
Shoulder - roast ( <i>kata-rosu</i> )	A rather coarse-textured, chewy meat. A deep, rich taste. The sinew needs to be cut away before it is cooked.	Used in curries, grilled pork ( <i>yaki-buta</i> ) and grilled pork with ginger ( <i>shoga-yaki</i> ) etc.
Loin ( <i>rosu</i> )	A delicate texture. With moderate fat content this rivals tenderloin as the best cut of pork. The fat on the outside has a savory taste ( <i>umami</i> ).	Used for pork cutlets, thin-cut boiled pork ( <i>buta-shabu</i> ) and roast ham etc.
Tenderloin ( <i>hire</i> )	A tender cut with a delicate texture. Rich in Vitamin B1 with a low fat content. Good for dishes that use oil.	Used for pork cutlets and sautés
Leg ( <i>soto-momo</i> )	A red meat with a light taste. Can be used in a wide variety of dishes like the hock.	Used in sautés, grilled pork BBQ ( <i>yaki-niku</i> ) and ham-off-the-bone etc.

Hock (momo)	A delicate texture with low fat content Has the most Vitamin B1 after tenderloin	Used in sautéés, grilled pork BBQ ( <i>yaki-niku</i> ) and ham-off-the-bone etc.
Belly ( <i>bara</i> )	Red meat with fatty layers. With the bones attached it is called "spare ribs."	Used in curries, Dongpo pork (a Chinese dish) and braised dishes etc.

\*Source: From the "Meat Labeling Handbook - 2015" by the All Japan Meat Industry Cooperative Association

(3) Characteristics of different cuts of chicken and the main dishes they are used in



*kara-age*



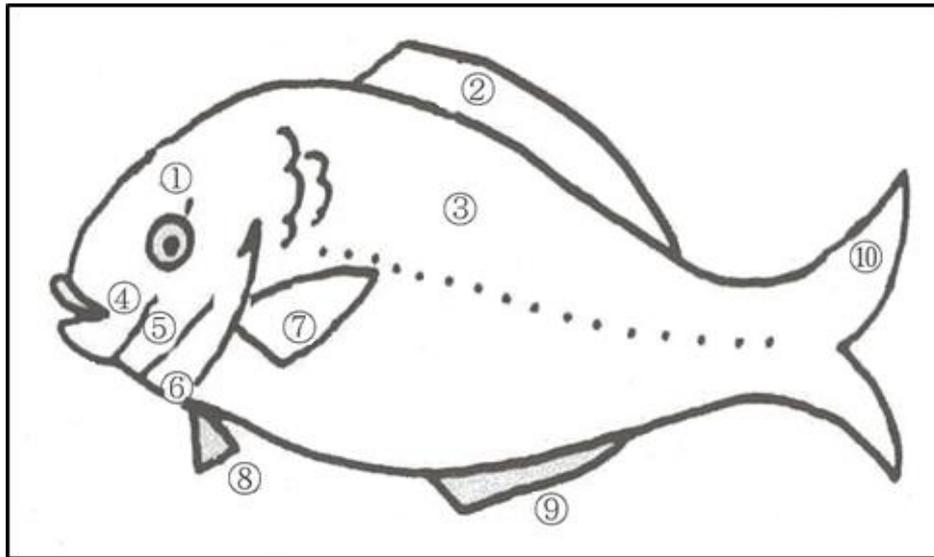
*yaki-tori*

Cut	Characteristics	Main dishes
Thigh ( <i>momo</i> )	The meat contains fat. And because it is well-ingrained it has a rich flavor. It is rather chewy compared with the breast	Used in teriyaki dishes, chicken cutlet and fried chicken ( <i>kara-age</i> ) etc.
Breast ( <i>mune</i> )	A tender meat with protein that gives a plain taste. A cut with a low fat content.	Used boiled or steamed etc.
Tender ( <i>sasami</i> )	This cut has the lowest fat content with protein that gives a plain taste.	Used in fritters and savory egg-custard ( <i>chawan-mushi</i> ) etc.
Wings ( <i>teba</i> )	Rich in collagen.	Used in fried chicken ( <i>kara-age</i> ) , braised chicken and grilled BBQ chicken ( <i>yaki-tori</i> ) etc.

\*Source: From the "Meat Labeling Handbook - 2015" by the All Japan Meat Industry Cooperative Association

## 2. Types of seafood

### (1) Basic parts of a fish



①	Eye	②	Dorsal fin	③	Caudal spine
④	Body spine	⑤	Gill cover	⑥	Gill chamber
⑦	Pectoral fin	⑧	Pelvic fin	⑨	Anal fin
⑩	Caudal fin				

(2) Typical seafood and when it is in season

“In season” means the period when ingredients such as seafood, vegetables or fruit etc., are at their freshest and most delicious to eat. Here we show some of Japan’s typical seafood and when it is in season.

Season	Typical seafood
Spring	<p>Japanese mackerel (<i>sawara</i>), clams (<i>asari</i>), seaweed (<i>wakame</i>), crucian carp (<i>funa</i>), red sea bream (<i>madai</i>),</p>   
Summer	<p>Sweetfish (<i>ayu</i>), Japanese squid (<i>surumeika</i>), scallops (<i>hotate</i>), Japanese sardines (<i>maiwashi</i>), Japanese jack mackerel (<i>maaji</i>)</p>   
Fall	<p>Skipjack tuna (<i>katsuo</i>), salmon (<i>sake</i>), saury (<i>sanma</i>), chub mackerel (<i>masaba</i>)</p>   
Winter	<p>snow crab (<i>zuwai kani</i>), Cod (<i>tara</i>), pufferfish (<i>fugu</i>), Japanese sandfish (<i>hatahata</i>), Okhotsk Atka mackerel (<i>hokke</i>), Japanese amberjack (<i>huri</i>), tuna (<i>maguro</i>), Japanese tiger prawns (<i>kuruma ebi</i>), oysters (<i>kaki</i>)</p>   

\*The period when foods are in season may vary depending on the region and the impact of the weather.

### 3. Types of fruit and vegetable

#### (1) Main types of vegetables

Type	Typical vegetables
Root vegetables	<p>carrot (<i>ninjin</i>), Radish (<i>daikon</i>), Lotus root (<i>renkon</i>), potato (<i>iyaga-imo</i>), taro (<i>sato-imo</i>), turnip (<i>kabu</i>), burdock (<i>gobou</i>)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Carrot</p> </div> <div style="text-align: center;">  <p>Lotus root</p> </div> <div style="text-align: center;">  <p>Potato</p> </div> </div>
Leaf and stalk vegetables	<p>Chinese cabbage (<i>hakusai</i>), cabbage (<i>kyabetsu</i>), onion (<i>tama-negi</i>), spinach (<i>horenso</i>), spring onion (<i>negi</i>), lettuce (<i>retasu</i>), sweet coltsfoot (<i>fuki</i>), edible chrysanthemum (<i>shungiku</i>), pot-herb mustard (<i>mizuna</i>)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Chinese cabbage</p> </div> <div style="text-align: center;">  <p>Cabbage</p> </div> <div style="text-align: center;">  <p>Onions</p> </div> </div>
Fruit vegetables	<p>Egg plant (<i>nasu</i>), tomato (tomato), cucumber (<i>kyuri</i>), bell peppers (<i>piman</i>), cayenne (<i>togarashi</i>), pumpkin (<i>kabocha</i>), string beans (<i>sayaingen</i>), soy beans in the pod (<i>eda-mame</i>), broad beans (<i>sora-mame</i>)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Egg plant</p> </div> <div style="text-align: center;">  <p>Tomato</p> </div> <div style="text-align: center;">  <p>Cucumber</p> </div> </div>
Fruits	<p>Strawberry (<i>ichigo</i>), melon (<i>melon</i>), watermelon (<i>suika</i>)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Strawberry</p> </div> <div style="text-align: center;">  <p>Melon</p> </div> <div style="text-align: center;">  <p>Watermelon</p> </div> </div>

(2) Main seasons for fruits and vegetables

Here we show when Japan's typical fruit and vegetables are in season.

Season	Typical fruits and vegetables
Spring	<p>Bamboo shoots (<i>take-no-ko</i>), rape blossoms (<i>nanohana</i>), asparagus (<i>asuparagasu</i>), broad beans (<i>sora mame</i>), strawberries (<i>ichigo</i>)</p> 
Summer	<p>bitter melon (<i>goya</i>), bell pepper (<i>piman</i>), peach (<i>momo</i>), Cucumber (<i>kyuri</i>), tomato (<i>tomato</i>), watermelon (<i>suika</i>)</p> 
Fall	<p>Sweet potato (<i>satsuma-imo</i>), chestnut (<i>kuri</i>), persimmon (<i>kaki</i>), pear (<i>nashi</i>), mushroom (<i>shimeji</i>), ginkgo nuts (<i>ginnan</i>)</p> 
Winter	<p>Radish (<i>daikon</i>), Chinese cabbage (<i>hakusai</i>), broccoli, spring onions (<i>negi</i>)</p> 

\*The period when foods are in season may vary depending on the region and the impact of the weather.

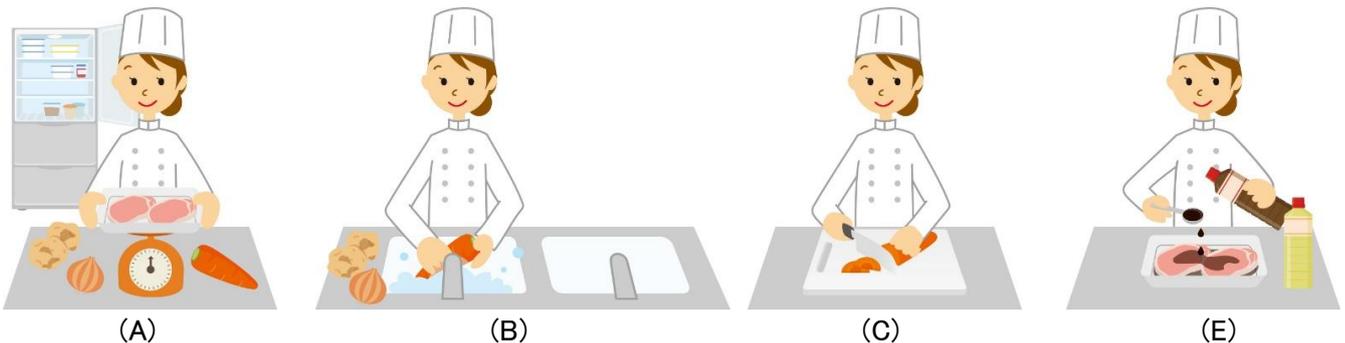
## II . Knowledge of Basic Preparation Processes

# 1. Purpose of basic preparation processes

## (1) Main Tasks

“Preparation processes” mean preparatory tasks for cooking. The main tasks are as follows:

- (A) Calculating the required amounts for cooking. And only taking out the required amount of ingredients from the fridge etc.
- (B) Washing raw materials to get rid of any mud, dirt, bacteria harmful to humans, and foreign matter etc. As well as sterilizing if necessary.
- (C) Cutting the raw ingredients into the required shape for cooking (throwing away the parts that are not to be eaten and cutting to a size that is easy to eat etc.). Also removing the skin.
- (D) Marinading to season the raw ingredients.



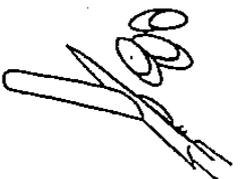
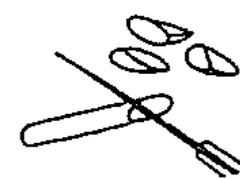
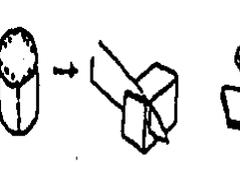
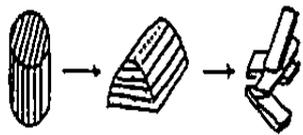
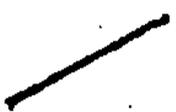
## (2) Matters to Note

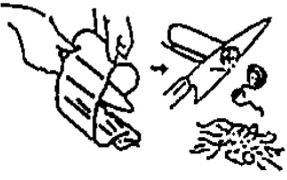
There may be bacteria or similar in raw ingredients that is harmful to humans. Therefore, it is important to ensure that this kind of bacteria etc., is not allowed to increase during basic prep tasks. It is also important to make sure that food is not contaminated through your hands or by cook ware or work surfaces (secondary contamination). Particular care should be taken not to contaminate food once it has been cooked or sterilized.

- (A) Basic preparation processes should be done soon after ingredients have been taken out of the fridge or freezer.
- (B) Do not allow bacteria to increase while defrosting frozen products; e.g., preferred thawing methods include defrosting in a refrigerator or under running water.
- (C) Basic preparation processes should be done on designated work surfaces. In addition, designated cooking utensils (chopping boards, kitchen knives etc.) should be used for separate purposes. If it is difficult to designate different utensils for individual purposes, then all work surfaces and cooking utensils (chopping boards, kitchen knives etc.) should be thoroughly cleaned and sterilized once they have been used. They will then be ready for the next use.
- (D) Basic preparation processes and the serving-up of food should not take place at the same time, in the same place.
- (E) Basic preparation processes, cooking and the serving-up of food should not be done at the same time by the same person.

## 2. Basic preparation processes for vegetables

### (1) Typical ways to cut vegetables

<p>Cutting into small pieces (<i>koguchigiri</i>)</p>  <p>Cutting long, thin vegetables into thin, round slices</p>	<p>Cutting on a diagonal (<i>nanamegiri</i>)</p>  <p>Cutting long thin vegetables on a diagonal. Making the cut surface larger.</p>	<p>Cutting into random shaped chunks (<i>rangiri</i>)</p>  <p>Cutting to a regular size, but to no specific shape</p>	<p>Cutting into long thin shavings (<i>sasagaki</i>)</p>  <p>Slicing thinly like bamboo leaves</p>
<p>Cutting into rounds (<i>wagiri</i>)</p>  <p>Making the cut surface round in shape and of a regular size</p>	<p>Cutting into half moons (<i>hangetsugiri</i>)</p>  <p>Cutting something that has been cut into a round shape (<i>wagiri</i>) into half again.</p>	<p>Cutting into the shape of a ginko leaf (<i>ichogiri</i>)</p>  <p>Cutting something that has been cut into a half-moon shape (<i>hangetsugiri</i>) into half again.</p>	<p>Cutting round objects into cubes (<i>shikishigiri</i>)</p>  <p>Cutting ingredients into cubes of around 3cm</p>
<p>Cutting into thin rectangles (<i>tanzakugiri</i>)</p>  <p>Cutting ingredient to a length of around 4-5 cm and a thickness of 1cm</p>	<p>Cutting into wooden clapper shapes (<i>hyoshigikiri</i>)</p>  <p>Cutting ingredients into batons around 4-5 cm long and 1cm square</p>	<p>Cutting into fine strips (<i>sengiri</i>)</p>  <p>Cutting ingredients vertically into fine strips</p>	<p>Cutting into ultra-fine strips (<i>shiraga</i>)</p>  <p>Cutting ingredients vertically into ultra-fine strips</p>

<p>Peeling something finely (<i>katsuramuki</i>)</p>  <p>Thinly peeling the skin of a radish etc.</p>	<p>Chopping something finely (<i>mijingiri</i>)</p>  <p>Chopping up ingredients finely</p>	<p>Dicing something into dices (<i>sainomekiri</i>)</p>  <p>Cutting into 1cm cubes</p>	<p>Finely dicing something (<i>araregiri</i>)</p>  <p>Cutting to a size that is smaller than <i>sainomegiri</i> but larger than <i>mijingiri</i></p>
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## (2) Preventing discoloration

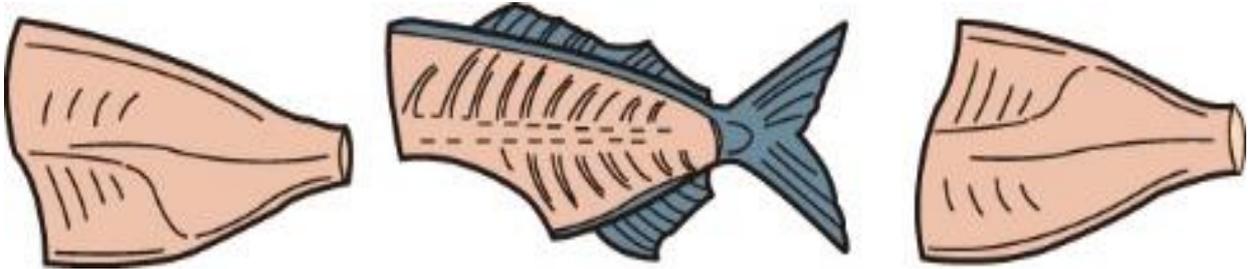
Discoloration involves the cut surface changing color and mainly applies to vegetables once they have been cut. This happens when substances in vegetables react with oxygen to produce discoloration. Discoloration can be prevented using the following methods. The method used will differ depending on the vegetable.

- (A) Cover the food in water (do it does not come into contact with any oxygen) : for sweet potatoes, potatoes and egg plant etc.
- (B) Cover in salt water : for apples, pears etc.
- (C) Cover in vinegared water : for burdock, lotus root etc.

### 3. Basic preparation processes for seafood

#### (1) Typical fish filleting technique (sakana no sabakikata (into three pieces))

This is one way to fillet a fish. First you remove the fish's head and guts. Then you run your knife along the central bone and cut it into three parts - the left half, the right half and the central bone. This technique is often used when preparing sashimi.



#### (2) Descriptions given to processed fish

There are many opportunities to use pre-processed fish in a restaurant (especially in the case of bigger fish).

The fish is usually processed by a fishery processing company, but is given a different description depending on the stage of processing.

(A) Round : Unprocessed state (called a "round fish")



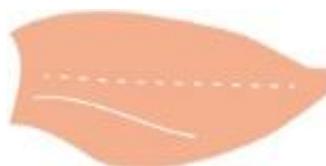
(B) Semi-dressed : Only the internal organs have been removed



(C) Dressed : Head, gills and internal organs have been removed



(D) Filleted : In addition to being dressed, the central bone, fins and tail have also been removed



\* Note that the description and its definition may change depending on the fishery processing company.

### III. Knowledge of Various Preparation Methods

## 1. Cooking with heat

Preparing food using heat from fire, steam or electricity etc., is called "cooking with heat." There are various methods of cooking with heat depending on the objective.

### (1) Cooking - specifically grains (*taku*)

This refers to cooking rice. This is the method used to prepare rice. Water is added to the rice and left for a while, then once the rice has absorbed water, it is cooked.

In order to turn the rice starch into alpha-starch, it must be cooked for at least 20 minutes at a temperature of 98°C or above.

The firmness (texture) of the prepared rice will vary depending on the amounts of rice and water used when it is being cooked. The more water you use the softer the rice; whereas not enough water will produce hard rice. Consequently, when cooking rice it is important to balance the amounts of rice and water.

<Examples of food prepared using this technique>

Cooked white rice, red rice etc.



### (2) Boiling (*yuderu*)

Under this method, ingredients are placed in boiling hot water and cooked to soften them.

If you put salt into the boiling water, the food is less likely to break down. And if you put vinegar into the boiling water, it will make the color of white ingredients brighter. If you put sodium bicarbonate in the boiling water, it will make the color of green vegetables more vivid.

<Examples of food prepared using this technique>

Boiled edamame, boiled potatoes etc.



### (3) Frying (*ageru*)

Under this method, ingredients are placed in hot oil to cook them.

The oil used is heated to around 180°C, so you need to take care not to burn yourself.

Over time, the quality of the oil will deteriorate. If you use oil of poor quality, you can end up with food poisoning. Therefore, the quality of the oil must be checked, each time it is used. If you heat up oil that has gone bad, you will notice a lot of bubbles.

<Examples of food prepared using this technique>

Croquette, Japanese battered food (tempura), fries, fried chicken (kara-age) etc.



#### (4) Stir-frying (*itameru*)

This method uses a little hot oil in a frying pan or similar, to cook ingredients which are stirred together at high temperature.

Because the outside of the ingredients are heated for a short time, it improves the flavor with a charred smell, while the insides remain juicy. However, if you do not heat the frying pan up enough and put a lot of ingredients in at once, you will not be able to heat the food up properly. The texture of the ingredients will not be consistent and the dish will not taste good. Also if you heat the food for too long, it will end up like a braised dish and the characteristics of stir-fried cooking will be lost.

<Examples of food prepared using this technique>

Stir-fried vegetables, stir-fried Chinese dishes, scrambled eggs etc.



#### (5) Stewing/simmering (*niru*)

Under this method, ingredients are cooked in a stock using sugar, soy sauce or similar.

Food is usually cooked at 100°C, at which the seasoned stock boils. However, ingredients may be gently stewed at around 70~80°C over a longer period if you want to stop them becoming tough.

Stewing characteristically lets the ingredients soften and become tender during the cooking process. Note that stewing fish allows the bones to be easily removed and the smell to be controlled.

<Examples of food prepared using this technique>

Meat & potatoes (*nikujaga*), mixed stew (*go-moku ni*), chopped burdock root (*kinpira*), stewed pork (*buta no kakuni*) etc.



#### (6) Grilling/Roasting (*yaku*)

Under this method, ingredients are cooked at high temperature, either directly on a flame, or in the oven etc..

There are various ways of grilling or roasting dishes. Char-grilling is one of them. Direct flames or heat are applied to the ingredients in this type of dish, making it easy to prepare and eat.

The smell of the food is also given off, allowing you to create a grilled smell (aroma).

If ingredients are grilled on a direct flame it is known as "*jikabiyaki*" (directly cooked); while food cooked on an iron hot-plate or in a frying pan is known as "*kansetsu-yaki*" (indirectly cooked).

<Examples of food prepared using this technique>

Steak, Kyoto-style grills (*saikyoyaki*), soy-sauced marinated grills (*teriyaki*) etc.



### (7) Steaming (*musu*)

Under this method, water is boiled and food is cooked using the steam from it.

This cooking technique allows you to prepare food that is convenient to eat with a soft, moist texture, without the ingredients breaking up. You can also use it for dishes that contain a lot of liquid, like savory egg-custard (chawanmushi), if you put ingredients in container before heating them up.

<Examples of food prepared using this technique>

Savory egg-custard (chawanmushi), dumplings (shumai) etc.



## 2. Cooking without heat

"Cooking without heat" refers to preparing food for consumption by washing or sterilizing it. It does not use any flame or heat and so is called "cooking without heat."

### (1) Dressing/tossing (aeru)

Under this method a number of different ingredients are mixed up in one dish.

For example - washing, sterilizing and cutting up various vegetables and mixing them into a vegetable salad. Or mixing steamed, chopped potatoes with dressing to make a potato salad. Or similar dishes where the ingredients have been prepped at some or other basic level, then mixed together with a dressing or seasoning.

The quality of dishes that have been dressed or tossed tends to decline quickly. In pickled food, vinegar is used to stop bacteria from spreading. However, you need to take care as liquid leaking from the mixed ingredients can dilute the concentration of vinegar, making it easy for bacteria to spread and giving a watered-down taste.

<Examples of food prepared using this technique>

Vegetable salad, potato salad, marinades etc.



### (2) Shaping and Arranging (seikei,totonoe)

This refers to using your hands or cooking appliances/utensils to make ingredients into a form that is convenient to eat (regardless of whether or not the ingredient have been cooked with heat.)

Typical dishes include rice balls (onigiri), sushi and wrapped rice (makimono) etc. To make these dishes by hand, you need a certain level of skill, but if you use cooking appliances and utensils then they are easy to make. To make these items en masse, we use specialist cooking utensils and tools.

Hand sanitation and hygiene controls on cooking appliances and utensils are important when shaping rice balls (onigiri) or sushi etc., as the food is later consumed without being subjected to any heat or sterilization process. In particular, when preparing dishes by hand you should ensure that you wash your hands thoroughly and use disposable gloves.

<Examples of food prepared using this technique>

Rice balls (onigiri), sushi, rice wraps (makimono) etc.



## IV. Knowledge of Cooking Appliances, Utensils and Tools

# 1. Cooking appliances

## (1) Main cooking appliances

<p style="text-align: center;"><b>Gas range</b></p>  <p>Runs on gas. A general cooking appliance</p>	<p style="text-align: center;"><b>IH range</b></p>  <p>Runs on electricity. A general cooking appliance</p>	<p style="text-align: center;"><b>Gas range (for Chinese food)</b></p>  <p>Runs on gas. A range used to prepare Chinese food</p>
<p style="text-align: center;"><b>Steam convection oven</b></p>  <p>An all-purpose cooker. Supports a wide range of cooking techniques including baking, steaming, stewing, boiling etc.</p>	<p style="text-align: center;"><b>Steamer</b></p>  <p>An appliance that cooks steamed dishes</p>	<p style="text-align: center;"><b>Fryer</b></p>  <p>An appliance that cooks fried dishes</p>
<p style="text-align: center;"><b>Boiled noodle appliance</b></p>  <p>An appliance to boil noodles</p>	<p style="text-align: center;"><b>Griddle</b></p>  <p>An appliance that is mainly used for grilled dishes and stir-fries.</p>	<p style="text-align: center;"><b>Multi-level rice cabinet</b></p>  <p>A large size rice cooker</p>

\* Source: Tanico Corporation's General Catalog

<p>Counter rice cooker</p>  <p>An appliance for cooking rice that sits on a counter</p>	<p>Rice warmer</p>  <p>An appliance for keeping cooked rice warm</p>	<p>Grill</p>  <p>An appliance that is used for grilled dishes</p>
<p>Braising pan</p>  <p>An appliance used for cooking in large volumes. Mainly used for grilling, stir-frying and simmering</p>	<p>Jet oven</p>  <p>Oven with conveyor belts</p>	<p>Rotating pan</p>  <p>An appliance used for cooking in large volumes. Mainly used for stir-frying and simmering</p>

\* Source: Fujimak Corporation website

(2) Main cooling appliances

<p style="text-align: center;">Fridge freezer</p>  <p>An appliance that conserves food by refrigerating or freezing it.</p>	<p style="text-align: center;">Fridge freezer (table style)</p>  <p>Fridge freezer with a work top</p>	<p style="text-align: center;">Display fridge</p>  <p>Fridge with a display cabinet</p>
<p style="text-align: center;">Prefab fridge freezer</p>  <p>Large size fridge freezer. The inside is completely fitted out as a fridge/freezer</p>	<p style="text-align: center;">Ice maker</p>  <p>An appliance that makes ice</p>	<p style="text-align: center;">Blast chiller</p>  <p>An appliance that quickly cools heated food</p>
<p style="text-align: center;">Vacuum cooler</p>  <p>An appliance that cools heated food down very quickly. More powerful than a blast chiller</p>		

\* Source: Fujimak Corporation website

(3) Major dish washing and sterilizing appliances

Small dish washer



An appliance that automatically washes small tableware

Dish washer with doors



An appliance that automatically washes medium-sized tableware and cooking utensils

Dish washer with conveyor



An appliance that automatically washes large tableware and cooking utensils in large volumes

Sterilizer



An appliance that sterilizes cooking utensils and equipment using UV rays and hot air.

\* Source: Fujimak Corporation website

(4) Other Appliances

<p data-bbox="256 185 403 215">Food slicer</p>  <p data-bbox="97 667 491 734">An appliance that slices (cuts) ingredients</p>	<p data-bbox="643 185 965 215">Small size food preparer</p>  <p data-bbox="571 667 965 734">An small appliance that slices (cuts) ingredients</p>	<p data-bbox="1171 185 1378 215">Food processor</p>  <p data-bbox="1045 667 1503 734">An appliance that chops and mixes ingredients</p>
<p data-bbox="284 788 376 817">Peeler</p>  <p data-bbox="97 1301 507 1368">An appliance that automatically peels food</p>	<p data-bbox="699 788 906 817">Vacuum packer</p>  <p data-bbox="571 1301 997 1368">An appliance that vacuum packs ingredients</p>	<p data-bbox="1070 788 1481 817">Automatic hand/finger sanitizer</p>  <p data-bbox="1045 1283 1455 1384">An appliance that automatically sanitizes your hands if you hold them out</p>

\* Source: Fujimak Corporation website

(2) Cooking utensils and tools

(1) Main frying pans and other pans

<p>Frying pan</p> 	<p>Chinese wok (Beijing wok)</p> 	<p>Chinese wok (Guangdong wok)</p> 
<p>Chinese Strainer</p> 	<p>Cooking pot</p> 	<p>Cylindrical pot</p> 
<p>Frying pan (tempura pan)</p> 	<p>Embossed aluminum pan (yukihira pan)</p> 	<p>Single-handed pot</p> 
<p>Steamer (pot)</p> 	<p>Kettle</p> 	

\* Source: Sugico Sangyo Co., Ltd. Catalog

(2) Main kitchen knives and chopping boards

<p>Kitchen knife (Santoku knife)</p>  <p>* A general purpose knife</p>	<p>Vegetable knife</p>  <p>* A knife for cutting vegetables</p>	<p>Sashimi knife</p>  <p>* A knife for cutting sashimi</p>
<p>Chinese cleaver</p>  <p>* A knife used in Chinese cooking</p>	<p>Bread knife</p>  <p>* A knife that cuts bread</p>	<p>Chopping board</p> 

(3) Main containers and related implements

<p>Kitchen canisters</p> 	<p>Hotel roasting tins (food roasting tins)</p> 	<p>Baking trays (rectangular trays)</p> 
<p>Bowl</p> 	<p>Stainless steel strainer</p> 	<p>Plastic strainer</p> 

\* Source: Sugico Sangyo Co., Ltd. Catalog

(4) Other key tools

<p>Spatula</p> 	<p>Metal spatula</p> 	<p>Long chopsticks</p> 
<p>Soup ladle</p> 	<p>Chinese soup ladle</p> 	<p>Ladle</p> 
<p>Whisk</p> 	<p>Scoop net</p> 	<p>Deep drainer (for Japanese noodles and Chinese noodles)</p> 
<p>Rice paddle (from Miyajima)</p> 	<p>Measuring cup</p> 	<p>Measuring spoons</p> 

\* Source: Sugico Sangyo Co., Ltd. Catalog

### 3. Measuring appliances

#### (1) Main appliances

<p>Digital scales</p> 	<p>Weighing scales</p> 	<p>Digital probe thermometer</p>  <p>* measures the core temperature inside the food</p>
<p>Probe thermometer</p>  <p>* Measures the core temperature inside the food</p>	<p>Thermometer</p> 	<p>Thermometer (for fridges and freezers)</p> 
<p>Hygrometer</p> 	<p>Infrared thermometer</p>  <p>* Measures the surface temperature of raw ingredients and food etc., using infrared rays</p>	<p>Kitchen timer</p>  <p>* Used to measure the time accurately</p>

\* Source: Sugico Sangyo Co., Ltd. Catalog

## V . Knowledge of Occupational Health & Safety

## 1. Occupational health & safety in the kitchen

Fire (or extremely hot things) and knives etc., are always used in the kitchen. And you may also need to lift large cooking appliances and heavy objects. Consequently, unless designated work procedures (rules) and warning notices are observed, there is a risk that serious injuries or accidents could occur.

<Examples of injuries/accidents)

Injury/Accident	Cause
Cutting your finger	Looking around while cutting vegetables with a knife
Burning your hand	Carrying a pan that is heavier than you think, causing you to lose your balance and burn your hand with hot soup
Burning your foot	Being in a hurry and spilling hot frying oil on your foot
Spraining your foot	Running on a wet floor
Severing your finger	Leaving the slicer plugged in while cleaning it. And having the appliance run while you are in the middle of cleaning it.
Fire	Leaving the kitchen with the gas range still alight

The following points are important to avoid these kinds of injuries and accidents.

(1) Ensure that everyone is fully aware of safety procedures

(A) All staff need to implement the correct procedures to ensure safety is maintained

(B) Do not ignore procedures just because your are busy and it is a hassle to implement them

(C) Acting on supposition and guessing “that should be fine” or “I should be OK to do that” is not acceptable

(D) Do not ignore safety checks, just because you “are used to doing something”

## (2) Ensure that uniforms are worn correctly

- (A) Uniforms are made to protect the body from a variety of hazards.
- (B) Specifications for chef jackets are sometimes made to ensure they cannot catch fire easily. Staff should not wear different clothes at their own discretion
- (C) Make sure you wear clothes that fit you properly
- (D) Do not tread down the backs of your shoes. They may make you fall.

## (3) How to carry heavy objects

Carrying heavy objects puts a strain on your back. Generally, it is recommended that you do not carry more than 35-40% of your own body weight. If you need to carry anything heavier than that, make sure you use two people to move it. If things can be divided up and carried without too much trouble, then divide them up to move them in several lots.

When filling a stock pot or pan with liquid (such as soup etc.) only fill it about 80% of the way up, and not right to the top. Otherwise, you might get burned if the liquid spills or spits if it is boiling hot.

### <Examples of how to lift heavy objects>

- (A) Crouch down close to the object and hold it securely
- (B) Straighten your back
- (C) Extend your legs and lift it up slowly
- (To put the object down, reverse these steps)



## (4) Handling trolleys and movable cages

When using a trolley/movable cage to move heavy objects, it can be difficult to control it if you pull it towards you. You might also fail to notice obstacles behind you, so always be sure to push trolleys/movable cages away from you.

However, if you are going down a slope or using stairs, then you should pull the trolley/movable cage carefully to move it. Also, avoid piling the load up too high. If you pile the load up too high, there is a danger that even a small shock will make it fall.



## (5) Dry kitchens

A “dry kitchen” means that the floor of the kitchen should always be dry.

If the floor is wet, it presents a slipping hazard. Any wetness may also increase bacteria and mold. This is not hygienic, as any increase in bacteria and mold in the kitchen may contaminate the food.

As such, a dry kitchen not only ensures the safety of workers, but also helps create a hygienic environment.

## 2. Handling cooking appliances, utensils and tools

### (1) Handling a slicer

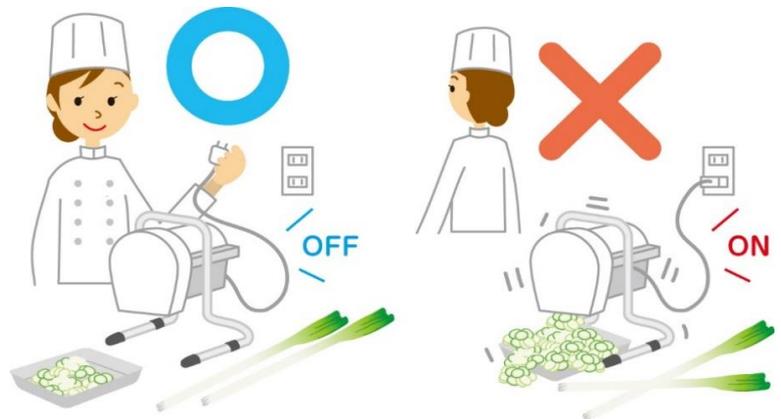
Mishandling appliances with rotary blades such as slicers or a food processors etc., can lead to serious accidents. To prevent accidents it is important that everyone has a thorough understanding of the correct work procedures such as the “pointing and calling” alert method etc. Also, anyone using these appliances should first receive the appropriate training and practice.

<Key matters to note when handling the appliances>

- (A) Do not leave the spot where the appliance is being used while working with it.
- (B) If you leave the appliance, always make sure it is turned off and the plug is removed from the electric socket.
- (C) Under no circumstances should you put your hand in the appliance while it is moving. etc..

<Key matters to note when washing the appliance>

- (A) Switch it off
- (B) Remove the plug from the electric socket
- (C) Make sure the blades have completely stopped turning before starting the work.
- (D) If there is a safety device available be sure to use it before removing the blade for washing. etc.



### (2) Handling knives

If you are using a kitchen knife, make sure you concentrate on your work and don't look around or think about other things. Also, if you are moving around with a knife, make sure you let others around you know by calling out “I'm moving through with a knife” or something similar.

It is very dangerous to just leave a knife on the work top once you have used it. When you have finished using it, always make sure you wash it and return it to the specific cupboard where it is kept.

### (3) Handling other appliances and utensils

Make sure you follow the determined work processes and procedures when using the appliance/utensil. If there is a handbook, make sure you read it before using the appliance/utensil.

### 3. Handling other utensils and tools

#### (1) Handling tableware

If tableware is stacked too high, it becomes unstable. And it is easy for it to fall over.

Tableware is made of various materials, such as earthenware or glass, with each having a different strength. Consequently, if you wash it altogether it may break or crack, so you should wash the different types separately. Do not use a piece of tableware if there is a bit missing or a crack in it.

Check carefully that there are no shards from broken tableware in any tableware standing nearby. If proper checks cannot be carried out, don't use the nearby tableware.

#### (2) Handling detergents and disinfectants

Many detergents and disinfectants need to be watered down to their respective correct concentrations. Instructions should be posted in an obvious location so that anyone can make up the correct concentrations. Care should be taken, as incorrect concentrations can cause rough hands, or result in failure to achieve the necessary degree of disinfection.

Note that alcohol sprays are rendered ineffective when mixed with water. Be sure to dry up any moisture before using them. Also, alcohol sprays should not be used near flames. The alcohol may catch fire.

## 4. Fire prevention measures

Normally fire is used in kitchen work (although not in kitchens that are fully electric). If fire is handled incorrectly it can cause a fire. Furthermore, this will put the customers and staff in the restaurant in danger.

We need to recognize the importance of dealing with fire, as it can be caused by the slightest inattention, or clumsiness at work. If you are using fire, it is completely unacceptable to leave the vicinity.

### (1) Specific fire prevention measures

#### <Smoking>

(A) Smoking should take place in a designated smoking area, outside the kitchen. It is important that smoking areas are put in order.

(B) Cigarette butts and matches should be disposed of in a special can (fitted with a lid) that has water in it. The can should be rinsed and the water changed every day (this should be checked at the end of business).

#### <Appliances that use fire>

(A) Do not leave the spot when you are frying something.

(B) Make sure the area around the gas range is organized and do not leave any flammables close to fire.

(C) Flammable spray cans should not be left in places where the temperature is high, such as in direct sunlight or near fire.

(D) Waste oil should be put into a container with a lid and kept away from fire.

#### <Electrical appliances>

(A) Do not touch electrical appliances with wet hands.

(B) When removing the power plug, hold the plug and do not pull on the cable.

(C) Switch the appliance off once you have finished with it.

(D) If the cable is worn through, do not use the appliance.

(E) Make sure dust does not build up in the spot where the power plug and the socket connect.

## (2) Extinguishing a fire

Extinguish any fire promptly in the event of an outbreak. Regularly check that you know where the fire extinguishers are located.

However, you should evacuate the premises immediately in the event of a severe fire (one where the fire spreads to the ceiling etc.).

<How to use fire extinguishers>

- (A) Pull out the safety pin.
- (B) Aim the nozzle at the source of the fire.
- (C) Squeeze the lever firmly.

## < Afterword >

Restaurant companies, restaurant associations and contributors with an academic background have all helped in creating this material on "Preparation of Food and Drink", which have been put together by the Japan Foodservice Association.

And once again we would like to offer our thanks to everyone who has helped create the material.

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Japan Foodservice Association

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