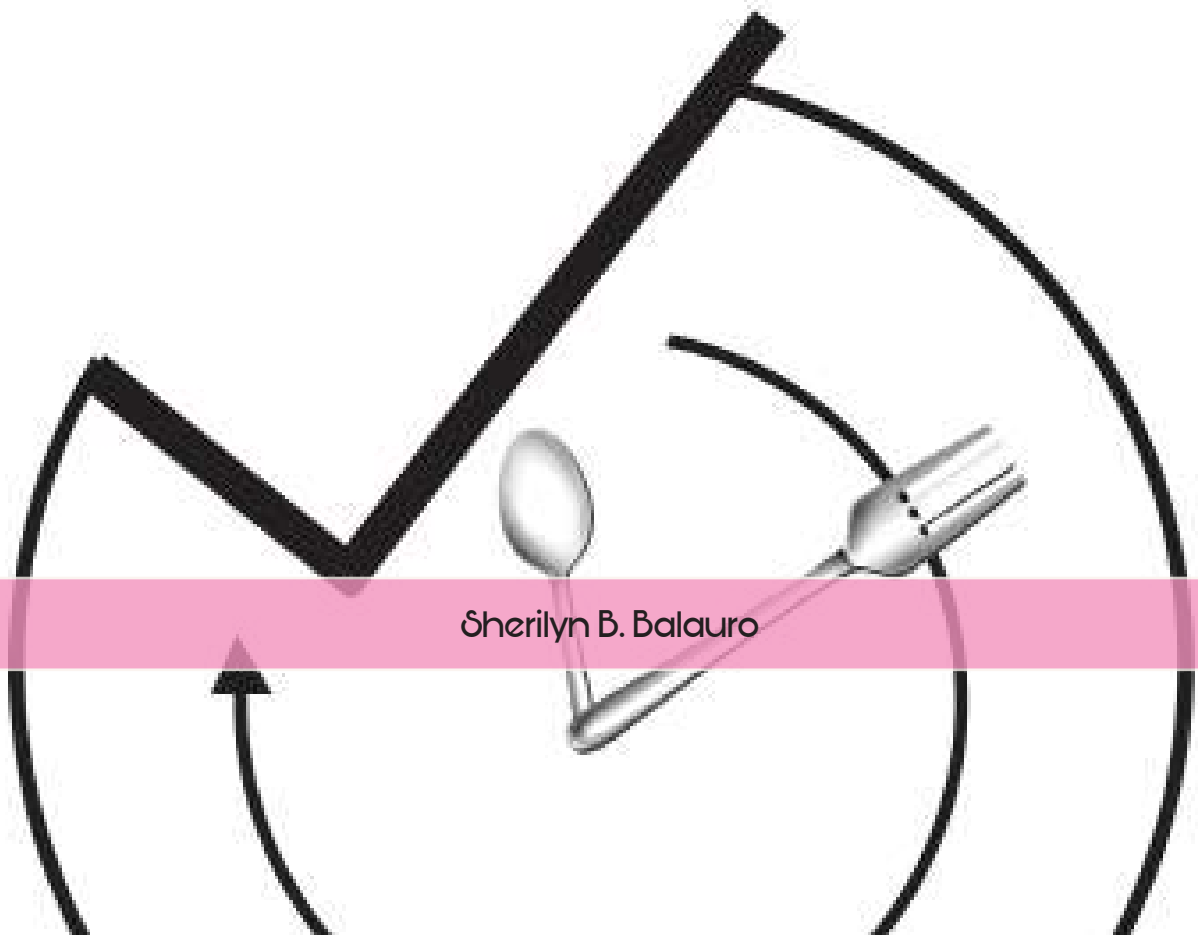


Meal Planning and Food Preparation for Homemakers

A Module for School-on-Air



Sherilyn B. Balauro

Meal Planning and Food Preparation for the Homemakers:

A Module for School-on-Air

Sherilyn B. Balauro

Benguet State University
La Trinidad, Benguet, Philippines

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MESSAGE

Benguet State University continues to pursue its commitment of providing extension services that are research results aligned with quality education and sustainable development practices. This year's University Foundation theme, "Creating Milestones toward Global Engagements: BSU @102," makes this knowledge product (KP) timely and relevant. It concretizes important steps to bring to fruition our vision of delivering quality education and client satisfaction that promotes sustainable development.

Through this module, BSU has upscaled research-based initiatives and technologies thru handy materials for use by varied audiences - from farmers, to homemakers, to fieldworkers and extensionists. By circulating this knowledge product, the development of a critical mass of farmers who adopt and champion BSU technologies will be facilitated effectively and support sustainable development and continuing innovations from the field. It is our fervent hope that in the long run this knowledge will contribute in improving quality of life and increasing income of our communities and clients.

I congratulate the Office of Extension Services' team for producing this knowledge product which is a testimony of BSU's prolific knowledge generation and continuing commitment to serve its communities. This should encourage other knowledge holders to work on translating their knowledge to tangible KPs.

Mabuhay tayong lahat!

FELICIANO G. CALORA JR.

University President
Benguet State University
27 September 2018

MESSAGE

The Research and Extension (R&E) sector's goal explicitly highlights the generation of relevant and gender sensitive research and extension programs for institutional development, sustainable communities, climate resilience, industry innovation and partnerships. To do this, there is a need to share research results in different platforms for BSU- R&E outputs to reach the widest audience possible. The knowledge products produced by the Office of the Extension Services is a step towards addressing the different client needs in this increasingly competitive and changing world. With many years of extension work, there is also an increasing recognition to capacitate Extension Service Providers aside from directly working with clients, and one way is to produce knowledge products (KPs) tailored to answer this emerging need of the sector. Many of the knowledge products developed therefore are for these extension service providers. Specifically, this school-on-air module for meal planning and food preparation for the homemakers which puts together long research work outputs as well as actual experiences, aims to facilitate the work of the university research and extension.

It is hoped that this KP will be utilized and will serve its purpose which is a handy guide for extension workers and interested audiences in the region and in the neighboring provinces. The school-on-air module is a concrete manifestation of technologies generated in the academe and translated into a language that can be used by the popular sector.

I congratulate the Extension sector for coming up with various knowledge products which is a timely response to the very fast changing and challenging prospects of the times. Being the lead University in the region, it is but proper that we also lead in this kind of engagements, while working for excellence and innovation for client satisfaction.

CARLITO P. LAUREAN

Vice President for Research and Extension
Benguet State University
27 September 2018

MESSAGE

In the journey of extension work, we gain knowledge through our exposure to different fieldwork experiences and interaction with our development partners. In the process, we generate knowledge and build on it – thereby making each one of us “knowledge holders” and is magnified in the collective knowledge of our University. One way of retaining and ensuring intergenerational transfer of knowledge is through knowledge product development. Knowledge Products or KPs, in the context of knowledge management, aim at transferring knowledges to identified users. What makes a KP unique is that it is a “call to action” by its intended users, enabling application of the knowledge easy and handy. This is the purpose of the school-on-air module developed by the College of Home Economics and Technology.

What comes with this exercise is the “communication and persuasion” package, a task taken by the Office of Extension Services (OES). In the process of doing these tasks, admittedly, the OES had several realizations: the urgency of tapping knowledge holders (who are retiring), the need to maximize resources which required a multidisciplinary lens and in the process, the need to refine some “extension processes” necessary for extension operation to adopt to the “changing times.” These were difficult tasks, but in this way, we have innovated the generation of knowledge for our intended and specific audiences.

In this age where knowledge-based economy is increasingly becoming important, we believe that knowledge generation, transmission and application is facilitated through the culture of sharing. Through this module, we hope to contribute to the circulation of technology and innovation menu while innovating further on knowledge and technologies.

RUTH S. BATANI

Director

Office of Extension Services
Benguet State University
27 September 2018

MESSAGE

I congratulate the Office of Extension Services for coming up with this endeavor of writing modules as part of the knowledge product development of the University.

I also congratulate our faculty member, Ms. Sherilyn B. Balauro, for the preparation of this module on Meal Planning and Food Preparation for Homemakers.

Meal planning is indeed a vital part of eating a healthy diet. Planning meals helps the homemaker to manage her time and makes meal preparation easier. This module would guide homemakers in planning nutritious meals and thus attain balanced diet for their families. The module provides the readers, particularly the homemakers, on principles to guide them from food purchasing to food preparation.

To our homemakers, enjoy planning the meals of your family following this module.

May God continue to bless this endeavor!

PELIN B. BELINO

Dean

College of Home Economics and Technology
Benguet State University
27 September 2018

ACKNOWLEDGMENT

I have always longed to be able to design specific materials that can help homemakers as well as community health and nutrition workers in meal planning and food preparation for their family and friends. I believe that the knowledge of homemakers coupled with passion on meal planning and food preparation are keys for a nutritionally sufficient family.

This module then would not have been possible without the guidance of the Office of Extension Services through the leadership of Dr. Ruth S. Batani whose persistence I admire. I am also grateful that I get to meet and work with a very passionate woman, Ms. Betty C. Listino, whose words keep playing in my mind. Just a thought of how she would often describe her mouth drying up just so to push and guide her learners makes me appreciate her drive and pure intentions.

I am also grateful that talented people like Ms. Nora C. Sagayo, Ms. Christine S. Fuchigami, Ms. Annette D. Tanglib, Ms. Maricel V. Dacnes and Ms. Andrea Lyn B. Marzo were very keen in improving my work and designing it in a manner I would not have thought. I am also appreciative to my students, Alma Lapisac, Roal Bentadan, Vanessa Refugia, Venus Guiod, Valeria Calpasi, Shane Lozano, Lizle Campos, and Bernalyn Chayuan who prepared pictures and drawings for the enhancement of this module. While preparing this module, there were several responsibilities that I also have to deal with and I'm highly favored to have a person who served as my reinforcement when I cannot physically attend to it. My husband, Ruben, thank you.

To God be all the Glory!

PREFACE

Preparing a good and satisfying meals for the family is actually one of the challenges of a homemaker. One may thought of having to enroll in culinary courses so as to learn food preparation and cooking and be able to acquire skill and knowledge in meal planning and preparation. There are some homemakers who are also naturally inclined when it comes to cooking but it is still a challenge on how one can efficiently utilize resources and combine appropriate foods for it to become acceptable or enjoyable for the family.

This module is designed to provide quick information for homemakers or persons responsible in preparing meals of the family. The module contains details of menu planning, food buying, storage, meal preparation, and serving of meals. Also included in this module are ways on how the homemaker can maximize leftover foods with simple recipes that they can practically prepare in their kitchens. Though this module maybe aired for wider audience, food demonstrators, and health and nutrition front liners can also use this material as a guide in developing their topics for mother's class, *Buntis* Congress or nutrition education classes.

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LESSON 1: CHARACTERISTICS AND BENEFITS OF HEALTHY FOODS

I. LEARNING OBJECTIVES

At the end of this lesson, the learners should be able to:

1. characterize healthy foods; and
2. recognize the benefits of choosing healthy foods.

II. ASSESSMENT

1. *True or False.* A combination of rice and noodle meal is nutrient-dense.
2. *True or False.* A variety of food is observed if there are energy-giving, body regulating, and body-building foods.
3. *True or False.* An infant is prone to foodborne illnesses.
4. *True or False.* Unhealthy foods are costly and these can lead to early death.
5. *True or False.* Vitamin A deficiency can be prevented with healthy foods.

III. DISCUSSION

Characteristics of a Healthy Food

A healthy food is nutrient-dense, varied and safe.

A. Nutrient-dense

A healthy food provides all significant nutrients needed by the body. This contains micronutrients and macronutrients. Micronutrients are nutrients needed by the body to enable bodily processes. Some of the micronutrients include iron from meats, iodine from seafood, Vitamin A or beta carotene from leafy vegetables, etc. They are required in small measurements such as in micrograms, milligrams, and milliequivalent. Practically, some describe that pin-head size of these micronutrients are enough to satisfy body requirements.

Macronutrients, on the other hand, are required in larger amount. They are usually measured in grams. Carbohydrates from rice and breads, proteins from pork, beef, fish and chicken, and fats from animals and plants are necessary each day to support muscles and bones to enable the body to perform work. A combination of rice and noodles eaten together has only carbohydrate even if they are in different form. The meal combination has limited nutrient diversity. Thus, nutrient-dense foods must not only contain one of the macronutrients; they also include essential micronutrients.

B. Varied

It is given that there is no single food that can supply all of the nutrient needs of the body. Thus, a wholesome food must come from different food sources. It must come from the energy-giving group such as rice, bread, root crops, etc. It must also come from body-building foods such as meat, fish, poultry, egg, milk, etc. and from regulatory foods such as vegetables, fruits, and fluids.

C. Safe

A healthy food must be free from food-borne illnesses. It must be in its freshest state, washed thoroughly before preparation, cooked properly and served in its right temperature.

Usually members of the family who have lower resistance or immunity are prone to food-borne infections. These include infants, elderly, pregnant women, and those consuming antibiotic medicines.

Benefits of Consuming Healthy Foods

Eating healthy foods allow people to achieve or maximize the capabilities of the human body. The body is likened to a machine. The functions may depreciate as its parts are being used but proper handling and care, and preventive maintenance allow the machine to fully reach its life span. Below are the benefits of healthy food.

1. They increase immunity so that the body is able to fight infections. Vitamin C and Zinc are some of the nutrients that fight bacteria.
2. They prevent nutrient deficiencies. Blindness due to vitamin A deficiency, goiter brought by iodine deficiency, hypocalcemia due to low levels of calcium in the body, and anemia due to iron deficiency can be prevented through healthy diet.

3. With proper portioning and composition of food, obesity, wasting and stunting can be prevented.
4. They reduce cost for hospitalization or health care due to diseases.
5. They prevent early death due to diseases brought about by consumption of unhealthy food. A report of the World Health Organization revealed that physical and social environments including healthy balanced diet promotes healthy aging.

LESSON 2: MENU PLANNING

I. LEARNING OBJECTIVES

At the end of this lesson, the learners should be able to:

1. understand the meaning of menu;
2. familiarize and employ themselves on the considerations in deciding a menu;
3. develop a food pattern as basis for menu planning; and
4. develop an appropriate menu that is satisfying for the family.

II. ASSESSMENT

1. *True or False.* List of favorite dishes of the family is an important tool for menu planning.
2. *True or False.* A breakfast menu must have incorporated fruit or fresh fruit juices.
3. What is the appropriate accompaniment or side dish of *Inihaw na Bangus* (Grilled Milkfish)?
 - a. Chopsuey
 - b. Seaweed and Tomato Salad with Bagoong and Kalamansi Dip
 - c. Vegetable Curry
 - d. All of choices
4. The following are the basic tools needed in menu planning, except:
 - a. Food pattern or meal schedule
 - b. Recipe compilation
 - c. List of fruits in season
 - d. Combining colors in menu
5. Which of the following is applied when combining a bitter with something sweet mildly salty?
 - a. Combining colors in menu
 - b. Achieving texture in food combination
 - c. Combining flavors
 - d. None of the choices

III. DISCUSSION

Deciding on a specific food to prepare for a particular meal period requires planning and considerations. This lesson will introduce the homemaker some concepts, principles and guides in developing acceptable meals for the family.

Considerations in Menu Preparation

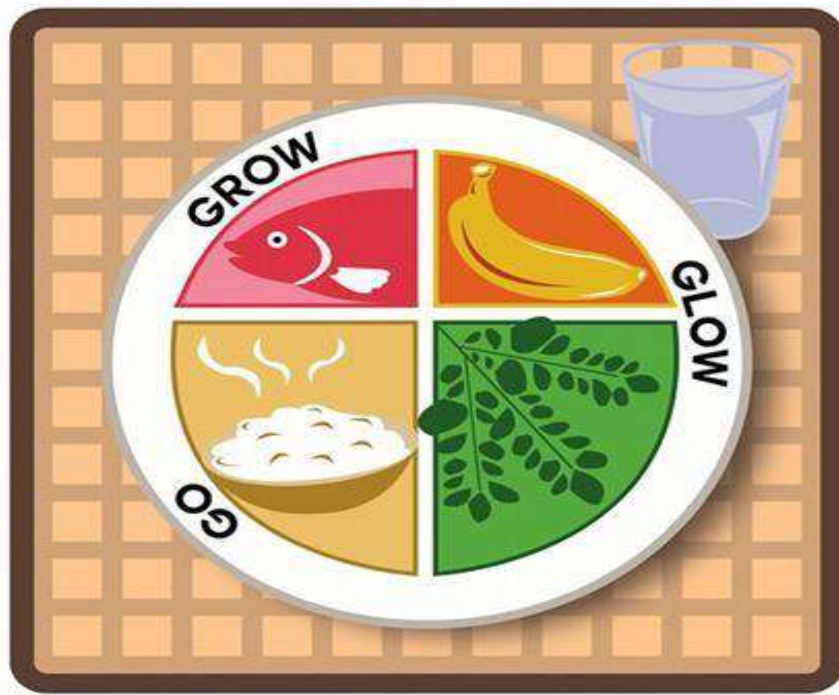
Menu is a list of dishes to be prepared at any given meal period. Just like restaurants, when a menu card is handed to a customer, it gives the list of various dishes or recipes available for the diner to order.

The menu is the heart of every commercial food establishment. It becomes its selling point. The menu entails a lot of planning or considerations so that it meets the preferences of a customer and sustains sales. Planning a healthy menu for the family is also the selling point of the homemaker where the family is the main consumer.

Benefits of a healthy food or menu extends from lessening costs for hospitalization of children or members of the family. A healthy food or menu also ensures that each need of the family member is met in consideration of their specific food preferences, likes or dislikes, nutrient needs, or even special health needs. In order to achieve a menu that suits those needs, here are things that must be considered when deciding the menu.

A. Nutritionally-balanced Meal

The goal is “we eat to live.” Eating is not merely satisfying our hunger but making sure that we maximize the nutrients out of the food. To ensure that meals are nutritionally adequate, a practical guide is to ensure that representatives of food coming from the different food sources are present on the plate. The Food and Nutrition Research Institute (FNRI) provides “*pinggang pinoy*,” which guides every Filipinos the proper proportion of food in a plate guaranteeing the sufficiency of nutrients obtain if this is consistently practiced for every meal. A general recommendation for all population was established by FNRI such that each healthy meal should be composed of 33% rice, 33% vegetables, 17% meat, and 17% fruit when proportioned on a plate.



Source: FNRI-DOST(2016)

Note:

The broadcaster may refer to the illustration to further elaborate the pinggang pinoy (Image from FNRI-DOST, 2016).

B. Economical

A common misconception is that in order to serve healthy meals, it must be expensive. This is not necessarily true since there are locally available or indigenous food that can be alternative sources of essential nutrients and they are even cheaper. An example of indigenous vegetable that is rich in beta-carotene or vitamin A is sweet potato tops. *Kalunay* or amaranth is also a good source of fiber. Practically, proper substitution is the key to maximize the budget allotted for food.

C. Manageable to prepare

The skills and time of the homemaker is necessary for the production of healthy meals. Basic knowledge on food preparation and cooking methods such as frying, broiling, baking, steaming is necessary. Having such knowledge saves time and energy.

If a home maker decides on preparing herbed fried chicken for the family, she has to achieve correct temperature and amount of oil for deep frying so as to attain a crisp fried chicken. Availability of kitchen utensils or other facilities needs to be considered too.

Without a steamer, *leche flan* may not be possible and if cooked on a different cooking vessel, it may not yield to a good result. Time allotted for food preparation and cooking also plays a significant role in providing healthy meals for the family.

More often, women or majority of homemakers join the workforce leaving very little time for food preparation. They said there is a significant increase in homemakers buying take away meals. This can be remedied with proper planning.

D. Aesthetically pleasing

Culinary experts say, “*We eat with our eyes first.*” This is greatly observed among Filipino. The usual white-colored *puto* we knew now comes in different array of colors. Purple, yellow, red, and green attract the eyes and these colors connote flavor. Purple is attached to purple yam while green-colored foods are perceived to be flavored with *pandan*.

Some would even practice adding baking soda to vegetables to retain the natural color of carrots, beans, chinese cabbage, etc. But this practice is not recommended as it destroys some of the nutrient elements of the vegetables. A good practice to cut monotonous colors is to use fancy and colored serving plates. An aesthetically pleasing meal will not only consider color but texture.

To attain texture in meals, adopting various cooking techniques such as steaming, pan-frying, grilling, etc. can be employed. Shape of food also plays a role in creating aesthetically pleasing meals. Circles, cubes, spaghetti-like, amorphous, etc. create interest to members of the family.

Basic Tools in Menu Planning

1. A food pattern or meal schedule.

Preparing a food pattern or meal schedule

The food pattern or meal schedule is a guide to the homemaker for menu planning. This tool enables the homemaker to refrain from serving

repeated meals. Monotonous meals bring “taste numbness” and resources such as time and energy rendered to prepare the meal become wasted.

For millennial homemakers today, it may be time-consuming to prepare a meal schedule. Likewise, the availability of online applications that can be used to do menu planning is another factor. However, these may not have the full features to consider the preferences, food allergies, etc. of family members. Personally doing the meal schedule is a test of ability and a fulfilling job for the homemaker. Below are steps of developing a food pattern.

- a. Come up with a list of protein-rich items such as pork, beef, chicken, fish, sea foods, legumes, ground meats, internal organs/innards, egg, cured meats, textured vegetable proteins, etc. These are the priority food ingredients taken into consideration as they dictate the possible accompaniments. These are also priced items so we do meticulous planning and be able to combine or utilize cheaper protein-rich food ingredients.
- b. Make a table where days and meal period are indicated. The table serves as a means of scheduling the protein-rich foods or the main ingredient of a main course for a specific meal period. The first column of the table is the meal period (i.e. breakfast, lunch, and dinner) then the succeeding columns are the days starting Sunday up to the last column, which is Saturday (See Table I.)

Table I. *Food pattern table*

Meal Period	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Breakfast							
Lunch							
Dinner							

- c. Using the food pattern table, write the one protein-rich ingredient specific for the day in a specific meal. Example, breakfast for Sunday will consist of egg. Main course for lunch will consist of pork then fish will be served for dinner. You do the same in the following days making sure that same protein-rich ingredient is not repeated on the same day.

For instance, if cured meat is made up of beef for breakfast, what will be served for lunch should no longer be beef as this is a repetition and it may not be appreciated by the family members. An acceptable frequency for serving legume is at least once a week.

Eggs can be served daily. Usually foods that are perishable are scheduled on the first days of the week. These include finfishes and shellfish. See sample food pattern in Table 2.

Table 2. Sample food pattern table

Meal Period	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Breakfast	Egg	Cured meat	Fish	Egg	Chicken	Processed Meat	Dried Fish
Lunch	Pork	Chicken	Ground Meat	Beef	Shellfish	Finfish	Pork
Dinner	Finfish	Legumes	Pork	Entrails/ Innards	Textured Vegetable Protein	Beef	Entrails/ Innards

2. A recipe compilation. Standardized recipes are suggested. It must indicate the measurement of ingredients, procedures as well as yield or the number of servings particular to the recipe.
3. List of fruits in season. The Department of Agriculture provides a list of fruits in season grown in the Philippines.

Table 3. Seasonal availability of some fruits in the Cordillera

Fruit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avocado		✓	✓	✓	✓	✓	✓	✓				
Banana	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Chico	✓	✓										
Tiesa										✓	✓	
Guava						✓	✓	✓	✓	✓	✓	
Langka			✓	✓	✓							
Mango					✓	✓						
Papaya	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Melon				✓	✓	✓	✓					
Kalamansi						✓	✓	✓	✓	✓		
Pinya					✓	✓	✓					
Suha	✓	✓										
Santol							✓	✓	✓			
Guyabano								✓	✓	✓	✓	
Kaimito	✓	✓	✓									
Pakwan				✓	✓	✓	✓					

Source: www.scribd.com

4. List of locally available vegetables with their prices. Usually, available vegetables in the locality are announced in radio programs with their corresponding wholesale prices. This is aired particularly in the Cordilleras for farmers to use as guide in trading their produce.
5. Food likes and dislikes of the family. Foods that any of the member of the family is allergic to must be avoided.

Planning Your Menu

A menu incorporates balance, variety, and acceptable diet. In order to develop a menu, the basis is the food pattern developed earlier and the homemaker will need the rest of other tools for planning. Here are the steps for planning a healthy menu.

1. Adopt a sequence for writing the menu. The sequence for writing the menu for breakfast, lunch or dinner is listed below. The technique of effective planning is to decide on the main dish then all other components of the menu are planned. The main dish consists of protein-rich foods. This includes pork, beef, chicken, finfishes, shellfish, legumes, entrails (internal organs), and textured vegetable proteins (e.g. tofu, tokwa, vegetable meat or vegemeat).

Breakfast pattern

Fruit/s
Main dish
Side dish
Rice/Cereal/Rootcrops
Beverage

Note: There are households incorporating vegetable dishes for breakfast. This should not limit or hinder the homemaker from including it also in the plan. Having vegetable dishes for breakfast increase the availability of fibers and vitamins in the diet.

Lunch or dinner pattern

Appetizer (optional)
Soup
Main dish
Side dish
Rice/Cereal/Root crops
Beverage
Dessert

2. At this point, the homemaker needs to refer now to the food pattern prepared earlier. In the food pattern, for example, egg is planned as main or protein dish for breakfast, while lunch is pork and finfish for dinner. Being conscious with the main ingredient for the main dish is important. Thus, look into your recipe compilation for dishes utilizing egg as ingredient. If the homemaker decides on serving plain boiled egg, this requires clever combinations with other food components since

serving it as is may not be appetizing. Write the menu in the sequence for breakfast mentioned above then refer to the samples below.

Fruit/s	
Main Dish	<i>Boiled Chicken Egg</i>
Side Dish	
Rice/Cereal/Root crops	
Beverage	

- After writing the main dish, plan on other components of the menu like fruit, vegetable accompaniment, rice, and beverage. Usually, if fruit comes in a liquid form (smoothie, pureed or juiced), it is written as beverage. Fruits that must be considered are those in season to ensure availability and lesser cost. Refer to the sample below.

Fruit/s	<i>Fresh Sliced Avocados</i>
Main Dish	<i>Boiled Chicken Egg</i>
Side Dish	
Rice/Cereal/Root crops	
Beverage	

- The side dish usually consists of vegetables or no-meat dishes. Increasing vegetables in the plate is beneficial for every member of the family as this provides fiber for colon health and B-complex vitamins that aids in the production of energy for the body. The deep green color of broccoli is appropriate with the white color of boiled egg and light green avocado.

Fruit/s	<i>Fresh Sliced Avocados</i>
Main Dish	<i>Boiled Chicken Egg</i>
Side Dish	<i>Steamed Broccoli</i>
Rice/Cereal/Root crops	
Beverage	

- Indicate or write if rice, cereals or root crop will accompany the viand. Some households consume cereals or oats for breakfast in combination with other food components. Depending on what the family practices, the homemaker is free to indicate whichever is liked by the family in the menu. As for the case of our example, a fried medley rice consisting of vegetable bits like carrots, corn and green peas are cooked together with leftover rice then pan-fried. Fat used in frying will serve as additional source of energy. The array of colors in the rice dish adds aesthetic appeal to the whole meal.

Fruit/s	<i>Fresh Sliced Avocados</i>
Main Dish	<i>Boiled Chicken Egg</i>
Side Dish	<i>Steamed Broccoli</i>
Rice/Cereal/Root crops	<i>Fried Rice Medley</i>
Beverage	

6. The last item of component to decide is the beverage. It is suggested that breakfast beverages must be hot or lukewarm and rich in energy. This is to increase availability of nutrients for the body needed throughout the day. A whole milk is best for school-children and young or adolescent members of the family.

Fruit/s	<i>Fresh Sliced Avocados</i>
Main Dish	<i>Boiled Chicken Egg</i>
Side Dish	<i>Steamed Broccoli</i>
Rice/Cereal/Root crops	<i>Fried Rice Medley</i>
Beverage	<i>Hot Choco Milk Drink</i>

7. To plan for lunch or dinner, refer again to the pattern identified earlier. Usually a one-dish meal is suggested to reduce food cost and conserve time for preparation. One dish meal are those that combine main and side-dishes. For instance, meat or fish are cooked together with vegetables. There are plenty of Filipino one-dish meals that you can incorporate in your menu plan such as Pork Menudo, Chicken Afritada, Fish Sinigang with Kangkong, Pork Giniling, Chicken Tinola, etc. If the one-dish meal has sauce or soup in it, there is no need to plan for soup just like the menu below.

Appetizer (Optional)	
Soup	
Main Dish	<i>Pork Nilaga with Cabbage and Potato</i>
Side Dish	
Rice/Cereal/Rootcrops	<i>Steamed Brown Rice</i>
Beverage	<i>Lemonade</i>
Dessert	<i>Banana Lacatan</i>

Combining Colors in the Menu

Color matters when planning your menu. Always be conscious of the colors when putting together all components. A practical guide is to

always combine earth tone color dishes (e.g. brown, gray, white, and tan) with rainbow-colored dishes.

Combining Fried Chicken (brown) and Chopsuey makes a good pair while Spaghetti with Sweet-Style Sauce (usually red) paired with Buttered Chicken is a bit dull combination. Green colored foods such as fresh herbs and vegetables are usually used as contrast for a dull-colored dish. Some tricks to enhance color is also to serve dishes in colorful serving plates.

Achieving Texture in Food Combinations

Notice that the menu we planned earlier combines several cooking techniques. These include frying, boiling, steaming, etc. Texture is described as the “mouth feel” of food. Texture is often described as crisp, smooth, soft, fresh, chewy, etc. These mouth feels can be achieved by carefully planning the combinations of cooking techniques. Variety in texture can be seen in this menu:

Onion Soup
Breaded Pork Chop
Stir-Fried Highland Vegetables
Steamed Brown Rice
Corn-Squash Maja
Coffee Arabica

Combining Flavors

Bear in mind that when combining flavors variety is more appealing than duplicating. Contrast bitter with something sweet or compliment sweet with something mildly salty. A sample below describes breakfast dishes exhibiting combination of flavors.

Cubed Fresh Papaya
Fried Salted Dried Fish
Steamed Camote Tops with Tomato Slices
Steamed White Rice
Hot Sweetened Cocoa Drink

Additional Tips in Menu Planning

1. If a certain protein-rich food is intended to be served twice or thrice for a week, this should be cooked in different manner. For example, if

chicken is scheduled on a Tuesday and Friday, chicken cooked on Tuesday may be fried and chicken on Friday may be cooked with sauce or soup.

2. If the main dish is dry, the accompaniment must be something saucy. For example, fried chicken can be accompanied with stewed vegetables.
3. The most perishable foods are scheduled for consumption in the earlier days of the week. This will include shellfishes and finfishes.

LESSON 3. PURCHASING

I. LEARNING OBJECTIVES

At the end of the lesson, the learners should be able to:

1. apply the principles of purchasing;
2. recognize the quality characteristics of some foods;
3. comprehend how to prevent miscalculations in purchasing or buying food for the family; and
4. determine how to meet nutritional needs of family members through purchasing.

II. ASSESSMENT

1. Which of the following R's of buying is not included?
 - a. Right kind
 - b. Right amount
 - c. Right person
 - d. Right source
2. A fresh fish has the following characteristics, except:
 - a. Smells sea-weedy
 - b. Eyes are clear
 - c. Has grayish gills
 - d. Scales are glossy and adhering
3. What is this list that a homemaker must bring with her as guide in buying?

4. Which of the following part of chicken is best for those having a high cholesterol?
 - a. Thigh
 - b. Breast
 - c. Legs
 - d. Wings
5. Why is marbling desirable in meat?
 - a. Flavorful meat
 - b. Because it gives crispiness

- c. Because it gives good smell
- d. Because it gives good texture

III. DISCUSSION

To complete a satisfying menu for the family, the homemaker needs to obtain the proper food ingredients. Buying food ingredients in its best conditions with the least amount of money expended as well as time and energy is a challenging responsibility for the homemaker. This requires some decision making like what, where, when, why, and how should one do his or her purchasing. To aid the homemaker there are 5 Rs involved in buying and these are quick to remember.

Right kind – the homemaker needs to know how to select the best food ingredients and must have a thorough knowledge of the different forms of food ingredients available in the market (e.g. whole fish/fillet/steaks).

Right amount – buying food ingredients that are just right in quantity saves time, energy, and money. It also ensures that each of the members of the family have equal and adequate share of nutrients derived from food.

Right source – food safety is a major concern with regards to buying food ingredients. The homemaker must be aware and able to identify those that come from unreliable food sources. Unreliable sources may include food ingredients that are sold without proper inspection by authorities. These include meats that have not undergone inspection by the National Meat Inspection Service (NMIS). Meats that were inspected by the said office usually has seals or labels in them. These meats having the NMIS seal indicate that they are safe for consumption.

Right place – it is a common observation that fresh produce sold in wet markets tend to have cheaper prices than those sold in supermarkets while grocery items such as packed sugar, flours, condiments, etc. are cheaper bought at groceries or supermarkets.

Right time – buying food ingredients that are in season are usually cheaper and the homemaker has better chance of obtaining ingredients that are better in quality. The amount of money is maximized while enjoying food in its abundance.

Market Forms and Buying Qualities of Different Food Ingredients

As discussed earlier, the homemaker must have the knowledge of the different forms of food ingredients so she could get the most out of available money, time and energy for buying. Here are market forms and qualities of food ingredients.

A. Poultry and Egg

Chicken is the most common form of poultry consumed by Filipino households. It is also considered one of the cheapest sources of protein for the family. The Chicken Situation report of 2018 published by the Philippine Statistics Authority showed an increasing trend in the production of chickens including native or improved, layer, and broilers. Per capita poultry consumption is also expected to rise and that a person consumes 12.89 kilograms chicken per year. For this portion, we shall only tackle chicken and its market forms and buying qualities.

Market forms of chicken:

1. **Dressed** – market form of chicken where feathers are removed but head and feet are intact. This is sold in whole or choice cuts like wings, leg, breast, back (soup pack).
2. **Live poultry** – these are usually kept in cages for homemakers to choose from. These are slaughtered upon request or opted to be slaughtered at home. What we see commonly in the market are native, cull, broiler-cull or layer and broiler. Descriptions for the classifications of chicken are as follows:
 - a. *Cull* – These are mature chicken and no longer lay eggs. Meat is tough and is best for stewing.
 - b. *Broiler* – They usually weigh 0.4 to 1.5 kg, young chicken at 7-12 weeks old of either sex. They have little fat with tender flesh and soft breast-bone cartilage.
 - c. *Rooster* – These are 3-5 months old chicken of either sex. It has tender meat, pliable, smooth textured skin but breast-bone cartilage is less flexible.
 - d. *Capon* – It usually weighs 3 kg, a castrated male chicken usually

8 months old with good fat covering, has tender and light-colored meat.

e. *Stewer* – It usually weighs 2.5-3 kg. A year-old mature female chicken with high fat content. Breast-bone cartilage is non-flexible and is less tender than roasters.

3. **Drawn poultry** – are chickens that were dressed and their heads and feet were removed. Their internal organs were removed but the cleaned gizzard, liver and heart were put back on.

4. **Boneless chicken** – are chickens that were dressed and drawn then all of the bone were removed without distorting the shape of the chicken. These are usually used for stuffed chicken recipes.

Some points to remember:

- The dark meat (thigh and drumstick) part of chicken is rich in B vitamins while the white meat (chicken breast) has no fats and is best for low fat diets or for those managing their high cholesterol.
- Younger chicken is usually tender with subtle flavor but has very little fat. This is suitable for frying, roasting or grilling. Older chickens are tougher but have better flavor. It is best for stewing or long cooking to tenderize muscle fibers.

Trivia: Why is chicken breast meat whiter than thigh or drumstick?

The muscles of chicken that are frequently used has higher red pigmented myoglobin. Myoglobin is an oxygen binding protein. In the case of chicken or even turkey, thigh or drumstick is mostly exercised thus there is higher myoglobin reflecting a darker meat as compared to breast which has lower myoglobin reflecting a whiter meat. However, some wild birds have darker breast because they use the muscles for flying.

Buying qualities of chicken

1. Chicken comes in different state such as fresh, chilled and frozen. Fresh chicken is slaughtered and delivered to the market with prior chilling. Those chickens that were chilled are cooled and kept at 30-36°F after they were slaughtered. This temperature is maintained to minimize microbial growth. Frozen chicken is kept at 10°F. The temperature applied is intended to keep the chicken longer.

2. Dressed chicken must be free from bruises and green spots. These are possible indications of poor or diseased chicken. It must also be free from any visible feathers.
3. Frozen chicken must be in its package. Ice crystals must not have unusual color like pinkish as this is a sign that the chicken thawed and then refrozen.
4. Fresh chicken should be well-bled, skin is intact with no blemishes and pinfeathers and it is firm. Firmness can be determined by pressing the flesh. It must bounce back when pressed.

Market forms of egg

Eggs come in different types such as:

- a. Leghorn- from leghorn or vantress chickens and varies in size. Generally, shell is white.
- b. Native Egg- comes from native chicken and is smaller in size while shell is colored.
- c. *Pugo*- comes from quail and are very small in size and has spotted shells.
- d. Duck egg – bigger than chicken egg and has grayish thick shell. These are processed into salted egg, *penoy*, *balut* and century eggs.



Leghorn



Native



Quail Egg



Duck

To differentiate the sizes in egg, these are the classifications:

- a. Jumbo – average weight is 70 grams
- b. Extra-large – average weight is 63 grams
- c. Large – average weight is 56 grams
- d. Medium – average weight is 49 grams
- e. Small – average weight is 42 grams
- f. Peewee – average weight is 35 grams

Buying qualities of eggs

1. Shells are not cracked and no foul smell. Cracked eggs may have been intruded by bacteria already.
2. Shells have a rough surface. Fresh eggs have dull-looking shells as compared to eggs which have been stored over a period of time. These usually have smooth and shiny shells. There are many ways of determining freshness of eggs. Apart from gross examination, another practical way is to do shaking. A fresh egg does not rattle when shaken as compared to staled eggs where rattling is noticeable.
3. When broken, eggs must have clear, thick, gelatinous and firm whites. The yolk is well rounded and chalazae (white cords attached to the yolk) are still visible. Stale eggs have flat yolk or easily breaks apart.

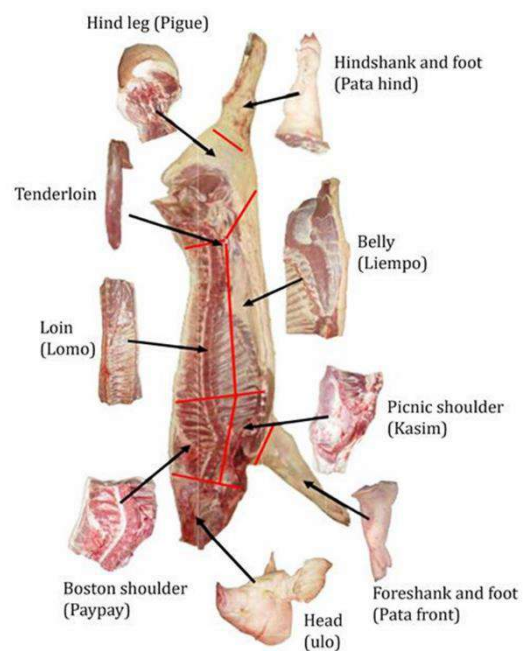
B. Meats

Meats are the most expensive food ingredients that a homemaker may have on her market list. Report tells us that per capita, pork consumption in the Philippines is 14.20 kilograms. It is said that our consumption is higher by two kilograms when compared to world-wide consumption data for pork.

For the homemaker, it is best to have an idea of the various cuts of meat. Below lists the pork and beef parts prescribed by the Philippine National Standards for Pork and Beef Cuts.

Retail cuts of pork

1. Head (ulo) is derived from the carcass by cutting through the vertebral column in a straight line through the atlas joint (atlanto – occipital joint).
2. *Casim* and *Paypay* (shoulder)
 - a. *Casim* (picnic) is sub-primal cut prepared from the whole shoulder by cutting straight through the shoulder joint parallel to the dorsal border of the shoulder, thus, separating the Boston shoulder.
 - b. *Paypay* (boston butt) is a sub-primal cut from the whole shoulder by cutting straight through the shoulder joint parallel to the dorsal border of the shoulder, thus, separating the picnic shoulder.



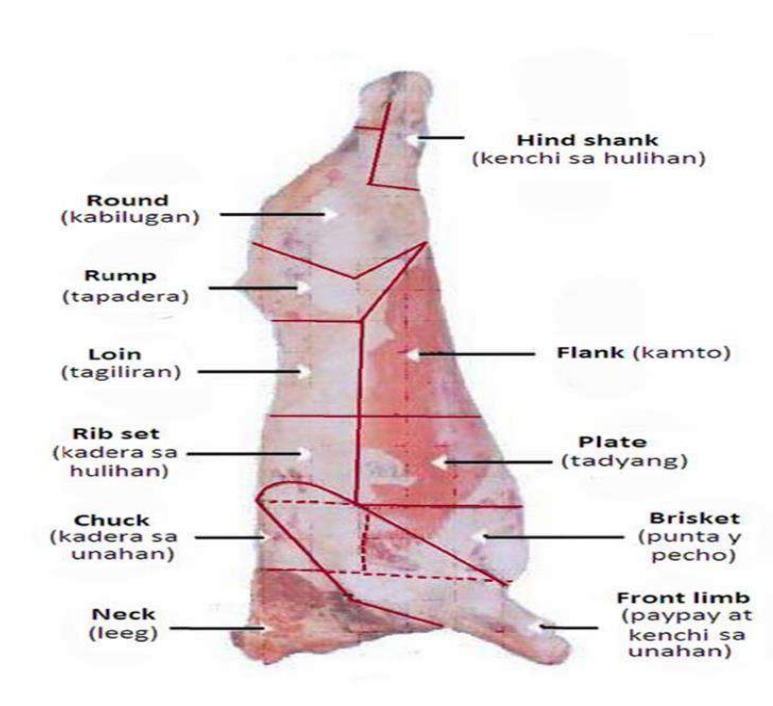
Pork Chart

3. *Pigue* (hind leg or ham) is derived from the side of a pork carcass after its attachment to the middle, between the 6th and 7th lumbar vertebrae, is cut and the hind shank and foot is detached at the stifle joint. This excludes the tail.
4. *Lomo* (loin) is prepared from the middle by making a cut approximately 2 to 3 inches from the body of the thoracic vertebrae, thus, separating the belly.
5. *Liempo* (belly) is prepared from the middle by the removal of the loin, cut approximately 2 to 3 inches from and parallel to the bodies of the thoracic and lumbar vertebrae.

6. Foreshank and foot is prepared from the shoulder by cutting it just above the elbow joint.
7. Hindshank and foot (see the pork chart) is prepared from the hind leg by cutting it through the stifle joint (knee joint).
8. Internal organs include liver, tongue, spleen, kidneys, lungs, intestines, etc.

Retail Cuts of Beef

1. *Paypay at kenchi sa unahan (front limb)* is composed of the shoulder blade, arm, and front shank bones, muscles and other tissues.
2. *Leeg (neck)* is composed of the neck bones, muscles and other tissues.
3. *Punta y pecho (brisket)* is composed of the sternum, five ribs, muscles and other tissues.
4. *Kadera sa Unahan (chuck)* is composed of the first five backbones, first five ribs, muscles and other tissues.
5. *Tadyang (plate)* is composed of the last seven ribs, navel end brisket, muscles and other tissues.
6. *Kadera sa Hulihan (rib set)* is composed of the last seven back (thoracic) bones, seven ribs, muscles and other tissues.
7. *Kamto (flank)* is composed of a rib, muscles and other tissues of the abdomen.
8. *Tagiliran (Loin)* is composed of the last backbone, first five loin bones, muscles and other tissues. The tenderloin is or may be separated first from the loin and rump by cutting along the base of the hip bone towards the wings of the loin bones down to the last backbone. The loin is then separated from the hindquarter by cutting the muscles and other tissues between the fifth and sixth loin bones detaching it from the rump.
9. *Tapadera (rump)* is composed of the last loin bone, hip bone, sacrum, muscles and other tissues.
10. *Kabilugan (round)* is composed of the leg bone (femur), knee cap, muscles and other tissues of the thigh.
11. *Kenchi sa hulihan (hind shank)* is composed of the shank bone, muscles and other tissues.



Beef Chart

Some Notes for the Homemaker:

- Cost or price of the different cuts varies as this is influenced by tenderness, amount of bone, fat, and lean meat.
- Tenderloin is the most tender beef part followed by short loin, chuck and ribs while shanks are least tender.
- Meats of lower grades (usually cheaper) may reduce eating quality.
- The nutritional value of meats is the same regardless of cut or grade.
- Buying wholesale meat cuts is an economical practice.

Buying Qualities of Meat

1. Meats should have good marbling. Well-marbled meats are tender as compared to meats with little marbling and have coarse meat fibers.
2. Meats should bear the stamp of the National Meat Inspection Services. This may not be seen in frozen meats and so it is proper that the homemaker is aware of the sources of meat being bought.
3. Fresh meats (those that has just been slaughtered and immediately brought to the market) must not have objectionable odor or discoloration. Chilled meats must have been stored after 48 hours

- through a cooling facility at 30-36°F. This process is called “ripening” to allow the meat to become tender. Frozen meats are stored at 0°F.
4. Older animals have darker muscle fibers while young animals have lighter muscle and fine-grained muscles. Younger animals are most preferred as this is most tender.
 5. Beef has a yellowish fat and carabeef is white while pork is whiter.
 6. Choose meats with more collagen.

Notes to the broadcaster:

- A collagen is the whitish color in meats that changes into gelatin during cooking thus becoming more edible.
- Marbling refer to fat deposited in the muscle (meat) that can be seen as little white steaks or drops.

Trivia: Is marbling desirable in meat? It is very desirable because a well-marbled meat when cooked produces flavorful and it gives the juiciness everyone enjoys.

C. Fish and Shellfish

The type of fish is a major consideration in buying as this influences the method of preparation. Big and fatty fish such as *tanigue* are good for grilling. Lean and small fishes are good for smoked fish.

The market forms of finfishes

1. **Live fish** – examples of these are *dalag* and *hito*. These fishes can live longer after catch. Changes like softening of the flesh and coming out of foul odor during handling and marketing of fish is not a problem. Usually these are killed shortly before cooking.
2. **Whole or round fish** – these are fishes which has been chilled after they have been caught to prevent deterioration. They are scaled prior to cooking and not scaled if intended to grill or to make fish *tapa*, boneless, or *daing*.
3. **Drawn fish** – a whole fish with entrails removed. Usually in frozen state when sold in supermarkets.
4. **Dressed fish** – are fishes which has been scaled and all entrails removed (eviscerated) including head, tails and fins.

5. **Fillets** – these come in two forms: single fillet obtained from one side of the fish and the butterfly fillet with two single fillets held together by uncut flesh and skin in the belly part of a fish.
6. **Deboned** – this is a common method in reducing fish bones so that it is conveniently consumed. Milkfish or *bangus* is a usual fish deboned using “mosquito forceps” or clinical forceps.
7. **Steaks** – these are fishes sliced in a cross-section method. Usually it is one half to two thirds of an inch thick.
8. **Sticks** – these are obtained from fillets which was further cut into sticks. In the market these are breaded and frozen and ready-to-serve.

Different market forms of shellfish



Live hito



Drawn tilapia



Whole tilapia



Filletted yellow fin



Deboned and butterfly cut bangus



Tanigue steaks



Salmon sticks

Market forms of shellfish

Shellfishes have two types. These are crustaceans, characterized by hard shell over the back of the body and along the claws but have softer shells covering the body and legs and mollusks that have hard shells over their bodies. Univalve mollusks are those with only one shell while bivalves have two shells.

1. Live – common forms of live shellfish are mussels, clams, snails, lobsters, crabs, and oysters. It is crucial to buy crabs because if these are bought for how many days from its catch, it may not have fat. A crab that is fat has no sharp teeth in its claws. It is usually sunken in its claws.

2. Whole- Shrimp is a very good example of whole shellfish available in the market. Generally, head and thorax are intact as they are sources of flavor.
3. Shucked- Common forms of shucked shellfishes are oysters, scallops and clams. These are removed from its shells.
4. Headless- these are shellfishes that are for export purposes. The removal of head is to prevent the source of microbial growth during its transport.

Buying qualities of fish and seafood

1. It is always best to buy fish and seafood in their freshest state. A fresh and of good quality fish has the following characteristics: smells sea-weedy, no ammoniacal smell, eyes are clear, flesh do not dent when pressed, has reddish to pink gills, glossy and adhering scales.
2. For bivalves, shells are tightly closed.
3. Shrimps that blackened indicate spoilage. The blackening is due to an enzyme melanosis. Fresh shrimps must be odorless or have a sea-weedy smell. Head must be intact.
4. Shucked oyster is plump without odor and has a creamy color.
5. Crabs are free from foul odor and have not turned orange. An orange-colored crab is an indication that it was super exposed and has aged.

D. Fruits and Vegetables

Vegetables are commonly served as viand or salads while fruits are eaten as appetizer, dessert or an “on-the-go” food. Both fruits and vegetables are great sources of B vitamins, vitamin A (beta carotene), vitamin C and fiber. These are very good regulatory foods preventing scurvy, increasing resistance, protecting eyesight and preventing cardiovascular diseases because of their very low fat and calorie contents and high contents of phytochemicals necessary for preventing cancers.

What are the market forms of fruits and vegetables?

1. Fresh
2. Frozen

3. Canned/Bottled
4. Dried
5. Freeze dried
6. Dehydrated

Some market forms of fruits and vegetables available in local markets



Dried fruits



Market displayed fresh fruits



Frozen mix vegetables



Bottled cherries

Buying qualities of fruits and vegetables

1. Fruits are free from discoloration, bruises and dirt.
2. Bigger sized fruit or vegetable do not guarantee better quality. Sometimes smaller fruit or vegetable tend to be tastier.
3. Fruits that are in season as they are better in flavor and cheaper.
4. Canned or bottled are labeled. Bulging or presence of leakages in canned fruits or vegetables is an indication of spoilage.
5. Vegetables are smooth skinned, firm, and fleshy.
6. Select young and deep colored vegetables. Usually deep colored vegetables indicate higher levels of phytochemicals. Phytochemicals are natural components of fruits and vegetables that binds free radicals causing cancers and other diseases.
7. Vegetables are easily snapped, which means these are freshly harvested and have not been exposed so that they get dry.
8. Root crops are firm, heavy, and have unbroken skin. Root crops that are too much dirty, with dark spots and deep eyes must be avoided.
9. Legumes are free from holes and not attacked by weevils.

Tips in Knowing How Much to Buy

Generally, the basis for determining the type as well as amount of food ingredients to purchase is based on a daily or weekly menu. The menu usually consists of different recipes having different food ingredients required. This means there will be plenty of food ingredients in the market list. For daily food consumption, a simpler manner will be introduced to the homemaker. This approach incorporates the principle of variety in terms of kind and nutrient contents and is able to directly project cost and amount of purchases. Below are the steps.

1. **Make a food plan.** A food plan is developed by the Food and Nutrition Research Institute (FNRI) to guide households in ascertaining the amount of various foods for each members of the family as influenced by age, sex, and nutrient needs. The number of columns will depend on the number of family members. A sample table is given below.

Table 1a. Sample food plan

Food List	Mother (37 y/o)	Father (40 y/o)	Son (1 y/o)	Daughter (12 y/o)	Son (4 mos.)	Total Daily	Total for 1 week (grams/pc)	Recommended Quantities to Purchase (market units)	Estimated Unit Cost	Total Cost
I. Food for Body Building Meat/Fish/poultry Legumes Eggs Milk	175 20 ½ pc --	195 20 ½ pc --	50 10 ½ pc 200	170 20 ½ pc 50	50 10 ½ pc 480	640g 80g 2 ½ pc 730g	4,480g 560g 18pcs 5,110g	4 ½ kls ¾ kl 18 pcs 5 kls	P150/kl 120/kl 5/kl 250/kl	P 675.00 90.00 90.00 1,200.00
II. Food for Energy Rice/Root Crops Sugar Oil	310 20 25	435 30 35	240 25 25	360 20 30	70 25 10	1,415 g 120g 125g	9,905g 840g 875g	10 kls 1 kl 1 L of 1 kl	50/kl 70/kl 90/kl	500.00 70.00 70.00
III. Regulatory Foods Vegetables, Leafy Fruits, Vitamin C-rich Other fruits and vegetables	 110 65 150	 110 65 150	 40 50 75	 100 130 150	 25 25 30	 385g 335g 555g	 2,695g 2,345g 3,805g	 3 kls 2 ½ kls 4 kls	 50/kl 50/kl 50/kl	 150.00 125.00 200.00
									Overall Total	P 3,240.00

- Determine the amount of food for body building, energy and regulatory foods required for each of your family members by referring to the Food Requirements of Individual in a Family (Table 1B). For example, is a mother aged 37. Her required amount for meat/fish/poultry is 175 grams per day as indicated in the Food Requirements of Individual in a Family (FRIF) table. A sample is done for your reference in Table 1a. Then refer other food items required for the mother in the FRIF.

Table 1b. Food Requirements of Individual in a Family (FRIF)

Food Group	Adult Male 20-59 y/o A.P gms	Adult Female 20-59 y/o A.P gms	Pregnant Lactating A. P gms	Infants A.P gms	Children 1-9 yrs A.P gms	Boys 10-19 yrs A.P gms	Girls 10-19 yrs A.P gms
I. Food for Body Building Meat/Fish/Poultry Milk Beans, Dried Eggs	 195 - 20 ½ pc	 175 - 20 ½ pc	 210 200 20 ½ pc	 50 480 10 ½ pc	 80 200 10 ½ pc	 175 50 20 ½ pc	 170 50 20 ½ pc

II. Food for Energy							
Rice/Cereals	435	310	375	70	240	425	360
Sugar	30	20	25	25	25	25	20
Oil	35	25	35	10	25	35	30
Rootcrops	70	50	120	25	60	120	80
III. Regulatory Foods							
Vegetable, leafy	110	110	25	25	40	100	100
Fruits, Vitamin Rich	65	65	25	25	50	130	130
Other fruits and vegetables	150	150	30	30	75	150	150

Source: FNRI-DOST

3. Add all the amount of food required for all members of the family. The sum is written under "total for daily". To determine "total for weekly", multiply "total daily" to seven days.
4. After determining the quantities of food, compute the estimated and total cost. Provide the estimated price or cost per commodity. Example, one kilo of meat/fish/poultry can be averaged at PhP 150.00 per kilo. The family needs 4 ½ kg as indicated in the example. Multiply 4 ½ kg to PhP150.00 and the product will be PhP675.00.
5. Get the total sum for all the cost of each food. This will be the budget allotted by the homemaker for her weekly food purchases.

Translating Food Plan to Market Order List

A market order list is an effective tool for listing particular food items where specifications (or description of food) and estimated cost are indicated. To prepare a market order list simply write the food item, description or required form, quantity, estimated cost for every unit, and the total cost. A sample below is provided for the broadcaster's reference. The sample makes use of the food items derived in Table 1a sample.

Table 1c. Sample of a Market Order List

Food Item	Purchasing Specification	Quantity	Cost/ Unit (PhP)	Total Cost
Pork	Liempo, fresh	1 kg	220/kg	220.00
Chicken	Breast, fresh	1 kg	140/kg	140.00
Milkfish (Bangus)	Bonuan, fresh	2 kg	150/kg	300.00
Beef	Ribs, fresh	½ kg	340/kg	170.00
Legumes	Red Kidney beans	¾ kg	150/kg	112.50
Egg	Chicken, large, fresh	18 pcs	5/pc	90.00
Milk	Powdered whole milk, in carton	5 kg	250/kg	1,250.00
Rice	c-18, baak (luma)	10 kg	50/kg	500.00
Sugar	Brown	1 kg	70/kg	70.00
Oil	Canola, in standing pouch	1 L or 1 kg	105/L	105.00
Bokchoi	Organic, fresh	½ kg	100/kg	50.00
Cabbage	Scorpio, fresh	½ kg	50/kg	25.00
Broccoli	Organic, fresh	½ kg	100/kg	50.00
Camote Tops	Fresh	½ kg	80/kg	40.00
Sayote Tops	Young, fresh	½ kg	80/kg	40.00
Pechay	Flowering, fresh	½ kg	100/kg	50.00
Overall Total Cost				₱3,212.50

LESSON 4. STORING FOOD

I. LEARNING OBJECTIVES

At the end of this lesson, the learner should be able to:

1. recognize the importance of proper storage of food;
2. understand how food are contaminated with bacteria; and
3. understand ways of proper storage of different food ingredients.

II. ASSESSMENT

Write *TRUE* if the statement is correct and *FALSE* if the statement is wrong.

1. *True or False*. Humans carry bacteria and they can contaminate food.
2. *True or False*. Discard food that has not been consumed within its predetermined shelf life.
3. *True or False*. The first in, first out storage guideline indicates that old but not expired food items must be in front row and newer food stocks are stored at the back of older food items.
4. *True or False*. Refrigerators can lengthen the shelf-life of food.
5. What is the distance from the wall if dry food items are stored on shelves?
 - a. 12"
 - b. 18"
 - c. 6"
 - d. 2"

III. DISCUSSION

Proper storage of food ingredients minimizes quality and nutrient losses. The homemaker is able to save on possible waste of resources, time, and energy. Moreover, proper storage of food is important because of the following reasons:

1. **It is economical.** With proper storage of food (e.g. frozen chicken is maintained in its frozen state while kept in the freezer. If kept at a room temperature, it encourages bacterial growth leading to spoilage), wastage is decreased thus, additional purchases are avoided.
2. **It preserves food.** Processed foods like pickled fruits and vegetables, cured meats, deboned and marinated fish etc. can be kept with its good quality through proper storage. For some processed foods, placing them inside the refrigerator does not lengthen the shelf-life but rather slows down bacteria from growing in the food.
3. **It is convenient.** Availability of food especially when they are out of season can be remedied with proper storage. Legumes, tubers, etc. can be stored for a longer period and so when needed they can just be obtained from storage containers.
4. **It is healthier.** If you do your own food storing it ensures safety of the food (especially if expiration date is checked from time to time). It also gives you readily available nutrient to meet the needs of the family, and it gives you peace of mind knowing that food is stored for future needs. Thereby, reducing mental stress.

How Foods are Contaminated with Bacteria

There are two ways by which foods are contaminated:

1. People carry bacteria in the intestine, nose, mouth and on the hands, particularly if they do not wash after using the toilet or handling pets.
2. Cross-contamination occurs when clean food becomes contaminated by bacteria from another food, e.g. raw and cooked meat on the same board container. The homemaker must be very careful about personal hygiene. She should not work on food if suffering from an infectious disease. The homemaker must also separate color-coded chopping boards to avoid cross-contamination.

Some General Guidelines for Storage

1. Food that are prepared and are intended for later consumption must be **labeled** according to the name of the food and the date by which it should be consumed or discarded.
2. Rotate products to ensure the oldest food is used first. One way to rotate products is to follow the First In, First Out (FIFO) method. This is done by

identifying the use-by or expiration date of products. Shelf products with the earliest dates in front of those with later dates and use this product stored in front first.

3. If food ingredient is not consumed by a predetermined date, throw it away. Forget about *the* “sayang” attitude. It is better to throw it out than to be hospitalized due to food borne illness. Clean and sanitize the containers before refilling the container with new product or food ingredient.
4. If food is removed from its original package put it in a clean, sanitized container, cover and always label with the name of the food and the original use-by or expiration date.
5. Do not store food in the following: near chemicals or cleaning supplies, in restrooms, furnace rooms and under stairways or pipes. There has to be a designated storage area or room in the kitchen.
6. Refrigerators do not extend the shelf life of a food ingredient but only slows down microbial growth so it is necessary to set refrigerators to the proper temperature. The setting must keep the food at an internal temperature of 41°F (5°C) or lower.
7. Do not overload refrigerators. Storing too many products may prevent good airflow and will make the unit work harder.
8. Do not put lining like aluminum foil, paper, etc. on open shelves as this restricts flow of air.
9. Never place hot food in refrigerators. This can warm the interior and put other food into the temperature danger zone.

Note to the broadcaster:

Temperature danger zone is between 5°C-57°C. This temperature favors microbial growth in potentially hazardous food like cooked potatoes, chicken, mayonnaise or other foods high in protein.

10. Keep refrigerator doors closed as much as possible. Frequent opening lets warm air inside.
11. Store raw meat, poultry, and fish separately from cooked and ready-to-eat food or below cooked and ready-to-eat food.

12. Always wrap food properly. Leaving it uncovered can lead to cross-contamination.
13. Freezing does not kill all bacteria; however, it slows their growth. Keep freezers at a temperature that will keep products frozen. This temperature will vary from product to product. A temperature that is good for one product may affect the quality of another. Never hold frozen food at room temperature. When freezing food that has been prepared on site, clearly label the food. Identify the package contents, and use-by date if there is one.
14. When storing food in dry storage, keep it away from walls and out of direct sunlight at least 12" off the floor, 18" from the ceiling, and 2" away from the wall.

General Storage Guide for Fresh Meat, Poultry, Fish, and Fresh Produce

1. When storing fresh meat, store at an internal temperature of 41°F (5°C) or lower. Wrapping it in an airtight, moisture-proof material in a clean, sanitized container.
2. When storing fresh poultry, store at an internal temperature of 41°F (5°C) or lower. Store ice-packed product as is in self-draining containers and change the ice often. Clean and sanitize the container regularly.
3. When storing fresh fish, store it at an internal temperature of 41°F (5°C) or lower. Store ice-packed product as is in self-draining containers and keep fillets and steaks in original packaging. Store frozen fish in moisture-proof wrapping.
4. Shell eggs are stored at an air temperature of 45°F (7°C) or lower. Keep eggs in refrigerated storage until use and use eggs within 4-5 weeks of packing date. Store eggs in shell with the large end up to allow proper respiration of eggs.
5. Shellfish is very perishable and so it is highly recommended that it be consumed immediately. If it has to be cooked later, this should be cleaned and wrapped to prevent odor from transferring to other food. It must not stay inside the refrigerator over a day but should be placed in a freezer.
6. When storing fresh produce, do not wash product prior to storage. Do not refrigerate fruits that still requires ripening. Bananas are not refrigerated.

Maximum Storage of Selected Foods

Refrigerated foods are those kept at 23 to 45°F. These include dairy products, meat and poultry, and fish and shellfish while frozen foods such as meats, some fruits and some vegetables are stored in the freezer at 0° to -20°F.

Storage Period of Refrigerated Foods		
Food	Maximum Storage	Remarks
Variety meats	1-2 days	Wrap loosely
Leftover cooked meats	1-2 days	Wrap or cover tightly
Gravy, broth	1 day	Highly perishable
Poultry: chicken, turkey, duck, goose, giblets	1-2 days	Wrap loosely, wrap giblets separately
Fish: fatty or lean	1-2 days	Wrap loosely
Shellfish	1-2 days	Covered container
Eggs, in shell	1 week	Do not wash or removed from container
Cooked dishes: eggs, meat, milk, fish, poultry, cream-filled pastries	Serve day prepared	Highly perishable
Fluid milk	5-7 days after date on carton	Keep covered and in original container
Butter	2 weeks	Waxed cartons, once opened wrap in tight container
Hard cheese (cheddar, parmesan, romano)	6 months	Cover tightly to preserve moisture
Evaporated milk, canned, dry milk	1 year unopened	Refrigerate after opening
Storage period of Fruits and Vegetables		
Food	Maximum Storage	Remarks
Apples	2 weeks	Room temperature
Avocados, bananas	3-5 days	Room temperature until ripe
Berries, cherries, grapes	3-5 days	Room temperature until ripe
Citrus juice	1 month	Original container
Pears, pineapples, citrus fruit	3-5 days	Room temperature until ripe; then refrigerate

Sweet potatoes, mature onions, hard rind squashes	1-2 weeks at room temperature	Ventilated containers
Potatoes	30 days	Ventilated containers
All other vegetables	5 days maximum for most; 2 weeks for cabbage, root vegetables	Unwashed for storage

Source: Quantity Food Production in the Philippines by Ruiz, et.al., 2006

LESSON 5. FOOD PREPARATION AND COOKERY PROCESSES FOR WHOLESOME FAMILY MEALS

I. LEARNING OBJECTIVES

At the end of the lesson, the learners should be able to:

1. identify the approaches and principles of cooking various food ingredients;
2. adopt some techniques of efficiently cooking various food ingredients; and
3. identify some healthy alternative ingredients for a healthier meal for the family.

II. ASSESSMENT

1. Which the following methods can help tenderize tough meats?
 - a. Cubing
 - b. Grinding
 - c. Pounding
 - d. All of the choices
2. For every inch of fish how many minutes is required to achieve a properly cooked meat? _____
3. *True or False*. A practical test for determining if roasted chicken is done is when its leg joints move easily and meat of drumstick is soft when pressed.
4. How many minutes is needed to cook hard-boiled egg? _____
5. Which among these types of salads are made with raw leafy greens using lettuce or endive families?
 - a. Cooked salads
 - b. Fruits salads
 - c. Leafy green vegetables
 - d. Combination salads

III. DISCUSSION

For this portion, the homemaker will be introduced to the basic principles of preparing different food ingredients including meat, poultry, fish, egg, vegetables, salads, fruits, sandwich, uses of herbs and spices, and marinades. Different techniques are also included to help simplify food preparation and cooking.

A. Meat Cookery

Meats are highly priced ingredients and thus require the effort and extra consideration from the homemaker. The quality of cooked meats are influenced by the amount of time and temperature applied. Usually when meats are immediately exposed to a very high temperature and exposed for too long, these yield a tough or hard meat. Of course, family members enjoy this food in its best form. Here are some principles to consider:

There are various methods of cooking meat. These include:

- a. Roasting – meat is surrounded and cooked by heated air usually in an oven (Oven temperature 325°-375°F).
- b. Broiling – cooking by direct heat from a flame, electric unit or glowing coals.
- c. Pan-broiling – makes use of heavy skillet or griddle.
- d. Braising – it is a means of creating delicious dishes from less tender cuts of meat by cooking them covered in a small amount of liquid. Meat is seared over high heat to brown it before the liquid is added and the pot is covered and the long, slow braising process begins.
- e. Stewing – meat may or may not be browned before adding liquid. Simmer until tender.
- f. Barbecuing – broiled or roast marinated meat basted with tangy sauce or marinade during cooking.
- g. Rotisserie cooking – meat is inserted into a spit and rotated in a rotisserie oven (or over live coal).

Tip for the Homemaker: high grade meats, which are usually tender meats are cooked using dry-heat method e.g. pan-broiling, broiling, and roasting while less tender cuts are cooked by moist-heat methods like braising and simmering.

The cooking time of meats are influenced by several factors. These include:

- a) **Size of the cut.** A thicker sliced meat will require longer time for cooking. See sample table below of time/weight chart for broiling Sirloin Steak for reference.

Approximate Thickness	Approximate weight (pounds)	Distance from heat (inches)	Approximate cooking time		
			Rare	Medium	Well
$\frac{3}{4}$	1 $\frac{1}{4}$ to 1 $\frac{3}{4}$	2-3	10	15	---
1	1 $\frac{1}{2}$ to 3	3-4	16	21	---
1 $\frac{1}{2}$	2 $\frac{1}{4}$ to 4	4-5	21	25	---

Source: *Understanding Food Principles & Preparation* by Brown, A (2015).

- b) Number or volume of cuts in a pan. This is especially applied to meats, which will be pan-fried or fried. If pan is loaded with large amount of meats, it usually ends soggy because of inadequate heat coupled with inadequate cooking time.
- c) Temperature of meat at a start of cooking time. Frozen meats usually require additional time for cooking and sometimes triples the amount of time required for cooking as compared to cooked at room temperature.

Some techniques of improving tenderness of tough or less tender meat

- a. Pounding- this involves tenderizing meat through the use of meat hammer or tenderizer.
- b. Scoring- this involves cutting through or making a slit through the meat to facilitate easier heat penetration into the tough meat.
- c. Cubing- cutting into small sizes (at least $\frac{3}{4}$ inch thick) to expose tough meat fibers into the heat
- d. Grinding- meats passed through a meat grinder to produce smaller meat particles. Small pieces of meats cook the fastest.
- e. Addition of salt, vinegar or enzymes- enzymes from plant particularly papaya (papain) and pineapple (bromelin) are added to tough meats. In this way, enzymes work on tough meats to become softer.

One of the problems that a homemaker may encounter in cooking meat is the excessive shrinkage. This shrinkage can be controlled by the following:

- a. use of low cooking temperature;
- b. cook only to the degree of "doneness" desired.

The degree of doneness refers to the degree of changes in the physical state of meat as it progresses from rawness to total doneness. The degree of doneness is only applicable to beef and lamb and not for pork and chicken which require thorough cooking. Thorough cooking is required for both pork and chicken to prevent ill-health effects of Trichinosis from pork and Salmonella from chicken.

It is also interesting for the homemaker to learn how to differentiate or identify degree of doneness of beef especially if the family enjoys steaks. According to Mizer (2000), here are descriptions of doneness.

Rare: cool and red in the center

Medium rare: slightly warm in the center, with deep-pink or pale-red center color

Medium: warm and pink in the center

Medium well: slightly hot and slightly pink in the center

Well-done: fully cooked, hot in the center with no pink, but still moist.

Touch test is also a technique for determining doneness. See illustration below:



Rare



Medium



Well done

B. Fish and Shellfish Cookery

Fish and shellfish are ingredients that need careful attention. These easily spoil if not processed or cooked immediately and fish cooks quickly and dries out quickly. Fish should be cooked only until the flesh is easily separated from the bones. Fat fish are best for baking and broiling. Examples of Philippine fishes that are suitable for baking or broiling are *Lapu-lapu*, *Talakitok*, *Tanguigue*, *Tilapia*, and *Bangus*. Lean fish are boiled or steamed but may also be broiled or baked if basted

frequently. Fish fried at too low temperature absorbs great deal of fat, while if temperature is too high, it browns before it is cooked through.

Broiling and grilling

Some principles for broiling or grilling fish must be understood by the homemaker so as to achieve a moist and flavorful grilled fish. Some of these are discussed below.

1. Grilling the fish 5 inches or less from the heat source.
2. Fat fish pose no problem in broiling since it does not dry immediately.
3. Lean fish is not barred from broiling, but it requires special care.
4. Fat fish is more appropriate for baking than lean fish.
5. The cooking temperature for baking fish is much lower and longer. Fish is cooked 10 minutes per inch.

Poaching and Simmering

Poaching a fish means cooking it in a flavored liquid temperature of 160-180°F. Fish is often poached in a liquid known as court bouillon. Large pieces of fish are best started in cold liquid as hot liquid encourages breaking up.

Tip for the homemaker: When serving or cooking fish, make lemon count. This enhances the sweet fish flavor.

Clams

To get rid of sand in clams, soak in a clean water with salt (1/3 cup salt per gallon of water) for 15-20 minutes. Clams are totally cooked especially when simmered when shells. Do not overcook clams as they become tough.

Shrimps

Shrimps cook quickly thus overcooking them become tough. A hint that shrimps are cooked is when they curl, the shells turn pink and their meat becomes opaque.

C. Poultry Preparation and Cookery

Follow the following steps on how to cut whole chicken.



1. Separate the leg from the breast. Snap the thigh away from the backbone until the joint pops out of the back. Cut through the remaining



2. Cut through the leg joint to create the drumstick and thigh pieces.



3. Dislocate the wings and then cut them away from the body.



4. Whack through the ribs with a heavy knife.



5. Snap the backbone away from the breast. Hold the breast in one hand and push down on the backbone with the other.



6. Cut the breast in half through the center of cartilage. Cut off any pieces of wishbone and rib that remain attached to the breast.



7. A whole chicken cut in ten pieces.

Frozen poultry should be refrigerator-thawed before cooking. Cook at moderate heat so that meat will be tender, juicy and evenly done.

Choose the cookery method best suited to the age and condition of the poultry.

- 1) Young, tender and well-fatted birds are usually broiled, fried or roasted.
- 2) Mature and lean poultry are braised in moist heat.
- 3) Old birds are stewed or boiled in water.

Meat poultry is cooked to well done. For roasted or baked poultry use meat thermometer if available to check internal temperature. For the homemaker who may not have meat thermometer, a practical guide for determining doneness of roasted chicken is when leg joints move easily and meat of drumstick is soft when pressed.

Tips on how to cook crispy fried chicken: one of the frustrations of cooking fried chicken is if it did not turn out crispy but rather soggy and crumbly. To achieve a crispy fried chicken, proper temperature at the start of cooking is important. A good frying temperature range from 325-350°F (160-170°C). If thermometer is not available, the homemaker can use the handle of a wooden ladle to test the temperature of heated oil if its ready for frying. Dip the handle onto the heated fat or oil. If small bubble appears around the ladle, it is ready for frying. The homemaker can also adopt the smoke method. Simply observe presence of light smoke at the surface of the heated oil. This indicates that the oil had reach the temperature ideal for frying. Fried chicken is totally cooked if meat separates from the bone. As in the case of drumstick observe if partly the meat separates at the tip of the bone then this is already cooked.

D. Egg Cookery

Eggs are cooked in different styles.

Cooking in Water

1. Boiling- Specific water temperature and cooking time is required for the different stages of cooking eggs. Table below shows the differences.

	212° F	190-195°F
Soft Cooked	3 mins.	6 minutes
Hard Cooked	12-15 mins.	20-25 minutes

2. Coddled eggs

Pour boiling water over the eggs, cover and allow to stand until desired doneness.

3. Poached eggs

Crack eggs onto platters and slide them into the pan of about 2-2 ½" deep of gently boiling water. Cook for 3-5 minutes. One tablespoon of salt and 2 tablespoons of vinegar are added per gallon of water to retard spread of the egg protein.

Tip for the Homemaker: to avoid cracked boiled egg, simmer only and do not bring egg to rapid boiling. Rapid boiling cause eggs to bump each other leading to cracks. Make sure that eggs also are at room temperature prior to boiling.

1. Frying

- a) *Sunny side up* – fried, not flipped over, the white cooked firm and yolk cooked medium.
- b) *Basted* – pan-fried not flipped over, the top cooked by exposing to heat from above in the salamander or by adding a small amount of water to the pan, covering, and steaming.
- c) *Over easy* – fried and flipped over, the white firm and the yolk partially cooked.
- d) *Over well (or hard)* – fried and flipped over, both yolk and white cooked firm.

2. Scrambled

It is usually added with 4 oz. of cream milk or some other liquid per pound of whole eggs.

3. Other methods

e.g. omelets, soufflés, fondues

E. Vegetable Cookery

To retain the quality of cooked vegetables, here are principles to consider;

- 1. Small amount of water is employed for boiling vegetables. This is to avoid great loss of nutrients. Cook vegetables whole or in large pieces to minimize the loss of nutrients.
- 2. Cook vegetables until just tender.

3. Color changes of vegetables can be controlled by slightly undercooking:

Red vegetables- color changes can be counteracted by the addition of small amount of vinegar.

White vegetables- by the addition of lemon juice or vinegar.

To further preserve the natural color of vegetables, blanching is an effective method. Blanching involves dropping vegetables in boiling water for less than a minute then plunging it to cold water to stop the cooking.

4. Bake vegetables with their skin whenever possible. The skin prevents evaporation or loss of nutrients.
5. Use an open kettle for cooking strong flavored vegetables i.e. cabbage, radish, etc.
6. A recommended method of cooking vegetables is stir-frying. In Chinese cuisine, this is a common method for cooking their vegetables so as to conserve nutrients. When nutrients in vegetables are overly exposed to heat, this is destroyed. This method also preserves the crispiness of vegetables and retains the sweetness of freshly cooked produce.
7. Some of the minerals and vitamins contained in vegetables dissolve readily in water and heat can be destructive to the vitamins.
8. Remove from heat when done and run small amount of cold water into them to stop the cooking process, or immerse the pot in cold water.
9. Cook the vegetables as close to the serving time so that you prevent changes in color as well as off-flavor.

Preparing Salads

Salads are generally enjoyed by family members. To understand further on how to prepare this intricate dish, its best to know its parts and types. These are:

- a) Base/Underliner: usually a leafy green such as lettuce cup or a fine layer of shredded lettuce.
- b) Body: the major ingredient or mixture of ingredients.

- c) Dressing: sometimes part of the salad more often not, but always planned to be compatible with it.
- d) Garnish: a colorful accent providing eye appeal.

Types of Salads

Ables, et.al. (n.d) identified the following types of salads:

a. Leafy green salad

These are made of raw leafy green vegetables, usually lettuce or endive families.

b. Vegetable salads

These have one or more non-leafy vegetables as their main ingredient. these do not contain any leafy vegetables at all. Commonly used: bean sprouts, carrots, celery, cucumbers, radishes, onions, mushrooms.

c. Cooked salads

These use single-cooked food as major ingredient. Cooked vegetables salads may be classified as either cooked or vegetable since they have characteristics of both. Cooked salads usually have another feature that set them apart. They include a dressing as an integral part of their makeup. The dressing provides another characteristic of the cooked salad—its cohesiveness. Commonly used ingredients are: potatoes, ham, rice, pastas, eggs.

d. Fruit salads

Any salad in which fruit predominates. Fresh fruits commonly used: apples, bananas, cantaloupe, grapes, papaya, kiwi, etc.

e. Combination salads

A combination of two or more kinds of ingredients or two or more kinds of salads. An example is Tossed green Salad, which is a combination of leafy greens and garden vegetables in season. Another example is the famous Chef's Salad which consist of leafy greens, ham, turkey, and cheese, often with vegetable or egg garnish.

f. **Gelatin salads or congealed salads**

Any salad that has gelatin in its makeup to hold it together. e.g. *Agar-agar* salad

LESSON 6. SERVING MEALS

I. LEARNING OBJECTIVES

At the end of this session, the learners should be able to:

1. identify styles of serving meals;
2. learn techniques of serving meals; and
3. learn some dining etiquette.

II. ASSESSMENT

1. Multiple Choice. It is a type of serving style where dishes are placed in large serving bowls or platters and later portioned for individual servings at the table.
 - a. American
 - b. Buffet
 - c. Family
 - d. None of the choices
2. Multiple Choice. Which among the following serving styles is appropriate during special occasions where a larger people will be served?
 - a. American
 - b. Buffet
 - c. Family
 - d. None of the choices
3. *True or False*. A table cloth or table cover is necessary not only to protect the table from surface damages but it also enhances the pleasures of eating.
4. *True or False*. When laying or setting spoons and fork, spoons are placed at the right side of the plate and fork is at the left side of the plate.
5. *True or False*. It is acceptable to use toothpick while at the dining table especially if food is stuck in between the teeth.
6. *True or False*. Never talk if your mouth is full of food.

III. DISCUSSION

The most critical part of meal planning and food preparation is the service of food to patrons or family members. With this, the homemaker is adjudged if meal is palatable and accepted by family members. Certain factors such as temperature of food, presentation, and timing of service can influence the overall quality of meal. So for this lesson, the homemaker will be taught on how to retain the quality of meals after

cooking. It is also a must for the homemaker to plan how food shall be served. Below are some styles that a homemaker can adopt:

Serving Styles

- A. **Family style.** This is a common method adopted by most Filipino families. Dishes are placed in big serving bowls and are displayed on the dining table. In a traditional way, the homemaker does the portioning of food in individual plates and usually the older members of the family like grandfather or grandmother are served first. At present, the practice is that each family member gets to serve himself or herself. Food is then passed in a counterclockwise approach. If a family is huge, meals or dishes are also portioned in such a way that wherever the family member is seated has access to the meal and may not require passing of food. Innovations have been made also to make passing of food convenient while dining. The “lazy susan” is a dining table with a rotating center table where foods are displayed and rotated by any of the family member to obtain portions of food.
- B. **American style.** This style is commonly observed in restaurants. The dishes like rice and viand are portioned in the kitchen. It is placed in single plate and served individually to each member of the family. The advantage of adopting this method is the homemaker will retain proper temperature of food and service is fast. It also minimizes the use of plates or other eating utensil. This is usually applicable in smaller spaces.
- C. **Buffet service.** This style is usually adopted for parties or celebrations at home like birthdays, graduation, Christening, etc. Different dishes are displayed in serving bowls and placed on tables enough to accommodate variety of food. Guests and family members line themselves to get portions of food and can go back to get second or third servings. The challenge for this kind of service is to create combination of dishes that have contrast in colors, texture, and kind. Maintaining temperature of foods in buffet table is also a concern. Observation shows that hot foods that had gone cold during its display are no longer palatable and can become waste.

Preliminaries of Serving Meals

Certain preparations like setting the table, completing eating utensils and decorating should be made before meals are laid on the table. These are all done to make dining enjoyable for all members of the family. It is greatly observed that eating becomes fulfilling if everything is arranged in a manner that provides convenience and beauty.

Setting the table requires common sense. This means that provide only those utensils or equipment needed for eating. Sometimes, there is the tendency of the homemaker to display unnecessary eating utensils. This may not be

practical as they can clog arrangement and may hamper the person from freely moving in the table. Proper arrangement and creativity makes a beautiful setting.

A. Laying the tablecloth or table covering

The common practice in most Filipino households is that dining tables are already covered with linen or tablecloth or with ready-made or ready-to-use table covers made with plastic and other durable materials. They also come in elegant to fancy designs and quicker to match the interest of a homemaker. Table covers are essential in complimenting especially well-prepared meals as these enhance the eye appeal and ambiance of the surroundings. Here are some guide for laying the table cloth or table covers and table mats.

1. Table cloth must be centered on the table. The overhang is 8-10 inches. Overhang refers to the extension of cloth beyond the edges of the dining table. As much as possible it must not interfere with the movement of lap.
2. Check all sides of the table if overhang are equal on all sides.
3. Use the back of your palm to flatten any wrinkles on the cloth. In this way you prevent the cloth the transfer of dirt from your hand especially when using white table cloth.
4. Arrange table mats with clear and equal distance. Mats are usually an inch away from the edge of the table. You can use the lines of your finger to estimate an inch.

B. Arranging table appointments

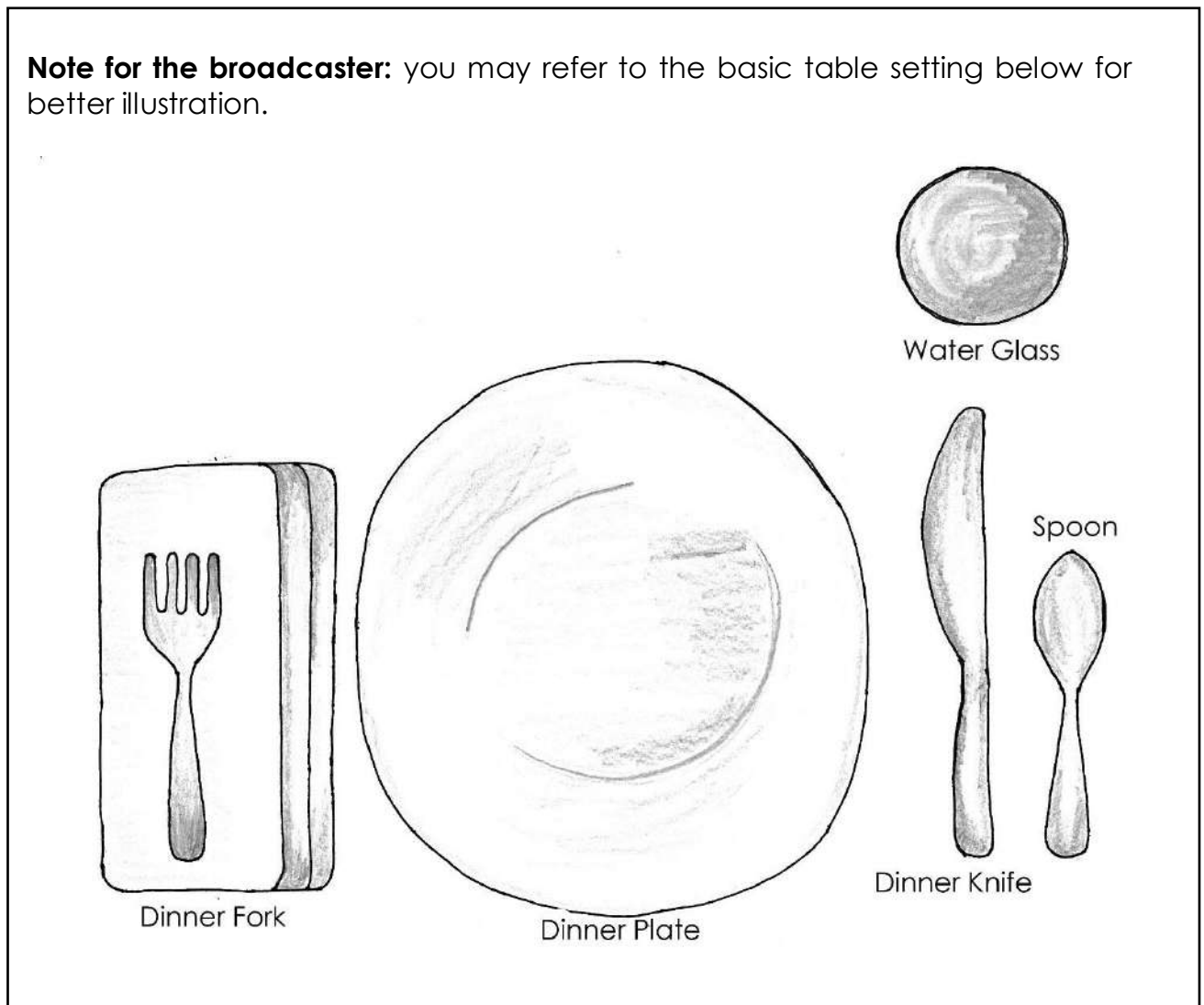
Table appointments refer to utensils that are used for dining or eating. These include dinnerware like plates, flatware like spoon and fork, and glassware like cup and saucer. For ease or convenience, most households would bring all dining accessories the table. For example, spoons and forks are placed in a holder or container for everybody's access or cup holder is placed at the edge of the table also for immediate access. The homemaker may decide to adopt the usual but again, a well-prepared meal deserves a good table setting. To aid the homemaker, here are some suggestions to arrange table appointments especially eating with guests or visitors.

1. Set the plate first. Choose dinner plates of the same design and size. A dinner plate usually is 10 inches in diameter. Place it at the center of the cover. A cover refers to the required space and arrangement of table appointments or simply the space allotted for one person

where table appointments are set. The cover measures 20-30 inches or depending on the serving style adopted. Usually, family service style may need wider cover to accommodate the different eating utensils.

2. Place the spoon at the right side of the plate with the bowl turned up and the fork placed at the left side of the plate where tines are also turned up. In cases where coffee or tea and desserts are served, additional spoons and forks are needed and that they are placed together with where the former spoon and fork are arranged.

Note for the broadcaster: you may refer to the basic table setting below for better illustration.



3. If tea or coffee cups and saucers are needed, these are laid at the right side of the plate next to the spoons.
4. Normally, in most Filipino households, steak or dinner knife is not a necessity. But if it calls for the homemaker to use one, this is placed to the right side of the plate.
5. If water goblet or water glass is to be used, this is laid at the top of the spoon or dinner knife.

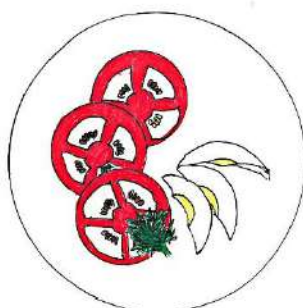
6. If table napkins will be used, the homemaker can fold them in fancy style and put it on top of the dinner plate for aesthetics.
7. Centerpiece or decorations such as flowers maybe placed at the middle of the table. If table is huge, consider making two centerpieces.

Techniques of Serving Meals

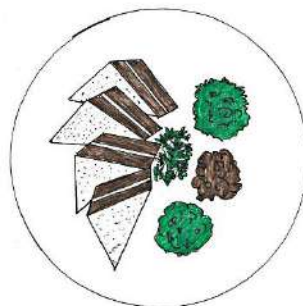
Having discussed some of the serving styles and preparations before serving meals, the homemaker is also encouraged to learn some of the basics and techniques of serving meals. Below are some techniques:

1. **Always keep food off the rim of the plate or serving dish.** This is making sure that no food particle is hanging loose on the side of the plate especially for noodle dishes. The rim part of the plate is intended to where the hand will be holding the plate so the food must not touch the hand.
2. **Arrange the food on a serving platter or plate for the convenience of the family member.** The food should be easy to handle and serve, so that one portion can be removed without ruining the arrangement.
3. **Maintain unity.** A simple approach of adopting unity in serving meals is to consider the color of food and the serving platters used. Dark colored food may not look good if served in a dark platter. Bright colored and dark food is always best to serve in white platters. Another approach of adopting unity in arranging food before serving is to follow the shape of the plate. If plate comes in round shape, the food may mimic the size. For example, cucumber and tomato salad cut in circles maybe arranged in a round platter conforming to the shape of the round platter. It's like a circle in a circle.

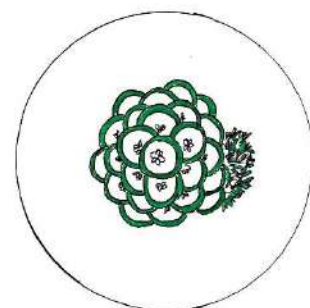
Note to the broadcaster: Refer to illustration for reference.



Odd shapes can form a circular pattern



Symmetrical arrangement for a salad-sandwich plate



Circles in a circles on a Circle

4. **Use a garnish to accentuate a dish.** Garnishes that are to be used should be edible. Common garnish used are parsley or cilantro leaves but there are some flowers that are edible and can also be used as garnishes. These include dandelions, rose petals, nasturtium, etc. Other herbs are also used as garnishes like rosemary, thyme, sage, basil, dill leaves, etc.
5. **Do not drown the food with its sauce or gravy.** Like for instance, sweet and sour fish will look soggy if there's too much sauce added in it. Certain dishes will also require that gravy or sauce must be served separately. Chicken for instance is best served with gravy in a separate serving plate or bowl.
6. **Make presentation simple.**
7. **Serve food when it is close to eating.** This is to maintain the right food temperature. When food is served at its appropriate temperature, it adds to the overall palatability. A homemade ice that has melted may no longer be delectable.
8. **Portion food properly and place in appropriate serving platter size.** If food is served in a very small plate, it may look crowded, jumbled and messy while when served in a too large plate, food may also look scanty.

Table Etiquette

To increase the pleasure of eating family meals, some manners need to be observed even during ordinary family meals or on special occasions hosted by the family. These habits or acceptable manners in dining or eating must become a habit from young to old members of the family.

The following are suggestions by *Claudio and Joves* (2001) to make eating pleasurable.

A. On Social Conversations

1. While eating, do more listening and observing than talking. Do not monopolize the conversation and choose suitable general topics.
2. Choose pleasant topics like sports, good movies, etc. Refrain from bad news like death, crimes, etc.
3. Modulate your voice. Speak softly and laugh quietly or a simple smile will suffice.
4. Do not talk with your mouth when it is full of food.
5. After meal, do not eat and run. Stay at your chair for few minutes and

socialize or simply be in accompany with family members who have not finished their meals yet.

6. Keep eye contact when listening or talking to someone. As much as possible never correct someone's grammar or pronunciation.

B. General Rules of Table Etiquette

1. Sit up straight without being rigid. Do not slump your back.
2. When not in use, rest your hands by your side or lap, never rest the elbows on the table.
3. Eat slowly with your mouth closed. Do not smack your lips.
4. Sip your soup quietly without slurping it.
5. Use your spoons or fork quietly. Do not scrape the plate.
6. When not in use, rest your flatware on the saucer or plate. Never hold your knife or spoon in mid-air while conversing or never point or wave when talking.
7. Never blow your nose. If need be, go to the restroom.
8. When food is stuck in your teeth, do not use toothpick at the table nor use fingers to remove them. Rather ask to be excused and go to the restroom.
9. Do not drink while your mouth is still full.
10. Do not push your plate to the center when done eating.
11. Help yourself to the platter of food nearest you. If you need food a bit far from you ask someone to "please pass the _____" (rice or viand) and say thank you.
12. Compliment the person who cooked the delicious meal.

REFERENCES

- Ables, N.P et al. *N.D.* Institutional Management. Institute of Human Nutrition and Food- College of Human Ecology: University of the Philippines, Los Banos, Laguna.
- Arroyo, E.J. et.al. undated. Fundamentals in Food and Nutrition. Volume 1 Foods and Institutional Management. College of Human Ecology, University of the Philippines, Los Banos, Laguna, Philippines.
- Brown, A. 2015. Understanding Food: Principles and Preparation. 5th Ed. Stamford, Conn.: Cengage Learning.
- Claudio, V. and Joves, L. 2001. Meal Management and Table Service. Manila: Merriam and Webster publishing Co.
- Drummond, K. and Lisa M. Brefere. 2001. Nutrition for Foodservice and Culinary Professionals. John Wiley and Sons, Inc. United State of America.
- Food and Nutrition Research Institute-Department of Science and Technology. 2016. Pinggang Pinoy (Heathy Food Plate for Filipinos). Retrieved from <http://www.fnri.dost.gov.ph/index.php/tools-and-standard/pingganag-pinoy>.
- Leocadio, C.G. 1998. Essentials of Meal Management. QC. RP: UP Publishing Ruiz, A.J. et al. 2006. Quantity Food Production in the Philippines. Merriam-Webster Bookstore, Inc. Manila: Philippines.
- Mizer, D. et.al. 2000. Food Preparation for the Professional. 3rd ed. John Wiley & Sons Inc.
- Ruiz, A.J. et al. 2006. Quantity Food Production in the Philippines. Merriam-Webster Bookstore, Inc. Manila: Philippines.
- Soriano, N. 1982. Guide to Meal Management and Table Service. Rex Printing Company, Inc. Quezon City, Manila, Philippines (reprinted in 2000).
- Philippine National Standards- Bureau of Agriculture and Fisheries. Retrieved from www.bafps.da.gov.ph.
- Poultry consumption per capita in the Philippines from 2006 to 2025. N.D. Retrieved from [https:// www. statista. com/ statistics/](https://www.statista.com/statistics/)

756769/philippines-poultry-consumption-per-capita/.

Baguio Sunstar (March 30, 2011).

APPENDIX

ASSESSMENT QUESTION ANSWERS

Lesson 1

1. True or False. A combination of rice and noodle meal is nutrient-dense.
2. True or False. A variety of food is observed if there are energy-giving, body regulating, and body-building foods.
3. True or False. An infant is prone to foodborne illnesses.
4. True or False. Unhealthy foods are costly and these can lead to early death.
5. True or False. Vitamin A deficiency can be prevented with healthy foods.

Lesson 2

1. True or False. List of favorite dishes of the family is an important tool for menu planning.
2. True or False. A breakfast menu must have incorporated fruit or fresh fruit juices.
3. What is the appropriate accompaniment or side dish of *Inihaw na Bangus* (Grilled Milkfish)?
 - e. Chopsuey
 - f. Seaweed and Tomato Salad with Bagoong and Kalamansi Dip
 - g. Vegetable Curry
 - h. All of choices
4. The following are the basic tools needed in menu planning, except:
 - a. Food pattern or meal schedule
 - b. Recipe compilation
 - c. List of fruits in season
 - d. Combining colors in menu
5. Which of the following is applied when combining a bitter with something sweet mildly salty?
 - a. Combining colors in menu
 - b. Achieving texture in food combination

- c. Combining flavors
- d. None of the choices

Lesson 3

1. Which of the following R's of buying is not included?
 - e. Right kind
 - f. Right amount
 - g. Right person
 - h. Right source

2. A fresh fish has the following characteristics, except:
 - e. Smells sea-weedy
 - f. Eyes are clear
 - g. Has grayish gills
 - h. Scales are glossy and adhering

3. What is this list that a homemaker must bring with her as guide in buying?

4. Which of the following part of chicken is best for those having a high cholesterol?
 - a. Thigh
 - b. Breast
 - c. Legs
 - d. Wings

5. Why is marbling desirable in meat?
 - a. Flavorful meat
 - b. Because it gives crispiness
 - c. Because it gives good smell
 - d. Because it gives good texture

Lesson 4

Write *TRUE* if the statement is correct and *FALSE* if the statement is wrong.

1. True or *False*. Humans carry bacteria and they can contaminate food.

2. True or *False*. Discard food that has not been consumed within its predetermined shelf life.

3. *True or False*. The first in, first out storage guideline indicates that old but not expired food items must be in front row and newer food stocks are stored at the back of older food items.
4. *True or False*. Refrigerators can lengthen the shelf-life of food.
5. What is the distance from the wall if dry food items are stored on shelves?
 - a. 12"
 - b. 18"
 - c. 6"
 - d. 2"

Lesson 5

1. Which the following methods can help tenderize tough meats?
 - a. Cubing
 - b. Grinding
 - c. Pounding
 - d. All of the choices
2. For every inch of fish how many minutes is required to achieve a properly cooked meat? _____
3. *True or False*. A practical test for determining if roasted chicken is done is when its leg joints move easily and meat of drumstick is soft when pressed.
4. How many minutes is needed to cook hard-boiled egg? 12-15 minutes
5. Which among these types of salads are made with raw leafy greens using lettuce or endive families?
 - a. Cooked salads
 - b. Fruits salads
 - c. Leafy green vegetables
 - d. Combination salads

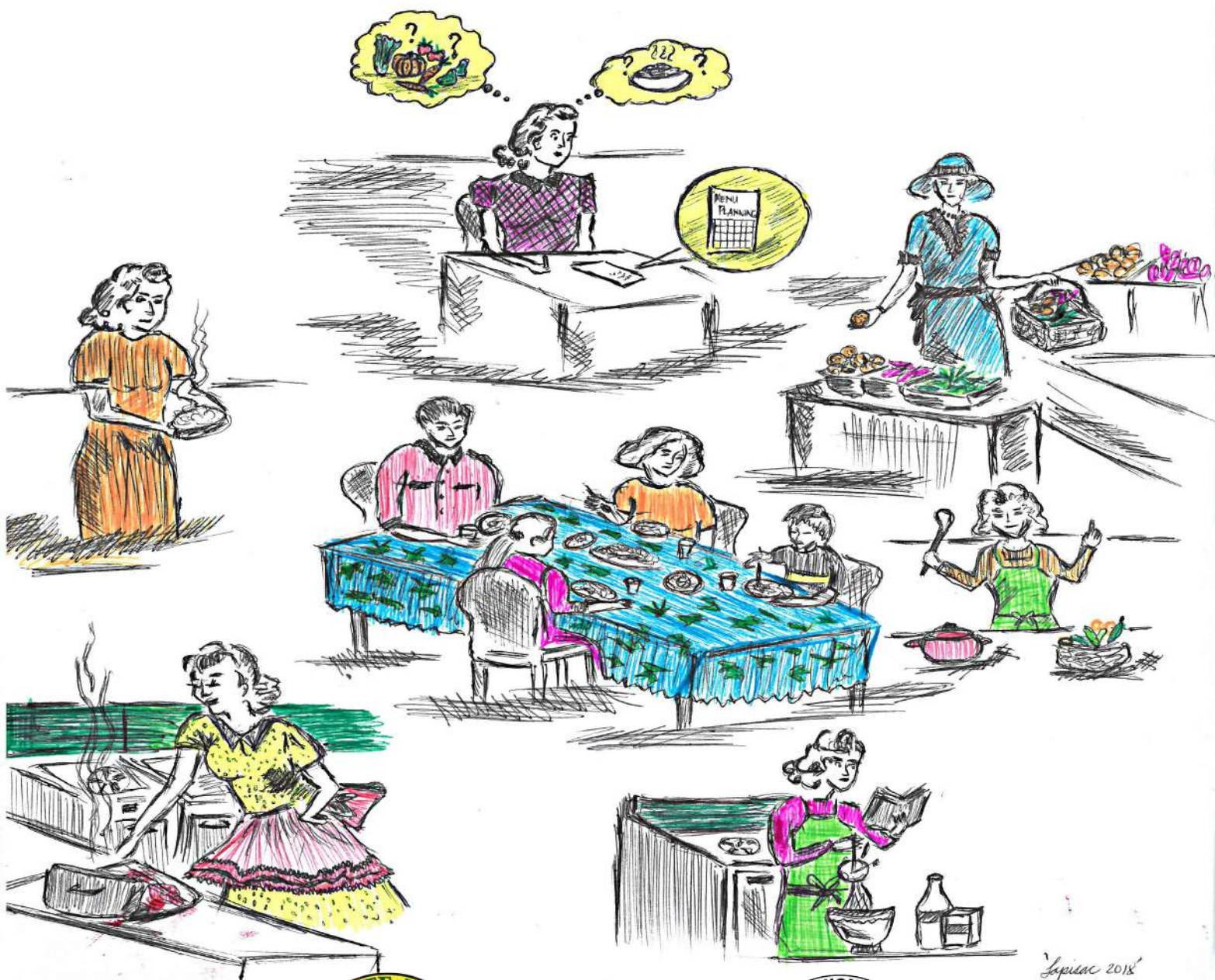
Lesson 6

1. Multiple Choice. It is a type of serving style where dishes are placed in large serving bowls or platters and later portioned for individual servings at the table.
 - a. American
 - b. Buffet
 - c. Family
 - d. None of the choices

2. Multiple Choice. Which among the following serving styles is appropriate during special occasions where a larger people will be served?
- a. American
 - b. Buffet
 - c. Family
 - d. None of the choices
3. True or False. A table cloth or table cover is necessary not only to protect the table from surface damages but it also enhances the pleasures of eating.
4. True or False. When laying or setting spoons and fork, spoons are placed at the right side of the plate and fork is at the left side of the plate.
5. True or False. It is acceptable to use toothpick while at the dining table especially if food is stuck in between the teeth.
6. True or False. Never talk if your mouth is full of food.

ABOUT THE AUTHOR

Sherilyn Bilango Balauro is a faculty of the Department of Human Nutrition at Benguet State University. She handles courses on meal management, food service systems, and native and international cookery. She is passionate in teaching especially wholesome food and nutrition and how it can be practically adopted to everyday food choices. To fully expand how she can incorporate traditional food and preparation in her work as a teacher and extensionist, she is also engaged in several studies such as on the standardization and optimization of *etag* processing for commercialization, and the role of traditional food crops in the nutrition and well-being of a semi-subsistent community in Benguet, etc. She aspires to continually promote simple and healthy cooking. She may be contacted through her email address at sbalauro2014@gmail.com.



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