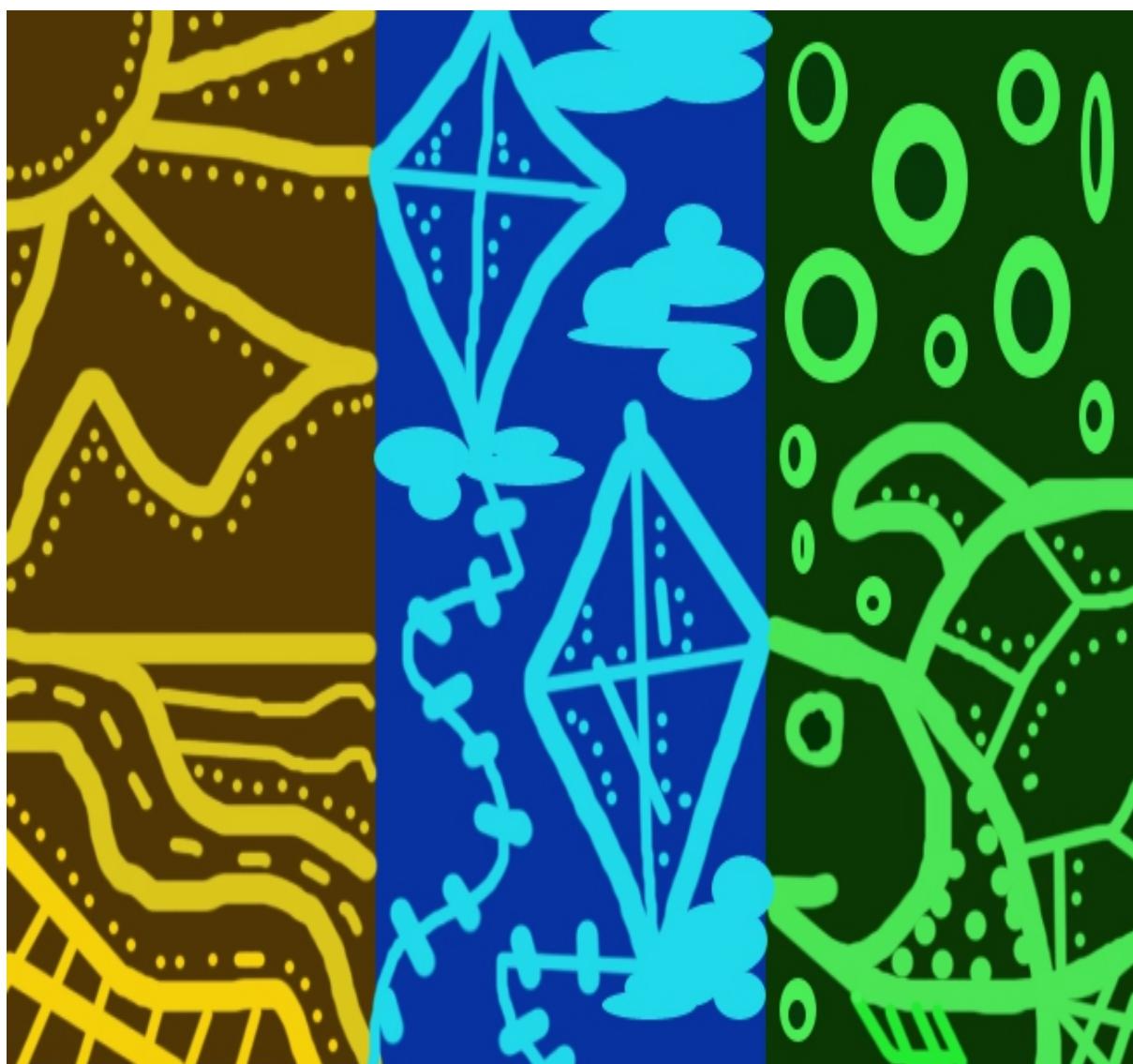


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# HOPE 4



**Health Optimizing Physical Education (HOPE 4) – Grade 12**  
**Quarter 3 – Module 4: Diet and Nutrition Assessment**  
**First Edition, 2020**

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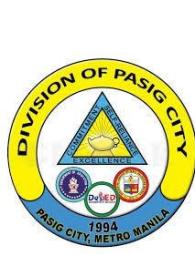
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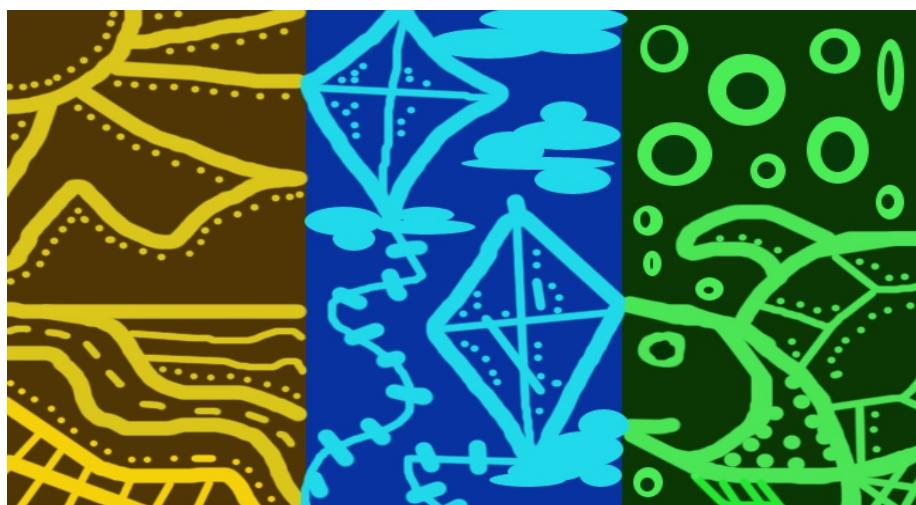


# HOPE 4

Quarter 3

## Self-Learning Module 4

**Diet and Nutrition Assessment  
(Recreational Activities)**



## Introductory Message

For the Facilitator:

Welcome to the Health Optimizing Physical Education (HOPE 4) Self-Learning Module 4 on Diet and Nutrition Assessment

This Self-Learning Module was collaboratively designed, developed and reviewed by educators from the Schools Division Office of Pasig City headed by its Officer-in-Charge Schools Division Superintendent, Ma. Evalou Concepcion A. Agustin, in partnership with the City Government of Pasig through its mayor, Honorable Victor Ma. Regis N. Sotto. The writers utilized the standards set by the K to 12 Curriculum using the Most Essential Learning Competencies (MELC) in developing this instructional resource.

This learning material hopes to engage the learners in guided and independent learning activities at their own pace and time. Further, this also aims to help learners acquire the needed 21st century skills especially the 5 Cs, namely: Communication, Collaboration, Creativity, Critical Thinking, and Character while taking into consideration their needs and circumstances.

In addition to the material in the main text, you will also see this box in the body of the module:



### **Notes to the Teacher**

This contains helpful tips or strategies that will help you in guiding the learners.

As a facilitator you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Moreover, you are expected to encourage and assist the learners as they do the tasks included in the module.



For the Learner:

Welcome to the Health Optimizing Physical Education 4 (HOPE) Self-Learning Module 4 on Diet and Nutrition Assessment.

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning material while being an active learner.

This module has the following parts and corresponding icons:



**Expectations** - This points to the set of knowledge and skills that you will learn after completing the module.



**Pretest** - This measures your prior knowledge about the lesson at hand.



**Recap** - This part of the module provides a review of concepts and skills that you already know about a previous lesson.



**Lesson** - This section discusses the topic in the module.



**Activities** - This is a set of activities that you need to perform.



**Wrap-Up** - This section summarizes the concepts and application of the lesson.



**Valuing** - This part integrates a desirable moral value in the lesson.



**Posttest** - This measures how much you have learned from the entire module.





## EXPECTATIONS

### Most Essentials Learning Competencies:

Self-assesses health-related fitness (HRF) status, barriers to physical activity assessment participation and one's diet

**At the end of the module, the learners will be able to:**

1. define the meaning of nutritional assessment and balanced diet
2. enumerate five components of balanced diet and four categories of nutritional assessment
3. value the importance of nutritional assessment thru journal entry.



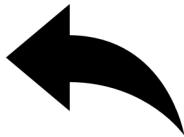
### P R E – T E S T

**Directions.** Choose your answer on the choices below.

1. They boost the immune system, support normal growth and development and help cells and organ to do their job
2. They are one of the building blocks of body tissue and can also serve as a fuel source.
3. It is vital for all known forms of life, even though it provides no calories or organic nutrient.
4. Macronutrients that provides fuel for the central nervous system and energy for working muscles.
5. A major storage form of energy in the body

Carbohydrates  
Fats  
Protein  
Vitamins and Minerals  
Water





## RECAP

Can you still remember Go Grow and Glow foods. Ok, let's see if you can still identify the following.

- |          |              |            |              |
|----------|--------------|------------|--------------|
| 1.Breads | 4. rice      | 7. pasta   | 10.potatoes  |
| 2.Meat   | 5. eggs      | 8. fish    | 11.peanuts   |
| 3.Fruits | 6.vegetables | 9.seaweeds | 12 shellfish |



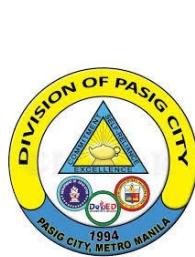
## LESSON

The first step towards a better diet is finding out where you're already making good choices and you need to make a change. The food that the body takes in equally vital for a person to be fit. Good eating does not just end on the plate, it also includes the correct eating habit, behavior or pattern that one has established. The right amount and kind of food certainly will fuel the mind and body to carry out the day to day tasks. This starts with having a regular eating time throughout the day. Eating regularly helps prevent too much hunger, which often results in over eating the next meal. Eating in some places other than the dining table allows you to do other things while eating. For instance, if one eats in front of the television, then most likely, the focus will be on the TV show and not on the meal, leaving the person unaware of how much food was consumed, and more calories on a later meal.

Some people also crave, and thus do not eat for hunger but for pleasure. Fluctuation of blood sugar level is one cause of food craving, therefore, one way to avoid food craving is by controlling the blood sugar level through avoiding or limiting the consumption of sugar and processed foods and by regular exercise.

Food also serves as a comfort to some who are going through emotional problems. The best way to break emotional eating is to look for alternative activities one loves to such as making crafts or doing sports.

In an outdoor activity like trekking, nutrition is also important. The body will be needing enough fuel to meet the demands of the activity. Fueling the body means increasing the amount of glycogen or stored glucose in the body to help to help one get going longer before "hitting the wall" – when carbohydrates reserve are depleted such that person cannot reach the desired highest level of performance anymore.



On top of the list of things, we need to plan for the fuel for the body – food. The body's need for food depends on the distance of trek, temperature and mountain elevation. The fat in the body supplies a lot of energy and is slowly burned, but it needs to be replenished by food. If one runs out of food, the body consumes muscles for food and this results in fatigue and a slowdown in performance.

Healthy eating is not about depriving oneself, starving to become unrealistic thin or denying ourselves of food we love. The right way is to achieve a balanced diet which contains carbohydrates, protein, fats, vitamins and minerals in the right proportions.

#### Components of well – balanced diet

##### 1. Carbohydrates

A vital source of energy, carbohydrates comprises about 60% of an individual's diet. Most of energy needs met from carbohydrates. Choose wisely from complex carbohydrate sources such as whole grains, wheat, millets rice etc.

##### 2. Protein

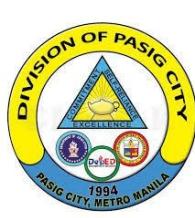
Protein is needed to assist your body to repair cells and make new ones. It is also essential for growth and development during the various stages of life. About 25% of daily calories should come from protein found in legumes – like kidney beans, black eyed beans and chick peas. Milk and milk products like – curd and yoghurt are also source of protein. For the non-vegetarians, good sources include eggs, fish and lean meat.

##### 3. Fats

Fats contribute to about 15% of daily caloric needs and are a major energy source. They are a major energy sources. They are also vital for storing and providing vitamins and synthesize hormones. Some of the good sources of fats for one's daily diet can come from polyunsaturated fats such as, flax seeds, sunflower seeds etc., monounsaturated fats such as olive oil, sesame oil etc., and saturated fats such as butter – however, remember to use these in moderation.

##### 4. Vitamins and Minerals

Micronutrients – vitamins and minerals support metabolism, nerve and muscle function, bone maintenance and cell production. Fruits and vegetables are the major sources of vitamins and minerals including potassium, iron, folate, vitamin A and vitamin C. Vitamins are organic compounds our body needs to perform all its essential functions – like growing tissues, regulating metabolism and maintaining a healthy immune system. Sometimes the word vitamins is also used as a colloquial reference to minerals, fatty acids, amino acids and the 13 actual vitamins humans requires of course with a list of vitamins and compounds our body needs. Vitamins are best when they come from food, versus a dietary supplement, so, eating real unprocessed, whole food in our diet, we're getting the



best of these vitamins. Make it a ritual like we do with our daily spoonful of our favorite wonder food. Vitamin B -12 is one of the most important essential vitamins.

## 5. Water

Life without water is unimaginable. A major nutritional component that helps regulate body temperature, lubricate our joints and protects our major organs and tissues. Water also aids to transport oxygen throughout your body. Make sure that you drink at least 8 glasses of water every day.

A **nutrition assessment** is an in – depth evaluation of both objective and subjective data related to an individual's food and nutrient intake lifestyle, and medical history. The data for nutritional assessment falls into four categories: anthropometric, biochemical and dietary. It is used to determine the nutritional status of individual or population group as influenced by the intake and utilization of nutrients (Gibson 2005).

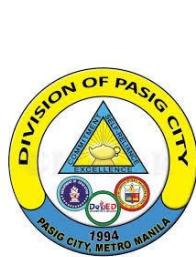
Nutritional status represents meeting of human body needs for nutritive and protective substances and reflection of these in physical, physiological and biochemical characteristics, functional capability and health status i.e... nutritional assessment, is essential for identification of potential critical nutrients (at population groups at risks of deficiency); for emulation of recommendations for nutrients intake; development of effective public health nutrition(PHN) program for nutrition related diseases prevention.

Nutritional assessment can be defined as the interpretation from dietary, laboratory, anthropometric and clinical studies;

1. Anthropometric assessment are a series of quantitative measurement of the muscle, bone and tissue used to assess the composition of the body. The core elements of anthropometry are height, weight and body mass index (BMI), body circumferences (waist, hip and limbs) and skin fold thickness

2. Biochemical assessment uses laboratory measurement of serum protein, serum micro nutrient level, serum lipids and immunological parameters to assess general nutritional status and to identify specific nutritional deficiencies

3. Clinical assessment refers to collecting information and drawing conclusions through the use of observation, psychological test, neurological test and interviews to determine what the person's problem is and what symptoms he / she is presenting. Nutrition screening is used to identify malnourished individuals. It can be carried out on the whole population on specific subpopulation at risk or on selected individuals (Gibson 2005) Nutrition interventions are carried out on population subgroups at risk, which are identified during nutrition survey or screening. Supplementation and fortification are some example of nutrition interventions.



#### 4.Dietary assessment

Assessing food and fluid intake is an essential part of nutrition assessment. It provides information on dietary quantity and quality, changes in appetite, food allergies and intolerance and reason for inadequate food intake. This results are compared with recommended intake such as recommended dietary allowance (RDA) to counsel clients on how to improve their diets by food intake and nutrition or treat conditions affected by food intake and nutritional status (e.g., cardiovascular disease, cancer, obesity, diabetes and hyperlipidemia). 24 hour recall is one of the common ways to assess dietary intake. This method was designed to quantify the average dietary intake for a group of people, although it can be used to assess individual nutrition intake. During a recall, a client is asked to remember every detail to remember every food and drink consumed during the previous 24 hours. The method can be repeated on several occasions to account for day – to – day variation in intake. Health care providers may prompt clients to remember what they ate or drank by time periods or activities (e.g., just after waking up, before going to bed) or to estimate portion sizes by looking at household measures, food models, household utensils, photographs or actual food.



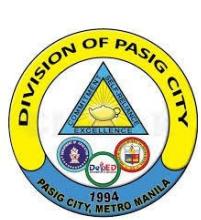
## A C T I V I T Y

### Activity : You Are What You Eat

Our bodies contain similar nutrients to the food we eat. Therefore, depending on what kind of food we consuming and the contents of that food, we are affecting our nutrients levels and over all, our health.

On a one whole sheet of a bond paper, make a poster out of this slogan

You are What You Eat





## W R A P – U P

**We Are what we eat** because each food **we** choose **is** a collection of molecules of information – messages to the body. **We** digest or breakdown the food into smaller units to help “run the operations” of the body.

**On your notebook draw the recommended food plate for Filipinos**



## V A L U I N G

Nutritional assessment should commence at diagnosis and then be carried out longitudinally during treatment as well as during survivorship. We have intuitively known for a long time that poor nutritional status is associated with morbidity and mortality

Answer this question in your journal, at least three paragraphs:

**What is the importance of nutrition assessment?**





## POST TEST

Direction: Choose your answer on the choices below.

1. An in depth evaluation of both objectives and subjective data related to an individual's food and nutrient intake lifestyles and medical history.
2. Refers to collecting information and drawing conclusion through the use of observation, psychological test, neurological test and interviews.
3. Series of quantitative measurements of the muscles, bone and adipose tissue, used to assess the composition of the body.
4. Assessing food and fluid intake include the 24 hour dietary recall, dietary record, dietary history and FFQ.
5. Uses laboratory measurement of serum protein, serum lipids and immunological parameters to assess general nutritional status.

Anthropometric assessment  
Biochemical assessment  
Clinical assessment  
Dietary assessment  
Nutrition assessment



# KEY TO CORRECTION

1. Go	7. Go	Recap
2. Grow	8. Grow	
3. Glow	9. Glow	
4. Go	10. Go	
5. Grow	11. Grow	
6. Lowl	12. Glow	

Post Test

Pre Test

1. Vitamins and minerals  
2. Clinical assessment  
3. Anthropometric assessment  
4. Dietary assessment  
5. Biochemical assessment

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