

# PINGGANG PINOY®

## LEARNING OBJECTIVES

By the end of this module, students should be able to:

- demonstrate a thorough understanding of the Pinggang Pinoy® concept to improve one's intake.
- advocate for healthier eating within the community by encouraging others to regularly follow the Pinggang Pinoy® guide.

## MATERIALS

### Lesson 1

- bond paper (one sheet per student)
- coloring materials
- Meal Tracker
- video: **Module 1 Pinggang Pinoy**
- file: **GR10\_MO1\_Lesson 1 Powerpoint**

### Lesson 2

- Meal Tracker
- bond paper (three to five sheets per student)
- coloring materials

### Lesson 4

- manila paper (one sheet per group)
- coloring materials

Note: Each group must have a medium sized box for all their outputs throughout the program.

## REMINDERS

### Letters to the Parents

Each module comes with a letter to parents explaining the key points that our students are learning in class. The letter also encourages parents to model healthy nutrition habits at home. We hope that through these circulars, parents will become involved in their child's learning process. Please remember to photocopy and distribute the corresponding parent circular at the start of each module. These letters can be found in the folder marked 'Letters to Parents.'

### Rubrics

Many of the activities in these modules serve as formative assessments for you to gauge each student's progress. You may use the PDF file named 'Rubrics' as a guide for grading major outputs and performance tasks.



# MODULE OVERVIEW

Dear Teacher,

This Module Overview is a summary of the key learning points that we want our students to understand and master by the end of this module. These key learning points are presented in the video presentation and the powerpoint that accompany this module. The supplementary activities further reinforce these key points.

## KEY POINTS

1. Pinggang Pinoy® is an easy-to-understand food guide that reminds us of what our meal should look like each day. If we make each meal a Pinggang Pinoy® we will get the energy and nutrients our bodies need to be healthy.
2. A properly balanced meal consists of three basic food groups - Go foods, Grow foods, and Glow foods - accompanied by a glass of water and/or a nutritious beverage like milk.
  - a. Go foods contain carbohydrates that provide energy for the body. Examples are rice, pasta, bread and *kamote*. Go foods should comprise roughly one-fourth of our plate in each meal.
  - b. Grow foods contain protein and amino acids that help in growth and development. Examples are meat, fish, seafood, eggs, and plant sources like *monggo*. Grow foods should also comprise roughly one-fourth of our plate in each meal.
  - c. Glow foods contain vitamins such as vitamin A, C, and E that protect skin from damage. They also contain nutrients like selenium and zinc to help the body fight sickness. Glow foods are fruits and vegetables, and should be half of our plate at each meal.
  - d. It is also important to keep the body well-hydrated by drinking sufficient water and nutritious beverages. Adolescents aged 13-18 years old should get 9-12 glasses of water or more each day.
3. We are responsible for our own health, so we need to make good decisions about the food we eat.
  - a. Choose Glow foods that have a wide variety of color. Different colored fruits and vegetables contain different nutrients, so eating a wide variety of color ensures that we are getting a wide range of nutrients.
  - b. Choose Grow foods from different protein sources. Different protein sources have different kinds of amino acids and additional nutrients such as vitamins and minerals. Eating different sources of protein raises your chances of getting all the amino acids that your body needs.
  - c. Choose Go foods that not only provide energy, but also provide additional vitamins, minerals and fiber.
  - d. Always include water and a nutritious beverage with each meal, and remember to drink water all throughout the day.

4. Following Pinggang Pinoy® helps prevent malnutrition. Malnutrition is any condition caused by excess (overnutrition) and inadequate (undernutrition) nutrient intake.
  - a. Undernutrition occurs when a person's food intake is inadequate, or when other conditions cause him or her to have problems with digestion or metabolism of nutrients.
    - i. Signs and symptoms of undernutrition include diarrhea, skin rashes, nervousness, and fatigue.
    - ii. Prolonged undernutrition results in loss of muscle tissue and increased susceptibility to infectious diseases.
    - iii. A person with a severe case of undernutrition becomes extremely thin, and may also have slower heart rate, respiration, and metabolism.
    - iv. Severe undernutrition may also result in decreased body temperature, impaired vision and organ failure.
    - v. Psychological disturbances – such as depression and anxiety – have also been associated with undernutrition.
  - b. When a person's intake exceeds what the body needs, overnutrition occurs. This can lead to obesity, which lowers a person's general level of fitness. It also increases one's vulnerability to lifestyle diseases, including heart disease, cancer, liver diseases and diabetes.
  
5. Listed below are common micronutrient deficiencies among children and adolescents. Eating the right quality and quantity of Go, Grow and Glow foods can help address these deficiencies:
  - a. Vitamin A
    - i. Function: maintains clear vision, keeps skin smooth, helps in development of bones and teeth, strengthens immunity
    - ii. Signs and symptoms of deficiency: night blindness (slow recovery of vision after flashes of bright light at night or inability to see in dim light), weak resistance to infectious diseases
    - iii. Significant plant sources of vitamin A: spinach, *malunggay*, *pechay* and other dark leafy greens; broccoli; yellow and deep orange fruits (papaya) and vegetables (squash and carrots)
    - iv. Significant animal sources of vitamin A: fortified milk, cheese, eggs, liver
  - b. Vitamin B (B1, B2, B3, B6 and B12)
    - i. Function: helps in energy metabolism
    - ii. Signs and symptoms of deficiency: swollen tongue, irritated or inflamed corners of the mouth, fatigue, weakness, poor appetite
    - iii. Significant sources of vitamin B: milk products (yogurt, cheese), liver, eggs, meat, poultry, fish
  - c. Vitamin C
    - i. Function: supports wound healing and strengthens immunity, also an antioxidant (a substance that prevents or delays some types of cell damage)
    - ii. Signs and symptoms of deficiency: weak resistance to infectious diseases, poor wound healing, bleeding gums and loosened teeth
    - iii. Significant plant sources of vitamin C: citrus fruits, bell peppers, melon, tomatoes, papayas, mangoes

d. Vitamin E

- i. Function: antioxidant (a substance that prevents or delays some types of cell damage)
- ii. Signs and symptoms of deficiency: vitamin E deficiency is uncommon but deficiency can cause a type of anemia
- iii. Significant plant sources of vitamin E: leafy green vegetables
- iv. Significant animal sources of vitamin E: liver, egg yolks

e. Vitamin K

- i. Function: aids in blood clotting
- ii. Signs and symptoms of deficiency: hemorrhage (excessive bleeding)
- iii. Significant plant sources of vitamin K: leafy green vegetables
- iv. Significant animal sources of vitamin K: liver, milk

f. Iron (iron deficiency anemia)

- i. Function: Iron is found in the blood which helps transport oxygen. Low iron results in low hemoglobin concentration in the blood. Hemoglobin is the component in blood that carries oxygen throughout the body for energy metabolism.
- ii. Signs and symptoms of deficiency: fatigue, weakness, pale skin, poor cognitive performance, impaired work performance and weak resistance to infectious diseases
- iii. Significant plant sources of iron: leafy green vegetables
- iv. Significant animal sources of iron: red meats, liver, fish, poultry, shellfish, eggs, legumes

g. Zinc (zinc deficiency)

- i. Function: normal taste, wound healing, sperm production, strengthens immunity and secondary sexual maturation
- ii. Signs and symptoms: stunted growth, delayed maturation of sexual organs, weak resistance to infectious diseases, hair loss, eye and skin lesions, and poor appetite. Chronic zinc deficiency may cause damage to the central nervous system and brain, and may lead to poor motor development and cognitive performance.
- iii. Significant animal sources of zinc: seafood (oyster and crab), beef, milk and dairy products (yoghurt, cheese), whole grain

h. Iodine (iodine deficiency disorder)

- i. Function: component in thyroid hormones which help regulate growth, development and metabolism
- ii. Signs and symptoms: enlargement of the thyroid gland (goiter), mental and physical retardation among infants and children
- iii. Significant sources of iodine: iodized salt, seafood, dairy products

6. We should do our part to promote healthier eating habits among family members, friends and others in our community.

# Lesson 1

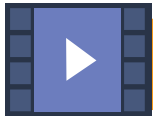


## LET'S GET STARTED



15 mins

1. Instruct your students to take out one sheet of bond paper and some coloring materials. Make sure each student writes his or her name at the top. Tell your students that their responses will not be graded and that this exercise is meant only to check what they can recall from previous years' lessons.
2. Ask the students to fold the paper in half, crosswise. On the left side of the paper, have them draw two of their most recent meals and one recent snack. Remind students to also illustrate the drinks they had with each meal and snack.
3. Have the students label their drawings and describe the portions of each food item (e.g. one chicken drumstick, 1 cup of carrots and beans, 1 cup rice, 8 ounces of orange juice). Instruct them to also label the items Go, Grow or Glow.
4. Tell them to exchange papers with another student.



## WATCH & LEARN



25 mins

1. Before playing the video for this lesson, **Module 1 Pinggang Pinoy**, tell the students that after watching the video, they will evaluate their classmate's meals and snack choices to determine whether their classmate demonstrated balanced eating habits.
2. After watching the video, give students some time to write down comments and suggestions on their classmate's paper that will help their classmate improve the quality of their meals. They may use these guide questions to help them:
  - a. Did your classmate's meals include all food groups and nutritious beverages?
  - b. Did your classmate follow the proper portions of Go, Grow, and Glow foods recommended by FNRI?
  - c. Did he or she eat a variety of colors of fruits and vegetables?
  - d. Did he or she get protein from a variety of sources?
  - e. Did your classmate choose Go foods that are not just energy-giving, but nutritious as well?
3. They should write their comments and suggestions on the right side of the page. At the bottom right-hand corner, they should write "Evaluated by" followed by their name.
4. Instruct each student to return the paper to its original owner. The owner should read their classmate's comments and suggestions.
5. Collect these papers at the end of this session. This output will help you gauge which students already have a solid grasp of the basic principles of Pinggang Pinoy®.



# LISTEN & LEARN



15 mins

1. You will need the file **GR10\_M01\_Lesson 1 Powerpoint** for the remainder of the lesson. Open the PDF file, and at the top menu bar, select VIEW > Enter Full Screen. This places one page of the PDF file on the computer screen, and you can scroll up or scroll down to go through each page like a powerpoint slide.
2. Before showing these slides, tell your students that the concepts you are about to discuss are concepts that have been discussed in previous years' health classes. The presentation is a review of:
  - a. basic principles related to Go, Grow and Glow food consumption.
  - b. the concepts of overnutrition and undernutrition.
  - c. some nutrients that are important to have in our diet – their functions in the body, signs and symptoms of deficiency, and significant sources.
3. Make sure your students take down notes. They will need these notes for succeeding lessons.
4. After the lecture, give students a few minutes to compare their notes with their seatmates' notes. While comparing notes, they should look for key points in their seatmates' notes that they were not able to include in their own notes. They can add the points that they missed to their own notes.

# MEAL TRACKER



5 mins

Before dismissing the class, distribute copies of the Meal Tracker. Teach the students these steps for filling it up:

1. Make one photocopy of the Meal Tracker. You will track your meals two times throughout the program. You may keep the photocopy in your Health Portfolio.
2. Remember to always place your name, year and section at the top of each page you use. On the upper left side, write which week we are in. This is Week 1.
3. For each day of the week, choose one meal that you will describe in the Meal Tracker:
  - a. In the large circle, draw the Go, Grow and Glow foods that you have eaten. Your picture should show how much you have eaten. For example, if your portion of Glow food was two times more than Go food, your drawing should also show two times more Glow than Go food.
  - b. In the small circle, write what you drank with each meal and how much (e.g. one glass of water; one glass of orange juice; one cup of milk).
  - c. In the lines beside the plate, describe what was on your plate and how much. For example, "one cup of rice" or "one medium sized tilapia".

Monday	

GO 1 cup rice

GROW 1 medium sized tilapia

GLOW 1 cup broccoli and carrots

4. Do this for one meal every day for the next seven days. Strive to improve the quality of your meals each day.
5. Keep all your Meal Trackers in your Health Portfolio and bring them to each class. We will discuss our Meal Trackers several times during our lessons.

## Lesson 2



### LET'S GET STARTED



15 mins

1. Instruct students to bring out their Meal Trackers and share their answers to the following with three or four classmates:
  - a. Do each of your meals reflect a proper Pinggang Pinoy?
  - b. Did you follow the correct proportion for each food group?
  - c. Did you eat a wide variety of Glow foods? Grow foods? Go foods?
  - d. Would you say that your snacks were not just energy-giving, but nutritious as well?
  - e. What can you do to improve what you eat and make your meals more like a Pinggang Pinoy\*?
2. Ask some volunteers to share their Meal Trackers with the rest of their class, as well as their answers to the discussion questions.

### MY IDEAL MEAL



45 mins

1. Instruct your students to take out their notes from the lecture in Lesson 1 and their Week 1 Meal Trackers. (Encourage them to share notes with each other)
2. Tell your students to examine the quality of their nutrition in light of their day-to-day activities and nutritional needs. For example, some students may be more active than others because they are involved in sports, requiring more energy-giving foods in their diet. Some students may be less physically active, but very focused on mental activities such as studying, reading and other desktop tasks; such students need micronutrients that support attention and cognitive performance.
3. Tell your students to also think about any signs and symptoms they have been experiencing that may be signaling a micronutrient deficiency. For example, if they have been experiencing frequent fatigue despite sufficient Go food intake, they can examine their usual meals to ascertain whether they are getting enough iron or vitamin B, which are micronutrients that help address fatigue.
4. On a sheet of bond paper, each student must illustrate and describe what their day-to-day activities are like, as well as the nutritional needs brought about by their lifestyle. They may use keywords, phrases, drawings of images and symbols.
5. After illustrating their day-to-day activities, encourage your students to work with a partner or in groups of three to come up with "ideal meals" that can provide more of the nutrients that they are not getting enough of from their usual meals.
6. With the help of their partner or small group, each student must create at least five ideal meals for him or herself. They can describe their meals on additional sheets of bond paper. They should also include explanations as to why these are ideal meals for them.
7. Give your students the remainder of the session to work on this task. They may continue their work at home if they are not able to finish by the end of the period, and submit their output on the following session.

### LET'S WRAP THIS UP

Call on some students to complete this sentence:  
"Today I realized that..."

# Lesson 3



## LET'S GET STARTED



15 mins

Call on some volunteers to talk about their day-to-day activities and nutritional needs, and the meal plans that they designed for themselves. After hearing from a few volunteers, instruct your students to submit their individual meal plans along with the drawings they created during Lesson 2.

## PINGGANG PINOY® IN OUR COMMUNITY – PART 1



45 mins

1. Group students into groups of seven to eight members. As much as possible, students should choose their group mates based on the proximity of their homes from each other, as they will be doing some tasks after school.
2. Inform the students that they will work in groups throughout the duration of the program to design an advocacy campaign that raises awareness about proper nutrition among members of their community. They will design and create various advocacy materials throughout the five modules, so each group should have a box in which to store their materials.
3. Their campaign must also be based on information gathered about their community. Tell your students that, in order for their campaign to be effective, it should be anchored on information that reflects the knowledge needs and habits of their community.
4. For their first data gathering activity, the groups will investigate what the members of their community know about Pinggang Pinoy®, the food groups, and basic nutrition. Each member of the group must interview at least two people in their community - neighbors, family members, and individuals who work in their vicinity.
5. Below are some questions they may use to gather information:
  - a. What do you know about Pinggang Pinoy®?
  - b. What are the three food groups that make up Pinggang Pinoy®?
  - c. What health benefits do our bodies get from each food group?
  - d. How much of each food group should we eat with each meal?
  - e. Why it is important to eat a variety of colors of fruits and vegetables?
  - f. What nutrients do we get from fruits and vegetables? What benefits do our bodies get from these nutrients?
  - g. Why is it important to get protein from a variety of sources? What benefits do our bodies get from proteins?
  - h. Why is it important to choose nutrient-rich Go foods? What benefits do our bodies get from nutrient-rich Go foods?
  - i. Do you follow the Pinggang Pinoy® guide for each of your meals? If no, why not?

### NOTE TO TEACHER

Your students will work in groups to design an advocacy campaign that raises awareness about proper nutrition among members of their community.

Their campaign must target their community's information needs and eating habits that need to be addressed. In order to know more about the information needs and existing nutrition habits of their community, the students will gather data from the members of their community (family, relatives living in the same area, neighbors, community workers) through interviews.

Their challenge for this program is to make meaning out of the information that they gather to design an effective campaign.



- j. Why is it important to drink enough water every day? What are some signs that you are not drinking enough?
  - k. What are some examples of nutritious beverages? What benefits do our bodies get from nutritious beverages?
  - l. How many glasses of water do you drink every day?
  - m. What other beverages do you typically include with your meals?
  - n. What fruits and vegetables have you eaten in the past three days?
  - o. What protein sources have you eaten in the past three days?
  - p. What snacks have you eaten in the past three days?
  - q. Would you consider your diet to be a healthy one?
6. Students may voice record the interviews and transcribe their recording, if possible. A transcription of the interview will help them to analyze the data later. Make your students aware, however, that they must first ask the permission of their interviewees before doing a voice recording.
  7. If your students do not have devices for audio or video recording, they may work with a partner to write down detailed notes of their interviewees' responses. Students must come to the next class with their transcriptions and interview notes.

## Lesson 4

### PINGGANG PINOY® IN OUR COMMUNITY – PART 2



45 mins

1. Instruct your students to join their groups and discuss the results of their data gathering.
2. Together, they must analyze the data they collected through interviews. Explain to them that they will look for themes and common ideas that emerged from their interviews.
3. To help them, write these guide questions on the board:
  - a. What are the common / typical responses of your interviewees when asked what they know about Pinggang Pinoy® and the food groups?
  - b. Which questions did many of your interviewees answer incorrectly? For which questions did many of your interviewees fail to give an answer?
  - c. Based on your answer to letter b, what concepts do your interviewees appear to lack knowledge about? What concepts do they need more information on?
  - d. How would you describe their eating habits? Are they following proper nutrition guidelines?
  - e. What good or bad nutrition habits are common among your interviewees?
  - f. Based on your data, what advice would you give the members of your community in order for them to improve their nutrition habits?
4. Tell the groups to keep notes of their responses to these questions. These notes will help them with other activities throughout the program.
5. At the same time, each group will deliver a brief report of their data analysis. Their report should give the class an idea of how much their community knows about basic nutrition concepts and what their community's eating habits are like.
6. Distribute a sheet of manila paper and some coloring materials to each group. After discussing the results of their interviews, each group should create a visual aid that summarizes their findings. They can describe their findings on the manila paper with text and illustrations.
7. If time permits, have some groups share their findings with the rest of the class. Groups that are not able to present during this session will do so in the following class session. Each group may keep their manila paper in their group's box.