

# GLOW FOODS

## LEARNING OBJECTIVES

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

- explain the importance of Glow foods on adolescent health and development.
- describe specific portions of Glow foods that meet the nutritional requirements of adolescents.

## MATERIALS

### Lesson 1

- file: **GR07\_M02\_Lesson 1 Powerpoint**
- pad paper (one sheet per group) and pen
- video: **Module 2 Glow Foods**

### Lesson 2

- Meal Trackers (from previous sessions)
- bond paper (one sheet per student)
- coloring materials

### Lesson 3

- S.M.A.R.T. Goals (from previous session)

## 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 powerpoint that accompany this module. The supplementary activities further reinforce these key points.

### KEY POINTS

1. Glow foods contain many vitamins and minerals that support the nutritional requirements of our rapidly developing bodies and our active lifestyles. The nutrients we get from Glow foods:
  - a. helps to keep our skin clear and hair healthy, so we can always look our best.
  - b. keeps our eyes healthy, to help us when we need to read and study hard.
  - c. helps prevent sickness, like colds and cough, so that we don't miss out on important events with family and friends.
  - d. helps us stay alert and focused, so that we can perform well in school.
2. Fruits and vegetables belong to this food group. According to the Pinggang Pinoy® guide, approximately half of our plate should consist of fruits and vegetables.
3. We should make our plate as colorful as possible by eating many different colors of fruits and vegetables. This is because specific colors provide specific health benefits:
  - a. RED fruits and vegetables (e.g. apples, tomatoes, watermelons) contain Lycopene that is good for the heart.
  - b. YELLOW and ORANGE fruits (e.g. pineapples, oranges, mangoes) contain vitamin C that boosts one's resistance against sickness.
  - c. YELLOW and ORANGE vegetables (e.g. squash and carrots) contain beta-carotene that promotes healthy skin and good eyesight.
  - d. GREEN vegetables (e.g. *malunggay*, *pechay*, and *kangkong*) contain iron that is found in the blood which helps transport oxygen throughout the body.
  - e. PURPLE/BLUE fruits and vegetables (e.g. eggplant and grapes) contain anthocyanin, an antioxidant that helps reduce risk of cancer and heart disease.
  - f. WHITE fruits and vegetables (e.g. cauliflower, mushrooms, garlic) contain anthoxanthin, an antioxidant that helps reduce risk of some cancers and heart disease.
4. Listed below are common micronutrient deficiencies among children and adolescents. Eating the right amount of Glow foods in each meal 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)

b. 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

c. 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

d. 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

e. Iron (iron deficiency anemia)

- i. Function: 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

5. Fruits and vegetables also contain fiber that has even more health benefits. Fiber helps lower cholesterol, lowers blood sugar levels (beneficial for those who have diabetes) and regulates bowel movement.

6. Adolescents should aim to eat the following proportions with each meal:

- a. Males: 1-2 cups of cooked vegetables; 1 medium sized fruit (banana, mango) or 1 slice of big fruit (papaya, pineapple, watermelon)
- b. Females: 1 - 1.5 cups of cooked vegetables; 1 medium sized fruit (banana, mango) or 1 slice of big fruit (papaya, pineapple, watermelon)

# Lesson 1

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## LET'S GET STARTED



15 Mins.

1. Remind the class of the activities in Lessons 3 and Lesson 4 of the first module, where they:
  - a. listed down S.M.A.R.T. goals for making their meals more like a Pinggang Pinoy®, and
  - b. evaluated some factors that prevented them from achieving their goals.
2. Show them Part 1 of **GR07\_M02\_Lesson 1 Powerpoint** which reminds the students of the importance of a balanced diet on adolescent development, and the changes during this stage that require them to be more responsible for their food choices.
3. Lastly, point out to your students that whatever their goals are for improving their health and nutrition habits, achieving those goals are totally within their control.



## WATCH & LEARN



20 Mins.

1. You will need the video **Module 2 Glow Foods** for this lesson. Before playing the video, ask the students to look for the answer to this question as they watch: “What are the health benefits derived from the different colors of fruits and vegetables?” Make sure they take notes in their Health notebook.
2. After watching the video, divide the class into five teams. You may divide the class based on their seating arrangement. Instruct each team to take out a sheet of pad paper (one sheet for the whole group.)
3. Tell the class that you will play a game, and to win, each group must think quickly. As a group, ask them to list as many fruits and vegetables as they can for the following categories:
  - a. good for the heart
  - b. boosts one’s resistance against sickness
  - c. promotes healthy skin and good eyesight
  - d. helps transport oxygen throughout the body
  - e. reduces risk of cancer and heart disease
4. Explain to the students that you will read out a category, and each group takes turns to name a fruit or vegetable under that category.
5. Each group has only five seconds to provide an answer. If they cannot provide an answer within five seconds, their group misses a turn. If the answer they provide has already been mentioned by another group, they have five seconds to come up with an alternative answer.
6. After explaining the mechanics of the game, give each group three to four minutes to list down as many fruits and vegetables as they can for each category. When time is up, instruct them to keep all their pencils and pens.
7. Play the game until you are able to identify one group that consistently succeeds in naming a fruit or vegetable for each category.



## LISTEN & LEARN



25 Mins.

1. Use the second part of file **GR07\_M02\_Lesson 1 Powerpoint** for the remainder of this lesson.
2. This presentation talks about the benefits of Glow foods on health, and describes some nutrients derived from Glow foods. The presentation also describes the right portions of Glow foods that adolescents should aim to eat with each meal.
3. Instruct your students to take notes. After the lecture, give students 3-4 minutes to compare their notes with their seatmates' notes.
4. 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.
5. Tell them to study their notes for the next few days. They will refer to these notes again in Lessons 3 and 4.

## LET'S WRAP THIS UP

Call on some students to explain in their own words why we need to eat different colored fruits and vegetables.

## Lesson 2



## LET'S GET STARTED



20 Mins.

1. Instruct your students to bring out their Meal Trackers for Weeks 1 and 2. Ask them to evaluate the portions and variety of Glow foods they consumed throughout the two weeks.
  - a. Does each meal include the recommended portions of Glow foods, as stated in the powerpoint?
  - b. Do the meals show a sufficient variety of colors of fruits and vegetables?
2. Distribute one sheet of bond paper per student as they discuss. After giving them time to share their thoughts with their seatmates, instruct the students to take the sheet of paper and divide it into four parts by folding it crosswise and lengthwise.




## GLOW GOALS



40 Mins.

1. They will again come up with a S.M.A.R.T. goal for improving their Glow food intake. Remind the students that a S.M.A.R.T. goal is specific, measureable, attainable, realistic and time-bound, for example:

 **I will eat more vegetables every day.**

 **For the next seven days, I will make sure that at least one of my meals each day has one-half a plate of vegetables.**

2. They can practice writing their goal on a scratch sheet of paper. Remind your students that their goal should be related to improving their Glow food intake. Allow the students to help each other come up with Glow Goals.

3. Once they are sure their goal fits the S.M.A.R.T. criteria, they can write down that goal in the first quadrant of their bond paper and illustrate it with coloring materials.
4. Ask some students to share their goals with the rest of the class. As they share, invite the class to provide suggestions that will help the student achieve their goal.



Before dismissing the class, instruct the students to place their bond paper with the Glow Goal in their Health Portfolio. They must aim to achieve their goals throughout the week. Tell your students that, in the next session, they will be asked to report how well they achieved their goals.

## Lesson 3

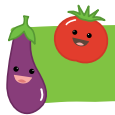


### LET'S GET STARTED



15 Mins.

1. Instruct your students to bring out their Glow Goals from the previous session. Have them discuss the following with their seatmate:
  - a. Were you able to achieve your Glow Goal from last week?
  - b. If yes, how did you do it?
  - c. If no, what factors made it difficult for you to achieve your goals?
2. Give your students a few minutes to reflect on those questions. Again, challenge them to assess whether the factors that made it difficult for them to achieve their goals were within or outside their control.
3. After giving your students a few minutes to reflect on those questions, instruct your students to go back to their groupings from the previous session.



### GLOW ADS - PART 1



45 Mins.

1. Challenge your students to come up with ways to convince a fellow adolescent to improve their eating habits when it comes to fruits and vegetables. They can choose from any of these outputs:
  - a. 10-minute skit with a script, costumes, and props
  - b. a 3- to 5-minute video documentary that they will create throughout the week and present in school
  - c. a scrapbook with pictures and illustrated short essays
2. Their output or presentation must:
  - a. provide information about the health benefits of Glow foods on adolescent growth and development.
  - b. provide information about the nutrients associated with fruits and vegetables.
  - c. explain the importance of eating a wide variety of fruits and vegetables.
3. Explain to the class how you will grade their output (see Rubrics for group presentations). Allow each group to discuss and plan for this requirement for the remainder of the session.

### LET'S WRAP THIS UP

Call on some students to share their thoughts on this question, "Is it easy to convince others to improve their nutrition habit? Why or why not?"

# Lesson 4

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## GLOW ADS - PART 2

Each group will present their output during this session. After all the presentations, announce the top three outputs and review the class's tally of points. You may also announce the winners at the start of the next session if you need more time to decide on the top three outputs.