





Nutrition Education for ESL Programs

LEVEL: **INTERMEDIATE LOW**



Nutrition Standard	Key Message # 2: Students will add, or continue to eat, fruits and vegetables to their diets to equal USDA recommendations.
Content Objective	Students will be able to make progress towards a goal for healthy eating, as defined by the USDA, by using strategies to estimate amounts of fruits and vegetables eaten daily.
Behavior Change Objective	Students will use a visual image of a cup to estimate amounts of fruits and vegetables eaten daily.
Language Objective	Students will be able to use listening and speaking skills to gather information and survey others.
Instructional Approach	Interview and Survey
Class Length	3 hours or 1.5 hours on 2 days 
Topic	Food 



NUTRITION BACKGROUND INFORMATION FOR TEACHERS

(NOTE: The following background information is intended for teachers only. It is not to be shared with students. Research shows that nutrition education that is skill-based is more effective than knowledge-based instruction and is more likely to lead to changes in behavior.

Key Message #2: Students will add, or continue to eat, fruits and vegetables to their diets to equal USDA recommendations.

Objective: 2.2: Students will be able to make progress towards a goal for healthy eating as defined by the USDA by using strategies to estimate amounts of fruits and vegetables eaten daily.

**USDA Daily Recommendations
for a 2,000-calorie diet to equal 5 cups a day**

Vegetables
2 ½ cups every day

Includes all fresh, frozen, canned, and dried vegetables and vegetable juices. In general, 1 cup of raw or cooked vegetables or vegetable juice, or 2 cups of raw leafy greens can be considered as 1 cup from the vegetable group.

Fruits
2 cups everyday

Includes all fresh, frozen, canned, and dried fruits and fruit juices. In general, 1 cup of fruit or 100% fruit juice, or 1/2 cup of dried fruit can be considered as 1 cup from the fruit group.
(Note: whole fruit is preferred to juice.)

TOTAL Fruits and Vegetables
4 1/2 cups (including ½ cup juice)

Source: www.MyPyramid.gov

The United States Health and Human Services Department (HHS) is charged with educating the American public on health issues including nutrition and physical activity. The Dietary Guidelines for Americans is published and revised periodically to provide the public with up to date research findings for healthy living. A feature of the 2005 Food Guidance System published by the U.S. Department of Agriculture to interpret the "Guidelines" is for people to create their own pyramid based on their gender, age, and exercise level. People can do this by going online to www.mypyramid.gov (Note: available in Spanish once there)





The recommendations for how much food is healthy to eat are based on the amounts that are given for the average person eating a 2000-calorie diet. The major food groups have not changed (Grains, Fruits, Vegetables, Milk/Dairy, Meat and Beans.) Although not a food group, some fat is needed for a balanced diet so MyPyramid also provides recommendations on Oils. The healthiest fat choices are from fish, nuts and vegetable oils. Discretionary calories, formerly called ‘Extras,’ such as solid fats, saturated fats and trans-fats, sugar, salt and alcohol should be limited, and not eaten in place of recommended foods from other food groups.

USDA’s recommendations on amounts of food to consume are not the same as servings identified on nutrition labels of foods, and they are not the same as portions, the amount of food one puts on one’s plate. Portion was purposefully avoided in this lesson because it is used interchangeably in English with serving related to how much someone is served.

Identifying recommended amounts of food to consume is not an exact science. It varies for different subpopulations and for certain health-related conditions. For example adolescents, lactating women and people over 55 need more calcium, so the recommended amount of dairy products would be greater than for a middle-aged person. Young children are smaller than adults, so they should eat smaller meals, but more often than adults, to provide the energy they need to grow. Also the recommendations are not for each meal of the day. The recommendations are for balanced eating so that one can strive for a weekly average of the recommended daily amounts of various foods to maintain health.

The behavior change objective of this lesson is to have students use strategies to estimate in their “mind’s eye” how much food to eat on average so that they can provide nutritious and healthy meals for their families. It is an important concept that food, even healthy food, should be eaten in moderation to maintain a healthy weight. Therefore, the notion of healthy eating can be taught by giving examples of how to estimate amounts of food to eat (the size of a fist, a handful; the size of a cup) without teaching that food should necessarily be measured before cooking and eating.

If strict food measurement were taught, it could become problematic when it comes to mixed dishes, such as vegetable soup or stir-fry. This is why the recommended approach in these lessons is to reinforce the idea of estimating, as well as highlight the importance of adding fruits and vegetables to one’s diet. The lesson objective is to have students eat the recommended amounts of fruits and vegetables every day, which depends on their gender, age and activity level. For an average 2000-calorie diet, the recommended amount of vegetables per day is 2 1/2 cups, and the recommended amount of fruit per day is 2 cups, for a total of 4 1/2 cups.

Ask students to think about how many handfuls of chopped vegetables they put in soup, e.g. 4 handfuls = 4 cups. If 4 family members eat the soup, each person has about 1 cup of vegetables.

Teacher Materials Day 1	
“My Pyramid” poster Demo - Large bowl of cut up fruit - 18 small, clear, plastic cups for stations - 8 oz. paper cup for each student marked at the ½ cup level Rubber gloves – 1 pair for each station	Station 1: 12 oz bottle of 100% juice Station 2: bowl of chopped leafy greens Station 3: bowl of chopped raw vegetables Station 4: bowl of cut up fruit (used in demo) Teacher Materials Day 2

Teacher Materials Day 2
Bottle of fruit/vegetable juice Rubber gloves 6 clear plastic cups



Key Word Search: *adding fruits and vegetables; USDA Guidelines*

Websites for more information (2008)

USDA Nutrition Information (offers a wide range of information, resources and material):
<http://www.nutrition.gov/>

MyPyramid: www.mypyramid.gov.

CDC: Get Smart with Fruits and Veggies: <http://www.cdc.gov/Features/FruitsAndVeggies/>

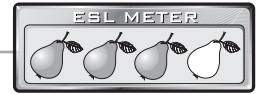
Network for a Healthy California/Champions for Change <http://www.cachampionsforchange.net/en/index.php>

USDA Guidelines: www.healthierus.gov/dietaryguidelines

Fresh Fruit and Vegetable Photo Cards, California Department of Education, CDE Press,
1-800-995-4099. <http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001650> (144 cards)



LESSON PLAN



Intermediate Low

Warm-up/Review (10 min.)

1. **Pass out visuals** to students of common fruits and vegetables including mixed dishes such as a green, leafy salad, vegetable soup, mixed fruit.
2. Ask students to stand and **identify his/her visual**.
3. Ask students who have eaten that food in the last 24 hours to stand: "Stand up if you ate _____ yesterday."

Introduction: (5 min.)

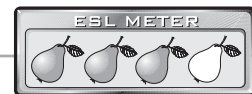
1. **Display a "My Pyramid" poster** and ask the class to guess what it means.
 - Point out the figure climbing the stairs. It means exercise is important for good health.
 - Point out the different colored parts of the pyramid. They are for the foods to eat to be healthy.
 - Point out that the colored parts are different sizes. "Grains" are more than "Oils." "Vegetables" are more than "Meat."
 - The average person should eat about 5 cups a day of fruit, vegetables, and juice.
 - Whole fruits and vegetables are a healthier choice than too much juice because whole fruits and vegetables have fiber. Show an example of fiber such as a celery stick or orange pulp.

MATERIALS

Visuals of fruits and vegetables (*not provided in this lesson*); My Pyramid Poster, realia of fiber in fruit/vegetable.



LESSON PLAN



Intermediate Low

Presentation 1 (45 min.)


- Demonstrate estimating how much to eat** by following the steps below.

 - Pass out 8 oz. paper cups to all students.
 - Demonstrate how much to eat using Transparency/Worksheet #1, "How Much Is Healthy?" and a real 8 oz. paper cup.
 - Guide students in marking fractions (parts) on their cups.
 - Tell students, "This is 1 cup."
 - Draw a line in the middle of the cup.
 - Tell students, This is 1/2 cup. It has 2 parts."
 - Direct students to look at the chart under the cup to read how much fruit and vegetables is healthy for the average person. (5 cups- choosing from among about 3 cups vegetables, 2 1/2 cups of fruit, 1 cup juice),
 - Point out to students all the choices they have to make 5 cups of fruits and vegetables-canned, fresh, chopped, raw, juice
- Model how to record what you eat as a way of knowing if you eat enough to be healthy.

 - Make a chart on the board with 3 columns:
 - "Fruits"
 - "Guess"
 - "Cups"
 - "Vegetables"
 - Fill in the chart for yourself for 'morning,' 'noon,' and 'night.'
 - Have some (unmeasured) cut up fruit in a paper bowl. "I eat this much fruit at break"
 - Have students guess how much it would be if they measured it with the 8 oz. cup.
 - Write their guess on the board.
 - Measure the fruit with a clear plastic cup marked 1/2, and 1.
 - Write how much it is under 'cups' on the chart.
 - Write the total number of cups you ate for the day. Ask students, "Is it enough?" Refer to chart on Transparency/Worksheet #1.

Worksheet #1

How Much Is Healthy ?

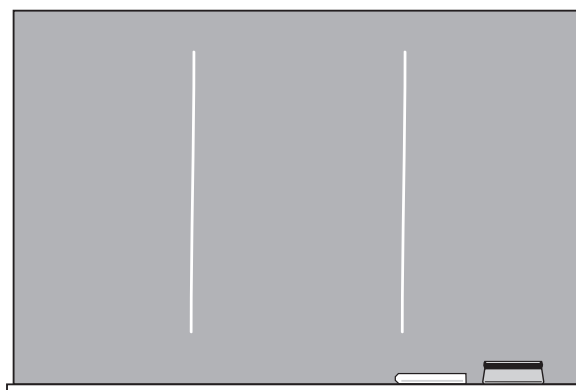


How many vegetables?

Gender	AGE	Cups every day
Males	19-50 years old	3 cups raw or cooked 6 cups salad
Females	19-50 years old	2 1/2 cups raw or cooked 5 cups salad

How much fruit?

Gender	AGE	Cups every day
Males	19 years and older	1 medium fruit, 2 cups canned or chopped, 1 cup juice, 1/2 cup dried
Females	19 years and older	1 medium fruit, 2 cups canned or chopped, 1 cup juice, 1/2 cup dried

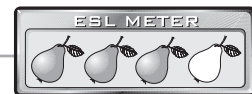


MATERIALS

Approximately 4 cups of fruit chopped and in a bowl; paper plates; rubber gloves for food handling; 8 oz. paper cup for measuring; Transparency/Worksheet #1, "How Much Is Healthy?" Tear sheet for tips.



LESSON PLAN



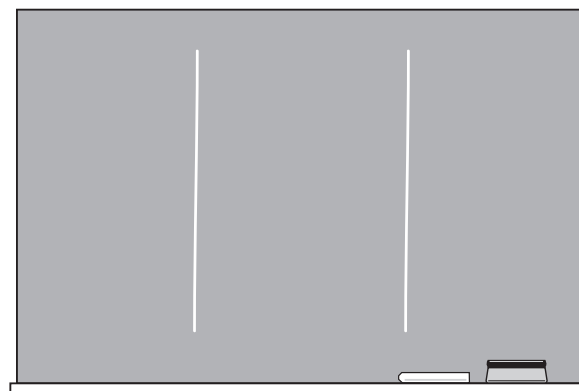
Intermediate Low

Presentation 1 (cont.)

3. Invite 3 students, one at a time, to tell what they ate yesterday.
 - Fill in the chart on the board for each of the students for morning, noon and night.
 - Invite students to serve themselves some fruit.
 - Have the class guess how much is on the plate and write it in the "Break," "Guess" columns.
 - Measure the fruit in the bowl with the marked plastic cup and record students' amounts on the chart on the board.
 - Total the number of cups eaten and ask, "Is it enough?" Refer to charts on Transparency/Worksheet #1 for guidance.

4. Emphasize the point that most people don't measure their food in real life.
 - Using the cup in class will help students **see** how much food is healthy so they can estimate.
 - Give examples of estimate. (Students could estimate number of students in the class, etc.)

5. Brainstorm a list of tips for people who want to add fruits and vegetables to their diets. Record on a tear sheet for later reference.



Set Up Demonstration

Copy the 4 station signs onto card stock. Set up 4 "stations" around the class. One student is the "food handler" at each station and wears plastic gloves while measuring food. Other students are observers and record how much food there is on worksheet #2.

Station #1: 12 oz. bottle of 100% juice; 3 sizes of cups; 8-oz. cup for measuring

Station #2: a bowl of leafy greens, paper plate and four-, 8 oz. clear plastic cups

Station #3: a bowl of cut up raw vegetables, e.g. baby carrots, celery, radishes, jicama, paper plate and four - 8 oz. clear plastic cups

Station #4: the bowl of fruit from the teacher's demonstration and four - 8oz. clear plastic cups

Worksheet #2

GUESS and CHECK

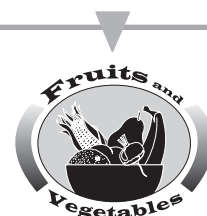
DIRECTIONS:

1. Guess how much food/juice is in the bowl/cup.
2. Watch the food handler measure with the cup.
3. Write the number on the chart.
4. Is it enough, not enough or too much for the day?

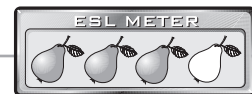
FOOD	Guess how many cups?	Not Enough?	Enough?	Too much?
1. Juice				
2. Leafy vegetables				
3. Chopped, raw vegetables				
4. Chopped fruit				

MATERIALS

At each station - food, rubber gloves for food handlers, 8 oz. cups, paper plates, serving spoons; Worksheet #2



LESSON PLAN



Intermediate Low

Demonstration/Observation (45 min.)

- Give directions** for the observations as follows:
 - Number students 1, 2, 3, 4 and direct them to the station corresponding to their number.
 - Select a student in each group who will be the food handler. Give food handlers plastic gloves to wear.
 - Direct student observers to guess how many cups there are in the container and write their guess in column 1.
 - Have designated food handlers measure the food at the station with the 8 oz. cups.
 - Have observers record how many cups there were on Worksheet #2.
 - Tell food handlers to return the food from the paper cups to the larger containers in preparation for the next group.
- Direct groups to move to the next station at the teacher's signal.

Worksheet #2

GUESS and CHECK

DIRECTIONS:

- Guess how much food/juice is in the bowl/cup.
- Watch the food handler measure with the cup.
- Write the number on the chart.
- Is it enough, not enough or too much for the day?

FOOD	Guess how many cups?	Not Enough?	Enough?	Too much?
1. Juice				
2. Leafy vegetables				
3. Chopped, raw vegetables				
4. Chopped fruit				

Presentation 2 (15 min.)

- Using a transparency of Worksheet #3, "Interview A Partner", model the interview.**
 - Read questions while students listen. (Fill in words as needed to demonstrate the task.)
 - Read questions and have students repeat to practice pronunciation.
 - Have students ask questions to you.** Answer the questions.
 - Model filling in the chart** on Worksheet #3 by asking questions to a student volunteer and by filling in students' answers on the overhead transparency.
 - Do items 8 and 9 as a whole class referring back to the brainstorming done in the Introduction.

Worksheet #3

INTERVIEW A PARTNER

Instructions: Ask your partner these questions.

- What fruits did you eat yesterday?
- About how many cups of fruit? _____
- What vegetables did you eat yesterday?
- About how many cups of vegetables? _____
- Did you drink any juice yesterday?
- About how many cups of juice? _____
- Did you eat enough fruits and vegetables yesterday (at least 5 cups)?
- Do you want to add more fruits and vegetables in the future?
- If yes, how will you do that?

What fruits and vegetable did you eat?	About how much?
<u>Morning</u>	
<u>Break</u>	
<u>Noon</u>	
<u>Night</u>	

TOTAL: _____
Is it enough?

Practice 2 (20 min.)

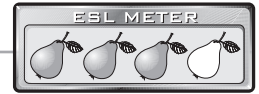
- Distribute Worksheet #3, "Interview A Partner",** to all students.
- Instruct students to interview their partner** and fill in the chart with their partner's information.

MATERIALS

Transparency/Worksheet #3, "Interview A Partner"



LESSON PLAN



Intermediate Low

Practice 2 (cont.)

3. **Distribute Worksheet #4**, "Survey" to all students.
4. **Project transparency of Worksheet #4** and give directions for the task.
 - Direct students to walk around and interview 4 classmates.
 - Have students record the results on Worksheet #4 just as they did on Worksheet #3 with their partner.
5. **Compile the survey results** on Transparency #5 "Graph."
 - Ask students to stand who ate at least 5 cups of fruits and vegetables yesterday.
 - Count the students and make a bar on the graph for Day 1.

Survey Worksheet #4

Directions: Talk to 4 students in your class. Write their answers in the charts. Ask these questions in your interview:

1. What fruits did you eat yesterday? About how much did you eat?
2. What vegetables did you eat yesterday? About how much did you eat?
3. Did you drink any juice? About how much?
4. Do you want to add more fruits and vegetables in the future?

NAME: _____

What did you eat?	About how much?	Is it enough?
		Fruit _____
		Vegetables _____
		Juice _____
		TOTAL _____
		Enough YES NO

NAME: _____

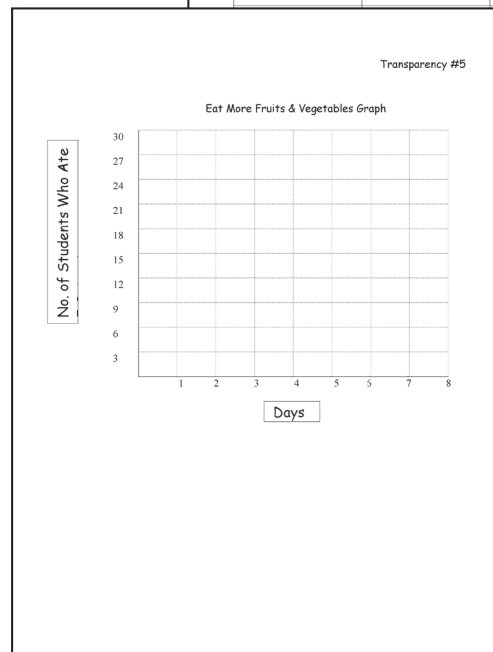
What did you eat ?	About how much?	Is it enough?
		Fruit _____
		Vegetables _____
		Juice _____
		TOTAL _____
		Enough YES NO

NAME: _____

What did you eat?	About how much?	Is it enough?
		Fruit _____
		Vegetables _____
		Juice _____
		TOTAL _____
		Enough YES NO

NAME: _____

What did you eat?	About how much?	Is it enough?
		Fruit _____
		Vegetables _____
		Juice _____
		TOTAL _____
		Enough YES NO

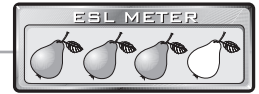


MATERIALS

Transparency/Worksheet #4, "Survey," Transparency #5, "Graph"



LESSON PLAN



Intermediate Low

Assessment (20 min.)

Conduct the assessment as you would a test, without help from the teacher or other students.

1. **Distribute Worksheet #6, "Quiz".**
2. Use Transparency #6 to go over the directions.
 - Call on a volunteer student to read the directions.
 - Tell students they can look at Worksheet #1 to answer.
 - Model filling in the chart by asking a volunteer student for his/her information and doing an example on the board.
 - Remind students to answer the questions at the bottom of the page.
3. Allow time for students to complete the Quiz.
4. Collect the worksheets and grade them using the answer key.

SCORING:

- 1 point for totaling 'how much food' = 4 pts.
(For those with fractions, correct answer is e.g. 3+)
- 1 point for correctly evaluating if food is 'enough' = 4 pts.
- 2 points each for questions 1-4 = 8 points.
TOTAL=16 Passing = 12 (75%)

Worksheet #6

QUIZ

Directions: The chart is a survey of a group of students. How many cups of fruits and vegetables did these students eat? Write your answers under "Is it enough?" Then, talk with a partner to answer the questions at the bottom of the page.

NAME	FRUITS AND VEGETABLES	HOW MUCH FOOD?	Is it enough?
Juan Male Age: 52	Apple Bananas Beans	1 medium 1 small 2 cups	TOTAL ____ YES NO
Carmen FEMALE Age: 21	Papaya Beans Salad Meat and Vegetables	1 cup 1 cup 1 cup ½ cup vegetables	TOTAL ____ YES NO
Sonja Female Age: 38	Tomato Beans Mango Lettuce	1 medium 1 cup 1 large 2 cups	TOTAL ____ YES NO
Tran Male Age: 35	Bok choy Greens Orange Juice	¾ cup 1 cup 1 large 1 ½ cup	TOTAL ____ YES NO

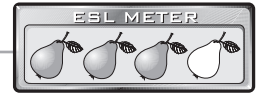
1. Which students ate enough fruits and vegetables? _____
2. Does Juan or Tran need more vegetables? _____
3. What are some reasons why people do not eat enough fruits and vegetables every day? _____
4. What are some suggestions you have for adding fruits and vegetables to daily meals and snacks? _____

MATERIALS

Transparency/Worksheet #1, "How Much Is Healthy?",
Transparency/Worksheet #6, "Quiz"



LESSON PLAN



Intermediate Low

Application: (5 min.)

- Distribute either Nutrition Journals, or Transparency/Worksheet #7, "Journal."**
- Go over the directions.**
- Model how to fill in the graph** using a transparency of Worksheet #5 using yourself as an example.
- Mark the number of cups** of fruits and vegetables **on the graph** on the second page of the Journal.
- Tell students when you will be asking them to report on their eating.
 - Every day of that week, add to the class graph of fruit and vegetable consumption (Transparency #5) by asking students to stand who ate about 5 cups of fruits and vegetables the day before.
 - Remind students each day to do their individual graphs in their Journal.
- Revisit' the lesson** in a week and have students do "My Report."
- Have students share their individual graphs with a partner and talk about the answers to questions 1-4.

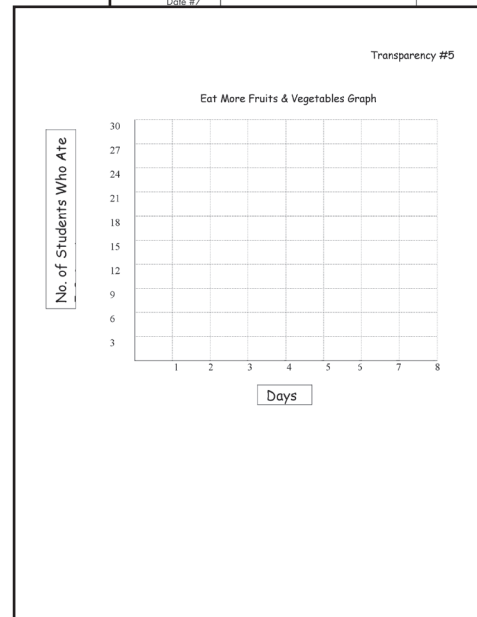
Worksheet #7
Journal

My Goal: I will eat at least 5 cups of fruits and vegetables every day.

Directions:

- For the next 8 days, write down what fruit and vegetables you eat.
- Use the Graph to show how many cups you ate.
- Do your Report and talk to a partner.

Date	Fruits and Vegetables (Write what you ate)	Is it enough?	
Date #1		Yes	No
Date #2		Yes	No
Date #3		Yes	No
Date #4		Yes	No
Date #5		Yes	No
Date #6		Yes	No
Date #7		Yes	No



Additional Activity

Additional Activity #1

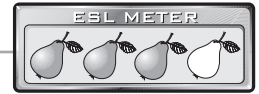
- Use Int. Supplemental Activity, Jazz Chant, "A Portion, A Serving?" to show another strategy (using the hands) for estimating how much fruits and vegetables to eat.

MATERIALS

Transparency/Worksheet #7, Journal;
Transparency #5, "Graph"



LESSON PLAN



Intermediate Low

Additional Activity #2, "Interview Family and Friends"

1. Go over the directions. Students will interview three family members or friends who are not in the class.
2. Model the interview with a volunteer student and write on transparency of the worksheet.
3. Have students practice the interview with a partner.

Additional Activity #2

INTERVIEW FAMILY AND FRIENDS

DIRECTIONS: Interview three people. Take notes on about how many cups of fruits and vegetables they ate. Did they eat enough? If they didn't, give them some ideas for adding more fruits and vegetables every day.

1. What fruits did you eat yesterday? About how much did you eat?
2. What vegetables did you eat yesterday? About how much did you eat?
3. Did you drink any juice? About how much did you drink?
4. Do you want to add more fruits and vegetables in the future?

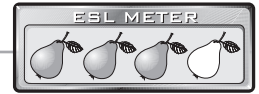
Name	What did you eat?	About how much?	How many cups?
			Fruit _____ Vegetables _____ Juice _____ TOTAL _____ Enough YES NO
			Fruit _____ Vegetables _____ Juice _____ TOTAL _____ Enough YES NO
			Fruit _____ Vegetables _____ Juice _____ TOTAL _____ Enough YES NO

MATERIALS

Additional Activity Worksheet #2.



LESSON PLAN



Intermediate Low

Additional Activity #3

- If this is review, use Transparency/Worksheet #1 to remind students how to estimate how much food is healthy using an 8 oz. cup as a visual image.
- Continue projecting Transparency #1 as a reference as students listen to Maria's story.
- Pass out Additional Activity #3 and give directions:**
 - Direct students to listen to the teacher talk about what Maria ate and drank yesterday.
 - Tell students to take notes about what Maria ate by writing how much she ate next to the fruits and vegetables they hear.
- Read the script** while students record how many fruits and vegetables Maria ate.
- Prompt students with questions** when the salad is recorded.
 - Maria cut up about 2 cups of leafy lettuce and then mixed the lettuce with tomatoes and cucumbers.
 - How much lettuce? 2 cups
 - How much tomato? We don't know. Refer to the cup. When you have salad is there 1 cup. No, just a little.
 - How much cucumber? We don't know. Just a little.
- Direct students to **check with a partner** and then answer questions 2-4 together.
- Correct the exercise as a whole class showing the answers on the transparency. Since the answers are estimates, allow leeway in answers.

Worksheet #1

How Much Is Healthy ?

How many vegetables?

Gender	AGE	Cups every day
Males	19-50 years old	3 cups raw or cooked 4 cups total
Females	19-50 years old	2 1/2 cups raw or cooked 3 cups total

How much fruit?

Gender	AGE	Cups every day
Males	19 years and older	1 medium fruit, 2 cups dried or chopped, 1 cup juice, 1 cup dried
Females	19 years and older	1 medium fruit, 2 cups dried or chopped, 1 cup juice, 1 cup dried

Additional Activity #3

Name: _____ Date: _____ Score: _____

- Listen to your teacher read about the food Maria ate and drank yesterday. Put checks (✓) next to the fruits and vegetables you hear. Write notes about how much of each she ate or drank. When you finish listening, decide and write the number of servings.

Vegetable/Fruit	How much?
Apple	
Apple Juice	
Banana	
Broccoli	
Celery	
Cabbage	
Carrots	
Corn	
Cucumber	
Grapes	
Green beans	
Lettuce	
Onion	
Orange	
✓ Orange Juice	1 cup
Peach	
Tomatoes	
Zucchini	

- How many cups of fruits and vegetables did Maria eat or drink yesterday?
- Does Maria need to add more fruits or vegetables? _____
- Think about the fruits and vegetables you ate yesterday. How many cups did you have? _____ Do you need to add more? _____

Additional Activity #3
Answer Key

Script for listening assessment:

Maria is 28 years old. She is a busy mother and she is also a student. She knows it is important to eat healthy food.

Yesterday Maria drank a big glass of orange juice for breakfast. She drinks orange juice every day. She drank about 1 cup of orange juice. She also cut up a banana and put it on top of her cereal.

For lunch, Maria had a salad and sandwich. For the salad, she cut up about two cups of leafy green lettuce, and then mixed the lettuce with tomatoes and cucumbers.

Maria got hungry about 3:30 in the afternoon so she ate one small apple.

In the evening, Maria cooked some chicken, rice, and carrots and green beans. She ate one piece of chicken, 1/2 cup of rice, 1 cup cooked carrots and green beans. She also drank a glass of water.

Answer key:

✓ Apple	1
✓ Apple Juice	
✓ Banana	1 cup
Broccoli	
Celery	
Cabbage	
✓ Carrots	(with beans)
Corn	
✓ Cucumber	A little
Grapes	
✓ Green beans	1 cup
✓ Lettuce	2 cups
Onion	
Orange	
✓ Orange Juice	1 cup
Peach	
✓ Tomatoes	A little
Zucchini	
TOTAL	6+

- Maria ate more than 3 cups of fruits and vegetables.
- No, she does not need to add more.
- Answers will vary.

MATERIALS

Transparency/Worksheet #1, "How Much is Healthy"
Additional Activity #3, Teacher script and Answer Key.

