

# Around the World in **80** Diets

Photographs by Peter Menzel

CURRICULUM GUIDE



# Around the World in **80** Diets

# **CURRICULUM GUIDE**

Second Edition

Based on the book What I Eat: Around the World in 80 Diets by Peter Menzel and Faith D'Aluisio

Fran Lyons Sammons, Writer





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# INTRODUCTION

The *What I Eat* posters are drawn from the book, *What I Eat: Around the World in 80 Diets*. The posters show photographs of people throughout the world standing alongside a day's worth of food. They provide insight not only into each individual's diet, daily life, and culture, but they also provide information about the national and global economics and politics of where they live.

**The fieldwork:** The *What I Eat* team had dinner with eighty people in thirty countries with the intention of showcasing real people and what they eat. The authors documented what their subjects ate on a typical day, at a particular moment in time, along with a thoroughly documented food list detailing that day's worth of food. This was not a clinical study or ethnographic food census, nor was it meant to look like one. Whatever was eaten on that day became the basis of the coverage. The authors also did not evaluate people's levels of physical activity as it was nigh impossible to come up with a metric for comparison across cultures. Instead, they relied on the photographs, story, and life circumstances to help the readers gauge for themselves how active or inactive each person was. After creating a display of what each person ate in one day, the authors took food portraits and then weighed all the food. This presentation introduces twelve of the eighty people from their book and invites students "to explore the lives of people in the farthest reaches of the world or next door . . . to see how [their] own diet compares."

**The curriculum guide:** This curriculum guide develops visual literacy by helping students analyze and understand the posters. As students go through the posters and activities, encourage them to reflect on what they learn about the world's cultures as well as international, economic, and political conditions. Also, allow them to reflect on the similarities and differences between their own diets and the diets of other cultures around the world as seen in the posters.

The curriculum guide (with people and countries arranged by calories consumed) contains the following components:

- Critical-thinking questions based on Bloom's Taxonomy that encourage students to delve deeper into the topics and concepts conveyed in the posters
- Writing prompts that offer ideas for paragraph and essay topics related to the posters
- Poster activities that have students organize and analyze statistical information presented in the posters and complete graphic organizers to assist them with their analyses
- Additional questions that have students reflect on the posters
- Strategic reading exercises that ask students to read passages from the book *What I Eat: Around the World in 80 Diets* and from various secondary sources, then complete graphic organizers to extract more meaning from what they've read

- Lecture notes featuring questions to pose for class discussion on each of the twelve persons, their lifestyles, and their diet, along with information to answer those questions
- Two-page, reproducible student handouts for each of the twelve persons, with all photos and class discussion questions lettered for easy reference to each other

These components may be used in any order and combination, depending on your classroom needs.

**Different daily diets:** As they look at the photographs, students should pay careful attention to the details. The daily food people eat and the way in which they prepare and serve this food reveal a great deal about their culture, the local environment, and their access to foods from other places. For example, one person's daily diet may include only the plants they grow or the animals that they raise. Another person may have an incredibly varied diet that they purchased in a huge supermarket stocked with foods that are locally grown or shipped from faraway factory farms.

**Overfed and underfed:** The rising level of affluence throughout the globe has, in some cases, been positive and contributed to improvements in the nutrition of entire populations. However, there is a distressing side to having greater access to more food. Some people have moved away from locally grown, whole foods and toward high-fat, high-sugar processed foods. This shift has contributed to a worldwide epidemic of obese and overweight people. For the first time in the history of the planet, overfed people outnumber the underfed.



Photographer Peter Menzel and writer Faith D'Aluisio in Yazd, Iran

Your students will have much to learn and discuss in this unique poster presentation of what people eat every day as photographed from places as far away as Kenya or as nearby as their own hometown.

# CRITICAL-THINKING QUESTIONS

# TEACHER SECTION

These twelve critical-thinking questions reflect the six levels of Bloom's Taxonomy: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. As the questions progress, they ask students to do more abstract thinking.

Questions 1–7 and 9 ask students to focus on one poster.

**Questions 8 and 10** ask students to compare two posters. You may choose which posters you would like them to focus on or allow them to select the posters.

**Questions 11–16** ask students to make evaluations based on an examination of all the posters. You may wish to modify these questions so that students only choose from a selection of the overall group of posters. For example, you could have students decide which of two daily diets they think is the healthiest (question 12).

All of these questions may be answered in either short- or long-answer form. You may also choose to combine several questions into a single essay assignment.

**Note:** Evaluate the content of these questions with the following basic rubric, which uses a four-point scale:

- **4—Exceeds**, for answers that include more information or make more insightful comments than you expected.
- **3—Expected**, for answers that are what you expected.
- 2—Nearly There, for answers that are correct, but incomplete or are complete, but contain some errors.
- **1—Incomplete**, for answers that are incomplete, contain too many errors, or show no effort. Ask the student to redo the work.

# CRITICAL-THINKING QUESTIONS

# STUDENT WORKSHEET

### KNOWLEDGE

- 1. Name two types of food you recognize and two you do not.
- 2. Identify all of the beverages in the photograph. What is the total volume in ounces this person drinks in one day?

### COMPREHENSION

- 3. Distinguish between foods purchased in a store or supermarket and foods that the person may have grown or made. Place the foods into two categories: "store-bought" and "homemade."
- 4. Looking at this person's diet, categorize his/her food items into the following three categories: grains & starches, fruit & vegetables, and protein.

### APPLICATION

- 5. Imagine that you visited this person and he/she asked you to stay for a meal. What meal would you most enjoy eating with them? Which meal would you least enjoy?
- 6. The USDA nutrition guidelines say that we should eat:
  - a. more whole grains,
  - b. more vegetables and fruits,
  - c. less meat, and
  - d. fewer calories from processed foods that are high in fat and added sugar.

Look at this daily diet and decide how well the person met these four USDA nutrition guidelines. Very well, well, poorly, or not at all?

### ANALYSIS

- 7. What does this person's daily diet reveal about his/her standard of living and the circumstances of his/her life?
- 8. Choose two posters. Compare and contrast the amount of food and beverages each person consumes in a day and the types of foods that are most prevalent in each diet.

### SYNTHESIS

- 9. Imagine that this person joins you and your family for dinner at your home. Predict what the person would say about this dinner when he/she returned home.
- 10. Choose two posters. Imagine that these two people could cook a meal together. This meal would include some of the foods each person customarily eats and would allow each person to educate one another about his/her culture and lifestyle. What do you think would be on the menu? What might this meal teach each person about the other person's culture and lifestyle?

### EVALUATION

Look at *all* of the posters to answer these questions:

- 11. Imagine that you are looking for a unique and educational dining experience by sharing a meal with one of the individuals photographed on the posters. Which person do you think could best provide you with this experience? Why?
- 12. Which person do you think has the healthiest diet overall? Why?
- 13. Which two people do you think have the lowest standard of living? Explain your choices.
- 14. Which two people are most affected by their religion(s)? Explain your choices.
- 15. Which two people are most overfed? Explain your choices.
- 16. Which two people are most underfed? Explain your choices.

# WRITING PROMPTS

- 1. Choose three people from three different continents. Compare and contrast the types of food and beverages each person consumes each day. Explain some of the reasons for the similarities and differences you notice.
- 2. Select the person whose life you feel differs the most from your own. Compare and contrast your own diet, kitchen, and methods of food preparation to those of this person. Despite the differences between you and this person, are there any significant similarities?
- 3. Imagine that you can go shopping for a day's supply of food with one of the people in the posters. Describe which person you would choose to shop with, and why. What questions would you have during the shopping process? What do you think you might learn?
- 4. Imagine that one of the individuals photographed for the posters visits another person photographed for the posters. The visiting person brings some of his/her favorite foods to share. During the visit, the two people cook and eat a meal together, combining some common foods from both daily diets. Write some dialogue that these two people might have as they eat their combined meal. What might they talk about? What might they learn from each other?
- 5. Choose and closely examine one poster. Explain what you can learn about this person's culture based strictly upon what you see. For example, what do you notice about the types and varieties of foods and beverages available, or the furnishings in the kitchen or dining room? What do these features tell you about the culture? You may include information from the statistics to support your answers, but your analysis should start with the evidence visible in the photographs.
- 6. In the introduction to *What I Eat*, author Faith D'Aluisio writes about the people in the posters, saying, "All are presented in a food portrait with what they ate on a typical day, at a particular moment in time, along with a thoroughly documented food list detailing that day's worth of food.... Their calorie counts are a direct reflection of the circumstances and moment in time when we covered them." Choose one poster where you can see the "reflection of circumstances." How does the economic and/or political situation in that person's country of residence impact what you see in the photograph? You may want to do some research on this country to help answer this question.
- 7. Describe at least four things you have learned by examining these posters. What have the posters taught you about other cultures and countries? Be specific. What have they taught you about your own culture?
- 8. What evidence of globalization do you see in the posters? Use information from at least three posters to support your answer.

- 9. What evidence do you see in the posters that some people live in a part of the world not affected by globalization? Use information from two or more posters to support your answer.
- 10. Imagine that you are a professional nutritionist. You have been invited to analyze one person's daily diet in terms of its nutritional content and overall healthiness. Choose one to analyze, and write about your findings. Before beginning, you may want to conduct some research on basic nutrition and healthy eating. See www.ChooseMyPlate.gov.
- 11. Did you notice the height and weight of different people around the world? Genetics undoubtedly play a role in a person's eventual size, but so does diet. Look back at the height of the different people in the posters. Can you form an opinion and write about the relationship between available nutrition and size?
- 12. Many Americans eat only what they like—no "green yuckies" (vegetables). For them, food is purely a pleasurable experience or simply a mindless activity, done while in front of the television. When you looked at the posters and read about how other people view their food, what did you think? Did your opinion of why people eat change? How do Americans view food differently from other people in the world?
- 13. There is an old adage that says "You are what you eat." Reflect on this statement. What do the posters you have looked at reveal about the truth of this saying?
- 14. In the forward to *What I Eat*, famous nutritionist, writer, and university professor Marion Nestle says, "Most of the people interviewed for this book say they have more than enough to eat, sometimes much more. Only a few do not." When you looked at the posters, did you think people generally ate enough, ate too little, or ate too much?

# COUNTRY STATISTICS: DEFINITIONS/EXPLANATIONS

### Population

The number of people that live in a specific area.

### Life Expectancy

The average number of years from birth that a person can expect to live.

# **GDP** per Capita

Income per person; most often measured by dividing a nation's GDP (the total value of goods and services produced by a nation) by its population.

It may be more useful to think of per capita income in the following terms: A nation's GDP at purchasing power parity (PPP) exchange rates is the sum value of all goods and services produced in the country valued at prices prevailing in the United States. This is the measure most economists prefer when looking at per-capita welfare and when comparing living conditions or use of resources across countries. The measure is difficult to compute, as a U.S. dollar value has to be assigned to all goods and services in the country regardless of whether these goods and services have a direct equivalent in the United States (for example, the value of an ox-cart or non-U.S. military equipment); as a result, PPP estimates for some countries are based on a small and sometimes different set of goods and services.

# Annual Health Care Expenditure per Capita

The average amount of money spent in one year on each person for health care by both public (i.e., the country's government) and private sources combined. The number is given in U.S. dollars at an average exchange rate.

# Overweight

The percentage of a country's adult population (fifteen years old and older) that is considered overweight—according to body mass index (BMI). The World Health Organization defines "overweight" as abnormal or excessive fat accumulation that may impair health. An overweight person has a BMI of 25–29.9, while an average BMI lies between 18.5 and 24.9.

### PPP

Stands for purchasing power parity, a criterion for an appropriate exchange rate between currencies. It is a rate such that a representative basket of goods in country A costs the same as in country B if the currencies are exchanged at that rate.

### Undernourished

The percentage of a country's adult population (fifteen years old and older) that is considered undernourished, meaning that their diet is below the minimum level of dietary energy consumption.

### **Meat Consumption**

The average amount of meat in pounds, per year, eaten by the people in a country.

### **Poverty Line**

The minimum level of income deemed necessary to achieve an adequate standard of living. The poverty line may differ from country to country; the poverty line in a "developed" nation is generally set higher than that of a "developing" nation. National estimates of the percentage of the population falling below the poverty line are based on surveys of subgroups, with the results weighted by the number of people in each group.

### **Tobacco Use**

The percentage of the population above the age of fifteen years old who use tobacco.

COUNTRY STATISTICS

h 157,826,578 35,623,680 1,379,302,771 8,299,706 8,299,706 126,451,398 126,451,398 126,451,398 126,451,398 1944,643 tes 326,625,791	(years) (F/M) PPP (current (sect. 2017) international \$) (2016)	per Capita, PPP (\$) (2015)	(>18 years) (>18 years) (2014)	Undernourished (%) (2014–2016)	Consumption (lbs/year) (est. 2005)	Poverty Line	(F/M) (>15) (est. 2015)
a 35,623,680 1,379,302,771 1,379,302,771 8,299,706 8,299,706 1,26,451,398 126,451,398 126,451,398 126,451,398 1,944,643 1,944,644 1,944,645 1,	71.3 3,790	88	19.6/14.4	16.4	6.8	31.5 (2010)	1.1/45.1
1,379,302,771    1,379,302,771    8,299,706    8,299,706    126,451,398    126,451,398    47,615,739    1,944,643    1,944,643    1,944,643    1,944,643    1,944,643    1,944,643    1,944,643    1,513,016	79.3 43,420	4,600	63.4/72.0	<5.0	212.3	9.4 (2008)	12.7/17.3
8,299,706 8,299,706 126,451,398 47,615,739 1,944,643 1,944,643 1,944,643 1,944,643 1,944,643 1,944,643	/73.6 15,500*	762	33.6/37.2	9.3	131.2*	3.3 (2016)	2.0/48.7
126,451,398    126,451,398    47,615,739    1,944,643    1,944,643    1 States  326,625,791	/80.7 37,330	2,819	60.4/68.6	<5.0	219.8	22.0 (2014) 15.9/35.7	15.9/35.7
47,615,739    47,615,739    1,944,643    1,944,643    1 States    326,625,791	/81.9 42,790	4,405	22.8/30.4	<5.0	100.1	16.1 (2013)	11.4/34.7
1,944,643 ites 326,625,791	(62.8 3,130	157	30.4/15.8	21.2	34.0	43.4 (2012)	1.3/20.8
tes 326,625,791	70.1 25,870	1,429	59.1/64.3	<5.0	126.8	25.5 (2015) 25.6/51.0	25.6/51.0
21 204 016	/77.7 58,700	9,536	65.3/74.1	<5.0	279.1	15.1 (2010) 19.6/25.1	19.6/25.1
	79.1/73.0 17,440 (2014)	579	62.6/59.9	<5.0	134.0	19.7 (2015)	N/A
Yemen 28,036,829 68.2/63.7	63.7 2,500	144	46.8/34.5	26.1	37.7	54.0 (2014)	7.9/29.4

\* Mainland China

Sources: Food and Agricultural Organization of the United Nations The World Factbook—CIA World Bank

POSTER-BASED ACTIVITY

# **STUDENT WORKSHEET 1**

Directions: Find the life expectancy for males in the United States. Compare that figure to the life expectancy for males in three other countries. List clues in the photographs that reflect factors that may contribute to each country's life expectancy.

Country	Life expectancy	Clues in the photographs reflecting factors that influence life expectancy
United States		

# STUDENT WORKSHEET 2

**Directions, Chart One:** Without looking at the posters, make your best guess and predict how the ten poster countries rank, from highest to lowest, in life expectancy for females. (The country whose women live the longest will be listed at #1.) In the right-hand column, write the true rankings with actual results.

Predict the life expectancy of the ten countries' females. Rank from highest to lowest.

# **Poster Countries**

Bangladesh, Canada, China, Israel, Japan, Kenya, Latvia, United States, Venezuela, Yemen

### List the name of the country and the actual female life expectancy. Rank from highest to lowest.

1.	1	years
2.	2	years
3.	3	years
4.	4	years
5.	5	years
6.	6	years
7.	7	years
8.	8	years
9.	9	years
10.	10	years

1. How accurate were your predictions?

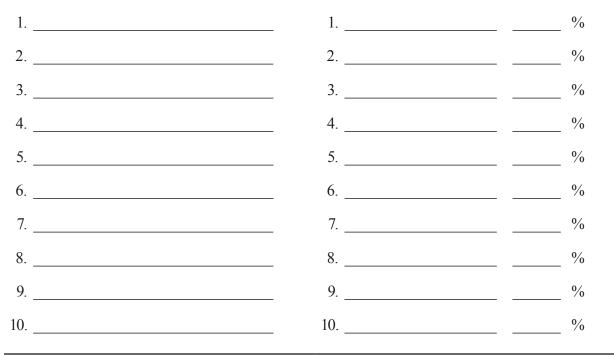
2. What helped you make your predictions?

- 3. What surprised you about the actual rankings?
- 4. Which factor(s), from those listed in the top row of the Country Statistics Chart, do you think most affect(s) life expectancy in these countries?

**Directions, Chart Two:** In the left-hand column, predict the order of countries, in terms of national percentage of overweight males, from lowest to highest. (The country that contains the lowest percentage of overweight males will be ranked at #1.) In the right-hand column, write the true rankings with actual percentages.

# Predict the order of countries in terms of overweight males, from lowest to highest.

List the name of the country and the actual overweight percentage for males, from lowest to highest.



- What is the overweight percentage in Bangladesh? \_\_\_\_\_\_
  Do you think that Bangladesh is a health-conscious/physically fit country? \_\_\_\_\_\_
  Why or why not? \_\_\_\_\_\_
- 2. Kenya has a low percentage of males who are overweight. However, Kenya's men have a short life expectancy. What statistic might explain the short life expectancy in Kenya?

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\_\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_\_, \_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_,

- 3. Which countries have an overweight male population greater than 50 percent?
- 4. Which five countries list the greatest number of pounds of meat consumed per year?
- 5. How closely do your answers match in questions #3 and #4? Explain why there might be a correlation between meat consumption and percentage of men who are overweight.

# STUDENT WORKSHEET 3

**Directions:** Find the countries with the three highest and the three lowest life expectancies for females. Write those countries' names in the top row of this chart. Next, for each of these countries, find the statistics regarding undernourishment, health care, and poverty and enter them into the chart.

Three countries with highest life expectancy	Percentage of total population that is undernourished	Average amount of money spent on health care per person	Percentage of population below the poverty line
Three countries with lowest life expectancy			

- 1. How do the top three countries compare to the bottom three countries in terms of undernourishment rate?
- 2. How many years longer does an average woman in the top country live in comparison to an average woman in a country at the bottom of the chart?
- 3. How do the top three countries compare to the bottom three countries in terms of percentage of population that is living below the poverty line?

4. Is this statement true for these six countries? *The more a country spends on health care, the higher the country's life expectancy rates.*Support your position with the statistics.

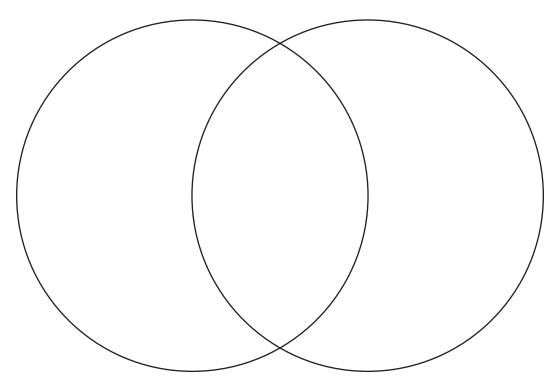
5. Is this statement true for these six countries?
 The greater the percentage of people living below the poverty line, the lower the country's life expectancy rates.

Support your position with the statistics.

\_\_\_\_\_

# STUDENT WORKSHEET 4

**Directions:** Choose two posters featuring countries you think may have some things in common. Write the name of each country in one of the circles below. Next, compare the statistics for the two countries. Write statistics that they have in common in the center section where the two circles intersect. (The numbers do not have to match, but they should be close to each other.) Write the statistics that differ from each other in the parts of the circles that do not intersect. Be *certain* that all statistics have a label.

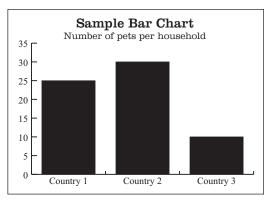


- 1. In what ways are these countries most similar to each other? Can you find additional evidence in the posters that support the statistical similarities?
- 2. In what ways are these countries most different from each other? Can you find additional evidence in the posters that support the statistical differences?

# STUDENT WORKSHEET 5

Population statistics for China, USA, Bangladesh, Japan, and Canada						
China 1,379,302,771		1	3	7	9	million
United States 326,625,791			3	2	6	million
Bangladesh 157,826,578			1	5	7	million
Japan 126,451,398			1	2	6	million
Canada 35,623,680				3	5	million

Use graph paper to make a bar graph of the information above. The population of the five different countries is rounded to millions. When you make your graph, if you decide that one increment equals 1 million, then you will need 35 for Canada, but 1,379 for China. You can make larger increments, such as 1 increment = 50 million. Then, Canada will be less than 1 increment and China will need almost 30 increments. When you organize your graph, put the countries along the x-axis and population on the y-axis.



### Write your answers on a separate paper.

- 1. Canada is one of the largest countries in the world when judged by land area. What does your bar graph imply about the population density across the country?
- 2. Bangladesh is a little smaller than the state of Iowa. What does your graph tell you about the population density across Bangladesh? (Consider the population of the United States.)
- 3. The population of China is staggering. How many times larger is the population of China than the population of the United States? Than the population of Japan? Than the population of Canada?
- 4. Considering the exceptional number of people that live in China, what about these other China statistics surprises you? What statistic(s) were not surprising? Explain. Life expectancy: F = 78.0 years, M = 73.6 years; Overweight: F = 33.6%, M = 37.2%; Undernourished: 9.3%
- 5. Considering the large number of people that live in Bangladesh, what about these other Bangladesh statistics surprises you? What statistic(s) were not surprising? Explain. Life expectancy: F = 75.6 years, M = 71.3 years; Overweight: F = 19.6%, M = 14.4%; Undernourished: 16.4%

# STUDENT WORKSHEET 6

According to the information at ChooseMyPlate.gov, Americans should consume a variety of foods from each food group every day. They should also eat more vegetables and fruits, more whole grains, more low-fat dairy products, and more water than sugary drinks. Looking at each country's poster, check for evidence that each food group is represented. Record your findings in the chart below. Foods or beverages that don't fit a nutritious food group should be considered "Other."

Person's country	Grains	Meats/ proteins	Vegetables	Fruits	Dairy	Water	Other
Bangladesh							
Canada							
China							
Israel							
Japan							
Kenya							
Latvia							
USA–CA							
USA-NY							
USA–TN							
Venezuela							
Yemen							

- 1. Which countries are missing one or more food groups in one day's worth of food? Why might this food be missing from the person's diet?
- 2. What kinds of food items did you find in the Other column? Can these foods be considered "empty" calories (calories with little or no nutritional value)?
- 3. Which individual best matches the recommendations on ChooseMyPlate.gov? Which individual least matches?

# STUDENT WORKSHEET 7

**Directions:** Choose three posters. Write each country's name in the left-hand column of this chart. For each country, find the national percentages of overweight men and women. Record these rates into the appropriate boxes.

Countries	National overweight rates			
Countries	Women	Men		

### Answer the following questions on a separate piece of paper:

- 1. What can the national overweight rates tell you about overall health in each of these countries?
- 2. Did the national overweight rate between women and men differ notably for any of the countries you recorded? Why or why not?
- 3. What clues do you see in the posters that can be used as evidence of the national overweight rates for each country? How are these clues related to one or more of the following factors: availability of food, food preparation, culture, globalization.
- 4. What kinds of factors can affect a country's national overweight rates? Consider statistics for meat consumption and gross national income in your response.
- 5. How are unhealthy choices related to a person's environment and social situation?

# STUDENT WORKSHEET 8

Directions: Choose two of the twelve posters: one person from a developed country and one person from a developing country. Fill in the chart below and then answer the questions on the following page.

Country	Developed country:	Developing country:
Country statistics	Life Expectancy (F/M): GDP:	Life Expectancy (F/M): GDP:
	Overweight (F/M):	Overweight (F/M):
	Undernourished:	Undernourished:
	Meat Consumption:	Meat Consumption:
Homemade foods		
Packaged, processed foods		
Whole foods (e.g., fruits, veggies)		
Restaurant/take-out foods (note if fast food)		
Beverages not water (note if high-sugar/ high-calorie or alcoholic)		
Water		

**Directions:** Choose an answer from the listed responses. Discuss your answers with other classmates. Are your answers the same? Where and why did they differ? When you finish, write a list of at least three generalizations you can make about the differences between developed and developing countries.

DIET QUESTIONS	Developed country	Developing country
How much of the daily diet was homemade food or whole foods? (All, Most, Some, Few, None)		
How much of the daily diet was processed, restaurant, or take-out food? (All, Most, Some, Few, None)		
How many of the beverages were high-sugar/high- calorie or alcoholic? (All, Most, Some, Few, None)		
How many technological or electrical items did you see in the poster? (Lots, Some, Few, None)		

ENVIRONMENT QUESTIONS	Developed country	Developing country
How might this person's location affect his/her access to food? (A lot, Some, Very little, No effect)		
How might the person's income affect his/her access to food? (A lot, Some, Very little, No effect)		
How might this person's kitchen affect what foods he/she eats? (A lot, Some, Very little, No effect)		

CULTURE QUESTIONS	Developed country	Developing country
How much does this person's diet reflect the values and social circumstances of his/her family? (A lot, Some, Very little, No effect)		
How much does this person's diet reflect the values and social circumstances of his/her country? (A lot, Some, Very little, No effect)		

### STUDENT WORKSHEET 9

### **Bottled Water—A Big Problem**

Many environmentalists claim that bottled water has had and continues to have a huge negative impact on our environment. The number of bottles Americans use each month is staggering. Billions of pounds of plastic bottles end up in our landfills each year. And bottling water is expensive, cost-wise and energy-wise. It takes 2,000 times more energy to produce eight ounces of bottled water than to produce eight ounces of clean tap water.

The posters show, however, that bottled water is not just an American problem. Look at the posters and count the number of water bottles you see. Write the number next to each country's name.

Country	Water bottles	Country	Water bottles
Bangladesh		Latvia	
Canada		USA–CA	
China		USA–NY	
Israel		USA–TN	
Japan		Venezuela	
Kenya		Yemen	

- 1. Which countries have bottled water? Combine all U.S. water and list the countries from most to least.
- 2. List two or more reasons why countries use bottled water.
- 3. Which countries showed no bottles of water?
- 4. List two or more reasons why countries may not have bottled water.
- 5. Did the Green Teen (Canada) have bottled water? Why was this so?
- 6. Why does it make sense to clean up the water supply rather than bottle water?
- 7. Do you drink bottled water? If no, why not? If yes, why? Would you be willing to give up bottled water for the environment?

# STUDENT WORKSHEET 10

**Directions:** Using a timeline format, fill in the foods that you eat today *as you eat them!* Hang the chart on the refrigerator or put it on the kitchen table. Try to be precise about quantity and brand name. Don't forget if you drank water from the tap, or grazed in the refrigerator. If you ate something away from home, write it down when you return. Write *everything* you remember.

\_\_\_\_\_

Early morning/breakfast	
Midmorning	
Lunchtime	
After lunch	
Before dinner	
Dinnertime	
After dinner	
Late night	

1. Directions: Use your one-day record to evaluate your diet. Mark a slash for each serving.

Grains	Vegetables	Fruit	Meat/Protein	Dairy	Water	Other

2. Evaluate your diet using the general guidelines: more whole grains, more fruits and vegetables, low-fat dairy, less fatty meat/protein, and water instead of soda.

OR

Compare your diet to one that is specifically recommended for your age and height. See ChooseMyPlate.gov for a personalized plan.

How well did you do?

What, if anything, should you change to have a healthier diet?

- 3. Estimate your calorie intake. You need to do a little research. Use food labels and online calorie counters to help you with your numbers. You can put in the name of a fast food restaurant and find the exact calorie count for its most popular food items. Maybe you can share calorie information with classmates. After you make your estimate, answer the following questions:
  - a. Were you surprised that you ate so few or so many calories? Explain.
  - b. Were you surprised to see how many calories you ate between meals? Explain.
  - c. Were you surprised that certain food items had so many calories? Explain.
  - d. Now that you know the calorie numbers, is there any food you wished you hadn't eaten? Explain.
- 4. Did you spend any of your own money for your food? If yes, what was the most expensive item you bought? Was it nutritious? Was it worth the money and calories?

# STUDENT WORKSHEET 11

These posters do not show averages of daily caloric intake. Rather, the food portraits are "snapshots in time" that demonstrate the individual's circumstances and choices regarding food on a randomly selected day.

Though the posters include a calorie count, the number does not represent the average caloric intake for that person over time. The coverage in these portraits is based on what a person ate on a recent typical weekday, plucked from memory of that day, eating habits, personal preferences, and larder. What was eaten on the day of the photograph became the basis of coverage. The portraits do not represent and are not meant to look like a clinical study or ethnographic food census.

Many of the people photographed for *What I Eat* bunch up in the 2,000 to 4,000 calorie range, but in isolation, these numbers have less meaning. They must be understood in the context of that person's life.

Think about all the different factors that can affect food choice during a day. In groups, answer the questions below.



# Miyabiyama Sumo Wrestler

Calories: 3500, Country: Japan

To achieve his fighting weight, the mountain of a man spent years force-feeding himself many more calories than the listed 3,500. Now it takes fewer calories to maintain his 400-pound bulk. During the week of his interview, he was in training for a tournament—one of six big yearly matches so he wasn't drinking alcohol or eating at restaurants with sponsors of his club. His calorie count would have been higher at those times.

- 1. Is his calorie count surprising? If so, why? When might his calorie count have been higher?
- 2. Though he is a large man, does he seem to have control over his food intake? How does his career affect his caloric intake? Does his food intake affect his health?
- 3. How is his food intake influenced by his culture?



# Rick Bumgardener Candidate for Obesity Surgery

Calories: 1600, Country: USA

His calorie count of 1,600 is a seeming impossibility in relation to his size and weight (468 pounds), but the day's worth of food pictured is the diabetic's weight-loss diet as he struggles to qualify for obesity surgery, for which he currently weighs too much to undergo. At the time of the portrait, Rick's food options were a mere shadow of their former composition, and the retired school bus driver reported that he often missed his target. "I didn't get to this size eating rabbit food," he said, eyeing his unlimited supply of raw vegetables.

1. Why is his calorie count so low? What does it look like Rick is trying to do? What else must Rick do in order to achieve his goal?

2. What factor currently has the most influence on Rick's food intake? How does Rick exemplify the consequences of unhealthy behaviors? (*NOTE: Look closely at his portrait for supporting details.*) What could happen to Rick if he continued to put on weight?

3. How does Rick's diet reflect the changes in food supply and production of the latter half of the twentieth century?



# Noolkisaruni Tarakuai Maasai Herder

### Calories: 800, Country: Kenya

At 800 calories for a day's worth of food, her calorie count is unsustainable in the long-term. But, from time to time, she eats part of a goat or receives food aid. If the rains start, her animals will give more milk. If you looked at her diet over, say, a month or more of daily calorie counts, her average daily caloric intake would be higher. But on that particular food-stressed day on the semiarid plain, Noolkisaruni ate porridge, a little milk, and a piece of fruit brought to her by her husband.

1. How does her calorie count reflect her geographic surroundings?

2. Does she get to choose her calories? If not, what controls her access to food? Is it within her power to make healthy eating decisions? Why or why not?

3. What might be some reasons that she can eat so few calories on this day and still remain healthy?



# Mariel Booth Model Student

Calories: 2400, Country: USA

Her 2,400 calories could rise or fall depending on whether she's indulging in comfort food with her boyfriend or slimming down for a modeling job.

1. Is her caloric intake too high? Why might she think so? When might her caloric intake be higher or lower?

2. How can external factors, like the media, affect one's idea of proper caloric intake?

3. How can job choice affect health? How can perception of body image norms affect or be a barrier to health?

4. What does Mariel's consumption of whole, plant-based foods suggest about her interest in the environment? What does her diet suggest about her knowledge of current health guidelines?

# STUDENT WORKSHEET 12

A day's worth of food is a narrative that offers an intimate look at an individual's social, economic, and political situations. By crafting short stories based on food intake, you will imagine and therefore experience different social, economic, and political situations.

# **Short story:**

Choose two individuals and write two separate stories about their days, using the food they ate as a road map for the day's events. Stories should:



Demonstrate an understanding of food source and food productions, and consider how the source and production method of the different foods eaten affect the possibilities of each individual's day.

Include relevant details about the individual's career and economic, political, and social situation.

Mention as many foods eaten as possible.

Illustrate how different foods (whole, store-bought, fast food, homemade, fresh, packaged and processed, etc.) affect an individual's immediate and long-term health and energy level.

Be checked for typos, grammar, repetition, smooth transitions, and overall clarity.

Exhibit not only your knowledge, but your creativity.

# Group film activity (Optional):

In a group, choose one story from your members' collection of stories. Work together to turn the story into a script for a short film that you will create, act in, and then show in class. If you prefer, you can animate the short film.

# STUDENT WORKSHEET 13

- 1. Keep a food journal for a week. Follow these guidelines:
  - a. **Calories:** For one week, calculate the amount of calories eaten every day. This will require research and close consideration of portion sizes. Like *What I Eat* authors Peter Menzel and Faith D'Aluisio, use the USDA Nutrient Database to calculate the amount of calories consumed.
  - b. **Balanced diet:** Classify each food eaten into its proper food group for one week. See if you are eating a balanced diet of fruits, grains, vegetables, protein, etc., as per the USDA guidelines. Create a legend and chart your food into the following categories: processed food, packaged food, fast food, restaurant food, homemade food, homegrown food, and locally derived/farm fresh food.
- 2. Answer the following questions:
  - a. Are your daily food choices and caloric intake consistent? If not, what factors influence the changes in your food intake from day to day? Reflect upon what factors seem to be the most decisive in your food choices. Cost? Taste? Convenience? Impact on the environment? Job? Body image?
  - b. Do you know where your food comes from? Choose one complete meal and discuss how far back you can track it down, from the completed dish to the individual ingredients.
  - c. Reflect on your answer from the previous question. How much do you know about the food and drink you consume and their effects on you and the environment? How does this make you feel? What can you do to know more about your food?

- d. Describe your most healthy and nutritionally balanced day. Include details about food production (packaged and processed or homemade?) and the day's physical activity. What circumstances allowed you to eat so healthfully? Do calories tell the whole story? Consider the influence of peers, family members, and advertising in your discussion.
- e. Describe your most unhealthy and nutritionally imbalanced day. Include details about food production (packaged and processed or homemade?) and the day's physical activity. What circumstances prevented you from eating healthfully? Do calories tell the whole story? Consider the influence of peers, family members, and advertising in your discussion.
- f. Assess your overall personal health practices and overall health status.
- g. Develop a realistic goal to adopt, maintain, or improve personal health, drawing upon data in your food journal. Address any concerns or potential weaknesses and suggest solutions to maintain your long-term personal health plan.
- h. Do any of your solutions include other people? What are some ways that you could positively affect the health of others?

# POSTER-BASED ACTIVITY

### STUDENT PROJECT

**Directions:** You may work in pairs or individually. Use the *What I Eat* posters as your model and create a **food portrait of** *one meal* **plus** *one snack* that you, a team member, a sibling, or a parent generally eats.

- 1. Give the personal details regarding height, weight, and a "label" such as *High School Student*, *Soccer Mom*, or *Musician*. Write a short paragraph that introduces this person.
- 2. General and Food-Related Statistics: You are going to use information about your **state**, not the entire country. Put "America's Health Rankings" in your search engine or go to www.americashealthrankings.org. On this page you can find information, specific to your state, about the following:
  - a. Prevalence of obesity
  - b. Prevalence of smoking
  - c. Cardiovascular disease
  - d. Health status: percent of people reporting fair or poor health
  - e. Physical activity
- 3. Find a map of your state to include on your poster, and circle where this person lives.
- 4. Food
  - a. Choose the one meal plus one snack from a person's actual food timeline/journal or from memory to use in the food portrait.
  - b. Replicate the meal and snack. Pay attention to portion size. Arrange the food on a table or counter, grouped as a meal and as a snack.
  - c. Make a list of the meal food and snack food using the same format as the poster. (Use volume measurements such as ounces, cups, tablespoons, etc.)
- 5. Photography
  - a. Using your phone or a digital camera, take at least one photo of the person standing/ sitting near the food.
  - b. Take a few candid shots of the kitchen, person's family, physical activity, etc., which are relevant to the portrait.
- 6. Poster

Use the *What I Eat* posters as a model to set up your poster portrait. Use your computer to type the information and print it. Print your photos on a color printer. You can mount the photos and print information on a large piece of construction paper. Use marker or a large font to make the title captions.

## ADDITIONAL QUESTIONS

- 1. Look at the pictures of Rick Bumgardener (United States) and Miyabiyama (Japan). Both are considered morbidly obese.
  - Who appears healthier today?
  - Who will be healthier ten years from now?
  - What might affect each person's health over the next ten years?
- 2. Look at the posters for the three individuals from the United States. One is from Tennessee, one is from New York, and one was born in Texas but is currently assigned to California.
  - Are these people representative of all Americans? Why or why not?
  - Are they representative of all people who live in the state where they are currently living?
  - What about the model's job and the soldier's job affects what and how they eat?
  - How does the fact that Rick had to give up his job affect what and how he eats?
- 3. Look at the posters from China and Venezuela.
  - What about their foods are like American foods?
  - How are their foods different from the American model's food?
  - What health problems might be in their future?

#### IMAGINE . . .

- 1. Imagine that you live in a country without any fast-food restaurants. How would that affect your health, lifestyle, culture, and cooking practices?
- 2. Imagine if you *had* to eat out for every meal. How would that affect your health, lifestyle, and wallet?
- 3. Imagine that you are a person living below the poverty line and you have to feed yourself and three children. You know that ground beef costs about \$5/pound at the supermarket. You also know you can buy four quarter-pounders with cheese for 99 cents. Explain why you might choose to eat at a fast-food chain even though it may not be healthy. (Show the math.)
- 4. Imagine that you had to eat, for one month, the same diet as someone from one of the foreign countries represented in the posters.
  - Which would be the easiest diet for you to follow?
  - Which would the second easiest diet for you to follow?
  - Which would be the hardest for you to follow?
  - Which would be the second hardest for you to follow?



#### TEACHER SECTION

These exercises ask students to read two selections for each poster. Reading 1 is always a passage from *What I Eat*, and Reading 2 is taken from a secondary source. After reading, the students are asked to complete a graphic organizer to extract more meaning from what they've read.

Students will complete one of three types of graphic organizers for each country:

#### READING GUIDE

The Reading Guide asks students to consider what they already know about a subject, read about it, and then assess the accuracy of their predictions. The main purpose of this graphic organizer is to have students carefully read and point to clues in a text to find information that either confirms or challenges their preconceived ideas.

- 1. Before students read, have them make notes in the "What I think" column. They may do this on their own, in small groups, or as part of a class discussion. If you discuss students' ideas as a class, list about twenty of their ideas on the board and then ask them where they believe they got each of these ideas (e.g., on TV, from their parents).
- 2. Ask students to read the passage, paying particular attention to information about each of the questions in the graphic organizer. As they read, they should take notes in the "What the text says" column.
- 3. After they have finished reading, they will compare what they learned in the text with their initial thoughts on the subject and complete the graphic organizer by filling in the "Was I right?" column with their assessments.
- 4. In a full-class discussion, ask students to consider their initial ideas and compare them with what they learned in the readings. Did the readings challenge any of their preconceived ideas? Which reading do they feel provided them with the most new information?

#### I-CHART

The I-Chart (Inquiry Chart) allows students to make connections between more than one text. It presents several questions that may be answered differently by two different resources.

- 1. Have students read the questions in the chart before they read the text. These questions will provide students with a focus for their reading.
- 2. Ask students to read each text and fill in the appropriate sections of the chart.

- 3. After students have completed their charts, hold a full-class discussion in which you ask them to describe the differences between the texts.
- 4. Discuss students' findings as a class. In what ways do the two readings differ? In what ways are they similar? What evidence from the readings can students provide to support their answers?

#### MAKING INFERENCES CHART

It's important for students to develop skills for making inferences so that they can understand the full meaning of the things they read. When making inferences, students look for clues within a text, much as a detective might look for clues to solve a crime.

The Making Inferences Chart asks students questions that require answers that do not appear directly in the text. The students will need to infer the answer to the question and identify passages from the reading that support their inference.

- 1. Have students read the passage, either individually or as a class.
- 2. In a full-class discussion, ask students to summarize the information directly provided by the text. Generate simple *who, what, where* questions that can be directly answered in the text.
- 3. Discuss that a lot of information can be inferred from this passage. The information is not stated outright, but there are enough clues to infer what is being said. Read the first inference question and ask them how they would answer this question even though the text doesn't explicitly state the answer. What clues in the text will help them make these inferences?
- 4. Have students fill out the Making Inferences Chart.

# Below is a reading passage and on the following page is the corresponding Canada Making Inferences Chart with sample answers.

#### READING 1: WHAT I EAT

[Coco Finken] is a vegetarian these days.

It wasn't much of a stretch for the Finkens to support her dietary experiment; they've never eaten much meat, relying instead on the plant-based bounty of the land. The Finkens, who live a block and a half east of Lac Deschenes, a wide section of the Ottawa River near Ottawa, support local farmers and also grow some of their own vegetables in raised beds in their front yard, despite the short growing season and cold climate in their northern location.

Kirk and Danielle [Finken] have worked to instill a green ethos in their daughters—and to leave a small ecological footprint on the earth. They live in a passive-solar, straw-bale house, and they buy organic foods to the extent that they can afford the higher cost. They purchase foods like vegetables, milk, and freshly ground peanut butter at the local natural foods store, but they try to economize on staple foods. Kirk does most of the family shopping, and buys staples at the nofrills supermarket chain Super C. "At the bigger markets," says Kirk, "everything is so seductive that you end up spending more money than you intended." He calls it consumer manipulation.

## CANADA MAKING INFERENCES CHART, READING 1

Why was it easy for the Finkens to accommodate Coco's vegetarian diet? They didn't eat a lot of meat and they ate a lot of vegetables.	Because the reading says: " they've never eaten much meat, relying instead on the plant-based bounty of the land. [They] support local farmers and also grow some of their own vegetables in raised beds in their front yard."
Are the Finkens concerned about the environment? Yes, they are very concerned.	Because the reading says: The first part of the second paragraph describes everything they do to "leave a small, ecological footprint on earth."
Do the Finkens expend a lot of energy to heat their home? No, they don't expend a lot of energy heating their home because they use solar energy.	Because the reading says: They live in a passive-solar, straw-bale house.
Do the Finkens only shop for organic food? No, they sometimes buy at a supermarket.	Because the reading says: " and they buy organic foods to the extent that they can afford the higher cost." Kurt buys staples at the no-frills supermarket chain.

## KENYA

#### READING 1: WHAT I EAT

In the early morning in her windowless, round, dung-and-mud house, Noolkisaruni Tarakuai rinses spoons in a cooking pot as her herder waits for his breakfast of cornmeal porridge *ugali*—and sweet hot tea before setting off for the day to graze the family's cattle on the southern Kenyan plain. When the cows find enough to eat, there is also milk to drink—either fresh or soured for preservation. The amount of milk that Noolkisaruni can draw during drought is so minimal that there's no need to preserve it. It's barely enough to give just a taste to the herdsman, her husband, and her children; there's so little, she collects it in a tin cup rather than a gourd. The herdsmen, who can be paid in money or in goats, are people who have lost their herd to drought or predation by wild animals. They must work for someone else until they earn enough to rebuild their herd. The herdsmen live with the family full-time and only go home during school vacations, when the children can take care of the animals.

#### **READING 2: MAASAI ASSOCIATION**

The Maasai live in *kraals* arranged in a circular fashion. The fence around the kraal is made of acacia thorns, which prevent lions from attacking the cattle. It is a man's responsibility to fence the kraal, while women construct the houses. Traditionally, kraals are shared by an extended family. However, due to the new land management system in the Maasai region, it is not uncommon to see a kraal occupied by a single family.

The *Inkajijik* (Maasai word for a house) are loaf-shaped and made of mud, sticks, grass, cow dung and cow's urine. Women are responsible for making the houses as well as supplying water, collecting firewood, milking cattle and cooking for the family. Warriors are in charge of security while boys are responsible for herding livestock. During the drought season, both warriors and boys assume the responsibility for herding livestock. The elders are directors and advisors for day-to-day activities. Every morning before livestock leave to graze, an elder who is the head of the inkang sits on his chair and announces the schedule for everyone to follow.

Source: "The Maasai People," The Maasai Association.

## KENYA I-CHART

Topic: Maasai village	Men's jobs	Women's jobs	House building materials	Who lives in the houses
Source 1				
Source 2				

#### Date

# STRATEGIC READING

#### TENNESSEE, USA

#### READING 1: WHAT I EAT

Today, Rick Bumgardener's day's worth of food is a mere shadow of its former self as he struggles to lose enough weight to qualify for weight-loss surgery. How does it compare to his day's worth of food in the past, during a lifetime of overeating? He considers what his wife, Connie, has carefully portioned out for the photo and concludes, "I'd eat all that at one meal, plus another three whole chicken breasts and all the trimmings—potatoes, gravy, and biscuits."

"Country eating," the Tennessean calls it, and relentless snacking: "Get me a pack of saltine crackers, a long-handled spoon, and a jar of mayonnaise and I'll be happy," Rick says.

People with a BMI (body mass index) of over 40 are classified as morbidly obese. On Rick's first weigh-in at the University of Tennessee Medical Center in Knoxville, he weighed 499 and had a BMI of 73.7. The former school bus driver also suffers from crippling back pain, type 2 diabetes, and other chronic illnesses related to obesity. "Until I lose 100 pounds, they say it's just not safe to put me to sleep to do the surgery," he says.

There's counseling, nutrition guidance, and exercise therapy, but no decision yet about which surgery he'll receive. In gastric bypass, the surgeon creates a smaller stomach and reroutes the digestive system permanently; stunning weight loss is possible, but so are complications. In gastric banding surgery, an adjustable band constricts the usable portion of the stomach to the size of a golf ball. There are fewer risks, but the weight loss is generally slower. In either case, those who undergo these procedures need to adopt a healthier diet for life. . . .

Over his lifetime, Rick has gained and lost hundreds of pounds, but he's motivated now by the success of a cousin's gastric bypass surgery and the realization that his quality of life is on a downward spiral. A longtime lay preacher who writes gospel songs and picks them out on his guitar, now he can't stand long enough to preach a service—or do much of anything without help.

He looks forward to driving again, and to simple tasks that others take for granted: weed-eating, mowing the yard with his dog, Bear, at his side on the riding mower, and getting around under his own steam without a wheelchair.

#### **READING 2: AMERICAN HEART ASSOCIATION**

#### **Body Mass Index (BMI Calculator)**

The benefits of maintaining a healthy weight go far beyond improved energy and smaller clothing sizes. By losing weight or maintaining a healthy weight, you are also likely to enjoy these quality-of-life factors too.

- Fewer joint and muscle pains
- More energy and greater ability to join in desired activities
- Better regulation of bodily fluids and blood pressure
- Reduced burden on your heart and circulatory system
- Better sleep patterns
- Reductions in blood triglycerides, blood glucose, and risk of developing type 2 diabetes
- Reduced risk for heart disease and certain cancers

BMI is an indicator of the amount of body fat for most people. It is used as a screening tool to identify whether an adult is at a healthy weight...

#### BMI stands for body mass index.

This is a numerical value of your weight in relation to your height. A BMI between 18.5 and 25 kg/m<sup>2</sup> indicates a normal weight. A BMI of less than 18.5 kg/m<sup>2</sup> is considered underweight. A BMI between 25 kg/m<sup>2</sup> and 29.9 kg/m<sup>2</sup> is considered overweight. A BMI of 30 kg/m<sup>2</sup> or higher is considered obese.

#### Excess weight increases the heart's work.

It also raises blood pressure and blood cholesterol and triglyceride levels and lowers HDL (good) cholesterol levels. It can make diabetes more likely to develop, too. Lifestyle changes that help you maintain a 3–5% weight loss are likely to result in clinically meaningful improvements in blood glucose, triglycerides, and risk of developing type 2 diabetes. Greater weight loss can even help reduce BP and improve blood cholesterol.

Source: "Body Mass Index (BMI) In Adults," American Heart Association.

# What's "country eating"? Because the reading says: Why was Rick classified as morbidly obese? Because the reading says: Which surgery is more dangerous? Gastric Because the reading says: bypass or gastric banding? Besides surgery, what else will Rick need Because the reading says: to adopt in order to achieve a healthier diet for life?

#### TENNESSEE MAKING INFERENCES CHART, READING 1

## TENNESSEE READING GUIDE

Question	What I think	What the text says	Was I right?
What is BMI?			
What are some of the advantages of maintaining a normal weight?			
What are some of the health problems caused by excess weight?			
What group of people cannot use a BMI for a true evaluation of body weight?			

## CANADA

#### READING 1: WHAT I EAT

[Coco Finken] is a vegetarian these days.

It wasn't much of a stretch for the Finkens to support her dietary experiment; they've never eaten much meat, relying instead on the plant-based bounty of the land. The Finkens, who live a block and a half east of Lac Deschenes, a wide section of the Ottawa River near Ottawa, support local farmers and also grow some of their own vegetables in raised beds in their front yard, despite the short growing season and cold climate in their northern location.

Kirk and Danielle [Finken] have worked to instill a green ethos in their daughters—and to leave a small ecological footprint on the earth. They live in a passive-solar, straw-bale house, and they buy organic foods to the extent that they can afford the higher cost. They purchase foods like vegetables, milk, and freshly ground peanut butter at the local natural foods store, but they try to economize on staple foods. Kirk does most of the family shopping, and buys staples at the nofrills supermarket chain Super C. "At the bigger markets," says Kirk, "everything is so seductive that you end up spending more money than you intended." He calls it consumer manipulation.

#### **READING 2: THE USDA**

#### **Pesticide Residues**

## Is Organic Food Safer to Eat?

Pesticide residues—traces of chemicals that were applied to food crops in the field, during processing and/or while in storage—are measurably different on organic foods and non-organic foods. Analysis of USDA and other data documenting pesticide residues on fresh vegetables and fruits shows that organic produce carries significantly fewer pesticide residues than conventional produce. Measured residues on most products, both organic and non-organic, do not exceed government-defined thresholds for safe consumption.

#### **Food Additives**

Organic regulations ban or severely restrict the use food additives, processing aids (substances used during processing but not added directly to food) and fortifying agents commonly used in non-organic foods including preservatives, artificial sweeteners, colorings and flavorings, and monosodium glutamate (MSG). Materials that handlers and processors may use are defined by the U.S. National Organic Program's *List of Allowed and Prohibited Substances*.

#### **Food Safety**

Food safety issues related to animal products—meats, eggs, and dairy products—are diverse. Direct comparison studies of organic vs. non-organic foods are few, and the data available are specific to commodity, production practice and/or food safety risk. Organic meat products have

been shown to reduce risk for potential exposure to prion-related diseases including mad cow disease and to arsenic residues in chicken meat; and organic livestock practices do not contribute to the growing phenomenon of drug resistant pathogens. In other respects, however, current data show few significant differences with regard to food safety.

Source: Alternative Farming Systems Information Center, U.S. Department of Agriculture.

## CANADA MAKING INFERENCES CHART, READING 1

Why was it easy for the Finkens to accommodate Coco's vegetarian diet?	Because the reading says:
Are the Finkens concerned about the environment?	Because the reading says:
Do the Finkens expend a lot of energy to heat their home?	Because the reading says:
Do the Finkens only shop for organic food?	Because the reading says:

#### CANADA READING GUIDE

# Was Question What I think What the text says I right? Which has more pesticide residue? Which has more food additives? Which has a higher food safety risk regarding animal products?

#### Organic or Nonorganic Food— Which Is Safer to Eat?

#### Date

# STRATEGIC READING

### BANGLADESH

#### READING 1: WHAT I EAT

The heavy clay soils along the river near the market town of Sonargaon, outside of Dhaka, are well suited for making bricks. At the JRB brick factory, workers of all ages move raw bricks from long, stacked rows, where they first dry in the sun, to the smoky coal-fired kilns. After being fired, the bricks turn red. A foreman keeps tally, handing the workers colored plastic tokens corresponding to the number of bricks they carry past him. They cash in the chips at the end of each shift, taking home the equivalent of \$2 to \$4 (USD) a day. Unlike the garment industry, where child labor restrictions are more closely monitored, rural agriculture and industry are less regulated and there is little if any oversight or enforcement. Some laborers at a nearby site defend the use of child workers, saying poor families need their children to be breadwinners now if they are to have any kind of future.

#### **READING 2: BRICKMAKING AND THE ENVIRONMENT**

The Bangladesh country environmental analysis, undertaken jointly by the World Bank and Government of Bangladesh, estimated that economic cost associated with environmental degradation is about 4.3% of GDP, with urban air pollution accounting for almost one-fourth of that. In Dhaka alone, this translates to health costs of almost \$500 million per year. Brickmaking is a major source of air pollution in and around Dhaka, in addition to vehicular emissions and resuspended road dust.

Brickmaking in Bangladesh is an informal sector activity with more than a million people depending on it for their livelihood. It is seasonal, highly energy intensive, and a major source of GHG [Green House Gas] emissions. Total production in Bangladesh is estimated at 15 billion bricks annually, and given the extensive use of coal and wood in the industry, the GHG emissions are estimated to be 8.75 million tonnes of CO<sub>2</sub> equivalent annually. Demand for bricks is growing at about 5.6% annually, closely trailing the urbanization rate of approximately 6%. Brickmaking in Bangladesh lacks supporting policies and regulations to encourage cleaner and more energy-efficient practices and technologies. There are more than 1,200 brick kilns located around Dhaka.

Source: Akbar Sameer and Shakil Ahmed Ferdausi, "Urban Air Quality, Climate Change, and Development: An Integrated Approach to 'Greening' the Brick Industry in Dhaka, Bangladesh," World Bank.

# What best determines where a brickmaking Because the reading says: factory is located? Which industry has stricter child labor laws: Because the reading says: the brickmaking industry or the garmentmaking industry? Because the reading says: What argument could some people make for allowing children to work in a brick factory?

#### BANGLADESH MAKING INFERENCES CHART, READING 1

# How important is the brickmaking industry Because the reading says: to Bangladesh and why? What about brickmaking is damaging to Because the reading says: the environment? What evidence do experts give to show Because the reading says: the negative impact of the brickmaking industry on the well-being of the people of Bangladesh?

#### Date

## STRATEGIC READING

#### NEW YORK, USA

#### READING 1: WHAT I EAT

She's tall, thin, blond, and beautiful, and she's been modeling since the age of 13. But at age 23, five feet, nine and a half inches tall, and 135 pounds, Mariel Booth is now too old and too fat to get the really good jobs.

This is Mariel's own blunt assessment, and one that is probably not shared by most passersby in New York City's East Village, where she lives in a fifth-floor walk-up with a boyfriend "who can eat anything he wants and stay skinny," she says.

She eats healthy food, but too much, she thinks. She struggles to reconcile the fact that she's at the perfect weight for her body type with her inability to fit into size 0 clothes: "That's what's so annoying. My weight is great. I'm a size  $4\frac{1}{2}$ ... which is a really bad size for modeling because I don't fit into the 4s and there's no market for size 6. It's irresponsible for me to be the weight I am. If I lost five pounds, I would probably make a lot more money."

A bout with bulimia in her teens gave Mariel early insight into the effect that the drive for thinness was having on her colleagues in the modeling industry, an industry rife with eating disorders. "Most of those really serious eating problems come with the girls who have to be size 0, [if] it's not natural," she says.

Her own desire for perfection is driving her nuts, but not so nuts that she starves herself.

#### **READING 2: INTERNATIONAL HERALD TRIBUNE**

#### With Model's Death, Eating Disorders Are Again in Spotlight

PARIS—The death of a 21-year-old Brazilian model from complications of anorexia has reignited debate about the fashion industry and eating disorders at a time when various cities around the world are considering banning the ultrathin from the catwalk.

For health experts, images of severely underweight models are just one element in the gestation of eating disorders like anorexia and bulimia. The determining factors, they say, are biological and psychological.

Ana Carolina Reston, who weighed just 40 kilograms, or 88 pounds, when she died in São Paolo on Nov. 14, was the second model in recent months to succumb to an eating disorder. In August, Luisel Ramos of Uruguay died of heart failure during a fashion show, prompting Madrid to ban severely underweight models from the city's fashion week this autumn. . . .

But specialists in eating disorders warn that the focus on fashion implies that the illnesses are primarily caused by the desire to look like a model.

"This grossly oversimplifies the issue," said Eric van Furth, president of the Academy for Eating Disorders, an international organization based in Northbrook, Illinois, and clinical director of the National Center for Eating Disorders in Leidschendam, Netherlands....

Van Furth and other specialists say that many factors can contribute to anorexia, which is characterized by self-starving and excessive weight loss, and bulimia, a dangerous cycle of binge eating and purging.

According to Dr. Susan Ice, medical director of The Renfrew Center, an eating-disorder treatment facility in Philadelphia, these factors can include genes; early environmental influences; temperamental factors like low self-esteem; perfectionism; obsessiveness and anxiety; family variables; and often a "precipitating event," like abuse or the loss of a loved one.

"Any one of these things is not enough," Ice said. "In every girl I've seen, the course of development is slightly different."

Many researchers in the field use the metaphor of a gun to explain what leads to the onset of an eating disorder. According to this description, first coined by Dr. Cynthia Bulik of the University of North Carolina at Chapel Hill, genes load the gun and the environment pulls the trigger. . . .

But the key, experts say, is that the seeds of an eating disorder are there before obsessive behavior takes hold. If eating disorders "were all about culture, . . . every one of us who reads a fashion magazine would have one."

Source: Kimberly Conniff Taber, "With Model's Death, Eating Disorders Are Again in Spotlight," *International Herald Tribune*, November 20, 2006.

## NEW YORK I-CHART

Topic: Eating disorders and modeling	What are the causes of eating disorders in the modeling industry?
Source 1:	
Source 2:	

## CHINA

#### READING 1: WHAT I EAT

Zhen uses her part-time job in the Hello Kitty kiosk of a Shanghai department store to fund her restaurant visits with friends, but couldn't afford to do so without the pages of coupons they collect.

Zhen and her father have lived at her grandparent's government-issued flat since her parents divorced when she was six, and there's no money for restaurant visits. Her grandparents and her father, a state factory worker, eat vegetables and rice throughout the week so they can afford to buy meat to feed Zhen when she visits on weekends. Has her father ever eaten at KFC? "Never," she says, giggling at the thought. "He only eats Chinese food."

... At five foot five, she's a head taller than her grandmother and several inches taller than her father, probably due to better nutrition. She says that her family has sacrificed a lot to ensure that she has enough to eat, and a successful future: "It was very hard for my father to raise me," she says. "It was hard for him to earn money when I was little, and now he's paying a lot of money for me to go to school." Her hope is to do well in school, and then earn enough money to support her family.

#### READING 2: JOURNEY TO PLANET EARTH: STORIES OF HOPE

In less than a decade, 13 million people have been joined by nearly 3 million farmers from the poorer countryside. The result is a city crowded with people. Some seek prosperity by selling food in the local markets. Others seek economic opportunities in one of the 20,000 construction sites in Shanghai. These workers were once rice farmers from the northern provinces. Today, they share a common dream of earning enough to shop on Nanjing Road, the city's most elegant thoroughfare. Most mornings smog hangs low over Shanghai's imposing skyline—the result of burning low-grade coal as the primary fuel for cooking, heating and running factories. Lately, the air is becoming even more polluted as bicycles are replaced by automobiles and buses. To ease the problem, there are limitations on the ownership of cars and stricter air quality regulations for factories. The city is also slowly rebuilding its infrastructure, beginning with a public transportation network and new subway system. Above ground, new highways ease traffic congestion as well as link Shanghai with surrounding industrial and bedroom communities.

In Shanghai almost all green spaces have disappeared. Apartments are at a premium. Millions share cramped and inadequate quarters. For many, the streets are their living rooms; the sidewalks, their work spaces. In just two decades Shanghai will be a city of over 20 million people. To control population the government is trying to enforce a one child per family policy.

In response, the people of Shanghai provide their youngest generation with a strong sense of culture and history. Their hope is that these young people will develop their own vision to deal with the city's environmental needs in the years to come.

Source: *Journey to Planet Earth*, episode 2, "The Urban Explosion," hosted and narrated by Matt Damon, aired 2003, on PBS.

## CHINA READING GUIDE

Question	What I think	What the text says	Was I right?
Is meat expensive in China?			
Why would rural rice farmers move to the crowded city?			
What must people living in Shanghai do to increase their living space?			
What are major causes of air pollution in China?			

#### YEMEN

#### READING 1: WHAT I EAT

The Haidars married when Saada was 17, a marriage arranged by her parents in their rural mountain village, a hard 12-hour drive south of Sanaa. The two are cousins, and such marriages are common practice in the Arab world, which places a premium on close kinship. In her home village, Saada and her family farmed terraced fields of grain and vegetables and kept sheep and cows. Like the other girls in her village, she never learned to read or write. Despite efforts to improve education, less than 30 percent of Yemeni women are literate. . . .

Saada, who has lived in Sanaa for a decade, was happy to move to the city for a better life. Her sister lives here as well, married to another cousin. But apart from their visits with each other, there are few invitations and little opportunity to socialize. In Yemen's traditional culture, those invitations come from family, and they left most of them behind.

#### READING 2: USAID FRONTLINES

MARIB, Yemen—Anisa Mohammad did not have the opportunity to attend formal school as a child. Instead, she was required to stay at home to do the housework, and her father married her off at age 10. Now, at 23, she is the mother of four and is pregnant with her fifth child.

"Ever since I was a child I loved school very much, but never had the chance to go to school like other children. I feel like I've missed a lot," said Mohammad.

Mohammad was the first to register when she heard about a literacy class at Al-Dorrah School in the Marib Governorate that is supported by USAID. Despite her responsibilities at home, she managed to complete a year of intensive training, including afternoon adult literacy classes, and can now read and write with ease.

Yemen continues to rank last among 134 countries for women's progress in the economy, education, health, and politics, according to the World Economic Forum's 2009 Global Gender Gap report. While Yemen has made progress in the past 10 years toward meeting the Millennium Development Goal that calls for improved literacy rates for men and women aged 15 to 24, only 30 percent of Yemeni women are literate, compared with 70 percent of men.

The plight of women and girls in Yemen is inextricably linked to poverty in a country where 45 percent of the population lives on less than \$2 per day. Women who receive an education are much more likely to ensure that their children are educated, helping to break the poverty chain.

This is exactly what is happening in Mohammad's case: "I am proud to say that I now personally teach my two kids who are in the first and second grade. I make sure that my children go to school daily. I follow their lessons very closely. I also encourage my neighbors to send their children to school."

Source: USAID staff, "Yemeni Women Get a Chance to Learn through Literacy Project," FrontLines, March 2010.

## YEMEN MAKING INFERENCES CHART, READING 1

How do the Yemeni women choose when and whom to marry?	Because the reading says:
How equal is the opportunity for education for males and females in Yemen?	Because the reading says:
If Saada is typical of most Yemeni women, what kinds of opportunities do they have to socialize with their neighbors and friends?	Because the reading says:

# YEMEN MAKING INFERENCES CHART, READING 2 Because the reading says: How do the Yemeni women choose when and whom to marry? How equal is the opportunity for education Because the reading says: for males and females in Yemen? Why do Yemeni women try to make sure that Because the reading says: all their children go to school?

#### Date

# STRATEGIC READING

#### ISRAEL

#### READING 1: WHAT I EAT

"There are options," says Ofer Sabath Beit-Halachmi as we discuss the Jewish Reform rabbi's day's worth of food at his home outside Jerusalem. He means menu options, because what he eats depends upon whether he's working from home, has his daughter in tow, is out with his wife, Rachel, who is also a rabbi, or in Jerusalem for meetings. There are options, but there are also rules: *kashrut*—ancient Jewish dietary laws that detail which foods can and cannot be consumed, and how those foods must be prepared and eaten.

Among those allowed are animals with cloven hooves that chew their cud, certain poultry, and fish with fins and scales. All must be ritually slaughtered, and there can be no mixing of milk and meat in the same meal....

The couple's lives and their scholarship are influenced by the concept of *eco-kashrut*, a term coined in the 1970s that draws more than the dietary laws into the equation. "I'm learning much of this from my wife," says Ofer. "She's very wise." Eco-kashrut is about ethical and sustainable agriculture and animal husbandry, but it also examines traditional dietary laws through the prism of humankind's heavy footprint on the earth, to lessen that impact both for the good of the earth and for spiritual well-being.

#### **READING 2: IS IT KOSHER?**

In the beginning, God told the Jews what not to eat: the camel, the coney, the rabbit and the pig; the eagle, the vulture and "all creatures in the seas . . . that do not have fins and scales" (Lev. 11). Most famously, God said: "Do not cook a young goat in its mother's milk" (Deut. 14:21). From these and other verses, the rabbis developed the rules of kashrut (keeping kosher) that millions of Jews observe today.

What would God say about pesticides and insecticides? About farm animals cooped up in tiny spaces? About fruits and vegetables picked by laborers who don't earn a living wage? These and other related questions are coming to the fore as modern rabbis ponder a new concept called "eco-kashrut," the idea that eating kosher means paying attention not just to what you eat but to how your food gets to your table. Yes, the term leaves the rabbis open to accusations of Talmudic hairsplitting, but consider this: sales of kosher food are growing at a rate of 15 percent a year, and "kosher organic" is one of the fastest-growing segments of that industry. "I've seen kosher vegetarian patties that are imitation meat products, totally organic," says Menachem Lubinsky, CEO of Lubicom Marketing, specializing in kosher foods. This week at Kosherfest, a food show in New York, the number of kosher-organic vendors is up 15 percent, he says. Even Reform Jews, who in 1885 declared kosher law "entirely foreign to our present . . . state," have noticed surging interest in traditional Judaism and are at work on new guidelines to help individuals

adapt kashrut to their lives. A current draft includes—in addition to the standard prohibitions opposition to "the oppression of those producing food in the fields and factories . . . the inflicting of unnecessary pain on animals, and . . . refraining from needless waste or the destruction of human health and natural resources." Such restrictions remind Jews that "eating is a holy act," says Rabbi Richard Levy, who authored the draft.

The trouble (and disagreement) lies in defining what eco-kashrut means. Is it a stamp of approval from the Orthodox rabbis on certain organic foods? Or is it something much broader, an ethical approach to eating and even living? Margie Klein, a rabbinical student in Boston, thinks it's the latter. For her, being Jewish means being "constantly in dialogue with the tradition, with the intention and spirit of the law." Meanwhile, the rabbis will continue to discuss.

Source: Lisa Miller, "Beliefwatch: Is It Kosher?" Newsweek, November 19, 2006.

## ISRAEL I-CHART

Topic: Dietary Laws	What does <i>kashrut</i> or <i>kosher</i> mean?	What does eco-kashrut mean?
Source 1:		
Source 2:		

## LATVIA

#### READING 1: WHAT I EAT

Aivars, whose university degree is in mechanical engineering, is also a full-time forester and a part-time nurse and driver for his wife, Ilona, who's the sole doctor within a 15-mile radius of their house. . . .

Aivars and Ilona have purposefully cobbled together a life that incorporates what they consider the best parts of country living: bartering for goods and services, gathering the fruits of the land with their three daughters, and living within modest means. A rural doctor in Latvia doesn't make much more than the country folk she treats.... "We understand that we can't get big salaries here in the country."

They build their honey business bit by bit and year by year, using their own labor and found materials to piece together what they need. "If we bought that sink [new]," says Aivars, pointing at a refurbishment project in the honey-processing building, "we would have to raise the price of the honey."

They get their potatoes and carrots from Aivars's mother and their milk from a local dairy. Crates of apples and cakes of creamy yellow beeswax are stacked in the entryway to their house. "Out here in the countryside, there's a lot of natural production," says Ilona. "Here [it's] bread and bees. In the neighboring district, people sell meat: raw and smoked meats, lamb and beef."

#### READING 2: THE BBC

It's been Latvia's coldest winter in two decades, with temperatures of -30°C causing a surge in cases of frostbite. The sheet of ice covering the country is an apt reflection of the frozen state of Latvia's finances. Until 2007 this Baltic tiger was breaking economic records, from highest growth to fastest wage increases.

Today, more than a year after the financial crisis burst the bubble of easy credit, the tiger has lost its roar. And although the tiny country is still setting records, now it is for all the wrong reasons. Unemployment, at almost 23%, is the highest in the European Union. And over the last two years economic output has dropped by almost a quarter.

The mood is resigned, with barely a street in Riga without a closed shop and all but the cheapest restaurants standing empty. . . .

No surprise, considering that in 2009 retail sales in Latvia dropped by almost 30%—another European record. This dire state of affairs has been exacerbated—even the government admits—

by government policy: a tough programme of austerity measures and spending cuts to balance the budget after years of overspending.

As wages have dropped, people have spent less, which in turn has made the recession even worse—the last thing Latvia needs, some say.

Source: Damien McGuinness, "Latvia Economy Reels in Recession," BBC News, February 4, 2010.

LATVIA MARING INFERENCES OF	
Does education necessarily determine how much money you can earn in Latvia?	Because the reading says:
Did Aivars and his family take out a business loan to start their honey business?	Because the reading says:
Do Latvians barter for foods other than honey?	Because the reading says:

## LATVIA MAKING INFERENCES CHART, READING 2

Is Latvia currently having financial difficulties?	Because the reading says:
Were all sections of the Latvian economy affected by the financial slowdown?	Because the reading says:
Did the government's efforts to balance the budget possibly make things worse?	Because the reading says:

## JAPAN

#### READING 1: WHAT I EAT

Takeuchi Masato, a professional sumo wrestler whose ring name is Miyabiyama (meaning "Graceful Mountain"), [sits near] the team's practice ring with his typical day's worth of food. . . . Miyabiyama's stable runs through a brutal three-hour practice—sweaty, combative, and silent. Miyabiyama wears the white *mawashi* denoting his *sekitori* status during practice. . . . The portrait . . . is a composite, taken on two consecutive days: the sumo association wouldn't allow Miyabiyama to be photographed during practice. . . .

Miyabiyama has reached the level of *ozeki*—sumo's second highest—and has won several prizes, but this isn't a level that a sumo can hold on to. The wrestlers are promoted and demoted before each *basho* (grand sumo tournament) according to their previous performance. Only 42 wrestlers are allowed into the top division of professional sumo, and there are ranks within that division. The fact that there's no set criteria for achieving different levels in sumo makes it a bit of a moving target for the wrestlers, who are called *rikishi*.

Ritual guides all aspects of the life of the rikishi. Junior rikishi cook the food for the club, do the cleaning, and wait on their seniors, but Miyabiyama progressed quickly and did little of that.

The junior *rikishi* sleep in one giant room that also serves as living and dining room. Upperechelon fighters—called *sekitori*—have their own rooms and eat first, but no one eats in the morning. The junior fighters begin practice at 5 a.m. in black *mawashi* (loincloths) and are joined later by the *sekitori*, wearing white. All take only ritual sips of water during practice, which can last three or four hours. The first meal of the day is lunch.

Lunch and dinner consist of mountains of rice, pasta, and a high-protein vegetable stew with meat or fish, called *chanko nabe*, which, when cooked well, uses bone marrow and long cooking times to develop flavor. When cooked fast by busy wrestlers, the stew base often consists of packaged broth, but the result is slurped down with gusto nonetheless.

## **READING 2: KIDS WEB JAPAN**

Every sumo wrestler belongs to a stable, which is where they live while they are young. A stable is managed by a stable master, a retired wrestler who was a good wrestler in his prime. There are currently 54 stables. Referees, ushers, and hairdressers also live in the stables. The stable master is referred to as *oyakata* (boss), and his wife, who is called *okamisan*, plays an important supporting role behind the scenes.

There are a number of different divisions for the wrestlers, ranging from the *makuuchi* and *juryo* divisions at the top (*sekitori*), to *makushita*, *sandanme*, *jonidan*, and *jonokuchi* below them. Wrestlers begin receiving a salary when they become a *sekitori* at the rank of *juryo* or higher, and they also get to wear a *keshomawashi*, a lavishly embroidered apron-like cloth that comes down to their ankles, when they are introduced before the beginning of a tournament. More than anything, though, they get to have people around them take care of their everyday needs. *Sekitori* also wear their topknot in the shape of the leaf of a ginkgo tree. And the *mawashi* that a *sekitori* wears in the tournaments is made of silk and can be one of several colors, while wrestlers in the *makushita* division or lower can wear only a black cotton *mawashi*. Sumo is a world in which results are everything, and there is a great difference between how wrestlers of different ranks are treated and how much money they receive.

Wrestlers wake up early in the morning and train hard in the hope of moving up the ranks. Mornings in a sumo stable begin at around 5:00 am. First, the unranked wrestlers begin their training. Each stable has a ring for practice. . . .

... The ranked wrestlers are allowed to sleep a bit later, and they join in the training after they get up. They do much the same training as the younger wrestlers, and they help them as well. Talking with each other is of course not allowed during practice sessions, and the most common sounds that can be heard are those of these large wrestlers throwing their bodies into each other and taking heavy breaths. Practices get more intense as a tournament approaches, and the stable master watches from in front of the practice ring, occasionally entering the ring to give instructions to his charges.

At 8:00 am, the young wrestlers go to the kitchen to help prepare *chanko*. *Chanko* refers to the food eaten by sumo wrestlers, and it includes stews, Chinese food, sashimi, and deep-fried food. Stews are the most common dishes, but foods enjoyed by younger people have been included in recent years, such as rice with curry and hamburger steaks. Sumo wrestlers eat two meals a day, having breakfast at around 11:00 am and dinner at about 6:00 pm. Practice ends at around 10:30 when the younger wrestlers have finished preparing the *chanko*, and the wrestlers then take a bath, with the higher-ranked ones going first. They eat breakfast after fixing their hair in a topknot. And of course when they eat, the higher-ranked wrestlers go first again. Once the morning meal is over, the wrestlers have free time. Many of them take naps to help them get bigger.

Source: "A Day in the Life of a Sumo Wrestler," Kids Web Japan.

# Do sumo wrestlers compete under their Because the reading says: birth names? Can many people become part of the elite Because the reading says: sumo wrestlers ranked in the top division? Could a visitor easily determine who was Because the reading says: rikishi and who was sekitori if they watched a practice? Does the order of practice indicate who is Because the reading says: more experienced and who is unranked?

## JAPAN MAKING INFERENCES CHART, READING 1

## JAPAN MAKING INFERENCES CHART, READING 2

Can sumo wrestlers learn the art and form of the sumo at home on their own?	Because the reading says:
Could a visitor easily determine who was <i>rikishi</i> and who was <i>sekitori</i> if they attended a sumo tournament?	Because the reading says:
Do experienced sumo wrestlers help inexperienced wrestlers by coaching them during practice?	Because the reading says:
Do more experienced sumo wrestlers have to take care of their own food?	Because the reading says:

## STRATEGIC READING

## VENEZUELA

## **READING 1: WHAT I EAT**

The impoverished barrios of Caracas are notoriously dangerous places for outsiders and residents alike. "I can walk here," says one Caraqueno who has lived his entire life in the barrio called 12 October, "but not over there," pointing only a few short steps away. . . .

"It's dangerous, but we know how to live here," says [Katherine]....

Behind the counter of her stepfather's Internet and copy shop, Katherine Navas tends to a customer. Bars on all the windows, doors, and balconies signal that security is a major concern in this neighborhood. Caracas was the murder capital of the world in 2008; 50 murders in one weekend is not unheard of. Local gangs are viciously territorial and ruthless in their victimization of the hardworking, law-abiding majority. Noemi Hurtado, an 83-year-old who has lived a stone's throw from Katherine's house for the past 51 years, has never once crossed into the barrio of La Silsa. "It's too dangerous," she says. "I would never go there." When Noemi moved to western Caracas, the La Silsa barrio didn't yet exist; the hills surrounding the valley were forested and, she remembers, there were waterfalls.

## **READING 2:** CHICAGO TRIBUNE

## **Crime a Hot Topic in Caracas**

Not long ago, criminologist Elio Gomez had to fight for a parking spot on a busy street outside his law office in Caracas.

No more. "Now the whole street is empty," Gomez said, reflecting on the wave of killings, robberies and car thefts that has prompted Venezuelans to use taxis rather than risk driving to work. Crime, even more than the country's faltering economy, is now the hot topic in Caracas. . . .

Nearly everyone in this capital of 4 million, it seems, has been touched by crime. A Gallup Poll conducted last year in Caracas showed that one-third of those surveyed had been crime victims in the previous year and 72 percent had family members or friends who had been victimized....

Caracas' crime problems, which started in 1989, have been intensified by Venezuela's economic plunge. Once rich with oil wealth, it has seen oil prices drop over the years and now finds itself in a debt crunch with unemployment nearing 20 percent. Another 50 percent of the work force is forced into the informal economy, many selling goods on sheets spread on the city's sidewalks.

But the economy is not the only problem. Youths from Caracas slums—home to one-third of the city's residents—are increasingly being left to the streets, Gomez said, where "somehow or other they have to make a living." Sociologists estimate that one out of four Venezuelans is what Gomez calls a "marginal youngster."

Drug dealing, in this country next door to Colombia, is connected to much of the country's other crime, said Luis Alberto Comacho, a commander in the Caracas metropolitan police. . . .

Comacho says much of Caracas' crime, as in other South American cities, occurs in the urban shantytowns and slums that sprawl across mountains, not in the city's center and neighborhoods frequented by most middle-class people. . . .

Part of the problem, Comacho said, is that his cash-strapped police department is ill-equipped to fight crime. His force has too few cars, most of them 1989 models that are "falling apart" and are easily outrun by criminals, he said. Salaries for new police officers start at about \$260 a month, less than a taxi driver makes. Many police supplement their income by driving taxis at night or running small stores.

Source: Laurie Goering, "Crime a Hot Topic in Caracas," Chicago Tribune, January 20, 1996.

## VENEZUELA READING GUIDE

Question	What I think	What the text says	Was I right?
How do the people in the Caracas barrios protect their property?			
How do the people of the barrios minimize their risks of becoming victims of crime?			
What did the area outside of Caracas look like before they built the barrios?			

## VENEZUELA READING GUIDE

Question	What I think	What the text says	Was I right?
Why have the people of Caracas given up their cars?			
According to a Gallop poll, about how many of the four million people in Caracas were victims of crimes?			
How are youths part of the crime problem in Caracas?			
What are some of the problems that the police face when trying to fight crime in Caracas?			

## STRATEGIC READING

## CALIFORNIA, USA

## READING 1: WHAT I EAT

Curtis has already served one tour of duty in Iraq as an infantryman. Now he and his unit from Fort Hood, Texas, are at the National Training Center at Fort Irwin, staffing field exercises at the remote Mojave Desert camp for two weeks before redeployment to Iraq, where he'll serve as a radio operator this time around.

"I've never been on a radio before. I had a weapon in my hand—running through the streets, getting shot at," he says. "I'm ok on the radio because I'm a really confident person when I talk. I don't try to beat around the bush. I don't stutter. Radio's pretty easy for me. . . ."

... During a two-week stint before his second deployment to Iraq, he spends 12-hour shifts manning the radio communication tent. He eats his morning and evening meals in a mess hall tent, but his lunch consists of a variety of instant meals in the form of MREs (Meals, Ready-to-Eat)... A mile behind him, toward the base of the mountains, is Medina Wasl, a fabricated Iraqi village—one of 13 built for training exercises, with hidden video cameras and microphones linked to the base control center for performance reviews.

## READING 2: KTSM

## Soldiers Train for War: An Exclusive Look Inside the Army's National Training Center

FORT IRWIN, CA—At the National Training Center in California, a group of soldiers from Fort Bliss are training hard for a deployment just a few months away. 108 degrees makes soldiers want some water. After a cool drink, some grab some sleep, play cards, or even a video game.

But before any of that, this group of military police went into an Afghan village, on patrol. The village isn't real, but sure looks like it. Clever construction and actors playing villagers sell the scene, complete with women in burqas and men selling fruit, speaking Pashto, a common Afghan language.

The Middle Eastern setting is by design. The Army wants to prepare its troops by throwing them into realistic settings, and testing their limits.

"Here in NTC [the National Training Center], it's been very difficult, very hard situations dayafter-day," said Lt. Stephen Donaldson.

He's been out here almost a month now. He's convinced that the realistic training will save lives when his platoon heads overseas.

"We've definitely been able to look back and see where the gaps are and see how we can fill those gaps," he says.

Back in the village, US troops meet with the Afghan governor in charge. Several businesses in town were damaged by recent fighting, and this scenario calls for US cash to help rebuild them.

"We're going to go to the villagers, the mayor here is going to lead us to the shopkeepers who are going to receive the cash," said Captain Harmon, the commanding officer of this mission.

Although the scenario is controlled, soldiers don't know what's planned. A routine mission of goodwill can quickly turn hostile, if supervisors decide insurgents should attack the group. Commanders tell us soldiers who learn to expect the unexpected are the ones who have a better chance of coming home unhurt.

Source: Matt Rivers, "Soldiers Train for War: An Exclusive Look Inside the Army's National Training Center," *NewChannel 9, KTSM*, July 1, 2011.

# How do you know that Curtis Newcomer is Because the reading says: an experienced soldier? Will Curtis's next tour of duty in Iraq be the Because the reading says: same or different from his first tour? How do Curtis's superiors keep track of how Because the reading says: he performs during the training sessions in the fabricated Iraqi village?

## CALIFORNIA MAKING INFERENCES CHART, READING 2

Why is water an important resource at Fort Irwin, California?	Because the reading says:
Why has the Army built replicas of Iraqi villages at Fort Irwin?	Because the reading says:
What is a possible scenario that supervisors can order to "surprise" the soldiers and prepare them for the unexpected?	Because the reading says:

# LECTURE NOTES

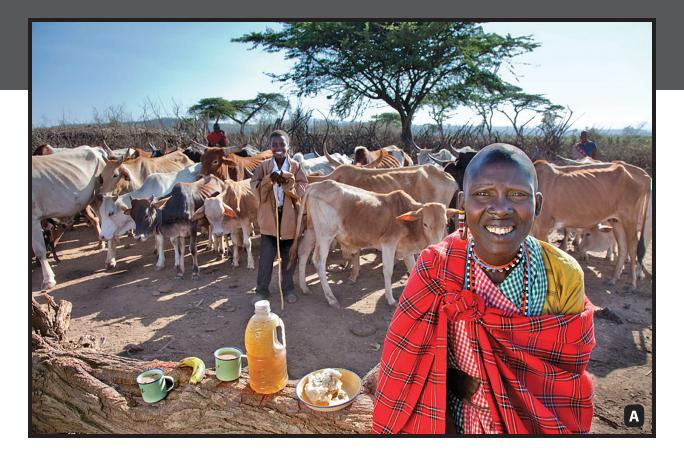
## TEACHER SECTION

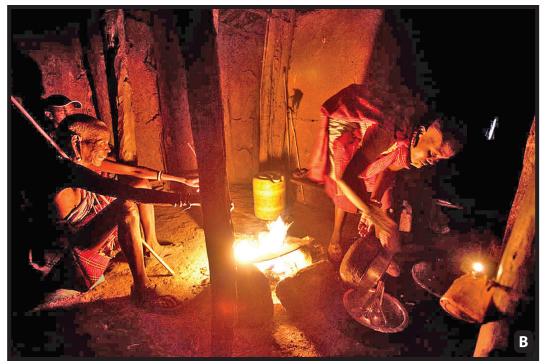


## KENYA: NOOLKISARUNI TARAKUAI

MAASAI HERDER

LECTURE NOTES • TEACHER SECTION





## 1. Who is Noolkisaruni Tarakuai?

Noolkisaruni Tarakuai is a thirty-eight-year-old mother of seven children and a member of the Maasai. Numbering about one million, the Maasai are semi-nomadic cattle herders who live in Kenya and Tanzania. They are referred to as *pastoralists* because their economic and social way of life depends primarily on their cattle. In her culture, a man's wealth is determined by his possession of cattle and children. However, due to on-again, off-again drought since 2000, she is struggling to provide food for her family. Her food consumption on the day the photography team arrived to take her photo was 800 calories.

## 2. What do you notice about the cattle in the picture? Why do they look this way? (A)

The cattle are very bony and look like they are starving. In fact, they are. There has been so little rain that the grazing lands have dried up. Look at the soil under the cows' feet and the lack of leaves on the trees. There are a few trees in the photo. The corral behind the cattle is made of branches without leaves. The cattle don't eat leaves but goats do.

## 3. What do you notice about the amount of food that Noolkisaruni eats in one day? (A)

The Maasai depend primarily on their cows for food. (They also eat one of their goats occasionally.) If the cows have barely enough food to survive, then the Maasai will have a difficult time feeding their families.

## 4. What foods do you think you recognize in the photo of Noolkisaruni's one day of food? (A)

The large jug contains a little more than two quarts of water taken from a nearby reservoir and then boiled. Note the brownish/orange color of the water. Each mug contains a black tea made with added milk and two tablespoons of sugar. The banana was a present from her husband. If it's a present, do you think she has a banana every day? The mush in the bowl is a native dish made from cornmeal and is called *ugali*. The picture shows half of the *ugali* she ate.

## 5. What food groups are missing in the photo? (A)

There are no green vegetables and only one fruit. There is no meat. The Maasai used to have a diet of meat, blood, and lots of milk. Now they rarely eat a cow unless it is fatally injured. There is so little meat on their scrawny cattle that the meager value of a dead cow is what they can get by selling its hide. Once again, sometimes they will also eat a goat.

## 6. What food groups are represented in the photo? (A)

The cornmeal in the *ugali* provides the only grain. Dairy is represented in the little amount of milk she added to the mugs of black tea. The cows are starving and barely have enough milk for their own calves. Noolkisaruni gives what little milk she can collect to her husband, the herdsmen, and her children, serving herself last. The herdsmen are Maasai men who have lost all their cows and must work for another family, tending the cows while the children are in school. They live with the family, but during school vacations they can head back to their own homes. The herdsmen hope to eventually start another herd of cattle with the money they have earned

## 7. What kind of kitchen would Noolkisaruni need to prepare these foods? (B)

Most of the food she ate was boiled, so her kitchen need only have a fire and a pan to boil water and cook the *ugali*. The Maasai live in round houses made of cow dung and mud—the most readily available building materials. The houses have no windows, and the kitchen consists of a fire in the middle of the dirt floor under a hole in the roof where the smoke drifts out.

# 8. Noolkisaruni goes to the **market** only once in a while. What must have been **bought** at the market to make this **one day's diet**? (A)

The mugs are filled with black tea and two tablespoons of sugar. The *ugali* is made from cornmeal. These items must have been bought at the market because the Maasai are not farmers.

The rest of Kenya's economy relies primarily on subsistence farms found in areas with more rainfall. There is also large-scale farming, but it is not a major part of the economy.

Subsistence farms grow coffee, tea, corn, wheat, and sisal used in ropes. They also grow pineapples, coconuts, cashew nuts, cotton, and sugarcane.

## 9. How does Noolkisaruni's whole daily diet compare to yours? (A)

Noolkisaruni's whole daily diet contains only 800 calories on this day. Most of the calories are from the *ugali*. However, she does get 180 calories (over 20 percent of her diet) from the four tablespoons of sugar she adds to her two mugs of tea.

## 10. What one meal in your diet is most like hers? (A)

Your one meal that is most like hers would probably be your breakfast. Many Americans eat grains found in cereals, oatmeal, and toast or grits made from corn served with a piece of fruit.

# 11. Noolkisaruni ate only 800 calories on the day that the photography team arrived. This is **not a diet** that will **sustain her** for life. **What can she do**?

According to the book *What I Eat*, when there is not enough food, "Noolkisaruni relies on food aid to feed her family—beans, rice and wheat flour—which sometimes comes and sometimes doesn't." Food Aid organizations include the United Nations and private charities like the International Committee of the Red Cross, C.A.R.E., and Feed the Children. Whether in good times or in times of drought and hardship, Noolkisaruni's culture controls what she eats each day. She told the authors that if visitors show up at her door, as a Maasai wife she must provide them with refreshments—she sometimes gives visitors all the milk she has.

## TENNESSEE, USA: RICK BUMGARDENER

CANDIDATE FOR OBESITY SURGERY







#### 1. Who is **Rick Bumgardener**?

Rick Bumgardener, age fifty-four, lives in a small town near Memphis in western Tennessee. Rick has enjoyed too much of what he calls "country eating" and is now a candidate for obesity surgery. His food consumption on the day the photography team arrived to take his photo was 1600 calories.

# 2. Rick Bumgardener has enjoyed too much, in his words, "country eating." What do you suppose that expression means? (A)

"Country eating" refers to sitting down to a table of calorie-rich foods such as fried chicken, hot cakes and sausage, and grits and gravy. These foods, also called "comfort foods," taste delicious but, unfortunately, are filled with high-fat ingredients that can cause weight gain and health problems. In the past, when men and women were working long hours on farms, they could afford to engage in some "country eating." However, Rick was not a farmer; he was a bus driver and lay preacher.

## 3. Does Rick look healthy? (A)

No, Rick looks unhealthy and overweight.

## 4. Rick is classified as "morbidly obese." What does that mean? (A)

People with a BMI (body mass index) of over 40 are classified as *morbidly obese*. When Rick first weighed in at the University of Tennessee Medical Center in Knoxville, he weighed 499 pounds and had a BMI of 73.7. The formula for determining BMI is an individual's body weight divided by the square of his or her height.

Obesity is generally classified into three levels:

- To be *mildly obese* is to be 20 percent heavier than your ideal weight.
- To be moderately obese is to be 40–100 percent heavier than your ideal weight.
- To be morbidly obese is to be over 100 percent heavier than your ideal weight.

At the time of the photo, Rick, who is 5'9" tall, weighed 468 pounds. His ideal weight should be less than 180 pounds. Rick must get down to 400 pounds before his surgery and, after the surgery, Rick hopes to lose at least 220 more pounds.

# 5. Look at the food in Rick's photo. Is it a **lot of food**, **too little** food, or just about the **right amount** of food for a whole day's diet? (A)

The amount of food that Rick ate in this one day equals 1,600 calories. That's less than the recommended 2,000 calories for most adults, but Rick is trying to lose weight. Rick's wife, Connie, prepares Rick's foods, a process that includes chopping up vegetables and leaving him 100-calorie prepackaged foods for snacks. She carefully measures out servings so that he doesn't overeat. He says that without her help, he'd be lost.

## 6. To get to his current weight, how much more must Rick have eaten?

Pointing at the day's food and reflecting on his past diet, Rick said, "I'd eat all that at one meal, plus another three whole chicken breasts and all the trimmings—potatoes, gravy and biscuits." Rick's obesity was caused not only by his food choices, but also by the quantities that he consumed. Consider that even if Rick chose the same foods on the poster, but ate them in the huge quantities he used to eat, he would be eating almost 5,000 calories a day.

## 7. What do you recognize in Rick's breakfast? (B)

Rick's breakfast contains iced tea sweetened with Splenda (a sugar substitute), a half of a bagel with turkey sausage, and SmartBeat (a non-dairy, low-fat cheese substitute). He also has a chocolate chunk granola bar.

## 8. Connie, his wife, plans what he eats. How has she tried to cut down on calories and fat?

Connie substituted Splenda for sugar, which has 16 calories per teaspoon. She substituted lowerfat turkey sausage for higher-fat pork sausage. She substituted SmartBeat cheese, made from vegetable oils, for real milk cheese, which contains unhealthy saturated fats and cholesterol.

## 9. Why does Rick show medicines at his breakfast? (B)

Rick's portrait shows the medicines because they are an essential part of what he consumes. The needle contains Byetta, an injectible drug prescribed to Rick and other people with type 2 diabetes. The drug helps his body to absorb carbohydrates without raising his blood sugar levels.

## 10. What does Rick drink for **beverages** during the day? Are his beverages **low-calorie**? (C)

On this day, Rick drank water, V8 100% Vegetable Juice, and iced tea sweetened with Splenda. His beverages are low-calorie or have zero calories.

## 11. What vegetable servings do you see? Are they all low-calorie? (A)

No. Only three of the four vegetable servings are low-calorie: There's a plate of cauliflower, carrots, and celery and there are carrots and broccoli on the lunch plate. The V8 100% Vegetable Juice, also a vegetable serving, contains less than 40 calories. However, the steamed broccoli on the dinner plate is served in a double cheddar cheese sauce, which is both high in fat and high in calories.

# 12. Connie has made some decisions about not making Rick's **diet too strict**. She's probably afraid he would be too **tempted to cheat**. What compromises did she make to help him **stay on track**? (A)

For breakfast, she has given him a chocolate chunk granola bar.

For lunch, she has given him a sandwich stuffed with steak and cheese. Although the sandwich is made by Lean Pocket, a self-proclaimed health-conscious brand, it contains cheese and a fatty crust covering. However, Rick really enjoys this tasty stuffed sandwich.

For supper, she has grilled the chicken, but coated the chicken leg with Italian dressing. She has also poured a cheese sauce to go on top of the whole-wheat blend pasta and broccoli.

For treats, she has given him sugar-free pudding, another granola bar, and a 100-calorie pack of Peanut Butter Cookie Crisps.

## 13. Do you think Rick cheats?

According to the authors, although Rick had initially lost 31 pounds, he was having trouble losing the rest of his weight to reach his 400-pound goal. His wife is in charge of portion control, but she works full-time and Rick is on his honor to eat only what she parcels out. When asked, "Does he cheat?," Connie answered that "he does go in here [the kitchen] and get stuff." The authors say that Connie doesn't use the word "cheat." They've been married for over thirty years, and she knows what he's capable of eating and how much less he is eating now.

# 14. Rick continues to try to lose enough weight to qualify for **gastric bypass surgery** to shrink the size of his stomach. This surgery is usually successful in **helping people lose weight**, but it carries some serious risks, including death. Why would Rick **choose** this surgery?

According to the authors, Rick suffers from crippling back pain, type 2 diabetes, and other chronic illnesses related to obesity. He is taking thirteen different medicines, all of which have some side effects. Physically, he can't do much of what he used to enjoy doing. He can't stand long enough to give a sermon at the church where he's a lay preacher. He can't drive his car or mow his yard. Walking has become so problematic that he must use a wheelchair to get around. And, with his bad back, he's not even comfortable sitting.

According to Rick, his quality of life is poor. To relieve his boredom, Rick wakes up late, plays video games, plays his guitar, and watches television until the early hours of the morning. With all his health problems and his diminished quality of life, he's willing to risk surgery in order to get back to the life he has lost.

## CANADA: COCO SIMONE FINKEN green teen



## 1. Who is Coco Simone Finken?

Coco Simone Finken is a teenager from Gatineau, Quebec, located across the river from Ottawa, the capital of Canada. It is only fifty miles from the U.S. border and the state of New York. Coco is very conscious about the environment and she has decided to become a vegetarian. Her daily consumption at the time this photograph was taken was 1900 calories.

## 2. Coco lives about fifty miles from the U.S. border. What about her **appearance** and **where she lives** looks **similar** to teens in your neighborhood? (A)

Coco is standing in a room that looks like many homes in the United States. The furniture is manufactured, and there are books, magazines, and CDs on the shelves and stairs behind her. Her home has electricity. Her appearance is familiar, too, and, judging by her appearance, she would fit in if she was walking in New York City. She's wearing stretch slacks, a sweater layered over a t-shirt, and a fashionable scarf. Her healthy hair is long and shiny. Unlike most in the United States and much of Canada, Coco's family does not have a car.

## 3. What about the **food** she eats looks **familiar**? (A)

Her food probably looks very familiar, too. Her fruits and vegetables (strawberries, carrots, and apples) are common in American households. The homemade zucchini bread with chocolate chips, French bread, rice, and canned vegetable juice are also familiar items. The Indian food she eats (matar paneer) is available at some large American supermarkets that sell ethnic food, but generally Americans don't see it unless they seek it out or dine at an Indian restaurant.

#### 4. How **balanced** is Coco's one-day **diet**? Track servings for each **food group**. (A)

Coco's diet is quite balanced, except there is no meat—which is the defining characteristic of a vegetarian diet.

Grain: Rice, wrap, and French bread

Fruit: Strawberries, two apples

Vegetable: Canned juice, vegetables in the wrap

**Dairy:** One glass of milk (though she drinks two kinds of milk, only the 1% cow's milk is dairy), feta cheese in wrap, Indian cottage cheese (paneer) in the Indian dish

Meat/Protein: No actual servings of meat. Soy milk contains protein.

Other: Homemade zucchini bread with chocolate chips

# 5. Many **vegetarians** like Coco do not eat meat, a major source of the **proteins** we need to live and grow. What are other good sources of protein within her diet? (A)

Ounce for ounce, foods like meat, fish, and eggs are the most concentrated sources of complete proteins, meaning they provide all nine of the essential amino acids (building blocks of proteins) in every serving. However, many other foods provide protein, but not in as concentrated amounts. Cow's milk, soy milk, which is derived from soy beans, and cheese provide complete proteins, but rice and wheat products are made up of incomplete proteins, meaning that they provide only some of the nine essential amino acids. Vegetarians easily receive complete proteins in their diet by eating vegetarian sources of complete protein, like soy and cow's milk, or by combining sources of incomplete proteins in combination with other complementary incomplete proteins. When Coco eats a dinner of matar paneer (peas with Indian cheese) with rice, she gets all the protein she needs to be healthy.

## List the high-fat/high-calorie foods in her diet. Coco is 5'9<sup>1</sup>/<sub>2</sub>" and weighs 130 pounds. Are you surprised that her body mass index (BMI) is 18.9, the lower range of normal weight? (A)

Probably the only high-fat/high-calorie food in Coco's diet is the homemade zucchini bread with chocolate chips. (She didn't even put jelly or butter on her French bread.) The rest of her diet is low-fat, low-calorie, and healthy. Even the cheeses she chose to eat (feta in the wrap and the paneer cheese, which is an Indian cottage cheese) are lower fat cheese choices when compared to cheeses like cheddar or blue cheese.

Coco is tall and fit. She would have to gain another 40 pounds before her BMI would be considered heavy enough to be classified as overweight. However, many Canadians are not as slender as Coco. In Canada, 63.4 percent of women and 72 percent of men are considered overweight.

7. There appears to be two glasses of **milk** on the table. Only one is **low-fat** milk. The other is **soy** milk. Which of the two is a **better choice** for Coco? (A)

Both drinks are much healthierSerbeverages than coffee or soda.1 cOne-percent milk is standardized1 cthroughout the market, but soy milkCaloris different depending on the brand.FatSoy Nice Original is an excellent low-fatCholebrand. However, to compare 1 percentCarbemilk to soy milk, you need to lookFiberat the nutrition facts label on eachFiber

If Coco needed to watch her cholesterol, choosing soy milk might be a better choice because foods made from plants have no cholesterol.

Serving Size 1 cup (8 oz)	1% Milk	Soy Milk (Soy Nice brand)
Calories	102	80
Fat	2 g	3 g
Cholesterol	12 mg	0
Carbohydrates	13	7
Fiber	0	1 g
Proteins	8 g	6 g
Vitamin D	32%	0%
Calcium	29%	30%

Or, if she was counting calories, soy milk has 22 fewer calories. However, if Coco found that she was protein-deficient, she probably should choose 1 percent milk which has more protein than the soy milk. Cow's milk is also fortified with Vitamin D, which is now considered an essential vitamin for good health.

# 8. Coco and her family grow their own vegetables and shop for organic foods "to the extent that they can afford the higher costs." Why do **organic** foods **cost more**?

In both the United States and Canada there are official federal and state guidelines that determine whether or not a food can be classified as organic. Generally speaking, the guidelines require that farm animals should be raised humanely (free-range vs. tiny cages), that the soil should be fertilized with natural fertilizers rather than chemicals, and that pesticides or additives should never be used. Giving animals more room costs more money than cramming them into pens. Not using pesticides means that some organic farms lose produce to pests. By not using additives (such as growth hormones and antibiotics), organic farmers raise smaller animals but in cleaner, healthier environments. Even after the harvest, organic farmers must spend more money to keep the organic food fresh because they don't use preservatives.

Proponents of organic farming point out that large-scale factory farming causes pollution, ruined soil, and health problems associated with overuse of antibiotics. If we were to assign a cost to these problems and add it to the price of nonorganic foods then organic food would be cheaper than nonorganic food.

## BANGLADESH: SHAHNAZ BEGUM

MICROLOAN MILKER

LECTURE NOTES • TEACHER SECTION





### 1. Who is Shahnaz Begum?

Shahnaz Begum is a thirty-eight-year-old mother of four who lives in Bari Majlish, a small village just outside of Dhaka, the largest city in Bangladesh. Like many other Bangladeshi citizens, she and her family are faced with terrible poverty. However, unlike other families, Shahnaz is working her way out of poverty as a microloan recipient. On this day, her calorie intake was 2000.

# 2. What are the three **buildings** behind Shahnaz? What are some of the **materials** used to construct these buildings? What do these **buildings** tell you about the **climate** in Bangladesh? (A)

The grass-covered building is shelter for the cows and other animals. A broom is resting on a corrugated metal building that is one side of Shahnaz's house. The kitchen that she shares with six other families is "open-air"—it has a roof, but it is not contained by walls. The walls of the third building are made of a blue plastic tarp.

These buildings have roofs so that they may protect the people from rain and sun, but many do not contain walls, so they do not protect from the cold. The climate must be quite warm, if not hot. There is also a cloth, which provides shade for the cows. In fact, Bangladesh is located mostly in the tropics and most of the country has a tropical monsoon climate. This means the country endures high temperatures (over 100°F in the summer), high humidity (sometimes 100 percent) and depending on the time of year, very heavy rainfall (up to fifteen feet of rain per year). Most of this rain falls in the monsoon months so that local flooding is a constant threat from the months of March to October.

## 3. What foods do you recognize in the photo of Shahnaz's one day of food? (A)

The large jug contains well water collected at a communal well in the middle of the village. This well is surrounded by the metal huts of many families and their animals. There is no indication that this water was boiled—the contraction of waterborne diseases via drinking water is a real possibility.

The teacup contains a sweet black tea made with two teaspoons of sugar.

There are cucumbers and green chilies in the salad bowl. There are tomatoes listed too, but you can't see them.

One large bowl contains cooked white rice and the other bowl contains cold puffed rice that she eats as a snack.

The other four bowls contain stir-fried, one-pot foods that she serves with the rice.

## 4. The list of **ingredients** in the three bowls on the left includes hot **chilies**, green chilies, ground chilies, and raw chilies. What does that tell you about **Bangladeshi cuisine**? (A)

Bangladeshi cuisine is spicy. Even if you have tried curries and other foods at ethnic restaurants, you probably have never tasted anything as spicy. Where Western chefs might add one teaspoon or less of hot spices to a dish, traditional Bangladeshi add three to six times more hot spice to their recipes. They have become accustomed to the taste and would find less spicy food bland or dull. Bangladeshi believe that spicy flavors stimulate salivation and promote better digestion. Also, when people eat spicy food, they often begin to sweat. This sweating actually causes a cooling sensation on the skin, which is pleasant in a climate as hot as Bangladesh.

# 5. Which **food groups** are most represented in Shahnaz's diet? Which food groups are **least** represented? (A)

Rice, part of the grain group, is very prevalent in her diet. Rice contains only incomplete proteins. However, when a person eats rice or another incomplete protein together with small amounts of complete protein and/or other complementary, incomplete proteins—like those found in lentils—she can usually attain enough protein for a healthy diet. The stir-fried dishes contain very small amounts of shrimp, beef, and fish and the bowl near the water pitcher contains *dal bhorta*, a dish containing mashed lentils with cilantro and oil.

The other major food group is vegetables. Shahnaz uses vegetables, raw or cooked, on her twoburner propane stove. On most days, she stir-fries *sak*—fresh leafy greens. On this day the sak is amaranth, which looks like red spinach. Bangladeshi stir-fry their food, a method that cooks the vegetables quickly in a small amount of oil. Stir-frying preserves more of the vitamins in the vegetables than roasting or boiling them.

There are no fruits and only a small amount of meat and fish in her day's diet. Even though she owns two cows, she consumes no milk or milk products because she sells the milk to make money for her family. When she prepares her tea, Shahnaz adds canned sweetened condensed milk.

## 6. Shahnaz's home has **no refrigerator** or **running water**. What does that tell you about the food she eats and how often she must go to **market** or to the **communal well**? (B, C)

Much of the food she eats must be able to be stored safely without refrigeration. Rice and lentils are dried and can be safely stored in jars even at high temperatures.

Perishable food such as vegetables may be stored for a short time, but Bangladeshis do not have the equivalent of root cellars to keep fruits and vegetables fresh. As a result, fresh produce spoils quickly in the heat.

Very perishable foods like meat and fish are either bought daily and cooked right away, or preserved for a short period of time by salting or storing in oil.

Shahnaz probably goes to the market several times a week or her husband, who works in a market in a nearby town, brings perishable foods home each night. She or someone in her family must go to the communal well at least once and maybe more often every day.

## 7. How does Shahnaz's daily diet compare to yours? (A)

You may eat different foods than Shahnaz, but your calorie content is probably similar. If you or your family are vegetarians, your diet may even be quite similar to hers. Also, for breakfast, many of you may only consume a sweetened beverage (like soda, hot cocoa, or sweetened coffee) and the equivalent of her sweet biscuits (like a sugary cereal, a doughnut, or a toaster pastry).

## 8. Is her diet a healthy diet? Explain your answer. (A)

Shahnaz's daily diet contains adequate calories (2000), and her meals are low-fat and contain very few saturated fats that cause heart disease. Most of her calories are from rice and vegetables. Although her white rice is not as healthy as brown rice, the stir-fried vegetables that are served with it retain much of their nutrients and fiber.

# 9. Shahnaz Begum was introduced as "Microloan Milker." What do you suppose that title means?

The prefix *micro* means extremely small. When placed before the word loan, you get a word that means an extremely small loan. Bangladeshi microloans are generally awarded for 17,000 taka (about \$250) and the recipients have one year to repay them.

Microloans were first started by Muhammad Yunus of the Bangladesh Grameen Bank. He believed that a better idea than just giving aid to poor people would be to award them with very small loans. With these loans, poor people could start businesses and improve their whole standard of living. For implementing his idea and proving that it did help the poorest peoples, Yunus won the Nobel Peace Prize in 2006. Interestingly, 97 percent of the microloans are awarded to women and, remarkably, 97 percent of these loans are repaid.

Fortunately, Shahnaz qualified for a BRAC\* microloan to buy two cows. Shahnaz now, as a microloan recipient, can sell the milk from her two cows. She also has a cottage business in her home for sewing shopping bags, and she rents rooms to six other families who share her kitchen. With her good business sense and hard work, she has helped her family rise above the worst poverty and afford a nutritious diet.

\* BRAC originally referred to Bangladesh Rural Advancement Committee, but now refers to the organization that gives micro business loans.

## NEW YORK, USA: MARIEL BOOTH

MODEL STUDENT



#### 1. Who is Mariel Booth?

Mariel Booth is one of the people working in New York City's fashion industry. She's a twentythree-year-old model and student at NYU (New York University). On the day of this photo shoot, her calorie count was 2400.

## 2. Does Mariel look healthy? Is she too fat? Too thin? Or just right? (A)

Yes, Mariel looks healthy.

Just right—her weight is nearly perfect for her age and height. In fact, her body mass index (BMI) is 19.7, which is on the lower end of the scale for a normal, healthy weight.

### 3. Why might Mariel describe herself as "too old and too fat to get really good jobs"?

Mariel's job is working as a fashion model. According to her, at her current weight she wears a size 4½, but wants to fit into a size 4 dress to model. She says there is "no market for size 6." She's only twenty-three, but like many models, she started modeling at age thirteen.

## 4. The authors tell us that Mariel had suffered "a bout with **bulimia**" while in **high school**. What is bulimia?

Bulimia is an eating disorder where a person eats too much (binges) and then purges (vomits) to get rid of what they have eaten. Bulimia is a serious disease because after continuous purging, a person's stomach acids can damage the esophagus (tube to the stomach), teeth, and mouth.

### 5. Do you think that all models have eating disorders?

No, not all female models have eating disorders. Some female models are naturally thin. Other female models greatly restrict what they eat in order to maintain a body weight that is generally 25 percent less than what an average woman weighs. Restricting calories, in and of itself, is dieting, but not necessarily an eating disorder.

### 6. What foods do you recognize? (A)

You probably recognize the bottled water, the wine, the soup, the fruit salad, the bread, and the four cups of tea. The blue container marked ZICO is coconut water, the bottle with tan liquid is fermented tea, and the red cup contains a soy latte. There's vegetarian sushi on the plate and pita chips scattered around the food. The tiny white block behind the soup is a dairy-free ice cream sandwich.

#### 7. What do you notice about the serving sizes? (A)

The food servings are relatively small.

## 8. How much time do you think Mariel spends in her kitchen preparing food?

Mariel probably spends very little time cooking her meals. Many of the foods she ate were bought outside the house and are ready-to-serve. The authors say that Mariel shops at Whole Foods Market, where she buys her canned soup, prepared sushi, and the ingredients she uses to make her salads. She could probably make all her day's food using only a microwave and a blender.

## 9. Is Mariel's breakfast a healthy breakfast? Would you eat Mariel's breakfast? (A)

Yes, Mariel's healthy breakfast includes a fruit salad with low-fat yogurt. She also drinks a smoothie made of almond milk and soy protein powder. The latte is also made with soy. Soy drinks are generally lower fat choices than milk, which has more fat and cholesterol. However, soy products can have a higher calorie count if they are sweetened.

Answers will vary.

## 10. Is Mariel's lunch healthy? What foods in Mariel's lunch might you try? (A)

Yes, her healthy lunch contains vegetarian sushi, made with whole grain rice rather than white rice. ZICO is a brand of coconut milk that claims to be 99 percent fat-free and low in carbohydrates and sugars. Some proponents of coconut water say it is good for the skin and helps to keep the body properly hydrated. The bottled tea has only 60 calories which is far less than a bottle of soda.

Answers will vary.

## 11. Is Mariel's dinner healthy? (A)

Yes, Mariel's dinner contains a cup of vegetable soup, a bowl of tuna salad with avocado, kidney beans, assorted vegetables and only 1 tablespoon of dressing made of lemon juice and olive oil. The avocado and the olive oil give her servings of healthy fats. The tuna and kidney beans provide low-fat proteins. The whole-wheat roll, raw vegetables, and soup all provide fiber, which is essential for a healthy diet.

# 12. Mariel's diet is in constant revision—largely vegetarian, but laced with a little meat at times and frequent forays into **health fads**. What food(s) might be considered part of an eating "fad"? (A)

The "fad" component probably includes the coconut water and the fermented tea. If you put "coconut water benefits" into a search engine, you will find web pages with long lists of the health benefits of coconut water. However, because there have been no clinical trials providing hard evidence of these claims and because coconut water has enjoyed a relatively recent bout of popularity, the drink can be considered a health-food fad.

The fermented tea she drinks is marketed under the name of Kombucha Wonder Drink. The company claims that its beverages "include organic green, oolong and herbal teas packed with antioxidants, while the Kombucha fermentation process creates beneficial organic acids that have been known to aid digestion and detoxification."

A product named Wonder Drink sounds like a fad.

## 13. Overall, how well "diet-wise" is Mariel doing? (A)

Mariel is eating a very healthy diet. She eats a mostly vegetarian diet, a choice that, when done wisely, is high-fiber, low-fat, and healthy—as long as the person gets enough protein. Her protein shake, kidney beans, and tuna on this day show that she knows to eat enough protein. Wherever possible, Mariel chooses whole grains over refined grains, and limits her portion size.

At the end of the article, Mariel told the authors that her own desire for perfection (size 4 or less) is "driving her nuts, but not so nuts that she starves herself."

## CHINA: CHEN ZHEN college student

LECTURE NOTES • TEACHER SECTION





#### 1. Who is **Chen Zhen**?

Chen Zhen is a twenty-year-old student who attends a university in Shanghai. Her first name is Zhen because the Chinese traditionally write the surname first when identifying a person. Her culture believes that education holds the key to improving a person's life, and her family makes sacrifices in order to send her to college. On this day, her calorie count was 2600.

# 2. When you look at the **buildings** behind Zhen, why might you guess she is in a **modern international city**? (A)

The clean, well-maintained street is carefully paved with stone squares. The buildings look modern with their glass fronts and with both neon and LED lights. The people are dressed in modern Western clothing and are wearing sneakers and sandals, rather than traditional garb or communist Mao suits.

#### 3. Can you **recognize** or read any of the **signs**? (A)

Some of the signs are written in both Chinese and English. There's a sign that says South Africa, and there are familiar signs for McDonalds and KFC. The letters TCL on the tall building on the left with the steeple stand for TCL Corporation, one of China's consumer electronics giants, which sells electronics all over the world.

#### 4. What foods do you recognize in the photo of Zhen's one day of food? (A)

The tray that Zhen is holding contains familiar KFC fare—chicken and ice cream. The poster says she also ate a small serving of French fries, which was not in the photo. There are water bottles and a green box containing milk. You probably recognized the white rice on her plate.

#### 5. Have you ever tried similar foods in your own diet? (A)

Answers will vary.

# 6. What **portion** of the **calories** Zhen ate on this day came from her **KFC meal**? Guess at the calorie count. (A)

About half of Zhen's calories came from the KFC meal she bought for lunch. KFC chicken thigh = 340 calories, sandwich = 360 calories, small fries = 250 calories, and sundae = 330 calories for a total of 1,280 calories.

## 7. Much of what she ate for lunch was **high-fat/high-calorie** food. However, Zhen is 5'5" and weighs only 106 pounds. Can you explain why she **isn't obese**? (A)

The diet shown here is a snapshot in time, and not a daily caloric average. Zhen goes to KFC only three times a week—three of the twenty-one meals she eats. That means that she eats more traditional Chinese food for her other eighteen meals.

Her other meals are made with little meat and lots of vegetables and rice.

KFC tends to be expensive. In order to pay for her meals at KFC, Zhen gets coupons from the company. Also, she works in a Hello Kitty store when she's not at school, earning money to pay for extra food and clothing.

8. Would you say that Zhen's diet contains adequate servings from all the food groups? (A)

She has two servings of dairy (boxed milk and ice cream).

She has three servings of grain (rice, which is a part of both her breakfast and supper as well as the bun for the sandwich.)

She doesn't consume fruit, but she has two servings of vegetables that are stir-fried for both breakfast and supper. Her french fries give her a serving of starchy vegetables at lunch.

She ate almost eight ounces of meat for her lunch, but only a little protein at breakfast and supper (dried pork threads and an egg).

She drank more than an adequate amount of water.

## 9. Would you say that Zhen's **diet** on this day was **healthy**? Explain your answer. (A)

Zhen's diet on this day would not be considered healthy according to the latest USDA guidelines.

**Sodium**: Her traditional diet of pickled vegetables and soy sauce, along with her seasoned chicken and fries, are too high in sodium.

**Saturated Fats**: Normally, eating deep-fried bread in a rice roll for breakfast would not be an issue. But, when she also eats at KFC for lunch, she is adding more foods that are high in saturated fats—foods that are linked to increased heart disease.

**Calcium**: As a young adult, she needs a minimum of two servings of milk to get adequate calcium, but her second serving of milk was a high-fat, high-sugar sundae. Also, fast food restaurants are known for using less nutritious "milk products" rather than real milk in their desserts.

**Calories**: Based on what she ate at the other two meals, if she had eaten more traditional food, her lunch might have had only 600 calories. That would bring her total daily intake to a little under 2,000 calories, a recommended amount for a person of her height and age. If she were to eat 2,600 calories every day, she would probably begin to gain weight. Today in China, a third of all women and a third of all men are overweight.

# 10. Zhen's **father and grandparents** "eat **vegetables** and **rice** throughout the week so they can afford to buy the **meat** to feed Zhen when she visits on weekends." What is **missing** from their **diets**? (B)

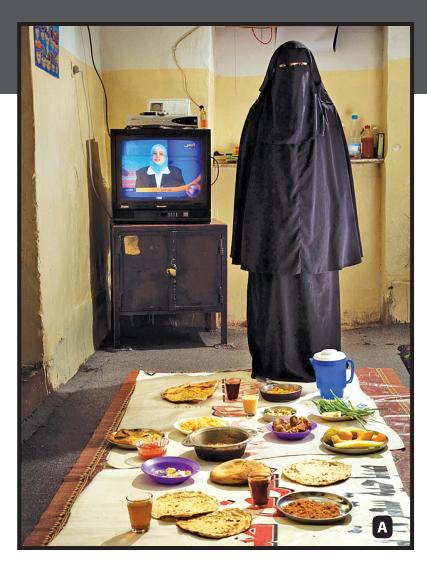
Zhen's father and grandparents are missing dairy and meat from their diet. This means they probably do not eat enough protein nor do they get adequate amounts of calcium, both of which are needed to build strong bodies. They have probably lived with the effects of such a diet most of their lives. The author reveals that Zhen is "a head taller than her grandmother and several inches taller than her father, probably due to nutrition."

Zhen says that her family has "sacrificed a lot to ensure that she has enough to eat, and a successful future." Zhen expects to repay her family's sacrifice by doing well in school and earning enough money to support her family.

# YEMEN: SAADA HAIDAR

HOMEMAKER

LECTURE NOTES • TEACHER SECTION







## 1. Who is Saada Haidar?

Saada Haidar is a twenty-seven-year-old homemaker and mother of three sons. Her traditional Islamic culture imposes strict rules on women of all ages. Her calorie intake on the day this photo was taken was 2700.

2. This photo is unique because you cannot see Saada Haidar's face. Her Islamic culture and traditional husband require that she wear a *balto* (also called an *abaya*) that covers all but her eyes when she appears in public. Inside her own home, she does not wear the balto. What else do you notice about her home and culture from looking at the rest of the photo? (A, B)

Not every adult female must wear a balto in public—the woman on the television is wearing only a hijab, or veil, with her conventional clothing. This could be because the television program seen in the photo is being broadcast from another country where societal rules are more lenient. The authors said that most of the husbands where the photo was taken would not let their wives pose for the photo or be interviewed. Saada's husband, who is a driver for a bank executive, used to live in a distant rural village where women were not as cloistered.

He agreed to the interview, but Saada does not speak English. As a remedy, the authors found a male translator, but the translator would not look directly at Saada as they spoke—even though she was completely covered.

Obviously, Saada has access to television, although there is probably strict government control over what she and all Yemenis view. Yemen is a devout country whose laws are based on the tenets of Islam. Modesty and tradition are paramount.

Her house has electricity, but the apartment appears to be minimally furnished and the walls are undecorated. The Haidars left their old apartment when the rent was raised and moved to this apartment in a huge suburb just outside the capital city.

Nearly all Yemenis eat on a tablecloth on the floor. The dishware is made of different materials including metal, ceramics, glass, and plastic. The plastic blue water jug and purple dish indicate that they have access to foreign goods.

There is no indication that the family members own animals that share any of their living space.

## 3. Do you see any commercial foods that are part of Saada's one-day diet? (A)

There are no foods with labels to indicate they are commercial foods. The fresh fruits, vegetables, and rice can be stored at room temperature so that she probably doesn't have to go to the market every day.

# 4. What does that tell you about how often she must go to **market** and how much **time** she spends **preparing food**? (C)

The author tells us that the flat breads, salads, and slowly cooked stews are all homemade, so Saada must spend much of her day preparing food.

## 5. What food groups do you recognize in the photo of Saada's one day of food? (A)

The large jug contains 1.6 quarts of bottled water.

**Grains**: There are several pieces of flat bread and bright yellow-orange rice that was seasoned with cumin and cardamom.

**Vegetables**: There are green salad vegetables (cucumber, onion, carrot, tomato) in a bowl. Also, there are green onions (scallions) on a plate with white radish and what looks like a salsa, which is a fresh tomato relish.

Fruits: There's a plate of fruit with two kinds of melon, banana, and mango.

**Proteins**: There is a bowl of 9.2 ounces of calf meat on the bone, but it was not counted in her daily diet because it is a treat she only eats once a week. There's also a plate of scrambled eggs with tomato and onion that looks a bit like chili. *Ful*, a dish cooked in the small black frying pan, is made of fava beans cooked with onion, tomato, and ground chilies. Fava beans provide an incomplete protein that when combined with other foods makes a complete protein.

# 6. What do you notice about the **bread** in this photo? How is it **different** from the bread **you** generally **eat**? (A)

All the breads are flat. Although some may contain yeast, which causes bread to rise, they are baked flat rather than in loaves. Many are unleavened, which means that they contain no yeast at all. Saada makes all her own breads and she uses combinations of different flours.

The breakfast bread is called *khubz* and is made from wheat flour.

The lunch bread is called *lahuuh*. It is served like a pancake but is fermented flat bread made with yeast and similar to sourdough bread.

For supper she ate *maluuj*—bread made from millet and wheat flours.

For a snack, she ate a third of the loaf of *qafuu'a*—bread made from wheat and lentil flour.

7. Saada's main meal is **lunch**. In the pot is *saltah*—a stew containing mutton, eggplant, tomato, and onion with hot chilies. It's served with rice, salad, green onions, radishes, and tomato relish. Is this a **nutritious meal**? (A)

This is a very nutritious meal. Most of the lunch is made with whole grains and both cooked and fresh vegetables. Mutton can be fattening, but the meat is in a stew made of vegetables. On top of the stew is *hulbah*, which is a foamy fenugreek topping. Fenugreek is an ancient herb believed to have medicinal properties. The only sweet in her meal is the tea made with sweetened evaporated milk.

## 8. Would you say that Saada's diet on this day was healthy? Explain your answer. (A)

Unlike many American snacks of candy, chips, cookies, and pizza slices, her snacks are low-fat and low-sugar foods. Her primary snacks are fruit or parts of fruit. She has slices of melon and a small banana. The only whole fruit is the mango. She ate a third of the *qafuu'a* bread shown, and the calf bones were a once-a-week treat.

# 9. According to the authors, 75 to 80 percent of the family income is spent on food. "But no matter what the food budget, Saada's husband buys a bag of *qat* leaves (pronounced *cot*) to chew with his friends on the weekend." What do you suppose qat is?

*Qat* might be compared to tobacco or alcohol in our society. People who use it regularly sometimes become addicted to it. In fact, qat is a leafy narcotic that almost 90 percent of Yemini men chew. People say chewing qat provides a feeling of well-being, sharpens their thinking, and gives them more energy. Historically, qat probably replaced alcohol, which is forbidden under Islamic law.

Qat used to be a weekend habit for the rich, but many Yemenis now chew it several times during the week. The Yemeni workday ends between two and three o'clock in the afternoon and, afterwards, groups of men get together in someone's house to enjoy a qat session that lasts three to four hours. These qat sessions have now become a major part of the Yemeni way of life where the men chew qat, conduct business, and make plans. Many economists believe that the country's economy suffers because so many work hours are wasted. Others point out that the men are not making their best decisions while under the influence of this drug. But, unfortunately, qat cannot be outlawed because so much of the country's economy is based on the money and taxes earned from qat.

Saada doesn't chew, although a small percentage of Yemeni women do. However, the authors tell us that a slight rise in rent caused the Haidars to move out of their first apartment into a cheaper one. Saada's husband moved his family to save money rather than cut back on his weekly bag of qat.

### ISRAEL: OFER SABATH BEIT-HALACHMI

RABBI

LECTURE NOTES • TEACHER SECTION



#### 1. Who is Ofer Sabath Beit-Halachmi?

Ofer Sabath Beit-Halachmi is a Reform rabbi living in a communal settlement outside of Jerusalem. Settlement residents lease their land and houses from the state of Israel for ninety-nine years. His calorie count this day was 3100.

## 2. What do you notice about the **buildings** in the background behind Ofer? What are used for **building materials**? Who probably **owns** these buildings and what are they **used for**? (A)

The buildings behind Ofer are crowded together, look virtually the same, and are dull in color.

The buildings are probably made from the same materials as the building next door to Ofer's apartment—cinderblock walls with clay-tile roofs. These materials are readily available in the arid land of Israel. Israelis would never cut down their sparse supply of trees to build tracks of wooden houses. These materials are also more fireproof than traditional wood homes, so a home fire might be better contained and not spread to nearby apartments.

The buildings are probably owned by the government of Israel—just like Ofer's apartment that he can lease for ninety-nine years. In a small country, land is a premium, especially in the cities. With no actual private ownership of land, the government controls land availability and thereby assures that all Israelis have access to housing.

#### 3. What is a **rabbi**? What does it mean to be a **Reform rabbi**?

A rabbi is the ordained head of a Jewish synagogue. Traditionally, rabbis were always men, but under conservative or Reform Judaism, women can be rabbis. Ofer's wife is a rabbi, too.

People practicing Reform Judaism believe that some traditional Jewish teachings (established thousands of years ago) may be modernized to reflect the current times. However, most still hold carefully to the traditional dietary restrictions.

#### 4. How do the dietary rules of kashrut (kosher) affect what and how Ofer may eat?

A few of the major rules of *kashrut*, or keeping kosher:

- Animals with cloven hooves that chew their cud, certain poultry, and fish with fins and scales may be eaten.
- All animals must be ritualistically slaughtered.
- No meat and milk may be served or eaten at the same meal.

Because of the rules, some food can never be served including: pork, meat that was slaughtered in non-Kosher slaughterhouses or butcher shops, and shellfish of any kind. Because of kashrut rules, kitchens must be organized in a special way to prepare food. Also, there can never be recipes with cheese and meat products combined, such as lasagna. However, Traditional and Reform Jews do serve cheese with fish as in the popular dish of lox and bagels, which is smoked salmon on a bagel with cream cheese.

#### 5. How much **meat** do you see in Ofer's daily **diet**? (A)

There is no meat listed in Ofer's diet for this day. The authors tell us that Ofer's wife serves vegetarian meals at home so that all her guests can eat according to kashrut rules. Occasionally when Ofer goes out to eat, he orders meat.

6. If the annual **meat consumption** in Israel is 219+ pounds per person, do you agree with the following statement? *Most Israelis eat like Ofer and his family*.

Most other Israelis do not eat like Ofer and his family. The annual rate of meat or fish consumption listed on the poster (219.8 pounds annual per capita) means that the Israelis who are eating meat are eating, on average, more than eight ounces every day. (16 ounces × 219 pounds = 3,504 ounces divided by 365 days = 9.6 ounces/day) This does not mean that all these meat-eating Jews are not following the rules of kashrut. But it does mean that those who follow the dietary rules of kashrut must buy their meat from a kosher butcher, prepare it according to strict rules and avoid eating dairy dishes with the meat. Ofer and his family eat according to the rules of eco-kashrut. When making their food choices, they carefully consider the environment. This makes Ofer's diet unlike most other Israelis.

7. How does serving only **vegetarian food** help Ofer and his wife entertain any Jewish person who visits their home?

Vegetarian meals don't break Jewish dietary restrictions. Vegetarians (including Jews strictly following kashrut) often eat eggs and dairy products. Dairy products can be freely eaten as long as they are not served with meat and are prepared in the proper fashion.

#### 8. How can vegetarians get enough protein if they don't eat meat?

Our bodies need proteins made up of essential amino acids to grow, to repair, or to replace worn out cells, and to make antibodies to fight disease. Eggs, dairy, fish, and meat all contain complete proteins that contain all the necessary amino acids our bodies need. Most grains, nuts, dried beans, seeds, rice and corn contain only some of the amino acids. However, if these "incomplete proteins" are eaten in combinations with each other or other complete proteins, the body gets all the amino acids it needs. That's why hummus (mashed chickpeas and tahini, a sesame seed paste) and wholewheat pita bread is a good combination meal that provides a good supply of protein.

## 9. Is the number of Ofer's major daily food servings **different** from **yours**? If yes, what's different? How nutritious is each meal? (A)

Ofer actually spreads his daily calories over four distinct servings:

- His breakfast of coffee and two sweet rolls is not very nutritious.
- He eats a good lunch comprised of a sandwich and vegetables.
- His extra meal (the vegetarian midafternoon snack) consists of pita bread with hummus and eggplant mayonnaise, and provides a significant portion of his daily calories.
- His vegetarian dinner is a balanced meal that contains most of the food groups.

# 10. How many **beverages** did Ofer drink on this day? If the **average beverage** was a little more than 12 ounces in size, how many **ounces** of liquid did he drink? Which of the **beverages** that he routinely drinks might you find in **your diet**? (A)

Ofer drank nine beverages in one day.

If you were to add all the beverages together, their volume would equal 111.9 ounces, divided by nine beverages equals an average of 12.4 ounces.  $12 \times 9 = 108$  ounces, which is more than three quarts a day—probably necessary in the dry climate of Israel.

Ofer and you might both drink water. However, the poster tells us that Ofer's water is filtered rather than straight from the tap. He drinks coffee and wine—common drinks, but maybe not part of your beverage list. He drinks Coca Cola—you probably recognized the bottle, but notice that the label is written in Hebrew.

#### 11. The poster tells us that Ofer is 6'1" and weighs 165 pounds. Is he overweight?

Ofer is *not* overweight—his BMI is 21.8 which is well within the normal range. He would have to weigh 25 pounds more (190) to be considered overweight.

#### 12. He eats pasta, cookies, ice cream, soda, olives, and wine. Why isn't he overweight?

Although Ofer eats a variety of foods that are high-calorie and high-fat, he eats small portions. Look at his portion of pasta. Is it smaller or larger than a pasta serving at your house? He also chose low-fat cream cheese, low-calorie wheat bread for his sandwich, plain yogurt, and cottage cheese—all lower calorie choices.

## 13. According to the poster, more than half of all Israelis are **overweight**. What might be the **cause**?

Most Israelis have access to the same high-calorie and high-fat foods that Ofer does. They also generally eat more meat, which can have high fat content. Most likely these overweight Israelis are overeating by eating larger portions—not two cookies, but five; not one Coke, but two; not three ounces of pasta, but twelve ounces, or enough to cover the entire plate.

### LATVIA: AIVARS RADZIŅŠ beekeeper

LECTURE NOTES • TEACHER SECTION









#### 1. Who is Aivars Radziņš?

Out in the countryside, when times became tough, Latvians returned to a barter economy that allowed the people to live modestly, but with adequate food. One such person is Aivars Radziņš, a forester and beekeeper, who lives in Vecpiebalga, a small town in the highlands of central Latvia. On the day of this photo, his calorie count was 3100.

#### 2. Why is Aivars dressed so strangely? (A)

Aivars is a beekeeper. He's wearing a coverall and hat that will keep the bees from stinging him. The metal cylinder in his hand is a smoker with box-like bellows. Beekeepers puff smoke onto the hives so that they can open them and take out the honey. Supposedly the smoke masks the alarm-scents that bees use to warn each other that the hive is being disturbed.

#### 3. What are the **layered boxes** around him? (A)

The layered boxes are honeybee hives. On the bottom left-hand side of the boxes, you can see the opening for the bees to enter the hive. These hives contain one queen bee and thousands of worker bees.

#### 4. What might Aivars do with the extra honey his bees produce? (D)

Aivars and his wife sell the extra honey, but they also use it to barter for other foods such as meat, milk, and bread.

5. Aivars did not go to school to become a beekeeper. He has a degree in mechanical engineering and his wife is a doctor. What **standard of living** do you expect he and his wife enjoy? (B)

If Aivars lived in the United States, he and his doctor wife might expect to have a very high standard of living. They might expect incomes well over \$150,000 per year. However, they live modestly in rural Latvia where "a rural doctor doesn't make much more than the country folk she treats." Aivars also works for the government as a forester and occasionally as a nurse, helping his wife. He, his wife, and three daughters eat well because they supplement their food budget by keeping bees, selling the honey, and bartering the honey for other foods.

### 6. Which **food groups** can you readily **recognize** in his daily menu? Which food groups are **missing** or, at least, **not obvious**? (A)

Grains: You can clearly see bread, which is served at every meal.

**Proteins**: There is a serving or two of meat on all of the plates and a split hardboiled egg on the breakfast plate.

Vegetables: There are vegetables on two of the plates and in the soup bowl.

Fruits: None.

**Dairy**: There is no milk or cheese, but there is potato with sour cream sauce on one plate and carrots with sour cream sauce on another.

#### 7. How much **meat** do you see in Aivars's daily diet? (A)

There is meat listed at every meal of Aivars's diet for this day. He ate 3.3 ounces for breakfast (2.5 pork meatballs + 0.8 ham). He ate 8.1 ounces at lunch (6.9 pork cutlet + 1.2 meatball in soup). For dinner, he ate 3.2 ounces of fried pork meatballs. That's a total of 14.6 ounces of meat in one day. This may have been an unusual day.

8. If the **annual meat consumption** in Latvia is 126 pounds per person, do you agree with the following statement? *Most Latvians eat like Aivars and his family.* (A, C)

Most Latvians eat 126.8 pounds of meat per year which averages to only 5.5 ounces of meat per day.

But averages do not always tell the whole story. Latvia lies on the Baltic Sea and many Latvians eat fish, which would not be included in the meat consumption statistic, although it would be counted as part of the protein food group.

To answer the question, it depends. Most of Aivars's neighbors probably eat like he does because they are all involved in the local bartering of foods. What people barter and sell depend on what's available. For some it is apples and honey, for others it is smoked meats, lamb, and beef. For those on the coast, it's probably fish.

9. The authors tell us that Aivars and his family favor "the flavors of the cold Baltic sea region: sour rye bread, sour cream sauces, pickled salads, preserved [smoked] meats, cabbage, root vegetables, and dill weed." What do you notice about these foods? (A, C)

The foods listed have strong flavors. The cream is soured, the meat is smoked, and the vegetables are pickled in vinegar. Pickling and smoking meats are ways to preserve the foods. Cabbage and root vegetables (also strong flavors) are also readily stored over time and need little preservation.

The authors say, "Historically, these fermented, pickled, marinated, smoked, and dried foods were a necessity due to the region's short growing season." Latvians had to preserve the food they grew to last through the long winters when nothing would grow. Traditional foods became the most familiar flavors.

#### 10. For **breakfast** Aivars drinks coffee, and he **drinks** black tea with cake on his tea break. What do you suppose is in the two large glasses? (A)

If you guessed beer, you would be close. The glasses contain *kvass*, a fermented beverage made from black or regular rye bread. Sometimes, kvass is flavored with herbs. Unlike most beers that have an alcohol content of 4 to 6 percent, kvass's alcohol content is much less—only 0.05 to 1 percent. Although he drinks just over a quart of kvass every day, Aivars never drinks enough to be even slightly intoxicated.

#### 11. What beverage is **missing**? (A)

Aivars did not drink any plain water today. His coffee, tea, soup, and kvass were probably enough to keep him hydrated.

#### 12. The poster tells us that Aivars is $5'8\frac{1}{2}''$ and weighs 165 pounds. Is he overweight? (A)

Aivars is a little overweight—his BMI is 24.7, just inside the overweight range. He only needs to lose five pounds to be considered at a normal weight.

## 13. According to the poster, more than **half of Latvians** are **overweight**. What might be the **cause**?

Aivars and many Latvians eat a lot of high-fat meats such as beef, pork, and lamb. Their vegetables are often slathered in sour cream, a very high-fat dairy product. Latvians enjoy their kvass and bread with honey, both high-carbohydrate/high-calorie foods. As a result, 59.1 percent of women and 64.3 percent of men in Latvia are considered overweight.

### JAPAN: MIYABIYAMA

SUMO WRESTLER

LECTURE NOTES • TEACHER SECTION





#### 1. Who is **Miyabiyama**?

The national sport of Japan is sumo wrestling. You will learn about Miyabiyama, the Sumo Wrestler. His real name is Takeuchi Masato, but his ring-name, meaning "Graceful Mountain," better describes his 6'2", 400-pound body. As a sumo wrestler, Japanese tradition requires that he follow a strict routine for both training and eating. On this day, his calorie intake was 3,500.

#### 2. What do you notice about the **room** behind him? (A)

Miyabiyama appears to be sitting in a gymnasium of some sort. In fact, this is a composite picture taken on two different days. The Sumo Association would not allow Miyabiyama to be photographed with food in a training session where wrestlers were present.

### 3. What do you notice about the young men behind him? Do you think these young men eat healthy meals? (A)

The young, overweight men in black loin cloths appearing behind him are **training** to become sumo wrestlers. Sumo training takes place in a "stable" run by a "boss" who was once a sumo wrestler. The young trainees are called **rikishi** and, in addition to training, these young men prepare the meals and serve the older, more experienced sumo wrestlers called **sekitori**.

The authors tell us, "No one wins [as a sumo wrestler] without sheer brute strength and a physical size of mammoth proportions." To achieve the required size, sumo wrestlers begin to force-feed themselves as teenagers to pack on pounds. Some younger wrestlers eat foods that aren't good for them, including sweets, such as cakes, and chips. But, under supervision in a stable, the young men eat **huge quantities** of **healthier foods** including steamed rice, vegetables, buckwheat noodles (soba), pasta, and quantities of fish, pork, and chicken. It takes time to put on this much weight because they eat only two times a day and need to stretch their stomach to consume great quantities of food at a meal.

#### 4. What foods do you recognize as part of Miyabiyama's daily diet? (A)

Rice is a staple, not only for sumo wrestlers, but for most Japanese. Vegetables, although you might only be able to identify the cucumbers, are part of many Japanese dishes. There is a whole grilled fish (atka mackerel) and a plate of scrambled eggs with chives. The fried food to the left is vegetable *tempura*—vegetables dipped in batter and deep-fried in oil.

#### 5. What kind of kitchen would the stable need to prepare these foods? Who are the cooks? (B)

The cooks are *rikishi*, young sumo wrestlers in training. Tradition requires that they prepare all the food for the whole stable. As expected, the higher ranked *sekitori* will eat first, and the rikishi will clean up the dishes.

#### 6. The **pot** at the front is filled with hot oil. What is **cooking**? (B)

The pot in the front is a deep-fat fryer where they make tempura and fried chicken.

#### 7. What is being **prepared** in the **other pots**? (B)

In the other pots are dishes such as *chanko nabe*—a traditional pork stew with vegetables sumo use to maintain their weight or bulk up. Another pot might have some miso soup or a stewed chicken dish or tuna with *somen* (thin white, wheat noodles) served in a water broth.

#### 8. Estimate the **amount** of liquid Miyabiyama **drinks** in one day. (A)

Miyabiyama drinks a lot of liquid in one day. He begins by sipping ritual water while he trains in the morning. Throughout the day, he drinks 1.3 quarts of coffee, 2.1 quarts of barley tea, and 6.4 quarts of bottled water—that is 313.6 ounces or almost 2.5 gallons a day! This does not include all the large quantities of soups and dishes made with broth.

### 9. Miyabiyama eats only 3,500 calories a day when he is in training to **maintain** his weight. Except for the huge quantities, is his diet a **healthy diet**? Track the food groups and look for **high-fat** or **high-sugar** choices. (A)

Miyabiyama eats a diet that has some high-fat, but no high-sugar, choices. He ate fried chicken and vegetable tempura, both of which are deep-fried. The chanko nabe contained pork, a fattier meat, but the fish was grilled.

Notice that there are no high-fat cheeses or heavy dairy calories because the Japanese don't generally eat or drink milk products.

There is plenty of grain, but the rice is traditionally white, whereas a whole-grain brown rice would have been a healthier choice. However, most of the dishes are cooked and served with lots of vegetables.

There are no cakes, cookies, or sugary drinks, and he appears to drink the bottled coffee black with no cream or sugar.

Overall, except for the large amounts, Miyabiyama eats a moderately healthy diet.

#### 10. Is Miyabiyama healthy? (A)

He may be healthy today, but his lifestyle means he won't stay healthy. Miyabiyama's Body Mass Index (BMI) is over 40—morbidly obese. This means that, over time, his excess body fat will probably cause him to suffer more health problems and to die at an earlier age. At twenty-nine years old, he is fit, flexible, and has more muscle mass than a 400 pound man who is not a sumo. However, within ten years, he will probably have to deal with injuries to his knees, diabetes, and an increased chance of heart disease. Although the life expectancy of Japanese men is almost eighty years, most sumo wrestlers die in their sixties.

#### 11. Why would a sumo wrestler follow such an unhealthy lifestyle?

Sumo wrestlers are superstars in Japan, and they are not unlike many super-athletes or movie stars throughout the world. They choose lifestyles, diets, and training practices that will eventually impair their health.

### VENEZUELA: KATHERINE NAVAS

STUDENT IN THE BARRIO

LECTURE NOTES • TEACHER SECTION





#### 1. Who is Katherine Navas?

Katherine Navas is an eighteen-year-old student who lives in the crowded barrios of Caracas, Venezuela. In the barrio, she and her family must live carefully to avoid becoming another statistic in a city recently called the "murder capital of the world."

#### 2. Katherine is seated on the roof of her family's home in the barrio. What is a barrio? (A)

The word barrio has been described many ways, including a "squatters' city," a "slum," or a "neighborhood." The barrio in Caracas is a composite of all three. When people moved from the countryside to the city, there was no available housing. The newcomers built makeshift houses— some no more than shacks made of metal scraps—often on public land or, sometimes, illegally on private land. There was no city plan or zoning, so the houses spread one next to the other up the hillsides and were separated only by steep stairs and narrow alleys. As the neighborhoods grew, some people applied for public building grants that allowed them to bring in some water and sanitation projects. Many houses, though, are mere shelters crammed with many people just trying to survive.

#### 3. If there is so much poverty in the barrio, how can Katherine's family afford so much food? (B)

President Chavez instituted some significant social programs for the barrio. He established *Mercales*, government subsidized groceries that sell food at considerable discounts. He also set up soup kitchens that prepare free government food, each one feeding up to 150 people a day. Also, some people in the barrio have businesses that serve the city of Caracas as well as the neighborhood.

## 4. What about Katherine's **appearance** and **food choices** would lead you to believe that her family, although living in the barrio, is **not among the very poor**? (A)

Katherine appears to be well-fed and is wearing glasses and jewelry.

Although most food costs are subsidized in Venezuela, she is eating packaged, prepared junk food including candy bars, chips, and cake.

Obviously not everyone in the barrio is poor. The authors tell us that Katherine's stepfather is a businessman who owns a copy and internet shop at the base of the barrio, a two-minute walk from her house and only one block away from a Caracas thoroughfare.

Katherine said she gained a lot of weight while living with her aunt and studying in the United States. She said it was the fast food.

5. Look for the **healthy** foods on Katherine's table. Sort them into food groups. How many servings of healthy foods is Katherine missing for a **recommended** healthy diet? Which food group servings **exceed recommended** amounts? (A)

Fruits: Katherine ate two apples and three servings of orange juice. 5/3 servings (+2)

**Vegetables**: She ate two servings of salad with only a small amount of dressing (1 tsp.) 2/3 servings (-1)

**Protein**: She had chicken and fish, good sources of protein, but the fish was fried and half the chicken was in the pastelitos. 3/3 servings (=)

**Grains**: She ate almost one pound of white rice. White rice is processed and is much less nutritious than brown rice. There is also bread on the table. 6/4 (+2)

**Dairy**: There were no servings of dairy. 0/3 servings (-3).

6. Katherine is an **active teenager**. The authors tell us that she "splits her time between the copy shop [where she works], school, and her community basketball league." Is she active enough to eat **4,000 calories** without **gaining weight**? (A)

How many calories we burn during exercise depends on at least three things: our age, our body weight, and our activity level. Katherine is young and weighs 167 pounds, which is already eight pounds overweight according to her 26.2 Body Mass Index (BMI). Playing basketball competitively for an hour burns about 563 calories. Her other activities are much less strenuous, so it is doubtful she burns all 4,000 calories each day. Over time, this excess of calories will lead to weight gain.

7. Katherine's diet represented 4,000 calories—almost twice the amount recommended by nutritionists for someone her height, weight, and age. What do you think provided the most calories? Could these be eliminated from her diet without causing her to miss nutrients? (A)

The junk food—chips, candy bars, cake, and soda provided a lot of empty calories, meaning hardly any nutrition. She drank her three cups of coffee with three teaspoons of sugar. However, her one ten-ounce serving of Coke contained 7.5 teaspoons of sugar.

Her breakfast of two pastelitos (deep-fried, stuffed pastries made with cornmeal and stuffed with chicken) is a very high-fat, high-calorie food.

The junk food could have been eliminated with no missing nutrients.

8. Katherine's **diet** needs less rice, but one or two more vegetable servings and three dairy servings. She doesn't need more calories, so she must **substitute** foods she eats for healthier foods. **Rewrite** her diet with healthier foods. (A)

**Dairy**: Substitute a cup of skimmed milk for the Coke. Substitute low-fat yogurt and string cheese for the candy.

**Vegetables**: Substitute carrot sticks and celery for the chips at lunch. Eat more salad and less rice with each meal.

**Breakfast**: Substitute almost any breakfast food for the pastelitos. Choose cottage cheese with two small pancakes or an egg with whole-grain toast or cereal with milk.

With these substitutions she would probably cut her daily intake by over 1,200 calories.

## 9. If Katherine **continues** to eat the way she does, what will be the **long-term effects** on her **health**? Explain your answer.

Katherine's diet shown in the photo would not be considered healthy according to USDA guidelines.

**Saturated Fats**: Normally, eating deep-fried food once in a while would not be an issue. But when Katherine eats pastelitos for breakfast and fried fish for lunch, she is adding more foods that are very high in saturated fats—foods that are linked to an increased risk of heart disease.

**Calcium**: As a young adult, she needs three servings of dairy products to get adequate calcium. As she gets older, she may be facing osteoporosis, a thinning of the bones caused by insufficient calcium.

**Carbohydrates**: Katherine eats a lot of carbohydrates that include the large quantities of rice and the sugary treats of soda, candy, and cake. Everyone needs to eat carbohydrates, but excess weight gains may sometimes lead to the development of type 2 diabetes. This is a chronic disease where the body does not produce enough insulin or develops an insulin resistance so that the body can't fully use carbohydrates. Diabetes is a very serious disease that causes heart attacks, strokes, and blindness.

**Calories**: The authors tell us that Katherine gained twenty pounds last year while completing a year of high school in New York City. She has obviously developed a taste for fast food and junk food. By eating 4,000 calories a day (about 2,400 is recommended for her height, age, and activity level), she will continue to gain weight. Today in Venezuela, 62.6 percent of all women and 59.9 percent of all men are overweight.

### CALIFORNIA, USA: CURTIS NEWCOMER

U.S. ARMY SOLDIER

LECTURE NOTES • TEACHER SECTION







#### 1. Who is Curtis Newcomer?

Curtis Newcomer is a twenty-year-old U.S. Army soldier who is training at NCT at Fort Irwin before heading back to Iraq for his second tour of duty. His daily menu is a combination of mess-hall food and MREs—Meals, Ready to Eat. On the day this photo was taken, his calorie count was 4000.

2. Describe the **physical features** that you can readily see in the photo of Fort Irwin, California. How are the Army's **housing** and **equipment** and Curtis's **uniform** suited to this environment? (A)

Fort Irwin is a desert environment. The ground is covered with sand and there are no apparent lakes or streams nearby. There are no trees, plants, or grass. The landscape is almost monochromatic in color—tan, the color of sand.

The housing is comprised of camouflaged Army tents that seem to blend into the sand. These tents are easy to set up and protect the soldiers from the sun and constant wind that blows in the desert. The tents are large enough to serve as barracks or mess halls for the soldiers who are in training. The small trailers in front of the tents and behind the dunes have large tires. A Hummer, a car that can maneuver easily in the sand, is behind the dune to the left.

Curtis is wearing combat boots that protect his feet and are laced high enough to keep out sand. His uniform is made of camouflage-colored cotton, a breathable fabric needed in such a hot environment. He wears a baseball cap to protect his face from the sun and holds a lightweight helmet he must put on during training.

## 3. The **buildings** in the distance are a special construction to help **train soldiers** to work in Iraq or Afghanistan. What do you think they are? (B)

The buildings in the desert about a mile behind Curtis are a fabricated Iraqi village named Medina Wasl, which is one of thirteen built for training exercises on the base. The buildings were actually built by Paramount Pictures and hundreds of actors (military and civilian) and scores of directors participate in the elaborate training exercises. The actors play Iraqi villagers, and the training supervisors set up scenarios with either friendly or hostile villagers to interact with the trainees. There are hidden video cameras and microphones linked to the base control center for performance reviews.

#### 4. What is on the end of Curtis's rifle? (A)

In order to keep the soldiers and actors safe in the training, Curtis's weapon is fitted with a laser that interacts with receivers worn by all of the soldiers and actors in the training exercise regardless of duty, rank, or location in the training theater.

## 5. Curtis eats **two of his meals** (breakfast and dinner) in the base's **mess hall** tent. What foods do you recognize on the trays? (A)

On the breakfast tray is a serving of scrambled eggs, bacon, hash, an apple, and a pack of cookies.

On the dinner tray there are bread, peas, butter, salad, canned fruit, and a pasta dish. The little bottle is hot sauce. Curtis says he loves spicy food and even puts hot sauce on his vanilla ice cream. He saves up the hot sauce bottles so that he'll always have some.

#### 6. The mess hall meals are served on trays. How does that limit how much Curtis eats?

The trays have specific sections for each food item. Although the bacon drapes over two sections, most of the foods are served within their section. For the dinner meal, the sections for the main pasta dish and the salad are quite small.

7. The foods Curtis eats for his lunch in the field come in packets called **MREs**—Meals, Ready to Eat. If you were to open the **packs**, what might you see in a **beverage** pack? In a **snack** pack? In a **meal** pack? (A, C)

The MREs are the latest prepared food given to soldiers in the field or in training. Most of the food is freeze-dried and must be mixed with water. Curtis and other soldiers have different likes and dislikes where MREs are concerned. Take for example the cheese and veggie omelet. "Everybody hates that one," he says.

In the **beverage packs**, you might find only powder. You would need to either pour the powder into a container of water, or add water to the MRE pack. Today's meal included a strawberry dairy shake fortified with calcium and vitamin D, an orange drink, and Crystal Light red tea.

In the **snack packs** you might find crackers, a toaster pastry, or cookies. On this day, Curtis ate a cinnamon scone, a strawberry toaster pastry, crackers, and pound cake with jam.

In the **meal packs**, you might find entire entrees that also need to be mixed with water. On this day, Curtis's meal packs contained ham and shrimp jambalaya, vegetable and cheese omelet, and shredded potatoes with bacon.

#### 8. Are MREs healthy? (A, C)

MRE foods are definitely not half as tasty as those cooked in the mess hall, but they do provide calories to the soldiers training to go to a country which restricts access to food. Unfortunately, the MRE foods are high in sodium and high in fat, sometimes containing as many as 52 grams of fat in one meal. If the soldiers are in the desert, they will need extra sodium to replace what they lose in sweat. And if they are training rigorously, their bodies will burn through the high-fat calories. However, serving MREs to soldiers not in training or who work at desk jobs is probably not a healthy idea.

## 9. About how much **liquid** per day does Curtis **drink** or use to **rehydrate** his food? What about the **beverage packaging** helps Curtis use water efficiently? (A)

Curtis drinks 1.1 quarts of Gatorade, a beverage very high in salt. He also drinks or uses eight quarts of water.

The water is contained in five bottles containing about three cups of water each, rather than in one big two-gallon jug. Curtis can open these smaller bottles, drink what he needs and recap them. The narrow neck of the bottles allows him to carefully pour smaller amounts of water into his dried MRE foods. The bottles are also made of plastic, both light-weight and unbreakable.

## 10. Curtis is 6'5" and weight 195 pounds. Does he **overeat** for his height and weight? Is Curtis **overweight**? (A)

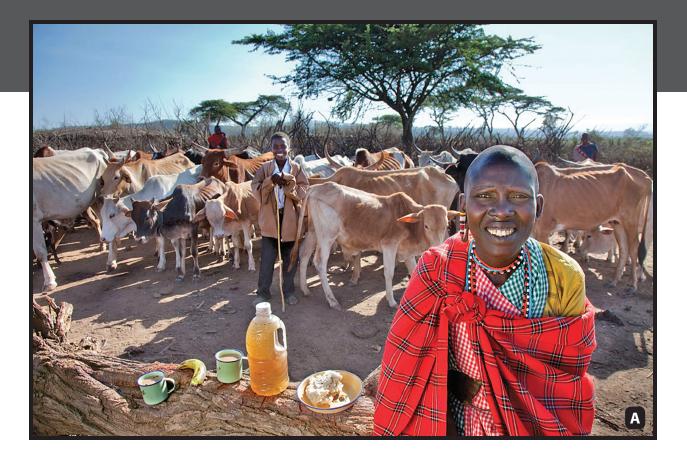
The USDA recommends that someone Curtis's age and height eat about 3,200 calories per day. However, the USDA formula for determining the amount of calories only considers someone exercising sixty minutes a day. A young man working twelve-hour shifts and completing military training would need at least 800 more calories than what is recommended. Curtis, therefore, is not overeating.

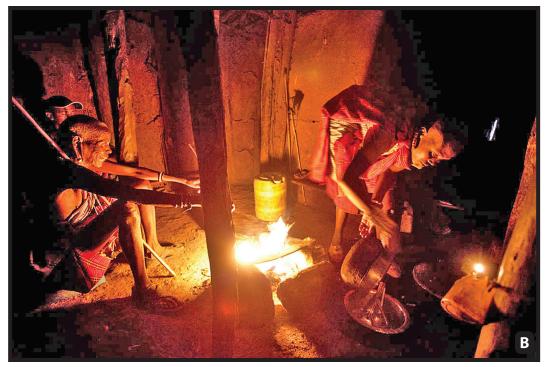
Curtis's BMI (Body Mass Index) is 23.1—within the normal range. However, the BMI makes an assumption about body fat even though muscle weighs more than fat. It assumes that two people with the same BMI also have the same percentage of body fat. Living as a soldier, Curtis would have more muscle, have a smaller percentage of body fat, and be much healthier than a sedentary male with the same BMI.

## STUDENT HANDOUTS



### KENYA: NOOLKISARUNI TARAKUAI maasai herder





Date

- 1. Who is **Noolkisaruni Tarakuai**?
- 2. What do you notice about the cattle in the picture? Why do they look this way? (A)
- 3. What do you notice about the amount of food that Noolkisaruni eats in one day? (A)
- 4. What foods do you think you recognize in the photo of Noolkisaruni's one day of food? (A)
- 5. What **food groups** are **missing** in the photo? (A)
- 6. What food groups are represented in the photo? (A)
- 7. What kind of kitchen would Noolkisaruni need to prepare these foods? (B)
- 8. Noolkisaruni goes to the **market** only once in a while. What must have been **bought** at the market to make this **one day's diet**? (A)
- 9. How does Noolkisaruni's whole daily diet compare to yours? (A)
- 10. What one **meal** in **your diet** is **most like hers**? (A)
- 11. Noolkisaruni ate only 800 calories on the day that the photography team arrived. This is **not a diet** that will **sustain her** for life. **What can she do**?

### TENNESSEE, USA: RICK BUMGARDENER

CANDIDATE FOR OBESITY SURGERY







#### TENNESSEE, USA: RICK BUMGARDENER

#### 1. Who is **Rick Bumgardener**?

- 2. Rick Bumgardener has enjoyed too much, in his words, **"country eating."** What do you suppose that expression **means**? (A)
- 3. Does Rick look healthy? (A)
- 4. Rick is classified as "morbidly obese." What does that mean? (A)
- 5. Look at the food in Rick's photo. Is it a **lot of food**, **too little** food, or just about the **right amount** of food for a whole day's diet? (A)
- 6. To get to his **current weight**, how much more must Rick have **eaten**?
- 7. What do you recognize in Rick's **breakfast**? (B)
- 8. Connie, his wife, plans what he eats. How has she tried to cut down on calories and fat? (A)
- 9. Why does Rick show medicines at his breakfast? (B)
- 10. What does Rick drink for **beverages** during the day? Are his beverages **low-calorie**? (C)
- 11. What **vegetable** servings do you see? Are they all **low-calorie**? (C)
- 12. Connie has made some decisions about not making Rick's **diet too strict**. She's probably afraid he would be too **tempted to cheat**. What compromises did she make to help him **stay on track**? (B, C)
- 13. Do you think Rick **cheats**?
- 14. Rick continues to try to lose enough weight to qualify for **gastric bypass surgery** to shrink the size of his stomach. This surgery is usually successful in **helping people lose weight**, but it carries some serious risks, including death. Why would Rick **choose** this surgery?

### CANADA: COCO SIMONE FINKEN green teen

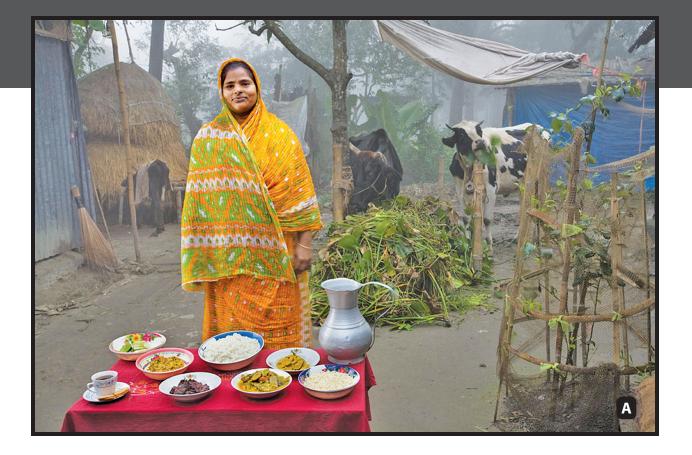


Date

- 1. Who is **Coco Simone Finken**?
- 2. Coco lives about fifty miles from the U.S. border. What about her **appearance** and **where she lives** looks **similar** to teens in your neighborhood? (A)
- 3. What about the **food** she eats looks **familiar**? (A)
- 4. How balanced is Coco's one-day diet? Track servings for each food group. (A)
- 5. Many **vegetarians** like Coco do not eat meat, a major source of the **proteins** we need to live and grow. What are other good sources of protein within her diet? (A)
- List the high-fat/high-calorie foods in her diet. Coco is 5'9<sup>1</sup>/<sub>2</sub>" and weighs 130 pounds. Are you surprised that her body mass index (BMI) is 18.9, the lower range of normal weight? (A)
- 7. There appears to be two glasses of **milk** on the table. Only one is **low-fat** milk. The other is **soy** milk. Which of the two is a **better choice** for Coco? (A)
- 8. Coco and her family grow their own vegetables and shop for organic foods "to the extent that they can afford the higher costs." Why do **organic** foods **cost more**?

### BANGLADESH: SHAHNAZ BEGUM

MICROLOAN MILKER





- 1. Who is **Shahnaz Begum**?
- 2. What are the three **buildings** behind Shahnaz? What are some of the **materials** used to construct these buildings? What do these **buildings** tell you about the **climate** in Bangladesh? (A)
- 3. What foods do you recognize in the photo of Shahnaz's one day of food? (A)
- 4. The list of **ingredients** in the three bowls on the left includes hot **chilies**, green chilies, ground chilies, and raw chilies. What does that tell you about **Bangladeshi cuisine**? (A)
- 5. Which **food groups** are most represented in Shahnaz's diet? Which food groups are **least** represented? (A)
- 6. Shahnaz's home has **no refrigerator** or **running water**. What does that tell you about the food she eats and how often she must go to **market** or to the **communal well**? (B, C)
- 7. How does Shahnaz's daily diet compare to yours? (A)
- 8. Is her diet a **healthy diet**? Explain your answer. (A)
- 9. Shahnaz Begum was introduced as "Microloan Milker." What do you suppose that title means?

# NEW YORK, USA: MARIEL BOOTH model student



Date

- 1. Who is **Mariel Booth**?
- 2. Does Mariel look healthy? Is she too fat? Too thin? Or just right? (A)
- 3. Why might Mariel describe herself as "too old and too fat to get really good jobs"?
- 4. The authors tell us that Mariel had suffered "a bout with **bulimia**" while in **high school**. What is bulimia?
- 5. Do you think that all **models** have **eating disorders**?
- 6. What **foods** do you **recognize**? (A)
- 7. What do you notice about the **serving sizes**? (A)
- 8. How much time do you think Mariel spends in her kitchen preparing food?
- 9. Is Mariel's breakfast a healthy breakfast? Would you eat Mariel's breakfast? (A)
- 10. Is Mariel's lunch healthy? What foods in Mariel's lunch might you try? (A)
- 11. Is Mariel's **dinner** healthy? (A)
- 12. Mariel's diet is in constant revision—largely vegetarian, but laced with a little meat at times and frequent forays into **health fads**. What food(s) might be considered part of an eating "fad"? (A)
- 13. Overall, how well "diet-wise" is Mariel doing? (A)

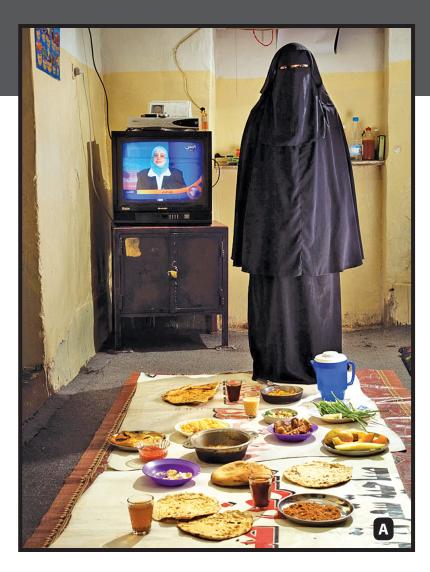
### CHINA: CHEN ZHEN College student





- 1. Who is **Chen Zhen**?
- 2. When you look at the **buildings** behind Zhen, why might you guess she is in a **modern international city**? (A)
- 3. Can you **recognize** or read any of the **signs**? (A)
- 4. What **foods** do you **recognize** in the photo of Zhen's one day of food? (A)
- 5. Have you ever **tried similar** foods in your own diet? (A)
- 6. What **portion** of the **calories** Zhen ate on this day came from her **KFC meal**? Guess at the calorie count. (A)
- 7. Much of what she ate for lunch was **high-fat/high-calorie** food. However, Zhen is 5'5" and weighs only 106 pounds. Can you explain why she **isn't obese**? (A)
- 8. Would you say that Zhen's diet contains adequate servings from all the food groups? (A)
- 9. Would you say that Zhen's diet on this day was healthy? Explain your answer. (A)
- 10. Zhen's **father and grandparents** "eat **vegetables** and **rice** throughout the week so they can afford to buy the **meat** to feed Zhen when she visits on weekends." What is **missing** from their **diets**? (B)

### YEMEN: SAADA HAIDAR homemaker







Date

- 1. Who is Saada Haidar?
- 2. This photo is unique because you **cannot see** Saada Haidar's **face**. Her **Islamic culture** and **traditional husband** require that she wear a *balto* (also called an *abaya*) that covers all but her eyes when she appears in public. Inside her own home, she does not wear the balto. What else do you notice about her **home** and **culture** from looking at the rest of the photo? (A, B)
- 3. Do you see any **commercial foods** that are part of Saada's one-day diet? (A)
- 4. What does that tell you about how often she must go to **market** and how much **time** she spends **preparing food**? (C)
- 5. What food groups do you recognize in the photo of Saada's one day of food? (A)
- 6. What do you notice about the **bread** in this photo? How is it **different** from the bread **you** generally **eat**? (A)
- 7. Saada's main meal is **lunch**. In the pot is *saltah*—a stew containing mutton, eggplant, tomato, and onion with hot chilies. It's served with rice, salad, green onions, radishes, and tomato relish. Is this a **nutritious meal**? (A)
- 8. Would you say that Saada's diet on this day was healthy? Explain your answer. (A)
- 9. According to the authors, 75 to 80 percent of the family income is spent on food. "But no matter what the food budget, Saada's husband buys a bag of *qat* leaves (pronounced *cot*) to chew with his friends on the weekend." What do you suppose qat is?

### ISRAEL: OFER SABATH BEIT-HALACHMI Rabbi



#### ISRAEL: OFER SABATH BEIT-HALACHMI

Date

- 1. Who is **Ofer Sabath Beit-Halachmi**?
- 2. What do you notice about the **buildings** in the background behind Ofer? What are used for **building materials**? Who probably **owns** these buildings and what are they **used for**? (A)
- 3. What is a **rabbi**? What does it mean to be a **Reform rabbi**?
- 4. How do the dietary rules of kashrut (kosher) affect what and how Ofer may eat?
- 5. How much **meat** do you see in Ofer's daily **diet**? (A)
- 6. If the annual **meat consumption** in Israel is 219+ pounds per person, do you agree with the following statement? *Most Israelis eat like Ofer and his family.*
- 7. How does serving only **vegetarian food** help Ofer and his wife entertain any Jewish person who visits their home?
- 8. How can vegetarians get enough protein if they don't eat meat?
- 9. Is the number of Ofer's major daily food servings **different** from **yours**? If yes, what's different? How nutritious is each meal? (A)
- 10. How many **beverages** did Ofer drink on this day? If the **average beverage** was a little more than 12 ounces in size, how many **ounces** of liquid did he drink? Which of the **beverages** that he routinely drinks might you find in **your diet**? (A)
- 11. The poster tells us that Ofer is 6'1" and weighs 165 pounds. Is he **overweight**?
- 12. He eats pasta, cookies, ice cream, soda, olives, and wine. Why isn't he overweight?
- 13. According to the poster, more than half of all Israelis are **overweight**. What might be the **cause**?

# LATVIA: AIVARS RADZIŅŠ

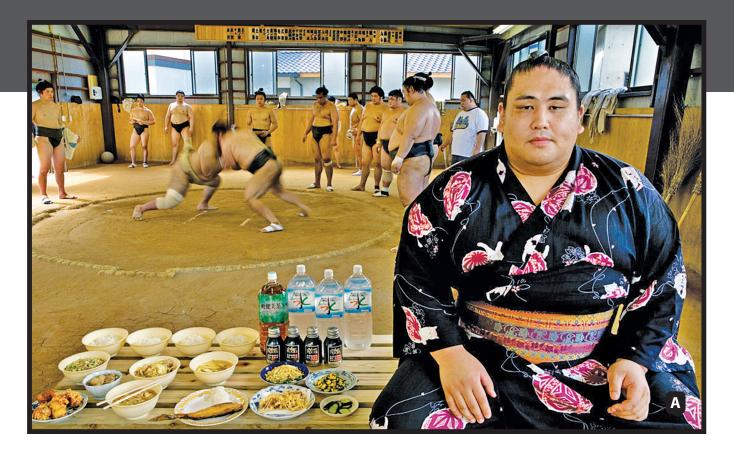






- 1. Who is Aivars Radziņš?
- 2. Why is Aivars **dressed** so strangely? (A)
- 3. What are the **layered boxes** around him? (A)
- 4. What might Aivars do with the extra honey his bees produce? (D)
- 5. Aivars did not go to school to become a beekeeper. He has a degree in mechanical engineering and his wife is a doctor. What **standard of living** do you expect he and his wife enjoy? (B)
- 6. Which **food groups** can you readily **recognize** in his daily menu? Which food groups are **missing** or, at least, **not obvious**? (A)
- 7. How much **meat** do you see in Aivars's daily diet? (A)
- 8. If the **annual meat consumption** in Latvia is 126 pounds per person, do you agree with the following statement? *Most Latvians eat like Aivars and his family.* (A, C)
- 9. The authors tell us that Aivars and his family favor "the flavors of the cold Baltic sea region: sour rye bread, sour cream sauces, pickled salads, preserved [smoked] meats, cabbage, root vegetables, and dill weed." What do you notice about these foods? (A, C)
- 10. For **breakfast** Aivars drinks coffee, and he **drinks** black tea with cake on his tea break. What do you suppose is in the two large glasses? (A)
- 11. What beverage is **missing**? (A)
- 12. The poster tells us that Aivars is 5'8<sup>1</sup>/<sub>2</sub>" and weighs 165 pounds. Is he **overweight**? (A)
- 13. According to the poster, more than **half of Latvians** are **overweight**. What might be the **cause**?

## JAPAN: MIYABIYAMA sumo wrestler





- 1. Who is Miyabiyama?
- 2. What do you notice about the **room** behind him? (A)
- 3. What do you notice about the young men behind him? Do you think these young men eat healthy meals? (A)
- 4. What foods do you recognize as part of Miyabiyama's daily diet? (A)
- 5. What kind of kitchen would the stable need to prepare these foods? Who are the cooks? (B)
- 6. The **pot** at the front is filled with hot oil. What is **cooking**? (B)
- 7. What is being **prepared** in the **other pots**? (B)
- 8. Estimate the **amount** of liquid Miyabiyama **drinks** in one day. (A)
- 9. Miyabiyama eats only 3,500 calories a day when he is in training to **maintain** his weight. Except for the huge quantities, is his diet a **healthy diet**? Track the food groups and look for **high-fat** or **high-sugar** choices. (A)
- 10. Is Miyabiyama **healthy**? (A)
- 11. Why would a sumo wrestler follow such an unhealthy lifestyle?

## VENEZUELA: KATHERINE NAVAS

STUDENT IN THE BARRIO





- 1. Who is Katherine Navas?
- 2. Katherine is seated on the roof of her family's home in the barrio. What is a **barrio**? (A)
- 3. If there is so much **poverty** in the barrio, how can Katherine's family **afford** so much **food**? (B)
- 4. What about Katherine's **appearance** and **food choices** would lead you to believe that her family, although living in the barrio, is **not among the very poor**? (A)
- 5. Look for the **healthy** foods on Katherine's table. Sort them into food groups. How many servings of healthy foods is Katherine missing for a **recommended** healthy diet? Which food group servings **exceed recommended** amounts? (A)
- 6. Katherine is an **active teenager**. The authors tell us that she "splits her time between the copy shop [where she works], school, and her community basketball league." Is she active enough to eat **4,000 calories** without **gaining weight**? (A)
- 7. Katherine's diet represented 4,000 calories—almost twice the amount recommended by nutritionists for someone her height, weight, and age. What do you think provided the most calories? Could these be eliminated from her diet without causing her to miss nutrients? (A)
- 8. Katherine's **diet** needs less rice, but one or two more vegetable servings and three dairy servings. She doesn't need more calories, so she must **substitute** foods she eats for healthier foods. **Rewrite** her diet with healthier foods. (A)
- 9. If Katherine **continues** to eat the way she does, what will be the **long-term effects** on her **health**? Explain your answer.

## CALIFORNIA, USA: CURTIS NEWCOMER

U.S. ARMY SOLDIER







#### CALIFORNIA, USA: CURTIS NEWCOMER

- 1. Who is **Curtis Newcomer**?
- 2. Describe the **physical features** that you can readily see in the photo of Fort Irwin, California. How are the army's **housing** and **equipment** and Curtis's **uniform** suited to this environment? (A)
- 3. The **buildings** in the distance are a special construction to help **train soldiers** to work in Iraq or Afghanistan. What do you think they are? (B)
- 4. What is on the **end** of Curtis's **rifle**? (A)
- 5. Curtis eats **two of his meals** (breakfast and dinner) in the base's **mess hall** tent. What foods do you recognize on the trays? (A)
- 6. The mess hall meals are served on trays. How does that limit how much Curtis eats? (A)
- 7. The foods Curtis eats for his lunch in the field come in packets called **MREs**—Meals, Ready to Eat. If you were to open the **packs**, what might you see in a **beverage** pack? In a **snack** pack? In a **meal** pack? (A, C)
- 8. Are MREs healthy? (A, C)
- 9. About how much **liquid** per day does Curtis **drink** or use to **rehydrate** his food? What about the **beverage packaging** helps Curtis use water efficiently? (A)
- 10. Curtis is 6'5" and weighs 195 pounds. Does he **overeat** for his height and weight? Is Curtis **overweight**? (A)

## STANDARDS

The activities in this curriculm guide correlate to all applicable National and State Educational Standards, including the following National Health Education Standards.

## NHES: STANDARD 1

## Students will comprehend concepts related to health promotion and disease prevention to enhance health.

*Rationale*: The acquisition of basic health concepts and functional health knowledge provides a foundation for promoting health-enhancing behaviors among youth. This standard includes essential concepts that are based on established health behavior theories and models. Concepts that focus on both health promotion and risk reduction are included in the performance indicators.

#### Grades 6-8

- 1.8.1 Analyze the relationship between healthy behaviors and personal health.
- 1.8.3 Analyze how the environment affects personal health.
- 1.8.4 Describe how family history can affect personal health.
- 1.8.6 Explain how appropriate health care can promote personal health.
- 1.8.7 Describe the benefits of and barriers to practicing healthy behaviors.
- 1.8.8 Examine the likelihood of injury or illness if engaging in unhealthy behaviors.
- 1.8.9 Examine the potential seriousness of injury or illness if engaging in unhealthy behaviors.

- 1.12.1 Predict how healthy behaviors can affect health status.
- 1.12.2 Describe the interrelationships of emotional, intellectual, physical, and social health.
- 1.12.3 Analyze how environment and personal health are interrelated.
- 1.12.4 Analyze how genetics and family history can impact personal health.
- 1.12.5 Propose ways to reduce or prevent injuries and health problems.
- 1.12.6 Analyze the relationship between access to health care and health status.
- 1.12.7 Compare and contrast the benefits of and barriers to practicing a variety of healthy behaviors.
- 1.12.8 Analyze personal susceptibility to injury, illness, or death if engaging in unhealthy behaviors.
- 1.12.9 Analyze the potential severity of injury or illness if engaging in unhealthy behaviors

# Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.

*Rationale*: Health is affected by a variety of positive and negative influences within society. This standard focuses on identifying and understanding the diverse internal and external factors that influence health practices and behaviors among youth, including personal values, beliefs, and perceived norms.

#### Grades 6-8

- 2.8.1 Examine how the family influences the health of adolescents.
- 2.8.2 Describe the influence of culture on health beliefs, practices, and behaviors.
- 2.8.3 Describe how peers influence healthy and unhealthy behaviors.
- 2.8.4 Analyze how the school and community can affect personal health practices and behaviors.
- 2.8.5 Analyze how messages from media influence health behaviors.
- 2.8.6 Analyze the influence of technology on personal and family health.
- 2.8.7 Explain how the perceptions of norms influence healthy and unhealthy behaviors.
- 2.8.8 Explain the influence of personal values and beliefs on individual health practices and behaviors.
- 2.8.9 Describe how some health risk behaviors can influence the likelihood of engaging in unhealthy behaviors.

- 2.12.1 Analyze how the family influences the health of individuals.
- 2.12.2 Analyze how the culture supports and challenges health beliefs, practices, and behaviors.
- 2.12.3 Analyze how peers influence healthy and unhealthy behaviors.
- 2.12.4 Evaluate how the school and community can affect personal health practice and behaviors.
- 2.12.5 Evaluate the effect of media on personal and family health.
- 2.12.6 Evaluate the impact of technology on personal, family, and community health.
- 2.12.7 Analyze how the perceptions of norms influence healthy and unhealthy behaviors.
- 2.12.8 Analyze the influence of personal values and beliefs on individual health practices and behaviors.
- 2.12.9 Analyze how some health risk behaviors can influence the likelihood of engaging in unhealthy behaviors.

#### Students will demonstrate the ability to use decision-making skills to enhance health.

*Rationale*: Decision-making skills are needed to identify, implement, and sustain healthenhancing behaviors. This standard includes the essential steps that are needed to make healthy decisions as prescribed in the performance indicators. When applied to health issues, the decision-making process enables individuals to collaborate with others to improve their quality of life.

#### Grades 6-8

- 5.8.1 Identify circumstances that can help or hinder healthy decision making.
- 5.8.2 Determine when health-related situations require the application of a thoughtful decision-making process.
- 5.8.3 Distinguish when individual or collaborative decision making is appropriate.
- 5.8.4 Distinguish between healthy and unhealthy alternatives to health-related issues or problems.
- 5.8.5 Predict the potential short-term impact of each alternative on self and others.
- 5.8.6 Choose healthy alternatives over unhealthy alternatives when making a decision.
- 5.8.7 Analyze the outcomes of a health-related decision.

- 5.12.1 Examine barriers that can hinder healthy decision making.
- 5.12.2 Determine the value of applying a thoughtful decision-making process in health-related situations.
- 5.12.3 Justify when individual or collaborative decision making is appropriate.
- 5.12.4 Generate alternatives to health-related issues or problems.
- 5.12.5 Predict the potential short-term and long-term impact of each alternative on self and others.
- 5.12.6 Defend the healthy choice when making decisions.
- 5.12.7 Evaluate the effectiveness of health-related decisions.

#### Students will demonstrate the ability to use goal-setting skills to enhance health.

*Rationale*: Goal-setting skills are essential to help students identify, adopt, and maintain healthy behaviors. This standard includes the critical steps that are needed to achieve both short-term and long-term health goals. These skills make it possible for individuals to have aspirations and plans for the future.

#### Grades 6-8

- 6.8.1 Assess personal health practices.
- 6.8.2 Develop a goal to adopt, maintain, or improve a personal health practice.
- 6.8.3 Apply strategies and skills needed to attain a personal health goal.
- 6.8.4 Describe how personal health goals can vary with changing abilities, priorities, and responsibilities.

#### Grades 9–12

- 6.12.1 Assess personal health practices and overall health status.
- 6.12.2 Develop a plan to attain a personal health goal that addresses strengths, needs, and risks.
- 6.12.3 Implement strategies and monitor progress in achieving a personal health goal.
- 6.12.4 Formulate an effective long-term personal health plan.

## NHES: STANDARD 7

## Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

*Rationale*: Research confirms that practicing health-enhancing behaviors can contribute to a positive quality of life. In addition, many diseases and injuries can be prevented by reducing harmful and risk-taking behaviors. This standard promotes the acceptance of personal responsibility for health and encourages the practice of healthy behaviors.

#### Grades 6–8

- 7.8.1 Explain the importance of assuming responsibility for personal health behaviors.
- 7.8.2 Demonstrate healthy practices and behaviors that will maintain or improve the health of self and others.
- 7.8.3 Demonstrate behaviors to avoid or reduce health risks to self and others.

- 7.12.1 Analyze the role of individual responsibility for enhancing health.
- 7.12.2 Demonstrate a variety of healthy practices and behaviors that will maintain or improve the health of self and others.
- 7.12.3 Demonstrate a variety of behaviors to avoid or reduce health risks to self and others.

## Students will demonstrate the ability to advocate for personal, family, and community health.

*Rationale*: Advocacy skills help students promote healthy norms and healthy behaviors. This standard helps students develop important skills to target their health-enhancing messages and to encourage others to adopt healthy behaviors.

#### Grades 6–8

- 8.8.1 State a health-enhancing position on a topic and support it with accurate information.
- 8.8.2 Demonstrate how to influence and support others to make positive health choices.
- 8.8.3 Work cooperatively to advocate for healthy individuals, families, and schools.
- 8.8.4 Identify ways in which health messages and communication techniques can be altered for different audiences.

- 8.12.1 Utilize accurate peer and societal norms to formulate a health-enhancing message.
- 8.12.2 Demonstrate how to influence and support others to make positive health choices.
- 8.12.3 Work cooperatively as an advocate for improving personal, family, and community health.
- 8.12.4 Adapt health messages and communication techniques to a specific target audience.