

Healthy Eating and Physical Activity for Teens

Stacey Coston
Waverly High School
Waverly, New York

Jill Bailer
Jane Long Middle School
Houston, Texas

In collaboration with Adolfo Correa,¹ Terry O'Toole,² and Heather Carter¹

¹ National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention

² National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

Disclaimer: The findings and conclusions in this report are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention.

Healthy Eating and Physical Activity for Teens

Stacey Coston
Waverly High School
Waverly, New York

Jill Bailer
Jane Long Middle School
Houston, Texas

Summary

This lesson is for an upper-level middle school biology class or an introductory high school biology class. Students will analyze food intake and physical activity and explore the relationship between the two. Students will also discover ways to improve diet and increase physical activity. Students will share this information with their peers in the form of posters that will point out simple steps to become healthier.

Learning Outcomes

- Students will be able to create a sample food intake diary that meets the Dietary Guidelines for Americans, 2005.
- Students will be able to develop a physical activity program for adolescents for 5 days that meets recommendations from the Dietary Guidelines for Americans, 2005.
- Students will be able to analyze food intake data.
- Students will be able to analyze physical activities.
- The students will be able to identify healthy eating and physical activity choices and share them with their peers.

Materials

1. Computers with Internet access (one per group of 2–4 students and one for teacher)
2. Photocopies of “A Day in the Life of a Teenager,” “Healthier Food Choices,” and “Healthier Physical Activity Choices” (one per group of 2-4 students)
3. Photocopies of “Rubric for Scoring Student Posters” (one copy per student)
4. Art materials (poster board, markers, construction paper, scissors, etc.)

Total Duration

3 hours

Procedures

Teacher Preparation

Prepare copies for each group of the following handouts: “A Day in the Life of a Teenager,” “Healthier Food Choices,” and “Healthier Physical Activity Choices.” Photocopy “Rubric for Scoring Student Posters” for each student. Prepare art materials for students to make posters. Become familiar with the websites that are used throughout the lesson plan, including “National Heart, Lung, and Blood Institute: Portion Distortion Interactive Quiz” and “MyPyramid Tracker.” For more information on nutrition and physical activity, review the “Physical Activity for Everyone: Recommendations: Are there special recommendations for young people?” and “Dietary Guidelines” websites. The teacher should be aware of and sensitive to the needs of individuals in the class who are obese or overweight throughout this lesson.

Web Resources

Title: National Heart, Lung, and Blood Institute: Portion Distortion Interactive Quiz

URL: <http://hp2010.nhlbihin.net/portion/portion.cgi?action=question&number=1>

Description: This website allows students to compare portion sizes of different food items from today with years ago.

Title: MyPyramid Tracker

URL: www.mypyramidtracker.gov

Description: This website from the U.S. Department of Agriculture and the Center for Nutrition Policy and Promotion provides a database for students to enter food intake data and physical activity data. Once the data have been entered, the database provides information on how that food meets recommendations.

Title: Physical Activity for Everyone: Recommendations: Are there special recommendations for young people?

URL: www.cdc.gov/nccdphp/dnpa/physical/recommendations/young.htm

Description: This website from the Centers for Disease Control and Prevention has physical activity recommendations for adolescents.

Title: Dietary Guidelines

URL: www.mypyramid.gov/guidelines/index.html

Description: This website from the U.S. Department of Agriculture provides information about the Dietary Guidelines for Americans, 2005.

Supplemental Documents

Title: A Day in the Life of a Teenager

Description: This worksheet provides information on two hypothetical teenagers and their food choices and physical activity levels for one day.

Title: Healthier Food Choices

Description: Students will use this worksheet to create a more nutritious daily menu for one of the hypothetical cases.

Title: Healthier Physical Activity Choices

Description: Students will use this worksheet to create a healthier physical activity program for 5 days for one of the hypothetical cases.

Title: Rubric for Scoring Student Posters

Description: This document is used to assess student posters. It can also be used as a guide for students as they develop their posters.

Introduction

Duration: 40 minutes

To introduce the topic of nutrition, have students get into groups of 2 to 4 and complete the “National Heart, Lung, and Blood Institute: Portion Distortion Interactive Quiz.” Have groups keep track of their answers to each question. When groups have completed the quiz, ask them to share their results with the class and compare.

Web Resources

Title: National Heart, Lung, and Blood Institute: Portion Distortion Interactive Quiz

URL: <http://hp2010.nhlbihin.net/portion/portion.cgi?action=question&number=1>

Description: This website by the National Heart, Lung and Blood Institute allows students to compare portion sizes of different food items from today with years ago.

Step 2

Duration: 60 minutes

Hand out the “A Day in the Life of a Teenager” worksheet to each group of students. Instruct students to use the “MyPyramid Tracker” website to analyze the physical activity data and food intake for both hypothetical cases and answer the questions. When students have completed the worksheets, have groups report back to the class with two to three ideas about ways these individuals could modify their day to lead a healthier lifestyle. Try to elicit an answer that includes modifying the diet and getting physical activity in the usual daily activities.

Web Resource

Title: MyPyramid Tracker

URL: www.mypyramidtracker.gov

Description: This website from the U.S. Department of Agriculture and the Center for Nutrition Policy and Promotion provides a database for students to enter food intake data and physical activity data. Once data have been entered, the database provides information on how the food meets recommendations.

Supplemental Document

Title: A Day in the Life of a Teenager

Description: This worksheet provides information on two hypothetical teenagers and their food choices and physical activity levels for one day.

Title: A Day in the Life of a Teenager – Answer Key

Description: This is the answer key for the “A Day in the Life of a Teenager” worksheet.

Step 3

Duration: 40 minutes

Once students have identified diet modifications and physical activity as possible ways to improve the lifestyles of the two hypothetical teenagers, ask half of the groups of students to develop a sample menu for one day for one of the teenagers. The menu should be something that each group feels is healthy. Students should consider recommendations from the “MyPyramid Tracker” and “Dietary Guidelines” websites as they create the menu.

Ask the remaining students to develop a healthy physical activity program for 5 days for one of the teenagers. Students should consider current recommendations from the “Dietary Guidelines” and “Physical Activity for Everyone” websites about the amount of physical activity adolescents should get each day.

Web Resources

Title: MyPyramid Tracker

URL: www.mypyramidtracker.gov

Description: This website from the U.S. Department of Agriculture and the Center for Nutrition Policy and Promotion provides a database for students to enter food intake data and physical activity data. Once data have been entered, the database provides information on how the food meets recommendations.

Title: Physical Activity for Everyone: Recommendations: Are there special recommendations for young people?

URL: www.cdc.gov/nccdphp/dnpa/physical/recommendations/young.htm

Description: This website from the Centers for Disease Control and Prevention has information about physical activity recommendations for adolescents.

Title: Dietary Guidelines

URL: www.mypyramid.gov/guidelines/index.html

Description: This website from the U.S. Department of Agriculture provides information about the Dietary Guidelines for Americans, 2005.

Supplemental Document

Title: Healthier Food Choices

Description: Students will use this worksheet to create a more nutritious daily menu for one of the hypothetical cases.

Title: Healthier Food Choices – Answer Key

Description: This is the answer key for the “Healthier Food Choices” worksheet. It provides a sample menu that follows the Dietary Guidelines for Americans, 2005.

Title: Healthier Physical Activity Choices

Description: Students will use this worksheet to create a healthier physical activity program for 5 days for one of the hypothetical cases.

Title: Healthier Physical Activity Choices – Answer Key

Description: This is the answer key for the “Healthier Physical Activity Choices” worksheet. It provides a sample physical activity program that follows the Dietary Guidelines for Americans, 2005, recommendations for adolescents.

Conclusion

Duration: 40 minutes

Now that students understand what healthy food choices and healthy physical activity levels entail, have each group design a poster illustrating some of their key recommendations for a healthy lifestyle. Hand out the “Rubric for Scoring Student Posters” for students to use as a guide in developing their posters. Posters should be designed for their peers or younger children. Posters can be displayed in the classroom or elsewhere around the school.

Supplemental Documents

Title: Rubric for Scoring Student Posters

Description: This document is used to assess student posters. It can also be used as a guide for students as they develop their posters.

Assessment

Students are informally assessed on their healthy meal plan or physical activity plan (Step 3). Students are formally assessed using the “A Day in the Life of a Teenager” worksheet (Step 2) and the rubric for their poster (Conclusion).

Modifications

Extensions

Following these discussions, show the “Overweight and Obesity: Obesity Trends: U.S. Obesity

Trends 1985–2005” PowerPoint slides. These slides show the increasing rates of obesity for adults in the United States since 1985. Consider using the “Healthy Youth! Health Topics: Childhood Overweight” or “Overweight and Physical Activity among Children: A Portrait of States and the Nation, 2005” websites to look at rates of overweight for adolescents. Note that there are many factors that might play a role in the rate of overweight children.

Have students research various related topics, including general nutrition, physical activity for life, after-school snacks, and family involvement in a healthy lifestyle. Possible research questions for students to investigate are included in the “Possible Fact Finding Questions” document.

Students could analyze food intake data looking at the micronutrient composition of food. This could be followed by a discussion of how foods analyzed meet the Dietary Guidelines for Americans, 2005.

Students could also design a presentation on wellness policies in the school and present this to the school board. Students could also interview school wellness officers and advise them on local policies.

Web Resources

Title: Overweight and Obesity: Trends

URL: www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/

Description: The website by the Centers for Disease Control and Prevention shows how the rates of obesity have increased over the years.

Title: Healthy Youth! Health Topics: Childhood Overweight

URL: www.cdc.gov/HealthyYouth/overweight/index.htm

Description: This website from the Centers for Disease Control and Prevention has information about the prevalence of children who are overweight by state.

Title: Overweight and Physical Activity among Children: A Portrait of States and the Nation, 2005

URL: <http://mchb.hrsa.gov/overweight/index.htm>

Description: This website from the U.S. Department of Health and Human Services, Health Resources and Service Administration has information on the National Children’s Health Survey about the prevalence of children who are overweight by state.

Supplemental Document

Title: Possible Fact Finding Questions

Description: This document lists possible questions for students to explore a variety of related nutrition and physical activity topics.

Education Standards

National Education Standards

LIFE SCIENCE, CONTENT STANDARD C;

As a result of their activities in grades 5–8, all students should develop an understanding of

- Structure and function in living systems
- Reproduction and heredity
- **Regulation and behavior**

- Populations and ecosystems
- Diversity and adaptations

SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES, CONTENT STANDARD F:

As a result of their activities in grades 5–8, all students should have an understanding of

- **Personal health**
- **Populations, resources, and environments**
- Natural hazards
- **Risks and benefits**
- **Science and technology in society**

LIFE SCIENCE, CONTENT STANDARD C;

As a result of their activities in grades 9–12, all students should develop an understanding of

- The cell
- Molecular basis of heredity
- Biological evolution
- Interdependence of organisms
- **Matter, energy, and organization in living systems**
- **Behavior of organisms**

SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES, CONTENT STANDARD F:

As a result of their activities in grades 9–12, all students should have an understanding of

- **Personal and community health**
- Population growth
- Natural resources
- Environmental quality
- **Natural and human induced hazards**
- **Science and technology in local, national, and global challenges**

A Day in the Life of a Teenager

Healthy Eating and Physical Activity for Teens
Stacey Coston and Jill Bailer, CDC's 2006 Science Ambassador

Directions: Following are two cases of a hypothetical teenage boy and girl. The cases have provided information on one day's worth of physical activity data and food intake. Please use the website www.mypyramidtracker.gov/ to find the number of calories burned through physical activity and the number of calories consumed and answer the questions provided. You will need to create two separate log-ins to enter the physical activity and the food for each case listed. Enter the physical activity information first, followed by the nutrition information, then answer the questions.

Case information:

Boy: 165 lbs, 5' 6", 16 years old

Part I: Physical Activity

Select "Assess Your Physical Activity" and create a log-in that is appropriate for the given case. Click on "Proceed to Physical Activity" and enter each activity and the time spent. Then, click on "Save and Analyze."

Sample physical activities for one day:

Description of physical activity	Duration (minutes)	Total calories burned
Shower (toweling off)	15 minutes	
Walking, 3.0 MPH moderately with objects <25 lbs	30 minutes	
Sitting in class, note taking/class discussion	390 minutes	
Eating (sitting)	155 minutes	
Sitting – talking or talking on the phone	60 minutes	
Sitting quietly and watching television	420 minutes	
Sleeping	370 minutes	

Part II: Food Intake

After you have finished entering the physical activity, return to the log-in. Click on “Proceed to Food Intake” and enter each food item and the quantity consumed. Then, click on “Save and Analyze.”

Sample food choices for one day:

	Description of food consumed
Breakfast	2 Pop-tarts 1 32 fluid oz Coke and ice
Lunch	3 pieces of pizza with pepperoni 2 medium (~2" diameter) chocolate chip cookies 1 cup of chocolate skim milk
Snack	1 32 fluid oz Coke and ice 1 single serving bag of Doritos 1 king size Snickers bar
Dinner	10 chicken nuggets 1 large fast food order of French fries (deep fried) 1 32 fluid oz Coke and ice
Snack	1 cup ice cream

After you have saved the food intake for this case, click on “Nutrient Intakes.” Based on the case’s food intake, fill in the following table:

Nutrient	Case’s intake	Recommendation or acceptable range
Total calories		
Protein		
Carbohydrate		
Total fat		120.7 -169 (g)

Physical Activity Questions

1. Please list the total calories burned by physical activity.
2. How many credited minutes (moderate and vigorous activity) did this case have?
3. How does that compare with the recommendations?

Food Intake Questions

1. How does this case's intake compare with the recommended intake?

2. Click on "Meeting the 2005 Dietary Guidelines" to see how this diet compares with the recommendations. What areas are met and what areas need improvement?

*Note: This is a hypothetical case and only looks at one day's worth of food intake and physical activity. Generalizations based on only one day's worth of data are not advised.

Case information:

Girl: 121 lbs, 5' 6", 16 years old

Part I: Physical Activity

Select "Assess Your Physical Activity" and create a log-in that is appropriate for the given case. Click on "Proceed to Physical Activity" and enter each activity and the time spent. Then, click on "Save and Analyze."

Sample physical activities for one day:

Description of physical activity	Duration (minutes)	Total calories burned
Shower (toweling off)	30 minutes	
Walking, 3.0 MPH moderately with objects <25 lbs	30 minutes	
Sitting in class, note taking/class discussion	390 minutes	
Eating (sitting)	65 minutes	
Soccer practice (competitive)	90 minutes	
Sitting – talking or talking on the phone	90 minutes	
Typing, electric, manual, or computer	60 minutes	
Sitting – studying, general, reading/writing	60 minutes	
Sitting quietly and watching television	145 minutes	
Sleeping	480 minutes	

Part II: Food Intake

After you have finished entering the physical activity, return to the log-in. Click on "Proceed to Food Intake" and enter in each food item and the quantity consumed. Then, click on "Save and Analyze."

Sample food choices for one day:

	Description of food consumed
Breakfast	1 medium apple 1 medium oat bran bagel 2 tablespoons cream cheese 1 cup skim milk
Lunch	2 cups mixed salad greens (raw) 2 tablespoons salad dressing, low calorie 2 cup water
Dinner	½ large chicken breast 1 cup green string beans (cooked)

	1 large peach 2 cups water
--	-------------------------------

After you have saved the food intake for this case, click on “Nutrient Intakes.” Based on the case’s food intake, fill in the following table:

Nutrient	Case’s intake	Recommendation or acceptable range
Total calories		
Protein		
Carbohydrate		
Total fat		23-32 (g)

Physical Activity Questions

1. Please list the total calories burned by physical activity.
2. How many credited minutes (moderate and vigorous activity) did this case have?
3. How does that compare with the recommendations?

Food Intake Questions

1. How does this case’s intake compare with the recommended intake?
2. Click on “Meeting the 2005 Dietary Guidelines” to see how this diet compares with the recommendations. What areas are met and what areas need improvement?

*Note: This is a hypothetical case and only looks at one day’s worth of food intake and physical activity. Generalizations based on only one day’s worth of data are not advised.

A Day in the Life of a Teenager – Answer Key

Healthy Eating and Physical Activity for Teens
Stacey Coston and Jill Bailer, CDC's 2006 Science Ambassador

Directions: Following are two cases of a hypothetical teenage boy and girl. The cases have provided information on one day's worth of physical activity data and food intake. Please use the following website www.mypyramidtracker.gov/ to determine the number of calories expended through physical activity and the number of calories consumed from foods and answer the questions provided. You will need to create two separate log-ins to enter the physical activity and the food for each case listed. Enter the physical activity information first followed by the nutrition information, then answer the questions.

Case information:

Boy: 165 lbs, 5' 6", 16 years old

Part I: Physical Activity

Select "Assess Your Physical Activity" and create a log-in that is appropriate for the given case. Click on "Proceed to Physical Activity" and enter each activity and the time spent. Then, click on "Save and Analyze."

Sample physical activities for one day (1):

Description of physical activity	Duration (minutes)	Total calories burned
Shower (toweling off)	15 minutes	25
Walking, 3.0 MPH moderately with objects <25 lbs	30 minutes	151
Sitting in class, note taking/class discussion	390 minutes	523
Eating (sitting)	155 minutes	130
Sitting – talking or talking on the phone	60 minutes	50
Sitting quietly and watching television	420 minutes	0
Sleeping	370 minutes	0*

*Already accounted for in MyPyramid physical activity tool

Part II: Food Intake

After you have finished entering the physical activity, return to the log-in. Click on “Proceed to Food Intake” and enter each food item and the quantity consumed. Then, click on “Save and Analyze.”

Sample food choices for one day:

	Description of food consumed
Breakfast	2 Pop-tarts 1 32 fluid oz Coke and ice
Lunch	3 pieces of pizza with pepperoni 2 medium (~2” diameter) chocolate chip cookies 1 cup of chocolate skim milk
Snack	1 32 fluid oz Coke and ice 1 single serving bag of Doritos 1 king size Snickers bar
Dinner	10 chicken nuggets 1 large fast food order of French fries (deep fried) 1 32 fluid oz Coke and ice
Snack	1 cup ice cream

After you have saved the food intake for this case, click on “Nutrient Intakes.” Based on the case’s food intake, fill in the following table (2):

Nutrient	Case’s intake	Recommendation or acceptable range
Total calories	4,345 (kcal)	2,639 (kcal)
Protein	98 (g)	52 (g)
Carbohydrate	684 (g)	130 (g)
Total fat	144 (g)	120.7 -169 (g)

Physical Activity Questions

1. Please list the total calories burned by physical activity. 879
2. How many credited minutes (moderate and vigorous activity) did this case have?
This case had 30 minutes of moderate and vigorous activity.
3. How does that compare with the recommendations?
According to the MyPyramid Tracker, adolescents’ ages 12–18 years old should do at least 60 minutes of physical activity on most, preferably all, days of the week. Of the 60 minutes, try to engage in activities that last at least 10 minutes and that require moderate to vigorous levels of exertion. (1)

Food Intake Questions

1. How does this case's intake compare with the recommended intake?
This case's total calories are much higher than what is recommended. Carbohydrate, protein, and total fat intake are also very high. (2)
2. Click on the "Meeting the 2005 Dietary Guidelines" to see how this diet compares with the recommendations. What areas are met and what areas need improvement?
This case is meeting the recommended intake for grains; however, he is not meeting the recommendations for fruits or vegetables. His meat and bean intake is slightly below recommended levels. His cholesterol intake is acceptable. Sodium levels are higher than recommended. (2)

*Note: This is a hypothetical case and only looks at one day's worth of food intake and physical activity. Generalizations based on only one day's worth of data are not advised.

Case information:

Girl: 121 lbs, 5' 6", 16 years old

Part I: Physical Activity

Select "Assess Your Physical Activity" and create a log-in that is appropriate for the given case. Click on "Proceed to Physical Activity" and enter each activity and the time spent. Then, click on "Save and Analyze."

Sample physical activities for one day (1):

Description of physical activity	Duration (minutes)	Total calories burned
Shower (toweling off)	30 minutes	37
Walking, 3.0 MPH moderately with objects <25 lbs	30 minutes	111
Sitting in class, note taking/class discussion	390 minutes	384
Eating (sitting)	65 minutes	40
Soccer practice (competitive)	90 minutes	996
Sitting – talking or talking on the phone	90 minutes	55
Typing, electric, manual, or computer	60 minutes	37
Sitting –studying, general, reading/writing	60 minutes	59
Sitting quietly and watching television	145 minutes	0
Sleeping	480 minutes	0*

*Already accounted for in MyPyramid physical activity tool

Part II: Food Intake

After you have finished entering the physical activity, return to the log-in. Click on "Proceed to Food Intake" and enter each food item and the quantity consumed. Then, click on "Save and Analyze."

Sample food choices for one day:

	Description of food consumed
Breakfast	1 medium apple 1 medium oat bran bagel 2 tablespoons cream cheese 1 cup skim milk
Lunch	2 cups mixed salad greens (raw) 2 tablespoons salad dressing, low calorie 2 cup water
Dinner	½ large chicken breast 1 cup green string beans (cooked)

1 large peach 2 cups water

After you have saved the food intake for this case, click on “Nutrient Intakes.” Based on the case’s food intake, fill in the following table (2):

Nutrient	Case’s intake	Recommendation or acceptable range
Total calories	827 (kcal)	1,783 (kcal)
Protein	56 (g)	46 (g)
Carbohydrate	96 (g)	130 (g)
Total fat	28 (g)	23-32 (g)

Physical Activity Questions

1. Please list the total calories burned by physical activity. 1,719
2. How many credited minutes (moderate and vigorous activity) did this case have?
This case had 120 minutes of moderate and vigorous activity.
3. How does that compare to the recommendations?
According to the MyPyramid Tracker, adolescents’ ages 12–18 years old should do at least 60 minutes of physical activity on most, preferably all, days of the week. Of the 60 minutes, try to engage in activities that last at least 10 minutes and that require moderate to vigorous levels of exertion. (1)

Food Intake Questions

1. How does this case’s intake compare with the recommended intake?
The total number of calories consumed is much less than recommended. The protein intake is slightly higher than recommended. Carbohydrate intake is lower than recommended. The total fat intake is less than 25%–35% of the total recommended calories. (2)
2. Click on the “Meeting the 2005 Dietary Guidelines” to see how this diet compares with the recommendations. What areas are met and what areas need improvement?
This case is meeting the recommendations for fruit, vegetables, total fat intake, and sodium. She is not meeting the recommendations for grains and milk. She is slightly below the recommendations for meat and bean intake. Her saturated fat is slightly above the recommendation. (2)

*Note: This is a hypothetical case and only looks at one day’s worth of food intake and physical activity. Generalizations based on only one day’s worth of data are not advised.

References:

1. United States Department of Agriculture’s Center for Nutrition Policy and Promotion. MyPyramid Tracker: Physical Activity. [online]. 2006 [cited 2006 Sept 18]. Available from URL: <http://www.mypyramidtracker.gov/login.aspx>.

2. United States Department of Agriculture's Center for Nutrition Policy and Promotion. MyPyramid Tracker: Food Assessment. [online]. 2006 [cited 2006 Sept 18]. Available from URL: <http://www.mypyramidtracker.gov/login.aspx>.

Healthier Food Choices

Healthy Eating and Physical Activity for Teens
Stacey Coston and Jill Bailer
CDC's 2006 Science Ambassador Program

Directions: Create a sample menu for one of the previously studied cases. Use the MyPyramid website, www.mypyramidtracker.gov/, to enter food items and analyze the day's menu. Please keep in mind that your menu should try to meet the 2005 U.S. Dietary Guidelines. You can find information on whether your diet is meeting these recommendations by entering in the foods, analyzing them, and then clicking on "Meeting 2005 Dietary Guidelines."

Please indicate whether you have chosen case 1 (boy) or case 2 (girl): _____

Sample food choices for one day:

	Description of food consumed
Breakfast	
Snack	
Lunch	
Snack	
Dinner	

Healthier Food Choices – Answer Key

Healthy Eating and Physical Activity for Teens
Stacey Coston and Jill Bailer
CDC's 2006 Science Ambassador Program

Directions: Create a sample menu for one of the previously studied cases. You may use the MyPyramid website, www.mypyramidtracker.gov/, to enter food items and analyze the day's menu. Please keep in mind that your menu should try to meet the 2005 U.S. Dietary Guidelines. You can find information on whether your diet is meeting these recommendations by entering in the foods, analyzing them, and then clicking on "Meeting 2005 Dietary Guidelines."

Please indicate whether you have chosen case 1 (boy) or case 2 (girl): Case 2 - Girl

Answers will vary but could include:

Sample food choices for one day (1):

	Description of food consumed
Breakfast	1 medium apple 1 medium oat bran bagel 2 tablespoons cream cheese 1 cup skim milk
Snack	1 cup skim milk 1 medium banana
Lunch	2 cups mixed salad greens (raw) 2 tablespoons salad dressing, low calorie ½ cup of black bean soup 1 large slice of whole wheat bread 2 cups water
Snack	1 cup plain non-fat yogurt
Dinner	½ large chicken breast 1 cup whole wheat pasta with tomato sauce 1 cup green string beans (cooked) 1 large peach 2 cups water

Reference:

1. United States Department of Agriculture's Center for Nutrition Policy and Promotion. MyPyramid Tracker: Food Assessment. [online]. 2006 [cited 2006 Sept 18]. Available from URL: <http://www.mypyramidtracker.gov/login.aspx>.

Healthier Physical Activity Choices

Healthy Eating and Physical Activity for Teens
Stacey Coston and Jill Bailer
CDC's 2006 Science Ambassador Program

Directions: Create a sample 5-day physical activity program for one of the previously studied cases. You may use the MyPyramid website, www.mypyramidtracker.gov/, to enter physical activities and analyze them. Please keep in mind that your physical activity program should meet the recommendations from the 2005 U.S. Dietary Guidelines for adolescents. You can find more information about these recommendations at www.cdc.gov/nccdphp/dnpa/physical/recommendations/young.htm.

Please indicate whether you have chosen case 1 (boy) or case 2 (girl): _____

Sample physical activities for 5 days:

Day 1:

Description of physical activity	Duration (minutes)	Total calories burned

Total calories burned: _____

Total time: _____

Day 2:

Description of physical activity	Duration (minutes)	Total calories burned

Total calories burned: _____

Total time: _____

Day 3:

Description of physical activity	Duration (minutes)	Total calories burned

Total calories burned: _____

Total time: _____

Day 4:

Description of physical activity	Duration (minutes)	Total calories burned

Total calories burned: _____

Total time: _____

Day 5:

Description of physical activity	Duration (minutes)	Total calories burned

Total calories burned: _____

Total time: _____

Healthier Physical Activity Choices – Answer Key

Healthy Eating and Physical Activity for Teens
 Stacey Coston and Jill Bailer
 CDC's 2006 Science Ambassador Program

Directions: Create a sample 5-day physical activity program for one of the previously studied cases. You may use the MyPyramid website, www.mypyramidtracker.gov/, to enter physical activities and analyze them. Please keep in mind that your physical activity program should try to meet the recommendations from the 2005 U.S. Dietary Guidelines for adolescents. You can find more information about these recommendations at: www.cdc.gov/nccdphp/dnpa/physical/recommendations/young.htm.

Please indicate whether you have chosen case 1 (boy) or case 2 (girl): Case 1 - Boy

Answers will vary but could include:

Sample physical activities for 5 days (1):

Day 1:

Description of physical activity	Duration (minutes)	Total calories burned
Bicycling <10 MPH, leisure, work or pleasure	15 minutes	75
Shooting baskets	30 minutes	176
Walking, 3.0 MPH moderately with objects <25 lbs	30 minutes	151

Total calories burned: 402

Total time: 1 hour, 15 minutes

Day 2:

Description of physical activity	Duration (minutes)	Total calories burned
Swimming laps, freestyle, slow/moderate effort	30 minutes	302
Walking, 3.0 MPH moderately with objects <25 lbs	30 minutes	151

Total calories burned: 453

Total time: 1 hour

Day 3:

Description of physical activity	Duration (minutes)	Total calories burned
Lifting items constantly (10-20 lbs), limited walking [Lifting weights]	45 minutes	226
Walking, 3.0 MPH moderately with objects <25 lbs	30 minutes	151

Total calories burned: 377

Total time: 1 hour, 15 minutes

Day 4:

Description of physical activity	Duration (minutes)	Total calories burned
Skateboarding	40 minutes	268
Walking, 3.0 MPH moderately with objects <25 lbs	30 minutes	151

Total calories burned: 419

Total time: 1 hour, minutes

Day 5:

Description of physical activity	Duration (minutes)	Total calories burned
Mowing the lawn, power mower	60 minutes	352
Walking, 3.0 MPH moderately with objects <25 lbs	30 minutes	151

Total calories burned: 503

Total time: 1 hour, 30 minutes

Reference:

1. United States Department of Agriculture's Center for Nutrition Policy and Promotion. MyPryamid Tracker: Physical Activity. [online]. 2006 [cited 2006 Sept 18]. Available from URL: <http://www.mypyramidtracker.gov/login.aspx>.

Rubric for Scoring Student Posters

Healthy Eating and Physical Activity for Teens
Stacey Coston and Jill Bailer
2006 CDC's Science Ambassador

Names _____ Class Period _____

Descriptor	10 points	8 points	6 points	4 points	0 points	Total Points
Use of appropriate title	Title is creative and appropriate.	N/A	N/A	Title is generic.	No attempt.	
Accuracy of information	All information is accurate and complete	Information is accurate, but not complete	Little information is included	Information is inaccurate	No attempt.	
Required elements	The poster includes five key recommendations on nutrition or physical activity as well as additional information.	The poster includes five key recommendations on nutrition or physical activity.	The poster includes four key recommendations on nutrition or physical activity.	The poster includes three key recommendations on nutrition or physical activity.	The poster includes two or fewer key recommendations on nutrition or physical activity.	
Neatness	Poster is neat with no mark-throughs. Handwriting is neat.	Poster is neat with few mark-throughs.	Poster is neat but has many mark-throughs.	Poster is not neat.	No attempt.	
Creativity	Poster shows considerable originality and inventiveness. Content is presented in a distinct and interesting way (color, font, graphics, etc.).	Poster shows some originality and inventiveness. Content is presented in an interesting way (color, font, graphics, etc.).	Poster shows an attempt at originality and inventiveness.	Poster is a rehash of other people's ideas. There is little attempt at original thought.	No attempt.	

Total Score: _____

Comments:

Possible Fact Finding Questions

Healthy Eating and Physical Activity for Teens
Stacey Coston and Jill Bailer
CDC's 2006 Science Ambassador Program

General Nutrition

1. What is a "healthy diet"?
2. What is the food pyramid?
3. What are the food groups on the pyramid?
4. How much of each food groups is appropriate for your age and gender?

After-School Snacking

1. Why is healthy snacking good for you?
2. How can you judge if a snack is healthy or not?
3. What are some strategies to begin to eat healthy snacks after school?
4. What kinds of foods are considered healthy snacks?

Physical Activity for Life

1. What are the rewards and benefits of physical activity?
2. What is aerobic physical activity?
3. What is strength training?
4. What is flexibility training?
5. Why is too much physical activity not healthy for you?

Family Involvement in Healthy Lifestyle

1. Why is it important to have family meals?
2. What kinds of food can families buy to be healthy?
3. How can parents be role models for healthy eating?
4. How can parents get kids involved in healthy eating?
5. How can students get parents involved in healthy eating?