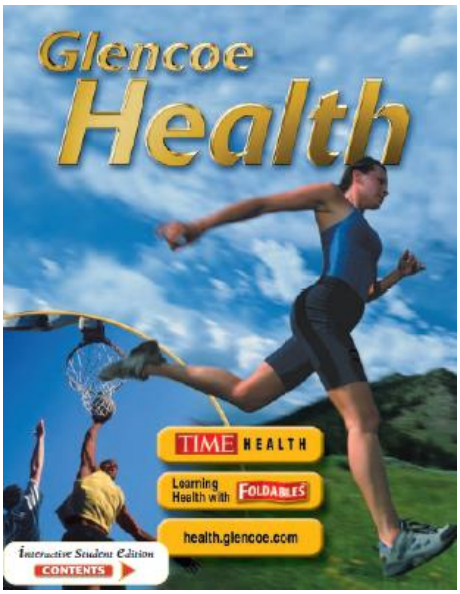
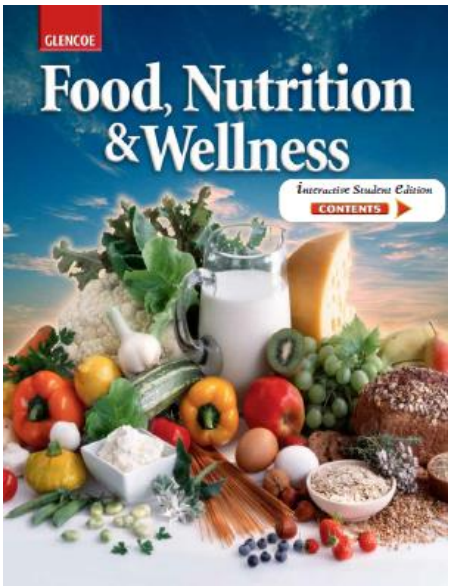
МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ ФІЗИЧНОГО ВИХОВАННЯ І СПОРТУ УКРАЇНИ

МЕТОДИЧНІ ВКАЗІВКИ
із професійно-орієнтованої англійської мови

“NUTRITION AND WELLNESS”

на основі оригінальної фахової літератури





для студентів-магістрантів, які навчаються
за освітньо-професійною програмою
“Спортивна дієтологія”

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Методичні вказівки створено на базі аутентичних текстів англійською мовою, які присвячені здоровому способу життя та харчуванню зокрема. Автором розроблена система вправ на оволодіння мовним матеріалом, який інформаційно доповнює фрагменти книжок із онлайн-платформи McGraw Hill/Glencoe. Матеріали посібника спрямовані на розвиток у студентів мовленнєвих навичок сприйняття і розуміння спеціальної професійної літератури та формування вмінь читання, говоріння і письма у повсякденному, а також професійному англомовному середовищі. У кінці кожного розділу розміщені журнальні статті із *Time Magazine*, які інформують про нові тенденції у сфері дієтології та дають загальне розуміння спеціалізованої термінології.

Методичні вказівки призначені для студентів студентів-магістрантів, які навчаються за освітньо-професійною програмою "Спортивна дієтологія".

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ПЕРЕДМОВА

Методичні вказівки “Nutrition and Wellness” із професійно-орієнтованої англійської мови (на основі оригінальної фахової літератури) спрямовані на розвиток у студентів мовленнєвих навичок сприйняття і розуміння англомовних текстів і формування вмінь читання, говоріння і письма на основі опрацювання автентичних текстів, тематика яких відповідає їхньому фаху, зокрема питанням здорового способу життя та професійному консультуванню щодо правильного харчування з позиції спортивного дієтолога.

Структурно методичні вказівки містять 14 розділів, який інформаційно співзвучні із фрагментами книжок онлайн-платформи McGraw Hill/Glencoe (див. http://www.mcgrawhill.glencoe.com/). Вони не лише детально описують харчову цінність продуктів харчування, але й широко охоплюють основні сфери людського життя, висвітлюючи аспекти придбання продуктів, їхнього зберігання, приготування та раціонального споживання. Автором розрізнено ключові поняття побутових і професійних сфер спілкування, включно зі консультуванням спортсменів щодо харчування, описано основні види ситуацій, які можуть виникнути у ході англомовної комунікації цієї тематики.

Система лексико-граматичних вправ, яка доповнює автентичні тексти завданнями репродуктивного і творчого характеру, слугує для розвитку навичок усного та письмового мовлення студентів з опорою на сприйняту інформацію. Ці завдання мають навчальний, тренувальний і контролюючий характер. У кінці кожного розділу представлені журнальні статті із *Time Magazine* (див. https://time.com/tag/dietnutrition/), які інформують про нові тенденції у сфері дієтології. Вони використовуються для розвитку вмінь аналізу та анотування публіцистичних текстів.

Ілюстративний матеріал (таблиці і схеми) сприяє розумінню студентами складного теоретичного матеріалу та впливає на їхнє оволодіння мовою спеціальності.

CONTENT

LESSON 1. NUTRITION. Basic Facts

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. What are your eating habits? How often and how much do you eat?
2. Have your eating habits changed since your childhood?
3. What is your national cuisine like? How often do you eat national food?

   * Answer few more questions in Section  on page 6.

Exercise 2. *Study the active vocabulary, translate into Ukrainian.*

Word	Translation	Word	Translation
nutrition		food supply	
nutrients		weight gain	
(kilo)calories		starvation	
hunger		life span	
appetite		life-threatening conditions	
over/undereating			

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Hunger	A	are units of heat that measure the energy used by the body and the energy that foods supply to the body.
2.	Nutrients	B	is a natural physical drive that protects you from starvation.
3.	Appetite	C	the process by which the body takes in and uses food.
4.	Nutrition	D	are substances in food that your body needs to grow, to repair itself, and to supply you with energy.
5.	Calories	E	is a desire, rather than a need, to eat.

Exercise 4. *Match the collocations:*

to prevent	to provide with	inborn	to influence	to respond	to influence	to improve	cultural
reaction	eating habits	nutrients	to hunger	mood	food choice	disease	heritage

Exercise 4. *Read the sentences, fill in the missing words.*

cultural heritage, eating habits, advertisements, convenience, adolescence

1. Many of people's _____ were shaped in childhood, when adults planned your meals.
2. People's food choices may reflect their _____ or ethnic background.
3. _____, i.e. food accessibility and availability, as well as its cost may be top priorities for some people.
4. Making informed food choices involves analysing the health messages delivered through food _____ in the media.
5. Good nutrition is essential for health throughout life, but particularly during _____, one of the fastest periods of growth that people experience.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

Lesson 1

Nutrition During the Teen Years

VOCABULARY

nutrition
calories
nutrients
hunger
appetite

YOU'LL LEARN TO

- Explain the relationship between nutrition, quality of life, and disease.
- Evaluate various influences on food choices.
- Explain the immediate and long-term benefits of nutrition on body systems.

QUICK START **On a sheet of paper, list six of the foods you eat most often for meals or snacks. Then describe why you eat each of these foods. Do you base your choices on their health benefits? Their taste or appearance? Their convenience?**

Choosing fresh fruit as a snack is a good way to supply your body with the nutrients it needs. ***What's your favorite healthful snack?***

Picture yourself biting into a crisp, juicy apple or a slice of cheese pizza with zesty tomato sauce. Do these foods appeal to you? What other foods do you like? Enjoying a wide variety of healthful foods is an important part of good nutrition—*the process by which the body takes in and uses food.* Because not all foods offer the same benefits, making healthful food choices is important to your overall level of health.

The Importance of Good Nutrition

Good nutrition enhances your quality of life and helps prevent disease. It provides you with the calories and nutrients your body needs for maximum energy and wellness. Calories, or more correctly, kilocalories, are *units of heat that measure the energy used by the body and the energy that foods supply to the body.* This energy fuels everything you do, from exercising and playing sports to doing your homework and talking with friends. Nutrients are *substances in food that your body needs to grow, to repair itself, and to supply you with energy.* Making healthy food choices will provide your body with the nutrients it needs to help you look your best and perform at your peak.

What Influences Your Food Choices?

Have you ever wondered why you choose the foods you do? Taste, of course, plays an important part in your choice of foods. You probably won't eat a food—even if you know it's healthful—if you don't like its taste. To gain insight into your eating habits, it's important to understand the difference between your physical *need* for food and your psychological *desire* for food—between hunger and appetite. Distinguishing between the two can help you make more healthful food choices.

Hunger and Appetite

Hunger, an unlearned, inborn response, is *a natural physical drive that protects you from starvation*. When your stomach is empty, its walls contract, stimulating nerve endings. The nerves signal your brain that your body needs food. When you eat, the walls of the stomach are stretched and the nerve endings are no longer stimulated. You have satisfied your physical need for food.

The physical need for food isn't the only reason people eat. Have you ever eaten something "just to be sociable" or in response to a familiar sensation—for example, the aroma of freshly baked bread? In such cases you are eating in response to appetite rather than to hunger. Appetite is *a desire, rather than a need, to eat*. Whether you are responding to hunger or to appetite when you eat, many factors influence your food choices and eating habits, including your emotions and a number of factors in your environment.

Food and Emotions

Food is sometimes used to meet emotional needs. For example, do you tend to eat more—or less—when you feel stressed, frustrated, or depressed? Do you sometimes snack just because you're bored? Do you reward yourself with a food treat when you've achieved a goal? Using food to relieve tension or boredom or to reward yourself can result in overeating and unhealthful weight gain. On the other hand, if you lose interest in eating whenever you're upset, you may miss getting enough of the nutrients your body needs. Recognizing when emotions are guiding your food choices can help you break such patterns and improve your eating habits.

Food and Your Environment

A number of environmental factors influence food choices:

- Family, friends, and peers. Many of your eating habits were shaped as you were growing up, when adults planned your meals. Now you may prefer certain foods because you've grown up eating them. Friends and peers can influence you to try new foods.

Health Minute

Managing Your Eating Habits

To manage your eating habits:

- **Try not to be overly influenced by others in making food choices.** Make choices with your health in mind—not just your appetite.
- **Pay attention to quantity.** Start off with reasonably sized servings, and, if possible, use a smaller plate. Listen to your body's "hunger clock" rather than to your appetite. When you feel full, stop eating. It takes 20 minutes for your stomach to signal your brain that it is satisfied.
- **Make something other than food the focus of social occasions.** If you are getting together with friends, for example, consider a setting other than a restaurant, such as a park or community center.

Exploring Issues

Should Soft Drinks and Snacks Be Taxed to Fund Health Education Programs?

Some health advocates have recommended that soft drinks and high-calorie snacks be taxed. They believe that these foods are partly to blame for the recent rise in obesity rates. Each item would be taxed one to two cents, and the money would fund programs that promote healthful eating and physical activity. Read what two teens have to say about this issue:

Viewpoint 1: Zack H., age 16

I'd pay an extra penny or two for snacks if the money were being used for a good cause. Cigarettes and alcohol are taxed—why not soft drinks and high-calorie snacks? Every year, obesity causes almost as many deaths as tobacco. Health advocates have shown that antitobacco messages can change behavior. I think nutrition campaigns could do the same thing.

Viewpoint 2: Songhee L., age 16

How can you compare soft drinks and snacks to tobacco and alcohol? People have to eat. There are no good or bad foods, just unhealthful eating patterns. The answer to obesity is making the right food choices. A sedentary lifestyle also contributes to being overweight and to obesity. Why not tax video games and computer software? Also, why stop at soft drinks and snack foods? Why not tax cheese, butter, and salad dressing?

ACTIVITIES

1. **Do you think campaigns or formal programs on nutrition would influence people to make healthful eating choices? Why or why not?**
2. **Should the government be responsible for individual eating choices? Explain.**

- **Cultural and ethnic background.** Your food choices may reflect your cultural heritage or ethnic background. For example, corn, beans, and tortillas might be common foods in many Mexican-American households.
- **Convenience and cost.** Convenience and cost of foods may be top priorities for some people. For example, busy families may rely on foods that can be prepared quickly, such as microwavable meals.

- **Advertising.** Advertisers spend millions of dollars each year to influence your decisions about food. Part of making informed food choices involves carefully analyzing the health messages delivered through food advertisements in the media. Then you, rather than advertisers, will control your food choices.

Nutrition Throughout the Life Span

Good nutrition is essential for health throughout life but particularly during adolescence—one of the fastest periods of growth you'll experience. Healthful eating provides you with the nutrients you need for growth and development, gives you energy for sports and other activities, enables you to stay mentally alert, and helps you feel good and look your best. A healthful and balanced eating plan also helps prevent unhealthful weight gain, obesity, and type 2 diabetes—conditions that have become more common among children and teens in recent years. Making healthful food choices now also lowers your risk of developing many life-threatening conditions as you get older. These conditions include heart disease, stroke, certain cancers, and osteoporosis.

Eating nutritious meals as a family can contribute to the health of all family members.

Lesson 1 *Review*

Reviewing Facts and Vocabulary

1. Briefly explain the relationship between nutrition, quality of life, and disease.
2. Define the term *appetite.*
3. Name three influences—other than family—on people's food choices.

Thinking Critically

4. **Evaluating.** Give examples of how your family has influenced your food choices.
5. **Applying.** How does what you eat now affect your health, both now and as you grow older?

Applying Health Skills

Analyzing Influences. Look through magazines and other printed media to find five food advertisements that contain specific health claims. Analyze the health message that each ad delivers about its product. How might it influence your food choice? Present your findings in the form of a table.

TECHNOLOGY OPTION

SPREADSHEETS Spreadsheet software can be used to create your table. For help in using spreadsheet software, go to health.glencoe.com.

II. POST-TEXT EXERCISES

Exercise 1. *Agree or disagree with the statements. Prove your point of view.*

1. Enjoying the variety of food every day guarantees long and healthy life.
2. The more calories the person intakes, the more energy they have.
3. Nutrients can be found both in food and water.
4. Appetite is a physical reaction of person's body rather than psychological one.
5. Recognizing the effect of emotions on person's eating habits is not crucial for healthy life.
6. Peers mainly affect person's preferences in food only it comes to teenagers.
7. Life-threatening diseases may develop because of unhealthful nutrition.

Exercise 2. *Answer the questions in the Section* 

on page 9.

Exercise 3. *Discuss with your partner the* 

Section on page 8. Complete the tasks given there.

Exercise 4. *Fill in the chart below based on <u>your personal experience</u>. Provide relevant examples and explanations.*

What influences your Health Food Choices?

Physical factors:	**- hunger - ...**
	- appetite - ...
Psychological factors:	**- emotions - ...**
	- food preferences - ...
Environment:	**- people (family, friends, peers) - ...**
	- cultural background - ...
	- convenience and cost - ...
	- mass media - ...

Exercise 5. *Based on the information above make a short presentation to your partner on <u>how person's lifestyle influences their nutrition</u>. Include one of the following aspects:*

- The difference of lifestyle in the past and nowadays, its effect on nutrition;
- Food preferences in different age;
- Cultural traditions that effect food choices;
- Mass media, in particular, social media role in formation of person's tastes in food.

** Use active vocabulary from the PRE-TEXT EXERCISES.*

Rendering of a Newspaper Article

Rendering a text from a newspaper source is a linguistic procedure that includes compressing the original text to the limits of its informational necessity and choosing the most effective linguistic means to convey the message of the article.

To render a newspaper article consider the following points:

1) Read the original text to define its problematic issue.
2) Render the headline of the original text into English (see Part 1, 2 of the Plan below).
3) Write the main body (see Part 3, 4 of the Plan below), summarising what has been mentioned by the author.
4) Write the concluding paragraph, expressing your own opinion on the problem raised in the article.

PLAN FOR RENDERING AN ARTICLE

1. The title of the article.

The article goes under the headline... /The article is entitled... / The article under the headline... has the subheading.../ The title of the article is...

2. The author of the article; where and when the article was published.

- Place of origin: The article is (was) printed / published in... / The article is from a newspaper under the nameplate...
- Time of origin: The publication date of the article is.../ The article is dated/ printed the first of October 20__.
- Author: The article is written by…/The author of the article is...
- Theme / Topic: The article is about.../ The article is devoted to.../The article deals with the topic.../The basic subject matter of the script is.../The article addresses the issue of.../The article raises/brings up the problem.../The article describes the situation.../The article informs the readers about… / comments on…/The headline of the article corresponds to the topic.

3. The main idea of the article.

The main idea of the article is…/The purpose of the article / author is to give the reader some information on... The aim of the article / author is to provide the reader with some information about...; to inform about...; to compare / determine... .

4. The contents of the article. Some facts, names, figures.

(a short summary of 3 or 4 sentences) + important FACTS, NAMES, FIGURES.

The article deals with.../ covers the events... / touches upon the problem of... / includes some interviews, dialogues, pictures, reviews, references, quotations, figures.

The article is written in the form of the monologue, from the first / third person narration.

5. Your opinion of/on the article.

In my opinion the article is worth reading because .... To my mind; I totally/partially agree/disagree with the author, because… I find/found the article topical=urgent (interesting, important, dull, of no value, too hard to understand ...) because ....

Exercise 1. *Render the article given below.*

TIME HEALTH
SCIENCE & TECHNOLOGY

Is Our Obsession With Health Data Making Us Crazy?

BY **JAMIE DUCHARME** MAY 30, 2019

When Bri Cawsey started wearing a Fitbit, she thought it was simply a "really cool tool" for charting her runs. Slowly but surely, however, the British Columbia-based strength and conditioning coach began tracking everything—calories, macronutrients, fertility—and noticed the habit spiraling out of control.

"It became a little bit of an obsessive habit, especially around the food," Cawsey remembers. Eventually, she says, it got so bad that, if she didn't research a meal's calorie and nutrient breakdown in advance, she'd feel anxious and upset at restaurants. In 2014, after realizing that her once-healthy habit had turned hazardous. She's been tracker-free ever since, save for a brief stint while training to qualify for the Boston Marathon, and recommends her clients stay that way, too.

In a culture where wellness junkies use apps, websites and wearables to monitor every morsel that passes their lips, every step they take, every beat of their hearts, their sleep cycles, and their fitness progress, we have health insights we've never had before. But Dr. George Zgourides, a Texas-based psychologist, family medicine doctor and author of the 2002 book *Stop Worrying About Your Health*, says these boundless data can contribute to a culture of health anxiety.

Increasingly, he's noticing that people are excessively concerned about health issues to the point that it might be interfering with mental health, work and relationships.

And while once these worriers might have stoked their fears only with "Dr. Google," as Zgourides calls it, they're now equipped with an army of apps and devices that can spit out personalized data on command. "Now that you can count every calorie and every step you're taking, people that might have some tendency toward an obsession with or a focus on numbers, this feeds the behavior in a way that is not always helpful," Zgourides says.

In 2015, for example, researchers at Duke University in North Carolina found that activity-tracking can decrease enjoyment of whatever pastime someone is trying to quantify, and even lead people to do less of it when the trackers are off. A 2017 study published in the journal *Eating Behaviors* also found associations between the use of calorie-counting and/or fitness-tracking devices and eating disorder symptoms among college students. And a 2016 survey of female Fitbit users found that almost 60% felt like their days were controlled by their devices, and 30% said the gadget was an "enemy" that made them feel guilty.

Even as these trackers grow more and more sophisticated, the pushback against them—for reasons ranging from mental health to consumer privacy—is mounting. Companies are even capitalizing by offering products that provide an alternative to data overload.

Food-diary app YouAte is doing something similar for dieting. Like many nutrition apps, it allows users to log their meals and snacks, but instead of tabulating calorie counts, it asks individuals to categorize their food choices as "on-path" or "off-path" and note how those choices made them feel, ideally fostering mindful—but not obsessive—eating. That's a smart strategy, says Jessica Setnick, a Texas-based registered dietitian and eating-disorder specialist. "Under almost no circumstances would I recommend calorie counting," she says. "Ultimately, the goal is to not need to count calories at all, but to be able to follow internal cues for guidance."

"If you are one of those people who is attached to all your apps and gadgets, maybe try to take a break and notice how you feel without it and trust yourself to eat without your Fitbit or MyFitnessPal telling you what to eat," she suggests. "Spending that time to just let it all go and just trust yourself, listen to yourself, was really healing."

LESSON 2. NUTRIENTS

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. What is the idea of healthy lifestyle today?
2. Have the ingredients of traditional "product basket" changed much since your childhood?
3. What is the nutritional value of traditional dishes in your country?

* Answer few more questions in Section  on page 14.

Exercise 2. *Study the active vocabulary, check how these words are pronounced.*

Word	Pronunciation	Word	Pronunciation
nutritional value		vitamins	
nutritionists		minerals	
carbohydrates		fructose	
fiber/fibre		lactose	
proteins		glucose	
lipid		amino acids	

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Carbohydrates	A	are nutrients that help build and maintain body cells and tissues.
2.	Fibre	B	are compounds that help regulate many vital body processes, including the digestion, absorption, and metabolism of other nutrients.
3.	Proteins	C	are the starches and sugars present in foods.
4.	Lipid	D	is an indigestible complex carbohydrate that is found in the tough, stringy parts of vegetables, fruits, and whole grains.
5.	Vitamins	E	are substances that the body cannot manufacture but that are needed for forming healthy bones and teeth and for regulating many vital body processes.
6.	Minerals	F	is a fatty substance that does not dissolve in water.

Exercise 4. *Match the collocations:*

to be rich	to be familiar	chemical	starches	to consume	glucose	to contain	fibre
with notion	can be found	in protein	is stored	makeup	carbohydrates	can't be digested	the right amount

Exercise 4. *Read the sentences, fill in the missing words.*

dissolve, are absorbed, are needed, transports, circulates

1. Cholesterol is a waxy lipid-like substance that _____ in blood.
2. Water-soluble vitamins _____ in water and pass easily into the blood during digestion.
3. Fat-soluble vitamins _____, stored, and transported in fat.
4. Water _____ different nutrients to and carries wastes from your cells.
5. Minerals are not produced by body itself, but _____ for conducting various body processes.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

Lesson 2

Nutrients

VOCABULARY

carbohydrates
fiber
proteins
lipid
vitamins
minerals

YOU'LL LEARN TO

- Describe the functions of the six basic nutrients in maintaining health.
- Demonstrate knowledge of nutrients in a variety of foods.
- Analyze the relationship among good nutrition, health promotion, and disease prevention.

QUICK START **What's your idea of a healthful meal? On a sheet of paper, describe a nutritious meal that you would enjoy. Then make a list of the health benefits that you think you would get from this meal.**

Each of these foods is rich in one or more nutrients. ***Which of these foods do you eat regularly?***

To survive, the human body needs the nutrients found in food. These nutrients are classified into six groups: carbohydrates, proteins, fats, vitamins, minerals, and water. Each plays a unique part in maintaining the normal growth and functioning of your body. Together, they are essential to your overall health and wellness.

Carbohydrates

Do you like potatoes, pasta, and bread? These foods are rich in carbohydrates. Carbohydrates are *the starches and sugars present in foods.* Made up of carbon, oxygen, and hydrogen, carbohydrates are the body's preferred source of energy, providing four calories per gram. Your body uses energy from carbohydrates to perform every task, including sitting and reading the words on this page. Depending on their chemical makeup, carbohydrates are classified as either simple or complex. Most nutritionists recommend that 55 to 60 percent of your daily calories come from carbohydrates, mainly complex carbohydrates.

Simple and Complex Carbohydrates

Simple carbohydrates are *sugars*, such as fructose and lactose (found in fruit and milk, respectively). You're probably most familiar with the simple carbohydrate sucrose. It occurs naturally in many plants, such as sugarcane and sugar beets, and is refined to make table sugar. Sugars are added to many manufactured food products.

Complex carbohydrates, or *starches*, are found in whole grains, seeds, nuts, legumes (dried peas and beans), and tubers (root vegetables such as potatoes). The body must break down complex carbohydrates into simple carbohydrates before it can use them for energy.

The Role of Carbohydrates

Your body converts all carbohydrates to glucose, a simple sugar that is the body's main source of energy. Glucose that your body does not use right away is stored in the liver and muscles as a starch-like substance called glycogen (GLI-coh-jen). When more energy is needed, your body converts the glycogen back to glucose. However, it's possible to take in more carbohydrates than your body can use right away or can store as glycogen. When this happens, your body converts and stores the excess carbohydrates as body fat. You can avoid consuming excess carbohydrates by learning to make informed food choices and maintaining healthful eating habits.

Fiber

Fiber is *an indigestible complex carbohydrate* that is found in the tough, stringy parts of vegetables, fruits, and whole grains. Although it can't be digested and used as energy, fiber helps move waste through the digestive system and thereby helps prevent intestinal problems such as constipation. Eating enough fiber throughout your life may promote health by reducing your risk of heart disease. Some types of fiber have also been shown to help control diabetes by reducing blood glucose levels.

To stay healthy, eat 20 to 35 grams of fiber each day. Fruits and vegetables with edible skins and whole-grain products such as bran cereals, oatmeal, and brown rice are excellent sources of fiber.

Health Minute

Getting More Fiber into Your Diet

To get 20–35 grams of fiber daily:

- Start your day with a whole-grain breakfast cereal, such as oatmeal.
- Choose whole fruit instead of fruit juice.
- Make sure you eat at least five servings of fruits and vegetables each day.
- Select high-fiber snacks (popcorn, raw vegetables, nuts, and fruit with edible skins).
- Eat legumes at least two or three times a week.
- Substitute whole-grain ingredients (whole-wheat flour, bran) for low-fiber ingredients (white flour) in recipes whenever possible.

Each of these foods is a rich source of carbohydrates.

Proteins

A vital part of every cell in your body, proteins are *nutrients that help build and maintain body cells and tissues.* Proteins are made of long chains of substances called amino acids. Your body can manufacture all but 9 of the 20 different amino acids that make up proteins. The 9 that your body can't make are called *essential amino acids*—you must get them from the foods you eat.

Complete and Incomplete Proteins

The proteins in food are classified into two groups, *complete proteins* and *incomplete proteins.*

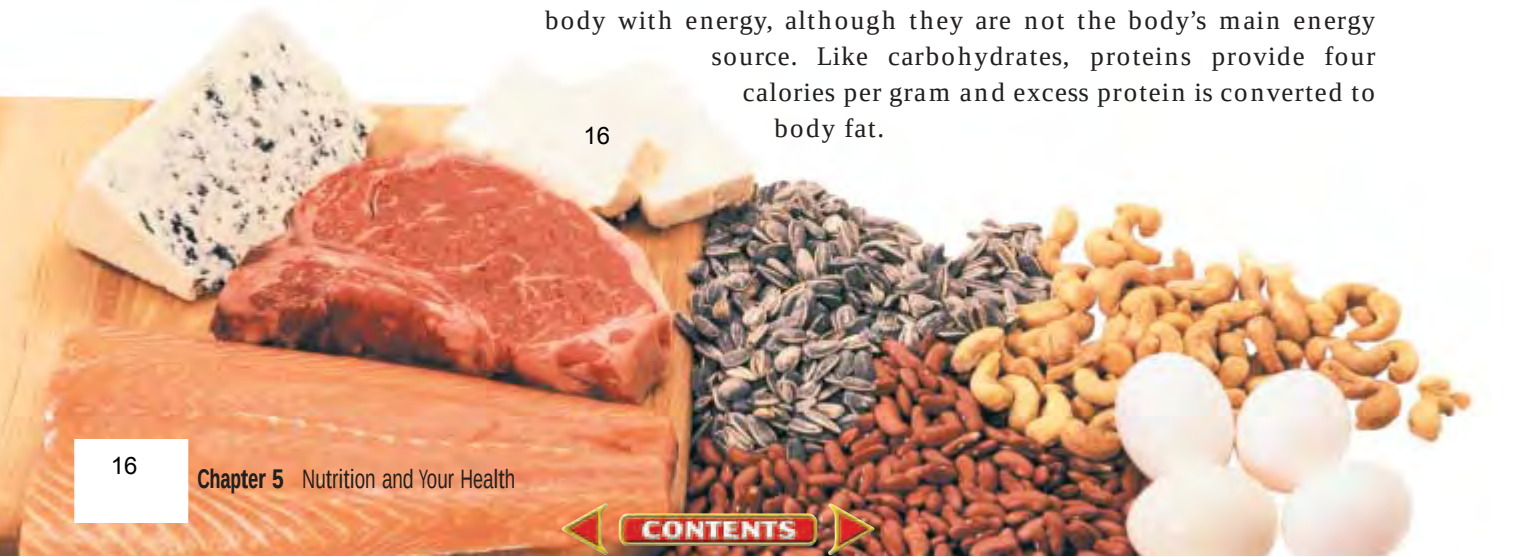
- Complete proteins contain adequate amounts of all nine essential amino acids. Animal products—such as fish, meat, poultry, eggs, milk, cheese, and yogurt—and many soybean products are good sources of complete proteins.

- Incomplete proteins lack one or more of the essential amino acids. Sources include beans, peas, nuts, and whole grains. Consuming a combination of incomplete proteins, for example, rice and beans or peanut butter and bread, is equivalent to consuming a complete protein. You don't have to combine the incomplete proteins in one meal to get this benefit, you just need to eat them both over the course of the day.

The Role of Proteins

Proteins have many functions. During major growth periods, such as infancy, childhood, adolescence, and pregnancy, the body builds new cells and tissues from the amino acids in proteins. Throughout your life your body replaces damaged or worn-out cells by making new ones from protein. The body also uses protein to make enzymes, hormones, and antibodies. Enzymes are substances that control the rate of chemical reactions in your cells. Hormones regulate the activities of different cells, and antibodies help identify and destroy disease-causing organisms. Proteins also supply the body with energy, although they are not the body's main energy source. Like carbohydrates, proteins provide four calories per gram and excess protein is converted to body fat.

Each of these foods is a good source of protein. ***Which of these foods contain complete proteins? Which contain incomplete proteins?***



Fats

Some fat in the diet is necessary for good health. Fats are a type of lipid (LIHP•ehd), *a fatty substance that does not dissolve in water.* Fats provide more than twice the energy of carbohydrates or proteins—9 calories per gram.

The building blocks of fats are called fatty acids, molecules made mostly of long chains of carbon atoms, with pairs of hydrogen atoms and single oxygen atoms attached. Fatty acids that the body needs, but cannot produce, are called *essential fatty acids.* Depending on their chemical composition, fatty acids are classified as either saturated or unsaturated. Most fats are a mixture of these two types.

Did You Know?

There are two types of unsaturated fatty acids:

- Monounsaturated fatty acids have only one unsaturated bond. These fatty acids are liquid at room temperature but start to solidify when refrigerated. They are found in olive oil and canola oil.
- Polyunsaturated fatty acids have more than one unsaturated bond. These fatty acids are liquid both at room temperature and in the refrigerator. They are found in safflower oil and corn oil.

Saturated and Unsaturated Fatty Acids

A *saturated fatty acid* holds all the hydrogen atoms it can. Fats high in saturated fatty acids are usually solid at room temperature. Animal fats and tropical oils—such as palm oil, palm kernel oil, and coconut oil—have a high proportion of saturated fatty acids. Fats in beef, pork, egg yolks, and dairy foods are higher in saturated fatty acids than are the fats in chicken and fish. A high intake of saturated fats is associated with an increased risk of heart disease.

Most vegetable fats—including olive, canola, soybean, corn, and cottonseed oils—contain a high proportion of unsaturated fatty acids. An *unsaturated fatty acid* has at least one unsaturated bond—a place where hydrogen can be added to the molecule. Unsaturated fats are usually liquids (oils) at room temperature. In contrast to saturated fats, unsaturated fats have been associated with a reduced risk of heart disease.

The Role of Fats

Besides providing a concentrated form of energy, fats are essential for other important health functions. They transport vitamins A, D, E, and K in your blood and serve as sources of *linoleic* (lih•noh•LAY•ihk) *acid,* an essential fatty acid that is needed for growth and healthy skin. Fats also add flavor and texture to food, and, because they take longer to digest than carbohydrates or proteins, they help satisfy hunger longer than other nutrients do. Foods that are high in fats also tend to be high in calories, and consuming excess amounts of fat increases your risk of unhealthful weight gain and obesity. Most nutritionists recommend eating only moderate amounts of fat—no more than 20 to 30 percent of your total daily calorie intake.

The foods pictured here all contain fat. ***Classify each food shown here as a source of saturated fat or unsaturated fat.***

Hands-On Health ACTIVITY

Reducing Your Intake of Fats

Consuming too much fat can increase the risk of heart disease and unhealthful weight gain. Most teen boys need no more than 84 grams of fat each day. Most teen girls need no more than 66 grams each day. Analyzing the amount of fat in fast foods and snacks can help you see how to reduce your consumption of fats.

What You'll Need

- paper and pencil

What You'll Do

1. List every fast-food and snack item you eat and the portion size of each over the next three days. Next to each item, record how many grams of fat were in that portion. You can find fat grams in snacks by reading the label on packaged food products or by using a computerized dietary analysis program. Fast-food restaurants can provide a list of nutritional information about their products.
2. Determine the total number of fat grams you consumed over the three-day period. Then divide by three to find your daily average. What did you discover? Were there any surprises?
3. Using your dietary analysis as a guide, set a goal to consume a healthy intake of fat for the next three days. Write a detailed plan describing the steps you will take to reach your goal.

Apply and Conclude

Follow your plan for three days. As a class, share low-fat foods that you tried and enjoyed.

The Role of Cholesterol

Cholesterol is a waxy lipidlike substance that circulates in blood. Your body uses the small amount it manufactures to make cell membranes and nerve tissue and to produce many hormones, vitamin D, and bile, which helps digest fats. Excess blood cholesterol is deposited in arteries, including the arteries of the heart. This increases the risk of heart disease.

High cholesterol may be hereditary, and cholesterol levels tend to rise as people age. Although heredity and age are out of your control, you can significantly reduce your risk of heart disease by eating a diet low in saturated fats and cholesterol. A high intake of saturated fats is linked to increased cholesterol production. Dietary cholesterol is found only in animal products such as egg yolks, meats (especially organ meats), and high-fat milk products. Losing excess weight can also lower cholesterol levels.

Vitamins

Vitamins are *compounds that help regulate many vital body processes, including the digestion, absorption, and metabolism of other nutrients.* Vitamins are classified as either water- or fat-soluble.

Water-soluble vitamins, listed in Figure 5.1, dissolve in water and pass easily into the blood during digestion. The body doesn't store these vitamins, so you need to replenish them regularly through the foods you eat. Fat-soluble vitamins are absorbed, stored, and transported in fat. Your body stores these vitamins in your fatty tissue, liver, and kidneys. Excess buildup of these vitamins in your body can be toxic. Figure 5.2 on page 120 provides more information about fat-soluble vitamins.

FIGURE 5.1

Water-Soluble Vitamins

Vitamin / Amount Needed Each Day	Role in Body	Food Source
C (ascorbic acid) Teen female: 60 mg Teen male: 60 mg	protects against infection, helps form connective tissue, helps heal wounds, maintains elasticity and strength of blood vessels, promotes healthy teeth and gums	citrus fruits, cantaloupe, tomatoes, cabbage, broccoli, potatoes, peppers
B_1 (thiamine) Teen female: 1.1 mg Teen male: 1.5 mg	converts glucose into energy or fat, contributes to good appetite	whole-grain or enriched cereals, liver, yeast, nuts, legumes, wheat germ
B_2 (riboflavin) Teen female: 1.3 mg Teen male: 1.8 mg	essential for producing energy from carbohydrates, fats, and proteins; helps keep skin healthy	milk, cheese, spinach, eggs, beef liver
Niacin Teen female: 15 mg Teen male: 20 mg	important for maintenance of all body tissues; helps in energy production; needed by body to utilize carbohydrates, to synthesize body fat, and for cell respiration	milk, eggs, poultry, beef, legumes, peanut butter, whole grains, enriched and fortified grain products
B_6 Teen female: 1.5 mg Teen male: 2.0 mg	essential for amino acid and carbohydrate metabolism, helps turn the amino acid *tryptophan* into serotonin (a messenger to the brain) and niacin	wheat bran and wheat germ, liver, meat, whole grains, fish, vegetables
Folic acid Teen female: 180 mcg Teen male: 200 mcg	necessary for production of genetic material and normal red blood cells, reduces risk of birth defects	nuts and other legumes, orange juice, green vegetables, folic acid-enriched breads and rolls, liver
B_{12} Teen female: 2.0 mcg Teen male: 2.0 mcg	necessary for production of red blood cells and for normal growth	animal products such as meat, fish, poultry, eggs, milk, and other dairy foods; some fortified foods

FIGURE 5.2

FAT-SOLUBLE VITAMINS

Vitamin / Amount Needed Each Day	Role in Body	Food Source
A Teen female: 800 mcg Teen male: 1,000 mcg	helps maintain skin tissue, strengthens tooth enamel, promotes use of calcium and phosphorous in bone formation, promotes cell growth, keeps eyes moist, helps eyes adjust to darkness, may aid in cancer prevention	milk and other dairy products, green vegetables, carrots, deep-orange fruits, liver
D Teen female: 5 mcg Teen male: 5 mcg	promotes absorption and use of calcium and phosphorous, essential for normal bone and tooth development	fortified milk, eggs, fortified breakfast cereals, sardines, salmon, beef, margarine; produced in skin exposed to sun's ultraviolet rays
E Teen female: 8 mg Teen male: 10 mg	may help in oxygen transport, may slow the effects of aging, may protect against destruction of red blood cells	vegetable oils, apples, peaches, nectarines, legumes, nuts, seeds, wheat germ
K Teen female: 55 mcg Teen male: 65 mcg	essential for blood clotting, assists in regulating blood calcium level	spinach, broccoli, eggs, liver, cabbage, tomatoes

Minerals

Minerals are *substances that the body cannot manufacture but that are needed for forming healthy bones and teeth and for regulating many vital body processes.* Several key minerals are described in Figure 5.3.

You get many of the minerals your body needs from these types of foods.

Water

Water is vital to every body function. It transports other nutrients to and carries wastes from your cells. Water also lubricates your joints and mucous membranes. It enables you to swallow and digest foods, absorb other nutrients, and eliminate wastes. Through perspiration, water helps maintain normal body temperature. It's important to drink at least 8 cups of water a day to maintain health. Plain water, milk, and juice are the best sources of this nutrient. Beverages containing caffeine, such as tea, coffee, and some soft drinks, are not good choices—they cause you to lose some water through increased urination. Certain foods, such as fruits and vegetables, also contain some water.

FIGURE 5.3

Some Important Minerals

Mineral/Amount Needed Each Day	Role in Body	Food Source
Calcium Teen female: 1,300 mg Teen male: 1,300 mg	building material of bones and teeth (skeleton contains about 99% of body calcium), regulation of body functions (heart muscle contraction, blood clotting)	dairy products; leafy vegetables; canned fish with soft, edible bones; tofu processed with calcium sulfate
Phosphorous Teen female: 1,250 mg Teen male: 1,250 mg	combines with calcium to give rigidity to bones and teeth, essential in cell metabolism, helps maintain proper acid-base balance of blood	milk and most other dairy foods, peas, beans, liver, meat, fish, poultry, eggs, broccoli, whole grains
Magnesium Teen female: 360 mg Teen male: 410 mg	enzyme activator related to carbohydrate metabolism, aids in bone growth and muscle contraction	whole grains, milk, dark green leafy vegetables, legumes, nuts
Iron Teen female: 15 mg Teen male: 12 mg	part of the red blood cells' oxygen and carbon dioxide transport system, important for use of energy in cells and for resistance to infection	meat, shellfish, poultry, legumes, peanuts, dried fruits, egg yolks, liver, fortified breakfast cereal, enriched rice

Lesson 2 *Review*

Reviewing Facts and Vocabulary

1. Compare the energy provided to the body by carbohydrates, proteins, and fats.
2. Analyze the relationship between good nutrition, health promotion, and disease prevention: How can reducing your saturated fat intake help lower your risk of heart disease?
3. What are *vitamins*?

Thinking Critically

4. **Analyzing.** Your friend Steve wants to cut down on his intake of saturated fats and cholesterol. What advice would you give him?
5. **Synthesizing.** What are the benefits of eating a variety of fruits and vegetables?

Applying Health Skills

Goal Setting. Copy your school's weekly lunch menus, and examine each day's options. Using what you've learned about nutrients in this lesson, list the most healthful food choices available each day. Then set a goal to eat healthful school lunches for the next week. Use the goal-setting steps to help you create a plan.

TECHNOLOGY OPTION

SPREADSHEETS Use spreadsheet software to keep track of the meals you create from each day's school menu. Find help in using spreadsheet software at health.glencoe.com.

II. POST-TEXT EXERCISES

Exercise 1. *Agree or disagree with the statements. Prove your point of view.*

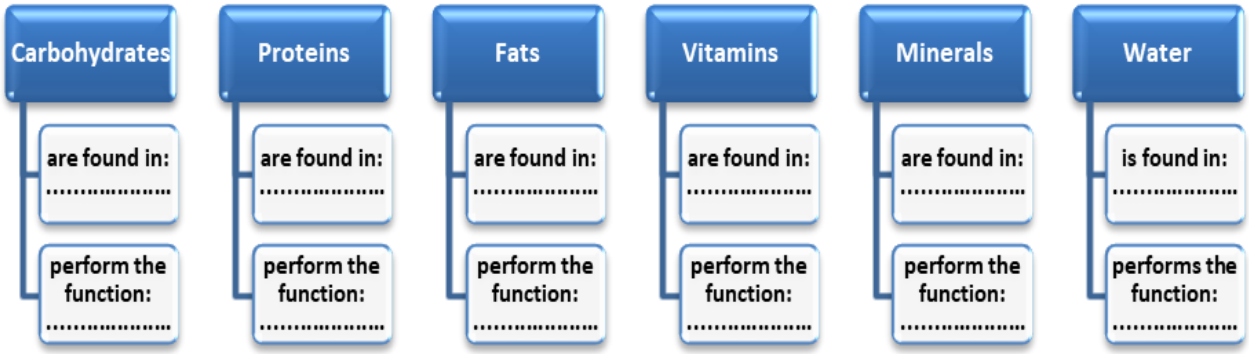
1. Human body uses energy from carbohydrates to perform everyday tasks, including mental and physical activities.
2. Simple carbohydrate sucrose occurs naturally in whole grains, seeds, nuts and tubers.
3. Complex carbohydrates are found in many plants, such as sugarcane and sugar beets, and are refined to make table sugar.
4. Proteins are made of long chains of substances called amino acids.
5. The body also uses protein to make enzymes, hormones, and antibodies.
6. Hormones regulate the brain activities, and antibodies help identify viruses.
7. Depending on their chemical composition, fatty acids are classified as either mono-saturated or poli-saturated.
8. Most vegetable fats contain a high proportion of saturated fatty acids.

Exercise 2. *Answer the questions in the Section* **Lesson 2** *Review* *on page 21.*

Exercise 3. *Discuss with your partner the Section* **Hands-On Health** ACTIVITY *on page 18. Complete the tasks given there.*

Exercise 4. *Fill in the chart below* *<u>to summarise the information from Lesson 2</u>. Provide relevant examples and explanations.*

Nutrients



Exercise 5. *Based on the information above make a short presentation to your partner on* *<u>how nutrients influence person's state of health</u>. Include one of the following aspects:*

- The right (recommended) amount of nutrients to be consumed daily (specify the category of people, e.g. teenagers, adults, athletes, etc.);
- The variety of vitamins and minerals, necessary for the person, their combination;
- Liquids (e.g. water, juices, tea, etc.) and their effect on human organism;
- The sources of nutrients for daily consumption (i.e. natural, artificial or both).

** Use active vocabulary from the PRE-TEXT EXERCISES.*

Think Drink

You know drinking lots of water is good for you—but what other fluids will help you stay healthy? Consider these options.

Sports Drinks

PROS: Most contain ideal levels of electrolytes, which reduce the chances you will cramp during workouts that last for more than an hour. Their simple sugars are easily converted to glycogen, giving your muscles much-needed fuel. Plus, the drink's added sodium stimulates the urge to drink, so you guzzle more often.

CONS: You may not love the taste—nor the calories (about 50 to 70 calories in 8 ounces), sugar, artificial flavorings, and cost (water and fruit tend to be much cheaper).

Water

PROS: Water is suitable for any type of activity, whether you're walking the dog or racing a friend. It's also cheap compared to sports drinks.

CONS: Water doesn't replenish all the electrolytes that you lose through sweat or help refuel muscle tissue during endurance activities. It also goes through your system faster, so you may find yourself taking more breaks than you'd like.

Fruits and Vegetables with High Water Content

PROS: Oranges, watermelon, grapes, cucumbers, celery, and many other fruits and vegetables are bursting with fluids. (Oranges, for example, are 87 percent water.) Plus, most produce is packed with such vital nutrients as fiber, folate, magnesium, potassium, and vitamin C.

CONS: Eating may be impractical or inconvenient during heavy exercise. Normal portions of fruits and veggies don't always provide enough fluid. On average, whole foods like these work best as a supplement to water or a sports drink.

TIME to THINK... About Drinks with Caffeine

Imagine that you're the coach of your school soccer team. The team members ask if they can each have a caffeinated cola drink at half time. What three reasons can you give them for saying they should drink water instead? (*Hint:* Research the effects of caffeine on the body and dehydration.)

LESSON 3. GUIDELINES FOR HEALTHFUL EATING

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. What is your idea of Food Pyramid?
2. Have many new products become available in supermarkets since your childhood?
3. What are the snacks, people prefer in your country? How healthy are they?

* Answer few more questions in Section  on page 25.

Exercise 2. *Study the active vocabulary, check how these words are pronounced and translated.*

Word	Pronunciation/ Translation	Word	Pronunciation/ Translation
Dietary Guidelines		perishable foods	
moderation		contaminants	
Food Guide Pyramid		servings	
whole-grain products		visualizing	
whole-wheat bread		beverages	
utensils		blood pressure	

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Dietary Guidelines	A	is a guide for making healthful daily food choices.
2.	Food Guide Pyramid	B	are diseases or conditions that usually last for 3 months or longer and may get worse over time.
3.	nutrition information	C	is a type of fat containing a high proportion of fatty acid molecules without double bonds, considered to be less healthy in the diet than unsaturated fat.
4.	saturated Fat	D	is a set of recommendations for healthful eating and active living.
5.	chronic diseases	E	include whole-grain products, fruits, and vegetables.
6.	snacks	F	are small services of food, generally eaten between meals.

Exercise 4. *Match the collocations:*

disease	to be grouped	to improve	health	to maintain	harmful	to estimate	to moderate
fitness	promotion	prevention	organisms	serving sizes	sb's intake	into 3 areas	healthy weight

Exercise 4. *Read the sentences, fill in the missing words.*

performance, nutrition guidelines, soft drinks, portion control, nutrition information

1. Keep in mind that _____ apply to all of daily food choices, not to just single meal.
2. Studies show that eating a nutritious breakfast improves mental and physical _____.
3. Potato chips, _____ and candy bars contain a lot of calories but very few nutrients.
4. Many fast-food restaurants list _____ for the foods they serve.
5. When eating out, don't forget to think about _____.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

Lesson 3

Guidelines for Healthful Eating

VOCABULARY

Dietary Guidelines for Americans
Food Guide Pyramid

YOU'LL LEARN TO

- Evaluate the concepts of balance, variety, and moderation, using the Food Guide Pyramid and national dietary guidelines.
- Examine the effects of healthful eating behaviors on body systems.
- Select healthful meals and snacks as part of a balanced diet.

QUICK START **Make a word web of healthful eating habits. Write "Healthful Eating" in the middle of a sheet of paper. Then, around the edges of the paper, add phrases such as "Eat five fruits and vegetables a day"—one phrase for each of the major food groups. Connect these to the center phrase with lines.**

Choosing nutritious foods from the thousands of products available can be a challenge. ***What are some factors to consider when shopping for food?***

No single food provides all the nutrients your body needs. That's why it is so important to eat a balanced variety of nutrient-rich foods each day. There are tools to help you select the most nutritious foods in the appropriate amounts.

Dietary Guidelines for Americans

The U.S. Department of Agriculture (USDA) and the Department of Health and Human Services (DHHS) have published a booklet titled *Nutrition and Your Health: Dietary Guidelines for Americans*. The *Dietary Guidelines for Americans* is *a set of recommendations for healthful eating and active living.*

The recommendations in the *Dietary Guidelines* are grouped into three broad areas known as the ABCs of good health. Following the ABCs will help you stay fit and will ensure variety, balance, and moderation in your food choices. It can also help lower your risk of developing chronic diseases, such as those of the cardiovascular system.

A: Aim for Fitness

The A in the ABCs of good health deals with fitness goals. In addition to healthful eating, regular physical activity is important to health promotion and disease prevention. To improve or maintain fitness, follow these guidelines.

- Aim for a healthy weight. Maintaining a healthy weight helps you look and feel good. A health care professional can help you determine a healthy weight for your height and age and the best way to achieve or maintain that weight.
- Be physically active each day. Daily physical activity benefits your overall health and can improve fitness. To maintain fitness, try to include at least 60 minutes of moderate physical activity in your daily routine.

B: Build a Healthy Base

The B in the ABCs relates to building a healthful eating plan. The "base" of this food plan is the Food Guide Pyramid, *a guide for making healthful daily food choices.* The following guidelines can help you build a healthy base.

- Make your food choices carefully. Eat the recommended number of daily servings from each of the five major food groups in the Food Guide Pyramid.
- Choose a variety of grain products, especially whole grains. Most of your daily food choices should be grain products. Whole-grain products are rich in complex carbohydrates and fiber, as well as some vitamins and minerals. Examples of whole-grain products include whole-wheat bread, oatmeal, and brown rice.
- Choose a variety of fruits and vegetables daily. Fruits and vegetables are rich in vitamins and minerals; some are high in fiber. Eating a variety of these foods will keep you healthy and may help protect you from many chronic diseases.
- Keep food safe to eat. You can reduce your risk of illness by cooking foods thoroughly, handling food with clean utensils, refrigerating perishable foods, and washing your hands before and after you handle foods. These steps make it less likely that food will cause sickness from harmful organisms and other contaminants.

Choosing a variety of fruits and vegetables each day is an important part of building a healthy base. ***What fruits and vegetables would you choose as an afternoon snack?***

HEALTH Online

TOPIC The Food Guide Pyramid

Go to **health.glencoe.com** for more information on the Food Guide Pyramid.

ACTIVITY Compare the information at the Web site to the information here. Share your findings with the class.

The Food Guide Pyramid

The Food Guide Pyramid, shown in **Figure 5.4,** is a useful tool for making healthful food choices each day. Notice that grain products are at the base of the pyramid—this means that most of your daily servings should come from the grain group. By eating the recommended number of daily servings from each food group, you'll achieve a balanced eating plan. The tip of the pyramid (Fats, Oils, and Sweets) is not a food group; these products should be consumed sparingly.

Keep in mind that meals often include foods from more than one group. What groups are represented in a meal of spaghetti with meat sauce?

FIGURE 5.4

The Food Guide Pyramid

Use the Food Guide Pyramid to make your daily food selections.

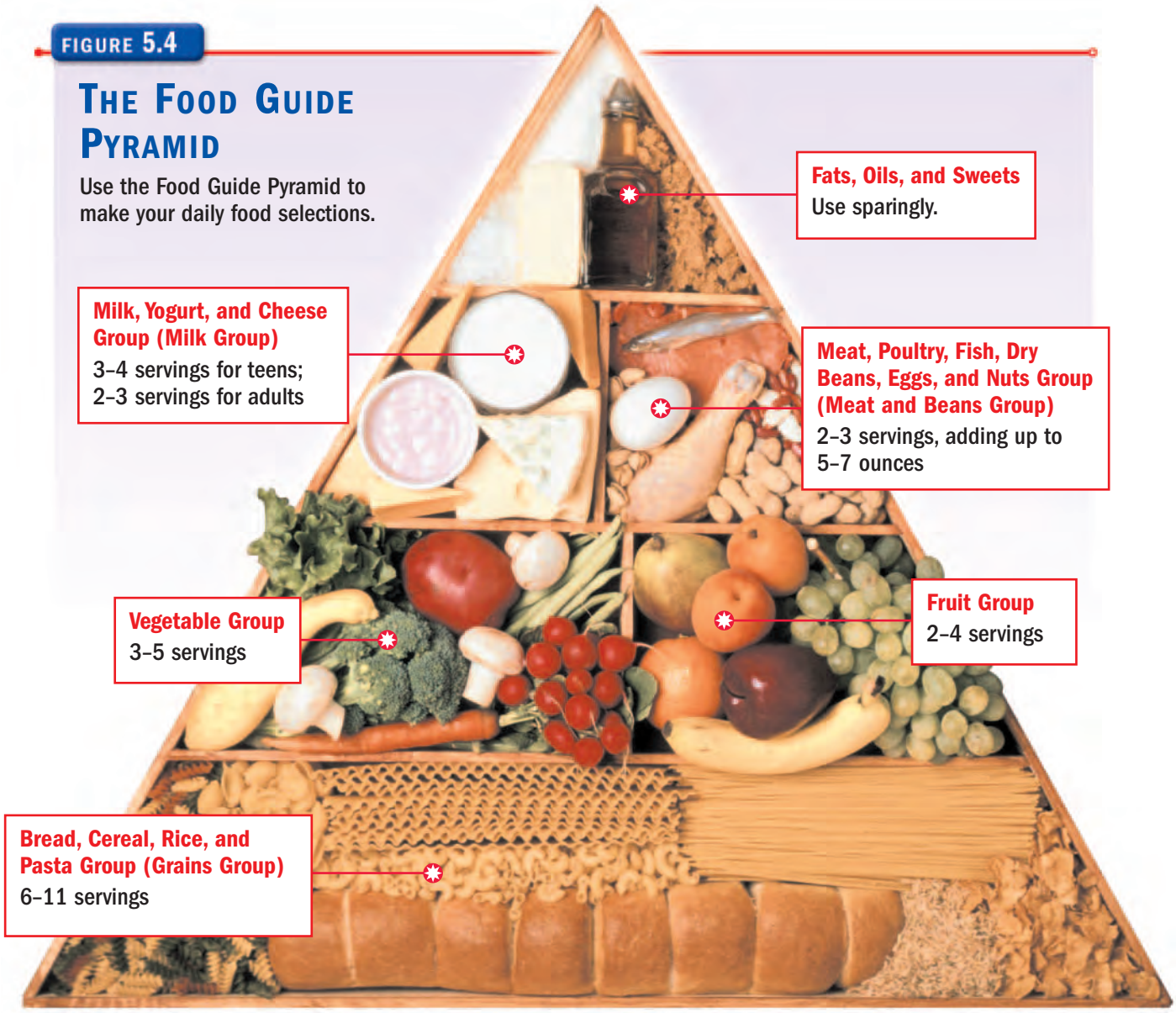
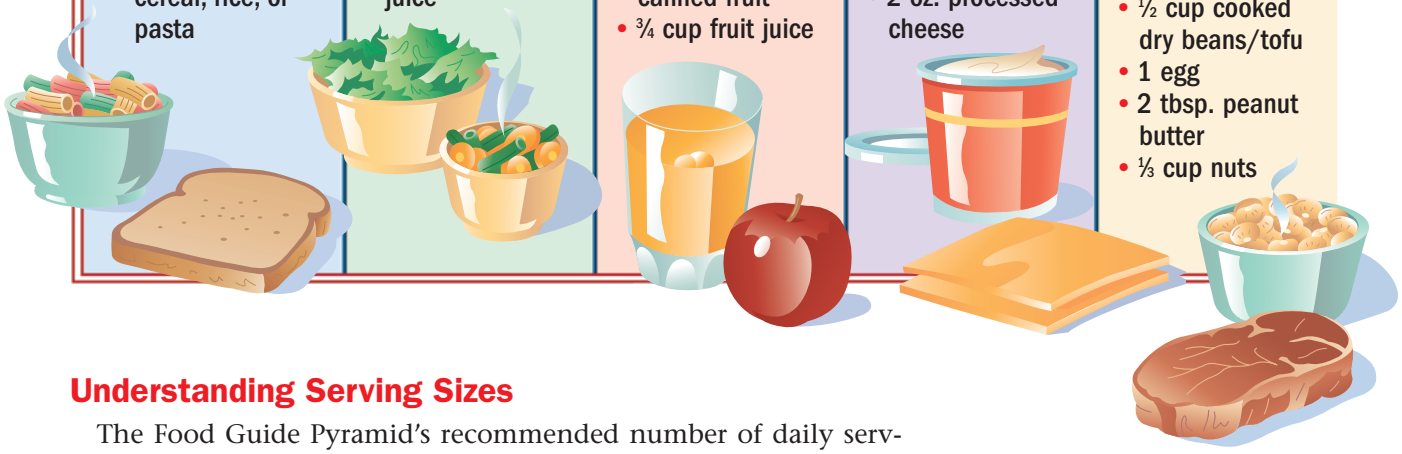


FIGURE 5.5

SERVING SIZES

Grains Group	Vegetable Group	Fruit Group	Milk Group	Meat and Beans Group
• 1 slice bread • 1 tortilla • ½ small bagel • 1 cup dry cereal • ½ cup cooked cereal, rice, or pasta	• 1 cup raw leafy vegetables • ½ cup cooked or raw vegetables • ¾ cup vegetable juice	• 1 medium apple, orange, pear, or banana • ½ cup chopped, cooked, or canned fruit • ¾ cup fruit juice	• 1 cup milk or yogurt • 1.5 oz. natural cheese, such as Swiss • 2 oz. processed cheese	• 2–3 oz. cooked lean meat, fish, or poultry **Equivalents of 1 oz. of meat:** • ½ cup cooked dry beans/tofu • 1 egg • 2 tbsp. peanut butter • ⅓ cup nuts



Understanding Serving Sizes

The Food Guide Pyramid's recommended number of daily servings may seem like a lot of food to eat in one day. However, understanding what constitutes a serving will help you see how much food is actually being recommended. **Figure 5.5** lists sample serving sizes for each food group. Understanding serving sizes will help you practice portion control. A portion is how much of a food you eat in one meal. Visualizing some common objects can help you estimate serving sizes and control portions. For example, a medium apple is about the size of a tennis ball. One serving of meat is about the size of a regular computer mouse. A piece of meat twice this size equals two servings. To balance your daily food choices, try to eat enough servings from all five major food groups.

C: Choose Sensibly

The C in the ABCs of good health involves making sensible food choices, including

- choosing a diet that is low in saturated fat and cholesterol and moderate in total fat.
- choosing beverages and foods to moderate your intake of sugars.
- choosing and preparing foods with less salt.

CHARACTER CHECK

Citizenship. Citizenship means doing what you can to improve your community. For example, there may be people in your community who go hungry. **Find out how to organize an effort to collect nonperishable food items for a local food bank or homeless shelter. How could this benefit the whole community?**

Health Minute

These strategies can help you make healthful food choices.

To limit dietary fat and cholesterol:

- Aim to get most of your calories from whole grains, vegetables, and fruits.
- Read labels on prepared foods to determine how much total fat, saturated fat, and cholesterol a serving of the food contains.
- Calculate the percentage of fat in one serving: Divide calories from fat by total calories.
- Try to choose foods that have 3 grams or less of fat per serving. These foods are considered low in fat.

Moderation in Fats

While some dietary fats are necessary for good health, most Americans eat too many fats. The *Dietary Guidelines* recommends that no more than 30 percent of daily calories come from fats, yet most Americans consume a diet that averages a significantly higher percentage. Eating less fat, especially saturated fat, lowers your risk of cardiovascular disease. You don't have to completely eliminate your favorite high-fat foods to limit your intake to no more than 30 percent of calories from fat. If you eat high-fat foods at one meal, eat foods that are lower in fats at other meals.

Moderation in Sugar

You might think that you don't eat much added sugar, but sugars are hidden everywhere, including in prepared foods. You can moderate your sugar intake by

- learning to identify added sugars by their names on food packages. Corn syrup, honey, and molasses are all types of sugar, as are ingredients ending with *-ose*, such as sucrose and maltose.
- balancing foods that have added sugars with foods that have less added sugar.
- limiting your intake of foods that have added sugars but few other nutrients. For example, choose 100 percent fruit juice or water instead of regular soda.
- choosing fresh fruits or canned fruits packed in water or juice.

Moderation in Salt

Sodium is an essential mineral. It helps transport nutrients into your cells and helps move wastes out. It also helps maintain normal blood pressure and nerve function. However, most Americans consume far too much salt, much of it from processed foods. Consuming less salt is a healthful eating behavior that can reduce your chances of developing high blood pressure and may also benefit your skeletal system by decreasing the loss of calcium from bone. Try these tips to moderate your salt intake.

- Read the Nutrition Facts panel on food labels to find out how much sodium a serving contains.
- Season foods with herbs and spices instead of with salt.
- When eating at restaurants, ask for foods that are prepared without salt or salty flavorings or with reduced amounts of them.
- Taste foods before you salt them, and then go easy with the salt shaker.
- Choose fruits and vegetables often. They contain very little salt unless it is added in processing.

Real-Life Application

Smart Snacking

Eating several small snacks each day can help growing teens get the nutrients they need. You can choose snacks that promote good health without adding too much fat or too many calories.

Nutrition Facts
Serving Size 1 cookie (17g)
Servings Per Container about 27

Amount Per Serving	
Calories 90	Calories from Fat 45
	% Daily Value*
Total Fat 5g	8%
Saturated Fat 2.5g	13%
Cholesterol 5mg	2%
Sodium 80mg	3%
Total Carbohydrate 11g	4%
Dietary Fiber 0g	0%
Sugars 6g	
Protein 1g	

Vitamin A	0% •	Vitamin C	0%
Calcium	0% •	Iron	2%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

Calories from Fat
Look at this section of the Nutrition Facts panel to find out how much fat is in the snack you are choosing.

Total Fat
This gives you an overview of the fat in the snack. The amount of fat is listed in grams. Remember that fats provide 9 calories per gram, so even small amounts of fats can add many calories.

Saturated Fat
This tells how much of the fat in the snack is saturated. Remember, limiting saturated fats can help reduce the risk of heart disease.

Total Carbohydrate
Under this heading you'll find information about sugars. These, too, are listed in grams. Carbohydrates provide 4 calories per gram.

ACTIVITY

In small groups, examine the snack labels that your group or teacher has brought to class. Read labels to identify snacks that are low in fat and sugar. In a paragraph, explain other ways the information on labels can help you choose nutritious snacks.

Healthful Eating Patterns

Whether you eat three meals a day or even more "mini-meals," *variety, moderation,* and *balance* are the foundation of a healthful eating plan. Many people, including teens, find making healthful food choices particularly challenging when having breakfast, snacking, and eating out. Keep in mind that nutrition guidelines apply to all of your daily food choices, not to just a single meal or food. Any food that supplies calories and nutrients can be part of a healthful eating plan. You don't have to deprive yourself of your favorite foods. With a little planning, you can fit them into your diet.

Many types of foods can be part of a healthy breakfast. ***Name three nontraditional breakfast foods that you might like to try.***

The Importance of Breakfast

You've probably heard the saying, "Breakfast is the most important meal of the day." While you sleep, your body uses energy for functions such as breathing and keeping your heart beating. By the time you wake up, your body needs a fresh supply of energy. Studies show that eating a nutritious breakfast improves mental and physical performance and reduces fatigue later in the day. If you eat breakfast, you tend to perform better in school, get better grades, and miss fewer days of school. Eating breakfast may also help you maintain a healthy weight. Skipping this meal may cause you to overeat later in the day.

Breakfast foods don't have to be "traditional," such as cereal or eggs. Try eating pizza, peanut butter on toast, or a stuffed tomato. To get enough vitamin C, add citrus juice, fruit, or tomato juice to your meal. Breakfast is also a good time to eat a high-fiber cereal and get one calcium-rich serving of milk, cheese, or yogurt.

Nutritious Snacks

A healthful eating plan can include sensible snacks. When you think about snacks, you might think of potato chips, soft drinks, and candy bars. These foods contain a lot of calories but very few nutrients. They may also be high in fat, added sugars, or salt. More healthful snacks include whole-grain products, fruits, and vegetables. Food companies have also started offering healthier snack choices, such as potato chips that are baked instead of fried. **Figure 5.6** lists some healthful snack items.

FIGURE 5.6

Sensible Snacks

Food	Food Group	Total Calories per Serving	Calories from Fat
Air-popped popcorn, 3 cups (plain)	Grains	23	0
Apple, 1 medium	Fruit	80	0
Bagel, ½ (small, 2 oz.)	Grains	83	10
Bread stick, 1	Grains	42	6
Frozen juice bar, 4 oz.	Fruit	75	0
Skim milk, 1 cup	Milk	90	0
Sugar-free gelatin (½ cup) with ½ cup sliced banana	Fruit	76	0
Graham cracker squares, 3	Grains	80	15
Pretzel sticks, 50 small	Grains	60	9
Fat-free, sugar-free yogurt, 6 oz.	Milk	86	0

Eating Out, Eating Right

Part of healthful eating is making sensible food choices when you eat out. It might help to use the Food Guide Pyramid when ordering restaurant food. Also, be aware that many menu items may be fried or topped with mayonnaise, butter, or high-fat sauces. For less fat, order foods that are grilled, baked, or broiled, and ask that high-fat sauces not be used at all or be served on the side. Many fast-food restaurants list the calorie counts and other nutrition information for the foods they serve. You can ask to see this list before placing your order.

When eating out, don't forget to think about portion control. The portion sizes of most restaurant meals are much larger than the serving sizes in the Food Guide Pyramid. You may want to eat only part of a portion and take the rest home to enjoy later. As an alternative, offset the larger meal with a smaller meal later.

When eating out, don't hesitate to ask how a particular dish is cooked or what ingredients it contains. ***Name two other ways to make healthy food choices when eating out.***

Lesson 3 *Review*

Reviewing Facts and Vocabulary

1. Define the *Dietary Guidelines for Americans.*
2. What is the purpose of the Food Guide Pyramid?
3. Examine the effects of healthful eating behaviors on body systems: How can decreasing salt intake benefit the cardiovascular and skeletal systems?

Thinking Critically

4. **Analyzing.** Why might a person eat fewer servings than recommended by the Food Guide Pyramid and still gain an unhealthful amount of weight?
5. **Evaluating.** For lunch Josh had a cheeseburger, fries, and a nondiet soft drink. What could he choose for his afternoon snack and dinner to balance out his high-fat, high-sugar, high-salt meal?

Applying Health Skills

Advocacy. Work with a partner to create a poster that encourages teens to adopt healthful eating habits. Use pictures cut from magazines, computer graphics, or your own drawings to illustrate your poster.

TECHNOLOGY OPTION

WEB SITE Use information and drawings from your poster to create a Web page encouraging teens to develop healthful eating habits. See **health.glencoe.com** for help with planning and building your own Web site.

II. POST-TEXT EXERCISES

Exercise 1. *Agree or disagree with the statements. Prove your point of view.*

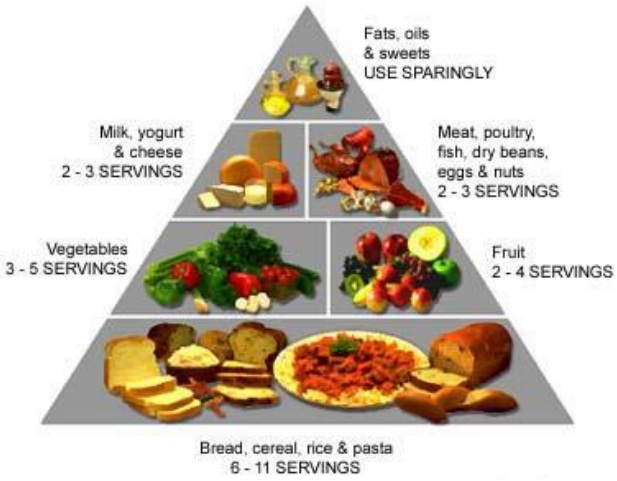
1. The recommendations in the *Dietary Guidelines* are grouped into four broad areas known as the ABCs of good health.
2. Following the ABCs will help a person to stay fit and will ensure variety, balance and moderation in their food choices.
3. The aim for a healthy weight presupposes maintaining weight that is currently considered fashionable.
4. Being physically active each day means daily sport activities that help a person look and feel good.
5. Making food choices carefully means eating the moderate number of daily food servings.
6. Choosing a variety of grain products, especially whole grains, provides a person with complex carbohydrates and fiber.
7. Choosing a variety of fruits and vegetables daily makes a person happy and smart.
8. Keeping food safe to eat is possible if a person handles food with clean utensils and hands, refrigerates perishable foods.

Exercise 2. *Answer the questions in the Section* **Lesson 3** *Review on page 32.*

Exercise 3. *Discuss with your partner the Section* *Real-Life* **Application** *on page 30. Complete the tasks given there.*

Exercise 4. *Explain the information given below* *<u>to summarise the information from Lesson 3</u>. Provide recommendations of food intake in grams. Give relevant examples and explanations.*

Food Guide Pyramid



Exercise 5. *Based on the information above make a short presentation to your partner on <u>how to choose food for daily consumption sensibly</u>. Include one of the following aspects:*

- The right (recommended) amount of food in grams for certain category of people, e.g. teenagers, adults, athletes, etc.;
- Correlation of these ingredients with packaged food in shops and ready-made dishes at home;
- Moderation in fats, sugar, salt;
- Top 5 rules of keeping food fresh and healthy before eating.

** Use active vocabulary from the PRE-TEXT EXERCISES.*

TIME HEALTH
SCIENCE & TECHNOLOGY

Vitamins and Supplements Can't Replace a Balanced Diet, Study Says

BY JAMIE DUCHARME APRIL 8, 2019

Roughly 90% of American adults do not eat enough fruits and vegetables, but many are trying to make up for it by popping pills. According to the Council for Responsible Nutrition, 75% of U.S. adults take a dietary supplement of some kind. Multivitamins, many people believe, are a one-step way to get the nutrients they need.

But new research published in the *Annals of Internal Medicine* suggests that vitamins and supplements may not be enough to keep you healthy.

Nutrients consumed via supplements do not improve health and longevity as effectively as those consumed through foods, according to the study. While getting the right nutrients in the right quantities from food was associated with a longer life, the same wasn't true for nutrients from supplements, says study co-author Fang Fang Zhang, an associate professor of epidemiology at the Tufts University Friedman School of Nutrition Science and Policy.

"For the general population, there's no need to take dietary supplements," Zhang says. "More and more evidence suggests no benefits, so we should go with what the dietary recommendations suggest to achieve adequate nutrition from food, rather than relying on supplements."

The researchers used data from about 30,000 U.S. adults who participated in the National Health and Nutrition Examination Survey from 1999 to 2010. Each person provided information about their supplement use in the past month — more than half had used at least one — as well as their dietary habits. Researchers then used that information to determine participants' nutrient levels. During the follow-period, which lasted about six years, more than 3,600 people died.

When Zhang and her colleagues first started examining the data, it looked as though dietary supplements were associated with a lower risk of early death, she says. But after they adjusted for factors like education, socioeconomic status and demographics, it became apparent that mostly higher-income, better-educated people — who are more likely to be in good health to begin with — were taking supplements. After that adjustment, the connection between supplements and longevity disappeared.

Getting enough vitamin A, vitamin K, magnesium, zinc and copper were all associated with a lower risk of dying early, the researchers found — but only when those nutrients came from food.

In fact, some supplements even appeared to come with health risks. People who took high doses of calcium via supplement had a 53% higher risk of dying from cancer than people who were not taking supplements, the study says. But excess calcium from food was not associated with a similar uptick in mortality risk, Zhang says, which suggests that the body may not be able to clear excess supplemental calcium as well as it can natural calcium.

People who took vitamin D supplements but were not deficient in vitamin D also had a higher risk of dying during the study period, the researchers found, but the supplements did not seem to boost death risk for those who were lacking in vitamin D.

The new study, however, says there's not much evidence that supplements of any sort can prolong your life, despite their widespread use. Supplements also are not tightly regulated in the U.S., meaning they can come with safety, efficacy and quality issues. One 2015 study estimated that unsafe or improperly taken supplements, including those for weight loss, send more than 23,000 Americans to the emergency room each year.

The Food and Drug Administration (FDA) does not hold supplements to the same standards as conventional foods or drugs, so manufacturers are responsible for handling safety testing and labeling themselves; the FDA only steps in when there's an issue with a product already being sold.

LESSON 4. FOOD AND HEALTHY LIVING

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. How often do you go shopping for food products? How do you choose what to buy?
2. Have much have the food labels changed for the products you buy since your childhood?
3. What are shopping spots for food that people prefer in your country?

* Answer few more questions in Section  on page 36.

Exercise 2. *Study the active vocabulary, check how these words are pronounced and translated.*

Word	Pronunciation/ Translation	Word	Pronunciation/ Translation
nutrition labelling		olestra	
ingredients list		food allergy	
food additives		food intolerance	
sugar substitutes		foodborne illness	
aspartame		pasteurization	
fat replacer		cross-contamination	

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Food additives	A	is a negative reaction to a food caused by a metabolic problem, such as the inability to digest parts of certain foods.
2.	Food allergy	B	or food poisoning, projectile vomiting and stomach cramps are often caused by the norovirus, a type of stomach virus.
3.	Food intolerance	C	are substances intentionally added to food to produce a desired effect.
4.	Foodborne illness	D	is a condition in which the body's immune system reacts to substances in some foods.
5.	Pasteurization	E	is the spreading of bacteria or other pathogens from one food to another.
6.	Cross-contamination	F	is the process of treating a substance with heat to destroy or slow the growth of pathogens.

Exercise 4. *Match the collocations:*

health	in descending	to enhance	storage	allergic	to digest	expiration	communicable
order	disease	life	date	literacy	food's flavour	lactose	reaction

Exercise 4. *Read the sentences, fill in the missing words.*

partially cooked, shopping cart, soapy water, paper towels, kitchen surfaces

1. Pathogens can contaminate food products, _____, serving dishes, and eating utensils.
2. When possible, use disposable _____ instead of dishcloths to clean kitchen surfaces.
3. Before preparing food and after using the bathroom, wash your hands in hot, _____.
4. Separate raw meat, seafood, and poultry from other items in _____ and in fridge.
5. Don't eat raw ground beef, avoid dishes that contain _____ or raw eggs.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

Lesson 4

Food and Healthy Living

VOCABULARY

food additives
food allergy
food intolerance
foodborne illness
pasteurization
cross-contamination

YOU'LL LEARN TO

- Utilize the information on food labels.
- Develop specific eating plans to meet changing nutritional requirements, such as special dietary needs and food allergies.
- Analyze the influence of policies and practices on the prevention of foodborne illness.
- Develop and analyze strategies related to the prevention of foodborne illness.

QUICK START **The nutrition labels on food products contain information that can help you choose healthy foods. Make a list of the types of information that could assist you in making healthy food choices.**

The labels on packaged food products contain valuable information for the consumer.

Using the Food Guide Pyramid is one good way to assess the nutritional contribution of a particular food to your overall eating pattern. Similarly, the information on packaged and prepared foods can help you determine whether or not a particular product meets your nutritional needs. When you know exactly what you're buying, you'll be able to make sound decisions about what you're eating. Part of health literacy also involves understanding and evaluating food product claims.

Nutrition Labeling

Examine almost any food package, and you'll find a Nutrition Facts panel. The law requires that these information panels be placed on packages of food that are intended for sale. The information provided in a Nutrition Facts panel is shown in **Figure 5.7.**

FIGURE 5.7

NUTRITION FACTS

Nutrition Facts

Serving Size 30g (about 12 pretzels)
Servings Per Container 30

Amount Per Serving	
Calories 110	Calories from Fat 10
	% Daily Value*
Total Fat 1g	**2%**
Saturated Fat 0g	**0%**
Cholesterol 0mg	**0%**
Sodium 300mg	**13%**
Total Carbohydrate 23g	**8%**
Dietary Fiber 1g	**4%**
Sugars Less than 1g	
Protein 3g	

Vitamin A	0% •	Vitamin C	0%
Calcium	0% •	Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

Total Fat	Less Than	65g	80g
Sat Fat	Less Than	20g	25g
Cholesterol	Less Than	300mg	300mg
Sodium	Less Than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Serving Size and Servings Per Container
- Nutrient and calorie content is calculated according to serving size. The serving size on the label may differ from sizes in the Food Guide Pyramid. The number of servings in the package is also listed.

Calories and Calories from Fat
- The number of calories in one serving and how many of these calories come from fat is given here.

Nutrients (Top section)
- The amounts of total fat, saturated fat, cholesterol, and sodium per serving are listed in either grams (g) or milligrams (mg).
- The amounts of total carbohydrates, dietary fiber, sugars, and protein per serving are given.

Nutrients (Bottom section)
- Major vitamins and minerals are listed with their Percent Daily Values.

Percent Daily Value
- This section tells you how much the nutrients in one serving contribute to your total daily eating plan. The general guideline is that 20% or more of a nutrient is a lot and 5% or less isn't very much. Choose foods that are high in fiber, vitamins, and minerals and low in fat, cholesterol, and sodium.

The Footnote (Lower part of Nutrition Facts Panel)
- This information is the same from product to product. It contains advice about the amounts of certain nutrients that should be eaten each day.

Ingredients List

Most food labels also list the food's ingredients by weight, in descending order, with the ingredient in the greatest amount listed first. However, food labels that list several similar ingredients can be confusing. For example, when three sweeteners—sugar, honey, and corn syrup—are used in the same product, each is listed separately; therefore, they appear lower on the list than they would if they were counted as one ingredient, "sugars." This may give the impression that the product contains less sugar than it really does.

FOOD ADDITIVES

Some ingredients are food additives, *substances intentionally added to food to produce a desired effect*. Additives may be used to enhance a food's flavor or color or lengthen its storage life.

Did You Know?

Certified organic foods must meet strict national standards. They must be produced and processed without conventional pesticides and fertilizers, bioengineering, radiation, hormones, or antibiotics. To be labeled "USDA Organic," a food product must be at least 95 percent organic.

SUGAR AND FAT SUBSTITUTES

In response to the public's concerns about excess calories in foods, the food industry has developed a number of substitutes for sugar and fat. Many diet drinks, for example, are sweetened with *aspartame,* which is essentially calorie-free. Fructose, the natural sugar in fruit, is sometimes used as a sweetener. Because fructose is sweeter than table sugar, less sweetener is needed and fewer calories are added to the food. Some potato chips are made with fat replacers so that they supply few calories from fat. An example of a fat replacer is *olestra,* which passes through the body undigested. Because olestra is not absorbed, some people find that its consumption can produce gastrointestinal problems such as diarrhea.

Product Labeling

Along with nutrition information, food labels may state the potential health benefits of a food. In some cases the label may also detail the conditions under which the food was produced or grown—for example, whether or not a food is organic or contains organic ingredients.

Nutrient Content Claims

Product labels may advertise a food's nutrient value. Claims such as "100% Fat-Free" or "Light in Sodium" describe the nutrient content of a food. Some specific terms include the following:

- **Light or Lite.** The calories have been reduced by at least one-third, or the fat or sodium has been reduced by at least 50 percent.
- **Less.** The food contains 25 percent less of a nutrient or of calories than a comparable food.

Claims on food products must meet strict guidelines. Check the Nutrition Facts panel for more specific information. ***What do the labels on each of these food products tell you?***

- Free. The food contains no amount, or an insignificant amount, of total fat, saturated fat, cholesterol, sodium, sugars, or calories.
- More. The food contains 10 percent more of the Daily Value for a vitamin, a mineral, protein, or fiber.
- High, Rich In, or Excellent Source Of. The food contains 20 percent or more of the Daily Value for a vitamin, a mineral, protein, or fiber.
- Lean. The food is a meat, poultry, fish, or shellfish product that has less than 10 grams of total fat, less than 4 grams of saturated fat, and less than 95 mg of cholesterol per 3-ounce serving.

Open Dating

Many food products have *open dates* on their labels. The open dates on products such as milk and canned goods reflect their freshness. Canned foods eaten after these dates are safe, but they may not taste as fresh. Open dates on food such as meat can help you make decisions about the food's safety. Below are some common types of open dating you may see on product labels.

- Expiration date. The last date you should use the product.
- Freshness date. The last date a food is considered to be fresh.
- Pack date. The date on which the food was packaged.
- Sell-by date (or pull date). The last date the product should be sold. You can store and use a product after its sell-by date.

Milk containers are labeled with a sell-by date. ***What does this date indicate?***

Food Sensitivities

Do you know anyone who feels ill after eating certain foods? This person may have a special sensitivity to the food or to an additive in the food.

Food Allergies

A food allergy is *a condition in which the body's immune system reacts to substances in some foods.* These substances, called allergens, are proteins that the body responds to as if they were pathogens, or foreign invaders. Allergies to peanuts, tree nuts, eggs, wheat, soy, fish, and shellfish are most common. Scratch tests, in which tiny amounts of suspected allergens are injected under the skin, are a common test for allergies. A simple blood test can also indicate whether a person is allergic to a specific food.

People with allergies have different types of allergic reactions. These reactions may include rash, hives, or itchiness of the skin;

hotlink

allergens To learn more about allergens and allergies, see Chapter 26, page 688.

Did You Know?

Lactose intolerance, the inability or reduced ability to digest the natural sugar in milk, is a manageable condition. Small amounts of milk consumed more frequently may be easier to digest. Drinking milk with food helps, too. Another option is to get milk's nutrients from yogurt or cheese, which usually don't cause a problem. Health care professionals can provide lactase enzymes and can explain how to use them. Also, lactose-reduced milk and other products containing the same nutrients as milk are offered at many supermarkets.

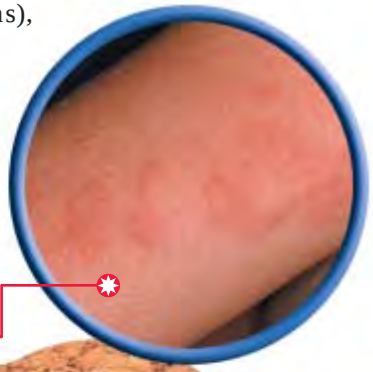
vomiting, diarrhea, or abdominal pain; or itchy eyes and sneezing. If you eat something and experience any of these symptoms, consult a health care professional. Serious allergic reactions, such as difficulty breathing, can be deadly. If you or someone else experiences a severe allergic reaction, call for medical help immediately.

Food Intolerances

Food intolerances are more common than food allergies. A food intolerance is *a negative reaction to a food or part of food caused by a metabolic problem, such as the inability to digest parts of certain foods or food components.* Food intolerance may be associated with certain foods, such as milk or wheat, or with some food additives. Some types of food intolerance may be hereditary, such as the reduced ability to digest lactose (milk sugar) or gluten, a protein in some grain products.

Foodborne Illness

You've seen the signs in restaurant restrooms: "Employees must wash their hands before returning to work." Restaurants have this policy because handwashing after using the restroom is one strategy to prevent foodborne illness, or *food poisoning*. Foodborne illness may result from eating food contaminated with pathogens (disease-causing organisms), the poisons they produce, or poisonous chemicals. Many times the contaminant can't be seen, smelled, or tasted. The best way to protect yourself is to become knowledgeable about the causes of such illnesses and ways to keep food safe.



Allergic Reaction

Foods that can cause allergic reactions include milk products, soy products, peanuts, wheat, and shellfish. ***What should you do if you have a severe reaction to any food?***

Causes and Symptoms of Foodborne Illness

According to the Centers for Disease Control and Prevention (CDC), bacteria and viruses cause most common foodborne illnesses. Bacteria that contaminate food include *Campylobacter*, *Salmonella*, and *E. coli* O157:H7. Viruses include the Norwalk and Norwalk-like viruses. Foods become contaminated with these pathogens in two main ways:

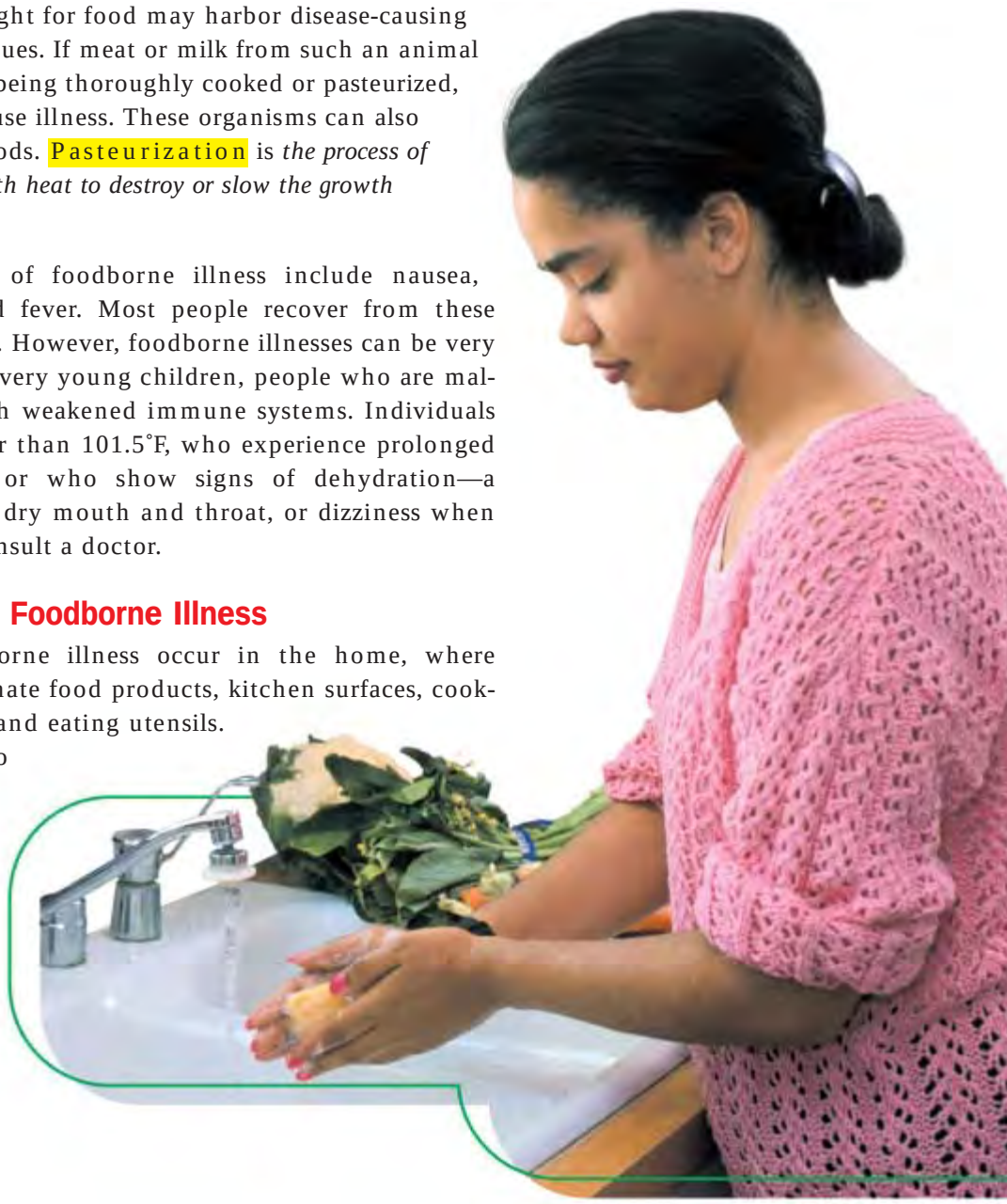
- Food may be contaminated with pathogens spread by an infected person. This means foodborne illness is a type of communicable disease.
- Animals raised or caught for food may harbor disease-causing organisms in their tissues. If meat or milk from such an animal is consumed without being thoroughly cooked or pasteurized, the organism may cause illness. These organisms can also contaminate other foods. Pasteurization is *the process of treating a substance with heat to destroy or slow the growth of pathogens.*

Common symptoms of foodborne illness include nausea, vomiting, diarrhea, and fever. Most people recover from these symptoms in a few days. However, foodborne illnesses can be very serious for older adults, very young children, people who are malnourished, or those with weakened immune systems. Individuals who have a fever greater than 101.5˚F, who experience prolonged vomiting or diarrhea, or who show signs of dehydration—a decrease in urination, a dry mouth and throat, or dizziness when standing up—should consult a doctor.

Minimizing Risks of Foodborne Illness

Most cases of foodborne illness occur in the home, where pathogens can contaminate food products, kitchen surfaces, cooking and serving dishes, and eating utensils. To help keep food safe to eat, follow the practice recommended by the Partnership for Food Safety Education: clean, separate, cook, and chill.

Washing your hands after using the bathroom and before handling or eating foods greatly reduces your risk of foodborne illness and the risk of passing pathogens to others. ***What are some of the symptoms of foodborne illness?***



- **Clean.** Before preparing food and after using the bathroom, handling pets, changing diapers, or touching any other obvious source of pathogens, wash your hands thoroughly in hot, soapy water. To prevent **cross-contamination**, *the spreading of bacteria or other pathogens from one food to another,* wash your hands, cutting boards, utensils, plates, and countertops with hot, soapy water after preparing each food item. It is also recommended that you use cutting boards made of nonporous materials, such as plastic or glass, for preparing foods. When possible, use disposable paper towels instead of dishcloths to clean kitchen surfaces. Also, remember to wash fruits and vegetables before you eat them.

- **Separate.** To avoid cross-contamination, separate raw meat, seafood, and poultry from other items in your shopping cart. At home, store these foods separately from other foods. The bottom shelf of the refrigerator is a good place to keep these foods because their juices won't run onto other foods. Use separate cutting boards for raw meats and raw vegetables or foods that are ready to be eaten. Never place cooked food on a plate that previously held raw meat, seafood, or poultry. After contact with raw meats, wash cutting boards and other utensils (as well as your hands) in hot, soapy water.

- **Cook.** Cook foods to a safe temperature: 160˚F for ground beef, 170˚F for roasts and poultry, and 145˚F for fish. Use a meat thermometer to make sure meats and fish are cooked thoroughly. When thoroughly cooked, meat or poultry juices should run clear. Properly cooked fish should be opaque and flake easily with a fork. Don't eat raw ground beef or ground beef that is still pink after being cooked. Avoid dishes that contain partially cooked or raw eggs. Sauces, soups, and gravies should be brought to a boil before serving.

- **Chill.** Cold temperatures slow the multiplication of bacteria. Refrigerate or freeze perishable foods as soon as you get home. Foods that need to be kept cold should be refrigerated quickly at temperatures of 40˚F or less. Frozen foods should be stored at 0˚F. Refrigerate or freeze prepared foods and leftovers within two hours after a meal—even sooner on a hot day. Divide leftovers into small, shallow containers to help them cool more quickly. Remove any stuffing before freezing meats or poultry. Don't over-pack the refrigerator; air needs

Wash cutting boards in hot, soapy water. ***How can using different cutting boards for raw meats and raw vegetables help protect you from foodborne illness?***

to circulate around the food to keep it cool. Don't defrost foods on a kitchen counter. Instead, thaw these foods in a refrigerator, under cold running water, or by using a microwave's defrost function. At a picnic, keep hot foods hot and cold foods cold. Thoroughly cook meats at the picnic site. Discard foods that have been sitting out for two hours—one hour if the temperature is above 85˚F.

Proper preparation of picnic foods will help ensure that these foods remain safe to eat. ***Why should you discard any picnic food that's been sitting out for two hours?***

Lesson 4 *Review*

Reviewing Facts and Vocabulary

1. What can the ingredients list of a food product tell you?
2. How does a *food allergy* differ from a *food intolerance*?
3. What is *pasteurization*?

Thinking Critically

4. **Analyzing.** How does the policy that requires food service workers to wash their hands help prevent communicable disease?
5. **Applying.** Develop a strategy to store food that's left over from dinner.

Applying Health Skills

Accessing Information. Find three to five reliable online sources of information about practices related to preventing foodborne illness. Use these resources to create a pamphlet titled "Preventing Foodborne Illness."

TECHNOLOGY OPTION

WORD PROCESSING Word processing can give your pamphlet a professional look. See health.glencoe.com for tips on how to get the most out of your word-processing program.

II. POST-TEXT EXERCISES

Exercise 1. *Agree or disagree with the statements. Prove your point of view.*

1. When you know exactly what you're buying, you are able to make sound decisions about what you eat.
2. Most food labels list the food's ingredients by weight, in increasing order.
3. Additives may be used to enhance a food nutritional value.
4. Many diet drinks are sweetened with *aspartame*, which is essentially calorie-free.
5. Because olestra is not absorbed, some people find that its consumption can produce breathing problems.
6. The open dates on products such as milk and canned goods reflect their freshness.
7. Allergens are proteins that body responds to as if they were pathogens, or foreign invaders.
8. Some types of food intolerance may be hereditary, such as the reduced ability to digest lactose or gluten.

Exercise 2. *Answer the questions in the Section* Lesson 4 Review *on page 43.*

Exercise 3. *Discuss with your partner the* FIGURE 5.7 *on page 37.*

Exercise 4. *Explain the information given below to summarise the information from Lesson 4. Provide recommendations for food safety, using information on page 37. Give relevant examples and explanations from your own experience.*

Food Safety Measures

Exercise 5. *Based on the information above make a short presentation to your partner on how to ensure that your food for daily consumption remains safe to eat. Include one of the following aspects:*

- The right (recommended) ways of preparing food to eat at home as well as for eating out (e.g. on the picnic, at office lunch, etc.);
- Correlation of these food with packaged/processed food in shops and ready-made dishes to take away from cafes and restaurants;
- Special requirements in cooking to follow if the person has a special sensitivity to the food;
- Top 5 rules of safely eating for people suffering from a special sensitivity to the food.

** Use active vocabulary from the PRE-TEXT EXERCISES.*

Cracking a Tough PROBLEM

Could relief be in sight for those suffering from peanut allergy?

A peanut allergy can be very dangerous. Unlike hay fever, an even more common allergy, an allergic reaction to peanuts can quickly kill a person. Of the nearly 1.5 million Americans who suffer from peanut allergy, more than 150 of them die each year from exposure to peanuts or peanut products. Problems occur when the body overreacts to the presence of peanuts—a process called anaphylaxis. The body's airways clamp down, which can lead to suffocation in some cases. Fortunately, anaphylaxis can be reversed—if it is recognized in time. A peanut allergy is tricky: There's no way to predict who is prone to anaphylaxis and who isn't. Many people who develop anaphylaxis might have had only a mild reaction to eating peanuts in the past. Plus, it is difficult to avoid peanuts or peanut oil—which may be found in plain chocolate candies, sunflower seeds, and other foods.

The Origin of the Allergy

Why do certain people have peanut allergy? Researchers point to a molecule named IgE. One of many compounds produced by the body's immune system, IgE may have evolved to help our ancestors fight off parasitic worms. These days, parastic worms aren't so common, and IgE has become a nuisance. The higher the level of IgE in your body, the more likely you will develop allergic reactions to otherwise harmless stuff, like peanuts. IgE-related allergies also may play a role in some cases of asthma.

Over the past decade, researchers have developed compounds to block the action of IgE and dampen the body's allergic reactions. What does this mean? There may one day be a treatment—or even cure—for peanut allergy.

So for now, at least, folks with peanut allergy have to do what they have always done: Avoid peanuts in any form and try to lead as normal a life as possible.

TIME to THINK... About Peanut Allergy

Take a poll of your classmates to find out how many students have allergies and what they are allergic to. Then tally the responses in various categories and answer these questions:

1. What percentage of the class has allergies?
2. What is the most common allergy in the class?
3. What percentage of students has that allergy?

Chapter 5 *Review*

After You Read

Use your completed Foldable to review what you have learned about the ways that appetite, emotions, and environment influence your eating habits.

FOLDABLES™ Study Organizer

EXPLORING HEALTH TERMS

Answer the following questions on a sheet of paper.

Lesson 1 *Fill in the blanks with the correct term.*

hunger	**nutrition**	**calories**
nutrients	**appetite**	

The process by which the body takes in and uses food is **(_1_)**. **(_2_)** are the units of heat that measure the energy used by the body and the energy that foods supply to the body. The substances in food that your body needs to function properly are **(_3_)**.

Lesson 2 *Match each definition with the correct term.*

vitamins	**lipid**	**carbohydrates**
proteins	**fiber**	**minerals**

4. The starches and sugars present in foods.

5. An indigestible complex carbohydrate.

6. Nutrients that help build and maintain body cells and tissues.

7. A fatty substance that does not dissolve in water.

Lesson 3 *Fill in the blanks with the correct term.*

Food Guide Pyramid
Dietary Guidelines for Americans

8. The _____ is a set of recommendations for healthful eating and active living prepared by the USDA and DHHS.

9. The _____ is a guide for making healthful daily food choices.

Lesson 4 *Match each definition with the correct term.*

food allergy	**pasteurization**
food additives	**cross-contamination**
foodborne illness	**food intolerance**

10. Substances intentionally added to food to produce a desired effect.

11. Another name for food poisoning.

12. The spreading of bacteria or other pathogens from one food to another.

RECALLING THE FACTS

Use complete sentences to answer the following questions.

1. How does hunger differ from appetite?

2. Give an example of how friends and peers can influence food choices.

3. Why is good nutrition especially important during the teen years?

4. What is the relationship between glucose and glycogen?

5. How does water benefit the body?

6. List three minerals that are important for health.

7. What are the ABCs of good health?

8. Most of the foods you eat each day should come from which three parts of the Food Guide Pyramid?

9. How many servings should you eat each day from the Milk Group? From the Meat and Beans Group?

10. What does the Percent Daily Value column of a food label tell you?

11. What are some symptoms of a food allergy?

12. How can you keep picnic foods safe to eat?

THINKING CRITICALLY

1. **Synthesizing.** Use specific examples to explain how strong emotions such as anger and fear might affect your eating habits.
2. **Evaluating.** Explain why it's important to know whether a fat is saturated or unsaturated.
3. **Applying.** What would you say to someone who always skips breakfast because he or she isn't hungry in the morning?
4. **Analyzing.** Several hours after eating dinner, you begin to feel nauseated and feverish and you have some abdominal cramps. What type of problem might these symptoms suggest?

Standardized Test Practice

ELA **Read the passage below and then answer the questions.**

Smart Snacking

(1) It's four o'clock in the afternoon and your craving a snack, so you open the refrigerator and look hopefully inside. (2) There is nothing to eat but a few soggy celery sticks and a tomato. (3) A bag of chips sits on the counter next to the refrigerator, so you eat them.

(4) Everyone gets cravings between meals, especially growing children and teens. (5) The middle of the morning, the afternoon stretch between lunch and dinner, and late at night may not be the best times to eat an entire meal, but they are good opportunities for a few nutrients and an energy burst. (6) The problem with snacking is not *when* you eat or even that you *want* to eat in the first place, but *what* you choose to eat.

(7) Be prepared for a snack attack by having something besides chips on hand. (8) Crave a cookie? (9) Try substituting a pretzel, a breadstick, or popcorn or even a carrot stick. (10) It could be that the crunchy texture will satisfy your craving. (11) Make sure that when you open the refrigerator door you find fruits and vegetables and yogurt. (12) Fill the refrigerator with healthy snacks, not the high-fat, high-salt, or high-calorie foods that you see advertised. (13) Even half of a baked potato is better than a bag of chips!

1. What change, if any, should be made in sentence 1?

A Change ***hopefully*** to **hopeless.**
B Change ***your*** to **you're.**
C Change ***It's*** to **Its.**
D Make no change.

2. What is the most effective way to improve the organization of sentences 11–13?

A Move sentence 11 to the end of the paragraph.
B Delete sentence 11.
C Move sentence 11 to after sentence 12.
D Delete sentence 12.

3. Write an advice column for a newspaper or health magazine outlining your own steps for healthy eating.

LESSON 5. Managing a Healthy Weight

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. How much can somebody's appearance tell about the person?
2. Does your appearance influence how you feel?
3. How has the body image changed in your country over the last two decades?

* Answer few more questions in Section  on page 49.

Exercise 2. *Study the active vocabulary, translate into Ukrainian.*

Word	Translation	Word	Translation
body image		energy equation	
body mass index (BMI)		large-framed people	
overweight		small-framed people	
obesity		sedentary person	
underweight		muscle mass	
nutrient-dense foods		muscle tissue	

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Nutrient dense foods	A	is a condition in which a person is heavier than the standard weight range for his or her height.
2.	BMI	B	is the way person sees their body or appearance.
3.	Overweight	C	is having an excess amount of body fat.
4.	Obesity	D	is a condition in which a person is less than the standard weight range for his or her height.
5.	Body image	E	is a ratio that allows to assess body size in relation to height and weight.
6.	Underweight	F	are foods that are high in nutrients comparing to their calorie content.

Exercise 4. *Match the collocations:*

to spoil	weight-loss	muscle	complex	rapid	high-calorie	resistance	to lead
strategy	carbohydrates	growth	mass	training	foods	to fatigue	appetite

Exercise 4. *Read the sentences, fill in the missing words.*

equal, evaluate, media images, calories, assess

1. Body image is affected by several factors, including _____ and the attitudes of family and friends.
2. Keeping energy balance means that the calories you consume must _____ the calories your body burns.
3. The number of _____ in food depends on portion size and the amounts of carbohydrates, proteins, and fats in the food.
4. Body composition needs to be taken into account when you _____ weight.
5. BMI for adults serves as a general guide to _____ some health risks.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

Lesson 1

Maintaining a Healthy Weight

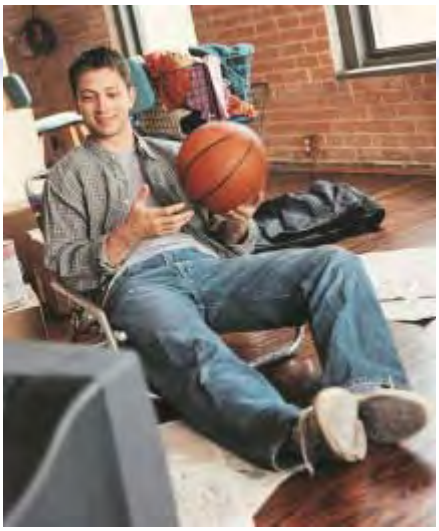
VOCABULARY

body image
body mass index (BMI)
overweight
obesity
underweight
nutrient-dense foods

YOU'LL LEARN TO

- Examine the relationship among body composition, diet, and fitness.
- Analyze the relationship between maintaining a healthy weight, health promotion, and disease prevention.
- Describe healthful ways to manage weight.

QUICK START On a sheet of paper, list three feelings a person might have about his or her body's appearance. Then write down three factors that might influence these feelings.



Media images can have an effect on a person's body image. ***How might messages sent by media images negatively affect body image?***

When you look in the mirror, how do you feel about what you see? Are you happy with the way you look, or do you wish some things were different? *The way you see your body* is called your body image. Body image is affected by several factors, including media images and the attitudes of family and friends.

For many people body image is tied to perception of weight. Your own healthy weight probably won't be the same as the weight of a fashion model, a bodybuilder, or your best friend. However, you can use some general guidelines to assess your weight and keep it within a healthy range.

The Weight-Calorie Connection

To understand how to manage your weight effectively, it's important to understand calories. As you've learned, calories are units used to measure energy—both the energy in food and the energy your body uses for life processes and physical activities. Maintaining a healthy weight, even while you're growing, is a matter of energy balance: the calories you consume must equal the calories your body burns.

Calories: Their Source

Some foods have more calories than others. The specific number of calories depends on portion size as well as the amounts of carbohydrates, proteins, and fats in the food. Both carbohydrates and proteins supply 4 calories per gram. Fats supply more than twice that number—9 calories per gram. For this reason, even small amounts of fat in a food greatly increase its calorie content. The way a food is prepared or cooked also affects the calorie count.

Did You Know?

Adding just 100 extra calories to your daily food intake without changing your activity level will add 10 pounds to your weight in one year.

The Energy Equation

Tipping the balance of the energy equation will result in weight loss or gain. If you take in fewer calories than you burn, you lose weight. If you take in more calories than you burn, you gain weight.

One pound of body fat equals about 3,500 calories. Eating 500 fewer calories per day than you need to maintain your weight will result in the loss of one pound of body fat after one week (500 calories per day × 7 days = 3,500 calories). Burning an additional 500 calories per day through physical activity would result in a similar weight loss.

Determining Your Appropriate Weight Range

Your appropriate weight is influenced by several factors, including gender, age, height, body frame, growth rate, metabolic rate, and activity level. As a teen you are still growing, so you need more calories than an adult does. Tall and large-framed people need more calories than short and small-framed people. Because an active person burns more calories than a sedentary person does, he or she can consume more calories without gaining weight than a sedentary person can.

Body Mass Index

One way to evaluate whether your weight is within a healthy range is to determine body mass index. Body mass index (BMI) is *a ratio that allows you to assess your body size in relation to your height and weight*. Because BMI for children and teens takes age and gender into account, different charts are used for males and females. Figure 6.1 on page 146 explains how to determine your BMI. A different chart is used for adults.

As you calculate your BMI, keep in mind that many different ratios of height to weight can be healthy. Teens grow at different rates and in different ways. There is no single size, shape, or growth pattern that's normal for everyone.

Height and gender are two factors that need to be considered when evaluating a person's weight.

FIGURE 6.1

DETERMINING BMI

Use this formula to find your BMI:

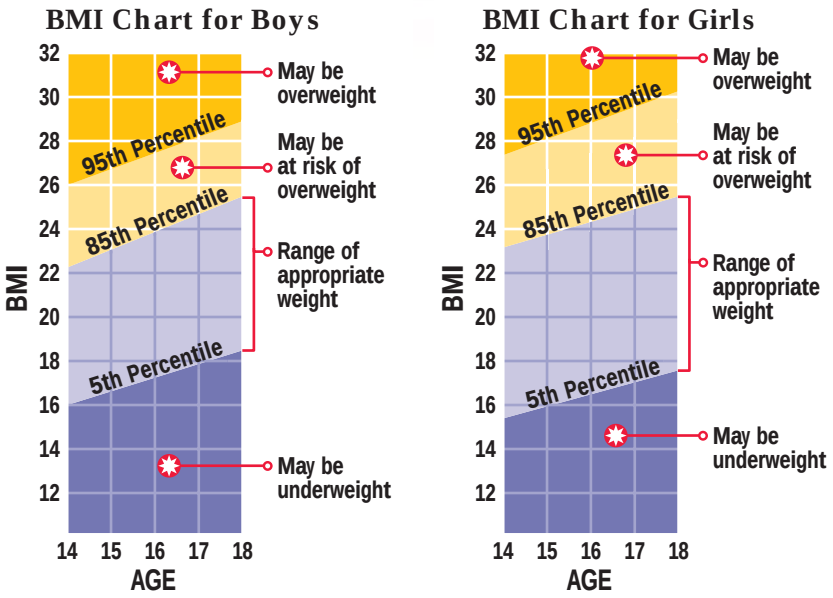
BMI = weight (in pounds) × 703/[height (in inches)]^2

Here's how to find the BMI for a 16-year-old male who weighs 145 pounds and is 69 inches tall:

BMI = 145 × 703 / 69^2
BMI = 101,935 / 4,761
BMI = 21.41 or 21.4

Find this result in the chart. This teen's BMI indicates that he is within an appropriate weight range.

Source: Adapted from CDC information



If your BMI falls above the 85th percentile or below the 5th percentile, consult a health care professional for further evaluation. However, keep in mind that this does not necessarily mean that you are over- or underweight.

Body Composition

Body composition, or the ratio of body fat to lean body tissue, needs to be taken into account when assessing weight. Diet and fitness affect a person's body composition. For example, a weight-lifting program will increase muscle mass. A high-calorie diet can increase the amount of stored body fat.

Body Weight versus Body Fat

The terms *overweight* and *obese* are often used interchangeably, but they are not the same. Overweight is *a condition in which a person is heavier than the standard weight range for his or her height.* Obesity refers specifically to *having an excess amount of body fat.* Both can endanger health, but in certain cases being overweight may not pose health risks. Athletes such as bodybuilders or football players may be overweight because of excess muscle tissue rather than excess body fat.

Weight-Related Health Risks

BMI for adults serves as a general guide for evaluating some health risks. Adults with high BMIs are at increased risk of cardiovascular disease; type 2 diabetes; cancer; high blood pressure; and osteoarthritis, a joint disease. Maintaining a healthy weight can help promote health and prevent the development of these diseases.

Overweight: A Health Risk

Being overweight is a serious problem in the United States. The latest findings from the CDC indicate that 14 percent of teens are overweight. Excess body fat strains the muscles and the skeletal system. It forces the heart and lungs to work harder and increases the risk of high blood pressure and high blood cholesterol. Being overweight or obese also increases the risk of type 2 diabetes, asthma, and some cancers.

Why are some people overweight? Genetics may play a role, but being overweight or obese usually results from consuming excess calories and from physical inactivity. To maintain a healthy weight and avoid the health risks associated with overweight and obesity, follow the ABCs of good health as described in the *Dietary Guidelines for Americans:*

- Aim for Fitness. Get 60 minutes of physical activity daily.
- Build a Healthy Base. Eat the recommended number of daily servings from each of the five major food groups in the Food Guide Pyramid.
- Choose Sensibly. Balance high-fat choices with low-fat foods, and moderate your intake of sugar.

hotlink

Dietary Guidelines for Americans For more information on the *Dietary Guidelines*, see Chapter 5, page 122.
Food Guide Pyramid See Chapter 5, page 124, to learn more about using the Food Guide Pyramid to make healthy food choices.

Underweight: A Health Risk

Some teens are very thin while they are growing. Being thin may also be normal because of genetics or a fast metabolism. Other people, however, diet or exercise excessively to stay thin. A person who is too thin has little stored fat to provide the body with an energy reserve and may not be consuming enough calories and nutrients for health and growth. This may lead to fatigue and a decreased ability to fight illness. How do you know whether you are underweight? Underweight refers to *a condition in which a person is less than the standard weight range for his or her height*. A health care professional can help you determine whether you are underweight.

Physical activities such as swimming burn calories and can help you manage your weight. ***What other physical activities can help you manage your weight?***

FIGURE 6.2

The Best Weight-Loss Strategy

Eat Fewer Calories

Eat more foods that are high in nutrients and low in calories.

Burn More Calories

Burn more calories through physical activity.

Healthful Ways to Manage Weight

The teen years are a period of rapid growth and change, so some fluctuations in your weight are normal during this time. Following the ABCs of good health will help most teens maintain a healthy weight. However, if you want to begin a formal weight-management plan, these strategies can help:

- Target your appropriate weight. Speak with a health care professional to determine a weight range that is healthy for you.
- Set realistic goals. Gaining or losing one-half pound to one pound per week is a safe and realistic goal.
- Personalize your plan. Think about your food preferences and lifestyle when designing your weight management program.
- Put your goal and plan in writing. You might also find it helpful to keep a journal of what and when you eat to become more aware of your eating habits.
- Evaluate your progress. Track your progress by weighing yourself weekly at the same time of day. Remember that time periods when your weight does not change are normal.

Healthy Weight-Loss Strategies

A health care provider is your best source of information about your appropriate weight. If he or she recommends that you lose weight, use the best weight-loss strategy, illustrated in Figure 6.2. Here are some other tips for losing weight.

- Eat 1,700 to 1,800 calories daily to meet your body's energy needs. To reach this goal, eat at least the minimum number of servings from each of the five groups in the Food Guide Pyramid. Eating fewer than 1,400 calories a day may cause you to miss out on essential nutrients.
- Include your favorites in moderation. Eat smaller portions of your favorite high-calorie foods, and eat them less frequently. Instead of giving up ice cream altogether, for example, have a small scoop once a week.
- Eat a variety of low-calorie, nutrient-dense foods. Nutrient-dense foods are *foods that are high in nutrients as compared with their calorie content.* Whole-grain products, vegetables, and fruits are examples of low-calorie, nutrient-dense foods.
- Drink plenty of water. Eight glasses a day will help keep your body functioning at its best.

Exploring Issues

Should Schools Limit the Use of Vending Machines?

In schools across the country, vending machines offer soda, candy, and other snacks. Some schools limit the types of foods offered in vending machines or restrict student access to the machines. Should schools set rules concerning vending machines? Here are two points of view.

Viewpoint 1: Philip S., age 16

Most of the food in vending machines is high in sugar, fat, or salt—definitely not part of a healthful eating plan. I've seen kids eat only the foods from vending machines for lunch. If access to the vending machines were limited, students would have to eat more healthful meals. I think that schools have every right to put limits on access or to change the foods offered.

Viewpoint 2: Katie T., age 15

I don't think schools need to limit the types of snacks in vending machines or restrict students' access to them. It's up to the individual to make responsible decisions about his or her food choices. Besides, eating snacks high in sugar, fat, or salt is okay once in a while.

ACTIVITIES

1. **Are vending machines interfering with students' efforts to eat healthfully? Why or why not?**
2. **Should schools control the contents of vending machines or restrict access to them? Explain your answer.**

Healthy Weight-Gain Strategies

Follow these tips to gain weight healthfully:

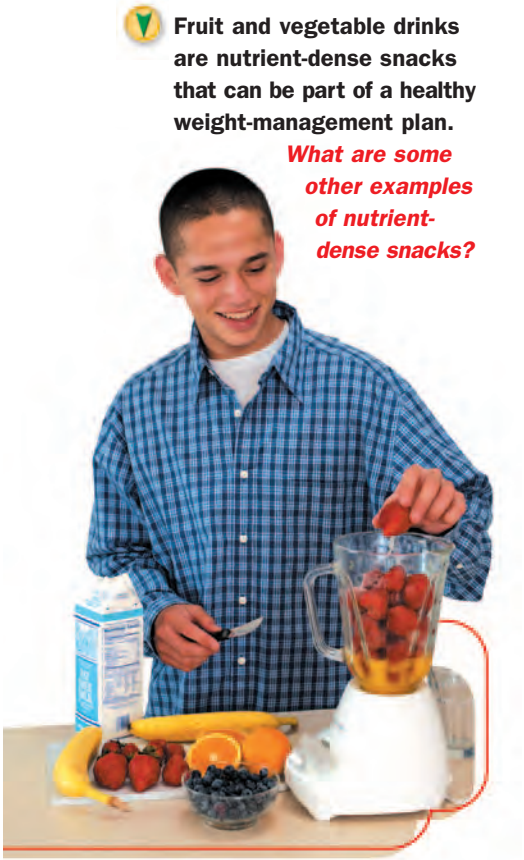
- **Increase your calorie intake.** Choose foods high in complex carbohydrates, such as breads, pasta, and potatoes. Limit foods high in fat and sugar.
- **Eat often and take second helpings.** Choose more than the minimum number of servings from each food group in the Food Guide Pyramid.
- **Eat nutritious snacks.** Snack two to three hours before meals to avoid spoiling your appetite.
- **Build muscle.** A supervised resistance-training program will help you gain weight by increasing muscle mass.

HEALTH Online

TOPIC Healthy Weight Management

Go to **health.glencoe.com** to learn more about the basics of healthy weight management.

ACTIVITY List ten facts you know or have heard about maintaining healthy weights. Use the information you find to determine which are myth and which are fact.



Fruit and vegetable drinks are nutrient-dense snacks that can be part of a healthy weight-management plan. ***What are some other examples of nutrient-dense snacks?***

Physical Activity and Weight Management

Whether you want to lose, gain, or maintain weight, regular physical activity should be part of your plan. Aerobic exercise burns calories and helps you lose fat. Weight lifting or resistance training will increase muscle mass and produce a firm, lean body shape. Also, since muscle is more efficient than fat at burning calories, having more lean muscle tissue increases the number of calories your body burns, even at rest. Here are some added benefits of regular physical activity:

- It helps relieve the stress that often leads to over- or undereating.
- It promotes a normal appetite response, which helps you gain, lose, or maintain weight.
- It increases self-esteem, which helps keep your plan on track.

Research consistently shows that regular physical activity, combined with healthy eating habits, is the most efficient and healthful way to manage your weight and live a healthy life. Choose activities that you enjoy and that fit your personality. You will soon discover your body's capabilities and begin to look and feel your best.

Lesson 1 *Review*

Reviewing Facts and Vocabulary

1. List three factors that influence what an individual's appropriate weight should be.
2. Explain the difference between the terms *overweight* and *obesity.*
3. Examine and briefly describe the relationship among body composition, diet, and fitness.

Thinking Critically

4. **Analyzing.** How can keeping a food journal help a person manage his or her weight?
5. **Hypothesizing.** Why is it important to eat a variety of low-calorie, nutrient-dense foods if you're trying to lose weight?

Applying Health Skills

Practicing Healthful Behaviors. Vicki wants to be sure that she maintains a healthy weight range as she moves through her teen years. What behaviors can Vicki practice to help her meet this goal? Write a short story that shows how Vicki practices these behaviors.

TECHNOLOGY OPTION

WORD PROCESSING Word processing can give your short story a professional look. See health.glencoe.com for tips on how to get the most out of your word-processing program.

health.glencoe.com

II. POST-TEXT EXERCISES

Exercise 1. *Agree or disagree with the statements. Prove your point of view.*

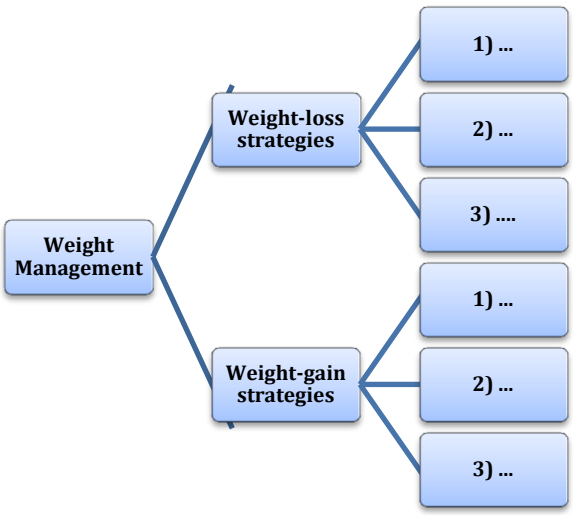
1. Both overweight and obesity endanger health, but in certain cases being overweight may not pose health risks.
2. Being overweight or obese usually results from genetics.
3. A person who is too thin to provide the body with an energy reserve may not be consuming enough calories for their growth.
4. Only a health care professional can determine a weight range that is healthy for a person.
5. Gaining or losing weight in small amounts per week is a safe and realistic goal.
6. Person's food preferences and lifestyle should be regarded when designing their weight management program.
7. Always track your progress in losing/gaining weight by weighing yourself daily.
8. Exclude your favorite high-calorie foods if you want to lose weight quicker.

Exercise 2. *Answer the questions in the Section* Lesson 1 Review *on page 55.*

Exercise 3. *Discuss with your partner the* Exploring Issues *Section on page 54. Complete the tasks given there.*

Exercise 4. *Fill in the chart below based on <u>your personal experience</u>. Provide relevant examples and explanations.*

Healthful Ways to Manage Weight!

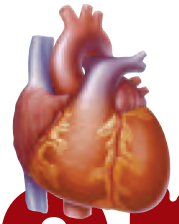


Exercise 5. *Based on the information above make a short presentation to your partner on <u>how to manage person's weight healthfully</u>. Include one of the following aspects:*

- Tell how body composition is related to body weight, describe some other factors that affect body mass;
- Specify how weight management strategies may differ depending on gender/age of person;
- Choose certain group of people with some body parameters (e.g. a female teenager who is a bit overweight or a heavy weight lifting athlete of mature age, etc.) and give some recommendations for them.

* *Use active vocabulary from the PRE-TEXT EXERCISES.*

TIME HEALTH
SCIENCE & TECHNOLOGY



A Heart to Last a Lifetime

Looking to avoid heart disease down the road? Check out these tips that will keep your heart healthy and strong far into the future.

1. Don't Smoke!

Smoking can more than triple a person's chances of having a heart attack. When a smoker quits, that risk is cut in half within 2 years. It takes more than 10 years for the odds to return to nearly normal—so unless you want to waste a decade of your life getting back your health, don't start smoking in the first place.

2. Watch Your Weight

Carrying excess fat, especially around the middle, increases the risk of a heart attack or stroke later on in life. Obesity can also lead to diabetes, a major risk factor in heart disease. Doctors recommend a reduced-calorie diet with lots of vegetables and whole grains, plus at least 30 minutes of moderate aerobic exercise a day.

3. Lower Your Bad Cholesterol

High levels of LDL (bad cholesterol) can tell doctors that heart problems are on the way. Although doctors have focused on levels of LDL, HDL (good cholesterol) may be a better predictor of heart-disease risk. Low levels of HDL might indicate that heart trouble is in the future.

4. Control Blood Pressure

Hypertension makes the heart work harder to move blood through the body and puts those who suffer from it at higher risk of both heart disease and stroke. Teens don't usually have to worry about hypertension. However, if you get short of breath when you exercise, tell a doctor. High blood pressure can be treated with proper diet, exercise, and medication if needed.

5. Reduce Stress

Stress can increase the risk of heart disease and lead to unhealthy habits such as drinking alcohol and eating junk food. Exercise and meditation can reduce stress; so can getting enough sleep every night. If you are feeling stressed out for an extended period of time, talk about it with your parents, teachers, or counselor.

TIME to THINK... About Cholesterol

The article mentions LDL and HDL. Research these two kinds of cholesterol and answer the following questions:

1. What do the letters LDL and HDL stand for?
2. What is the difference between LDL and HDL?
3. What are two examples of foods that contain high levels of each?

LESSON 6. Fad Diets and Eating Disorders

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. What diets are popular in your surrounding today? Is it healthy to diet?
2. How can media influence our eating habits?
3. Why can some diets lead to serious eating disorders?

* Answer few more questions in Section on 

page 59.

Exercise 2. *Study the active vocabulary, check how these words are pronounced.*

Word	Pronunciation	Word	Pronunciation
fad diets		health-literate consumer	
weight cycling		liquid diet	
eating disorder		fasting	
anorexia nervosa		substance abuse	
bulimia nervosa		physical consequence	
binge eating disorder		food obsession	

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Fad diet	A	is the repeated pattern of loss and regain of body weight
2.	Weight cycling	B	is an extreme, harmful eating behavior that can cause serious illness or even death.
3.	Eating disorder	C	is weight-loss plans that are popular for only a short time.
4.	Anorexia nervosa	D	a disorder characterized by compulsive overeating, consume huge amounts of food at one time but do not try to purge.
5.	Bulimia nervosa	E	is a disorder in which the irrational fear of becoming obese results in severe weight loss from self-imposed starvation.
6.	Binge eating disorder	F	is a disorder in which some form of purging or clearing of the digestive tract follows cycles of overeating.

Exercise 4. *Match the collocations:*

liquid	caloric	potential	medical	to become	limited	high	to cause
dangers	supervision	duration	intake	formula	drowsiness	dehydrated	expectations

Exercise 4. *Read the sentences, fill in the missing words.*

powerful, obsessed, anorexia, bulimia, heart

1. Becoming _____ with thinness can lead to eating disorders.
2. Genetics and other biological factors may play an equally _____ role in the development of this disorder.
3. Physical consequences of _____ are related to malnutrition and starvation.
4. People with anorexia may develop serious _____ problems.
5. The exact cause of _____ is unknown, but societal pressures, self-esteem issues, and family problems may be factors.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

Lesson 2

Fad Diets and Eating Disorders

VOCABULARY

fad diets
weight cycling
eating disorder
anorexia nervosa
bulimia nervosa
binge eating disorder

YOU'LL LEARN TO

- Describe the risks of fad diets and other dangerous weight-loss strategies.
- Describe the causes, symptoms, and treatment of eating disorders.
- Provide help to someone with an eating disorder.
- Identify the presence of an eating disorder as a situation requiring assistance from professional health services.

QUICK START Write the term *diet* in the center of a sheet of paper. Around this term, write five to ten words or phrases that come to mind when you hear the word *diet*.

Fad diets may promise quick and easy weight loss, but any weight lost on these diets is usually regained. ***What features does a healthful weight-loss program have?***

"Miracle patch lets you lose weight without dieting!" "One pill helps you burn fat and lose pounds!" Are you familiar with promises like these? They often appear in print ads and TV commercials. You may hear them on the radio. Such ads promise quick and easy weight loss. What do they actually deliver?

Risky Weight-Loss Strategies

A number of weight-loss strategies not only fail to produce long-term results but also can cause serious health problems. Part of being a health-literate consumer involves recognizing the potential health risks associated with some weight-loss plans and products.

Fad Diets

If you see an ad like the one shown here, be wary. Such ads are often for fad diets, *weight-loss plans that are popular for only a short time.* These diets often are hard to stick with because they limit food variety. The "grapefruit diet" is an example of a food-limiting fad diet. Some fad diets are costly because they require dieters to buy certain products. Fad diets that severely restrict the foods a dieter eats fail to provide the body with the nutrients it needs for health and growth. Any weight lost on fad diets is usually regained.

Did You Know?

Some weight-loss products contain a substance called *ephedra.* Manufacturers may claim that ephedra can suppress appetite, promote weight loss, and increase energy and physical endurance. However, ephedra can lead to heart attacks, strokes, or even death.

Always read the labels of products before you buy or use them, and never take a product containing ephedra.

Liquid Diets

A person on a liquid diet replaces all of his or her food intake with a special liquid formula. These very low-calorie diets generally do not meet the body's energy needs. As a result, they often leave the dieter feeling fatigued. Many liquid diets do not provide the body with fiber and needed nutrients. Relying on high-protein, low-carbohydrate liquids as the only source of nutrients can cause serious health problems and even death. Because of the potential dangers associated with liquid diets, the U.S. Food and Drug Administration (FDA) requires these products to carry warning labels and recommends that they be used only under close medical supervision.

Fasting

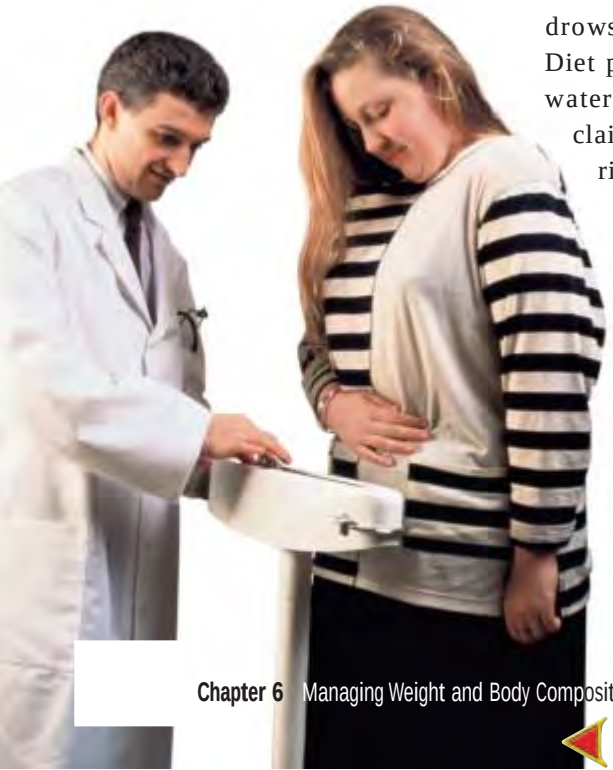
To fast is to abstain from eating. Although this may seem like a sure way to lose weight, fasting for more than short periods deprives your body of needed nutrients and energy. Without a fresh supply of nutrients each day, your body begins breaking down protein stored in muscle tissue for energy. If the person who is fasting also avoids liquids, he or she may become dehydrated.

Some religious and cultural rituals involve brief periods of fasting. Such fasting is not dangerous for the average person because the fast is of limited duration. However, fasting may not be advisable for those with diabetes or other health conditions. If you are unsure about how cultural or religious fasting may affect a medical condition, consult a health care professional for advice.

Diet Pills

Many diet pills work by suppressing appetite. They may cause drowsiness, anxiety, a racing heart, or other serious side effects. Diet pills may also be addictive. Some cause the body to lose more water than normal, which can lead to dehydration. Diet pills may claim to "burn," "block," or "flush" fat from the body, but a low-risk pill that meets these claims has not yet been developed.

Effective weight management involves making healthy lifestyle choices. ***What steps can a person take to successfully manage his or her weight?***



Weight Cycling

Some diet plans or products may seem to help people lose weight quickly, but the weight loss is usually from water, not body fat. Water weight loss is quickly regained. *The repeated pattern of loss and regain of body weight* is called weight cycling. Weight cycling is common in people who follow fad diets. Some reports have suggested that weight cycling is harmful, although other studies do not support this finding. In general, slow and steady weight loss is the best strategy for long-lasting results.

Hands-On Health ACTIVITY

Fad Diets Harm Health

In a society obsessed by weight and appearance, the promise of quick weight loss is hard to resist. However, fad diets are not only ineffective in producing long-term weight loss, they're also potentially harmful. In this activity you will create a poster advocating against fad diets.

What You'll Need

- poster board
- markers

What You'll Do

1. As a class, brainstorm potentially harmful effects of fad diets.
2. In groups of two or three, come up with a simple concept that conveys the message that fad diets can harm health. Your concept should be relevant to high school students.
3. Make a poster illustrating your message. Include supporting information about healthful weight-loss strategies in the poster.
4. Ask permission to display your posters at school.

Apply and Conclude

Is your poster persuasive? What advocacy techniques did you use to persuade others? How will your poster have a positive effect on the health of your audience? Why is this an important health issue for teens?

The Risks of Eating Disorders

Sometimes a person's concerns about weight and efforts to lose weight can get out of control. Becoming obsessed with thinness can lead to eating disorders. An eating disorder is *an extreme, harmful eating behavior that can cause serious illness or even death*. The exact cause of eating disorders is unknown. They may be brought on by mental or emotional factors such as poor body image, social and family pressures, and perfectionism. Some scientists think that the cause may be partly genetic. Teens with a family history of weight problems, depression, or substance abuse may be more at risk for developing an eating disorder.

About 90 percent of those with eating disorders are female. It's estimated that about one percent of females ages 16 to 18 have this illness. Eating disorders are a serious health problem, and people who suffer from them need professional help.

People with anorexia often see themselves as overweight even when they are very thin. *What type of help does an individual with an eating disorder need?*

Anorexia Nervosa

Anorexia nervosa is *a disorder in which the irrational fear of becoming obese results in severe weight loss from self-imposed starvation.* Anorexia nervosa is a psychological disorder with emotional and physical consequences. The disorder relates to an individual's self-concept and coping abilities. Outside pressures, high expectations, a need to be accepted, and a need to achieve are characteristics associated with the development of anorexia. Medical specialists have also found that genetics and other biological factors may play an equally powerful role in the development of this disorder. Hormones and certain brain chemicals have been shown to trigger the illness in some people.

Anorexia develops most often in teenage girls and young women. Symptoms include extremely low caloric intake, an obsession with exercising, emotional problems, an unnatural interest in food, a distorted body image, and denial of an eating problem.

HEALTH CONSEQUENCES OF ANOREXIA NERVOSA

Physical consequences of anorexia are related to malnutrition and starvation. A drastic reduction of body fat may cause females with anorexia to stop menstruating. Other consequences include loss of bone density, low body temperature, low blood pressure, slowed metabolism, and reduction in organ size. People with anorexia may develop serious heart problems, including an irregular heartbeat that can lead to cardiac arrest and sudden death.

Treatment for anorexia nervosa may include a stay at a clinic or hospital where the person can receive nutrients to regain weight and strength. Anorexia nervosa also requires psychological treatment to address the problems that lead to the disorder.

Bulimia Nervosa

Bulimia nervosa is *a disorder in which some form of purging or clearing of the digestive tract follows cycles of overeating.* A person with bulimia often fasts or follows a strict diet and then *binges*, or quickly consumes large amounts of food. After eating, the person may vomit or take laxatives to purge the food from the body. Following a binge, the person may again try dieting. Other symptoms can include distorted body image and an unnatural interest in food. The exact cause of bulimia is unknown, but societal pressures, self-esteem issues, and family problems may be factors.

HEALTH CONSEQUENCES OF BULIMIA NERVOSA

Repeated binging, purging, and fasting can cause serious health problems or even death. Frequent vomiting and diarrhea can lead to dehydration, kidney damage, and irregular heartbeat. Vomiting also destroys tooth enamel; causes tooth decay; and damages the tissues of the stomach, esophagus, and mouth. Frequent use of laxatives disrupts digestion and absorption and may cause nutrient deficiencies. Laxative abuse can also change the composition of the blood. Treatment of bulimia nervosa usually includes both medication and psychological counseling.

Binge Eating Disorder

People with binge eating disorder, *a disorder characterized by compulsive overeating,* consume huge amounts of food at one time but do not try to purge. This disorder may signal the use of food as a coping mechanism for strong emotions or depression. Treatment involves professional psychological counseling and sometimes medication.

Health Skills Activity

Decision Making: Helping a Friend Get Help

Audrey and Rebecca are friends. They are both on the school basketball team. Lately, Audrey has noticed that Rebecca skips lunch and seems to be losing weight.

One day after practice, Rebecca tells Audrey that she is going to jog for at least a mile. Audrey is amazed. "What do you mean? You just ran up and down the court for two full hours."

Rebecca says, "I ate a salad for lunch today. I'm getting fat." Audrey suspects that Rebecca has an eating disorder and wonders how to help her.

What Would You Do?

Apply the decision-making steps to Audrey's problem.

1. **State the situation.**
2. **List the options.**
3. **Weigh the possible outcomes.**
4. **Consider values.**
5. **Make a decision and act.**
6. **Evaluate the decision.**

Psychologists and clinics that specialize in the treatment of eating disorders may offer support groups for people with these disorders. ***Why might support groups be helpful to individuals with eating disorders?***

HEALTH CONSEQUENCES OF BINGE EATING DISORDER

Binge eating disorder often results in unhealthful weight gain, which contributes to health problems such as type 2 diabetes, heart disease, and stroke. Gallbladder problems, high blood pressure, high cholesterol, and increased risk of certain types of cancer have also been associated with this disorder.

Help for Eating Disorders

People with eating disorders need professional medical and psychological help. They may also benefit from support groups and clinics. All eating disorders are serious. If you believe a friend might be developing an eating disorder, you may want to discuss the problem with a trusted adult such as a parent, a counselor, or a school nurse. You can also help by encouraging your friend to seek professional help and by being supportive.

Lesson 2 *Review*

Reviewing Facts and Vocabulary

1. Define the term *fad diets.*
2. Describe the causes, symptoms, and treatment of the eating disorder anorexia nervosa.
3. What is *bulimia nervosa*?

Thinking Critically

4. **Evaluating.** Describe the similarities and differences between bulimia nervosa and binge eating disorder.
5. **Analyzing.** Why do people with eating disorders require assistance from professional health services?

Applying Health Skills

Advocacy. Think of ways to inform teens about the dangers of fad diets and other risky weight-loss strategies. With a group of classmates, plan and create a video or public service announcement (PSA) that tells teens about these dangers and gives tips for healthy weight loss.

TECHNOLOGY OPTION

WEB SITES Use your video or PSA as part of a Web page you develop on healthy weight management. See **health.glencoe.com** for help in planning and building your own Web site.

health.glencoe.com

II. POST-TEXT EXERCISES

Exercise 1. *Agree or disagree with the statements. Prove your point of view.*

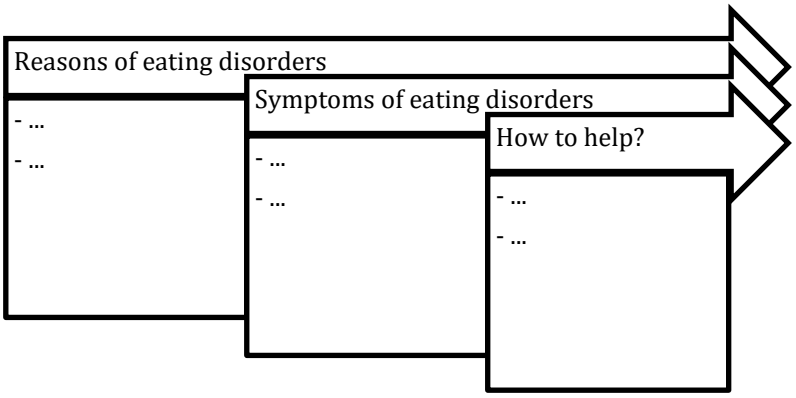
1. Some fad diets are costly because they require dieters to buy certain products.
2. Weight lost on fad diets is usually never regained.
3. To fast is to abstain from eating.
4. Such fasting is not dangerous for the average person because the fast is of limited duration.
5. Many diet pills work by suppressing increasing appetite.
6. Slow and steady weight loss is the best strategy for long-lasting results.
7. People with eating disorders do not need professional medical and psychological help.
8. All eating disorders are serious.

Exercise 2. *Answer the questions in the Section* Lesson 2 Review *on page 64.*

Exercise 3. *Discuss with your partner the Section* Hands-On Health ACTIVITY *on page 61. Complete the tasks given there.*

Exercise 4. *Fill in the chart below <u>to summarise the information from the lesson you've studied</u>. Provide relevant examples and explanations.*

Eating Disorders



Exercise 5. *Based on the information above make a short presentation to your partner on <u>how fad diets influence person's state of health</u>. Include one of the following aspects:*

- Classify diets according to their effect on human body (e.g. losing/gaining weight; positive/negative effect) ;
- Describe eating disorders, state their reasons and symptoms;
- Offer healthy alternative for fad diets to people of different age and gender groups.

** Use active vocabulary from the PRE-TEXT EXERCISES.*

The Trouble WITH FAT-BURNER PILLS

Be wary of the promises of these supplements—and pay even closer attention to the risks.

Have you seen ads for supplements that claim they can "boost your metabolism and burn away fat"?

There are a lot of these supposed "miracle" supplements. Some are available as liquids; others come in the form of pills. Whatever they look like, they generally promise the same thing: By speeding up your metabolism, they can reduce your fat—a claim that still hasn't been substantiated, or proven. Many studies that do seem to back up manufacturers' claims have been funded by those same companies.

Marketing Makes Millions

Even so, thanks to a marketing blitz, the supplements have become a multibillion-dollar industry. People are bombarded by television ads that show slim people who have supposedly lost weight on supplements. Radio commercials frequently air endorsements by people (sometimes local celebrities) making those same claims.

When makers of these supplements get negative publicity, they often use the media to fight back. They may give their side of the story to rival news organizations or give interviews on their own Web sites. Anyone who logs on to the site becomes a potential customer.

What's distressing is that not only do these supplements not work, they are not risk free. Most contain the controversial ingredient ephedrine (a Chinese herb also known as ephedra or mahuang). The U.S. Food and Drug Administration has received reports of about 80 deaths and about 1,400 instances of adverse effects that may be associated with the use of the herb. The agency has issued warnings about using products containing ephedrine, citing such potential side effects as heart attack, stroke, seizures, psychosis, and death. The products are even packaged with a long list of user warnings.

If you want to increase your metabolism, there is only one safe and reliable way to do it. Increase your physical activity—whether it's walking briskly, jogging, or playing sports. There are no shortcut pills to a leaner body. ■

TIME to THINK... About "Miracle" Drugs

The article mentions that many studies that back up manufacturers' claims about their weight-loss supplements have been funded by the companies themselves. Do you think that such studies are less reliable than studies conducted by independent researchers? Why or why not? Share your opinion with the rest of the class. Be sure to include the reasons you hold that opinion.

LESSON 7. Nutrition for Individual Needs. Fuel up for Sports

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. Do you know anyone who has special health concerns about food?
2. How does practicing sport affect your food choices?
3. What food is food for active lifestyle?

* Answer few more questions in the Section Read to Learn Key Concepts on page 68.

Exercise 2. *Study the active vocabulary, check how these words are pronounced and translated.*

Word	Pronunciation/ Translation	Word	Pronunciation/ Translation
electrolytes		chloride	
rehydration		frequency	
steroid		intensity	
carbohydrate loading		duration	
peak performance		bulk up muscles	
potassium		crash diet	

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Electrolyte	A	is a drug that acts like male hormones.
2.	Steroid	B	is a significant loss of body fluids.
3.	Dehydration	C	how often you work out.
4.	Carbohydrate loading	D	is a mineral such as sodium, chloride, and potassium that helps maintain body's fluid balance.
5.	Intensity	E	is the speed and power of your movements.
6.	Frequency	F	is strategy to increase the store of energy in the muscles.

Exercise 4. *Match the collocations:*

to provide	nutrient-dense	to replace	warm-up and	vigorous	thirst	performance -enhancing	plain
steroid	lost fluids	activity	foods	energy	water	cool-down	and fatigue

Exercise 4. *Read the sentences, fill in the missing words.*

perspiration, carbohydrates, drugs nutrient-dense foods, disqualified

1. Athletes need to eat more calories from _____ to maintain their weight and energy levels when training.
2. To maintain your body's electrolyte balance, you must take in as much water and electrolytes as you lose through _____ .
3. Bodybuilding _____ to build muscle mass are not healthy.
4. Athletes who test positive for steroids and similar drugs are often _____ from their sport.
5. Before competing, choose a meal that's high in _____ and low in fat and protein.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

CHAPTER 11
Fuel Up for Sports

Explore the Photo

Whether you are preparing for tryouts, competing in a sports event, or being active for fun and fitness, smart eating can help you do your very best. *Why is a smart eating plan important for peak performance in sports?*

Writing Activity

Business Letter

Sports are a fun way to stay active and relax. What sports are available near you? Write a business letter to your local chamber of commerce or department of parks and recreation. Request information about sports programs near you. Also, suggest ideas for programs that interest you.

Writing Tips

1. **Be** clear, brief, and considerate.
2. **Use** correct form.
3. **Proofread** to correct errors in grammar, usage, spelling, and punctuation.

Corbis/Jupiter Images

Reading Guide

Before You Read

Look It Up Scan the vocabulary words in the chapter. If you see a word that you do not know, look it up in the glossary or the dictionary.

Read to Learn

Key Concepts

- **Describe** how physical activity affects your nutrient needs.
- **Discuss** smart food and fluid choices for before, during, and after physical activity.
- **Analyze** common myths about sports nutrition.

Main Idea

Rigorous physical activity requires smart food choices and more fluids—before, during, and after a workout or competition.

Content Vocabulary

- dehydration
- electrolyte
- steroid
- carbohydrate loading

Academic Vocabulary

You will find these words in your reading and on your tests. Use the glossary to look up their definitions if necessary.

- develop
- strategy

Graphic Organizer

As you read, write the main messages about eating for peak performance, supported by strategies for before, during, and after strenuous activity.

Eating for Peak Performance		
Before	During	After

Graphic Organizer Go to this book's Online Learning Center at **glencoe.com** to print out this graphic organizer.

Academic Standards

English Language Arts

NCTE 8 Use information resources to gather information and create and communicate knowledge.

Mathematics

NCTM Number and Operations Understand the meanings of operations and how they relate to one another.

NCTM Data Analysis and Probability Develop and evaluate inferences and predictions that are based on data.

Science

NSES Content Standard F Develop an understanding of personal and community health.

NCTE National Council of Teachers of English
NCTM National Council of Teachers of Mathematics
NSES National Science Education Standards
NCSS National Council for the Social Studies

Nutrients for Active Living

As You Read

Connect What foods have you eaten recently that helped you to feel energetic?

Vocabulary

You can find definitions in the glossary at the back of this book.

All teens should follow MyPyramid when planning their meals and snacks. Eating the right amounts of foods from the five food groups will supply all the nutrients you need.

- **Carbohydrates** People who are very physically active need extra calories. Most of these calories should come from nutrient-dense foods high in starches, or complex carbohydrates. These include bread, cereal, rice, pasta, dry beans and peas, and starchy vegetables.
- **Protein** Eat 5 to 7 ounces daily from the Meat and Beans Group. Extra protein will not help you build bigger muscles. To build muscle, you need muscle-building physical activity, not more protein from food.
- **Vitamins and Minerals** Eat a variety of foods to get the vitamins and minerals you need. Iron-rich foods are good for your blood. Calcium-rich foods help **develop**, or promote the growth of, healthy bones. As an athlete, you do not need extra vitamins and minerals.
- **Water** During intense activity, your body heats up. To cool down, your body sweats. When you sweat, you must drink fluids to replace lost fluids.

Reading Check **Discuss** How does physical activity affect your nutrient needs?

Eat to Succeed Smart eating throughout the year should be part of your body's ongoing training program for sports or any physical activity. *What are some of the nutrients that these breakfast choices supply?*

Rubberball/Jupiter Images

Choices for Peak Performance

Plan ahead to do your personal best at strenuous physical activity. During your workout, warm-up and cool-down properly. Performance also depends on what you eat and how much you drink before, during, and after activity.

Before You Are Active

About three to four hours before vigorous activity, enjoy a meal that is high in carbohydrates and low in fat and protein. This combination is easy to digest. Carbohydrates also provide energy for the activity. Carbohydrates also provide fuel for your working muscles. Eat until you are satisfied but not too full. These meals are great choices a few hours before physical activity:

- Orange juice, bagel, peanut butter, apple slices
- Apple juice, pancakes and syrup, low-fat yogurt, strawberries
- Tomato soup, grilled cheese sandwich, low-fat milk

Eat a light snack, such as some fruit, about a half hour before an activity if you are hungry. Sugary foods like candy may leave you feeling shaky or cause you to get tired quickly.

Drink at least 2 cups (500 mL) of water about two hours before the activity. Drink another 1 to 2 cups (250 to 500 mL) fifteen minutes before the activity.

While You Are Active

Unless your workout lasts more than one hour, you probably do not need to eat during the activity. If you do, eat carbohydrate-rich foods that are easy to digest, such as a banana or a rice cake.

If you do not replace fluids lost through sweating, you may suffer from dehydration. **Dehydration** is a significant loss of body fluids. Symptoms start with thirst and fatigue, and can progress to weakness, confusion, muscle cramps, and heat exhaustion. In severe cases, dehydration can cause death.

During vigorous activity, drink ½ to 2 cups (125 to 500 mL) of water. The amount depends on how much you sweat. Do not drinks excessively. During vigorous activity your kidneys cannot eliminate extra water fast enough. In extreme cases, this can even be fatal.

Math in Action

Daily Allowance of Water

Sara decides to drink 3 cups (750 mL) of water before a soccer game. She measured her drinking glasses, and found that they hold 12 oz each. How many times should she refill a 12-oz glass to get that amount of water?

Math Concept **Multiply/Divide Rational Numbers** When a word problem requires organizing things into different-size groups, use multiplication and division to solve it.

Starting Hint First, determine the number of ounces in 3 cups of water. Then, divide by the size of the glass. If necessary, round up to the next whole number.

NCTM Number and Operations Understand the meanings of operations and how they relate to one another.

Math For more math help, go to the Math Appendix

Fluid Choices

Plain water is the best choice for replacing fluids. Before or after a workout, you might also drink juice or milk. The carbohydrates in these drinks fuel your muscles. Diluted juice is better during a workout because your body absorbs it faster.

For activities lasting over one hour, you could drink sports drinks with easily absorbed glucose, or simple sugar. Sports drinks also supply electrolytes. An **electrolyte** is a mineral such as sodium, chloride, and potassium that helps maintain your body's fluid balance. Your body loses some electrolytes through sweat.

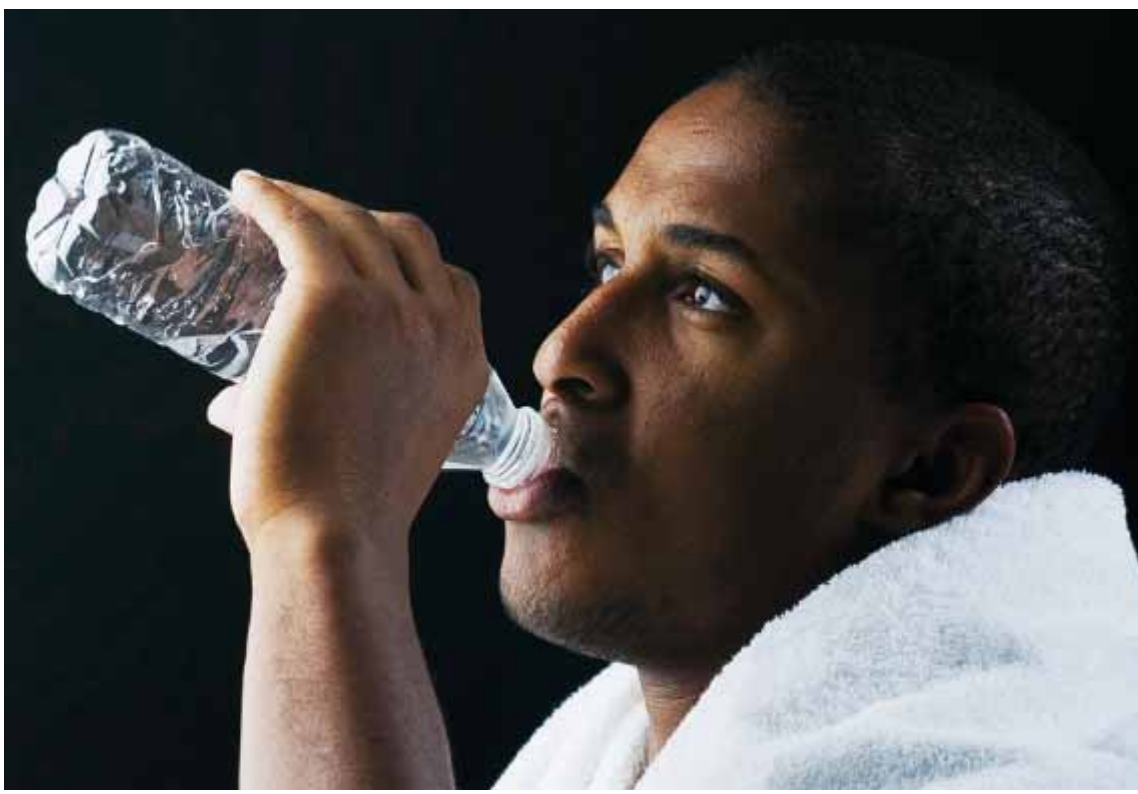
Some choices are not as good. Caffeinated drinks such as cola and energy drinks may increase anxiety. Sugary drinks take longer to absorb. Carbonated drinks may upset your stomach.

After You Are Active

Immediately after an intense workout, drink fluids to replace those you have lost—3 cups (750 mL) of water for each pound of weight lost. Within one to four hours, eat plenty of foods with carbohydrates and some protein and fat.

Athletes who play seasonal sports may not need as much food energy during their off-season. To maintain a healthy weight, the best **strategy**, or plan of action, is to cut down on high-calorie foods or stay as active as you were in season.

✓ **Reading Check** **Recall** How can you avoid dehydration?



Rehydrate! During physical activity, drink fluids to replace water lost by sweating. Do not wait until you feel thirsty, because you may already be dehydrated. *Why is eating an ice cube not an effective way to replace fluids?*

Blend Images/Jupiter Images

Sports Facts and Myths

Some athletes believe that special products—such as protein powders, vitamin supplements, and energy bars—will help them win. Be cautious of products that promise to boost your performance. Healthful food choices provide all the nutrients you need.

Get Fit with F.I.T.

You can improve your fitness level with F.I.T. This stands for Frequency, Intensity, and Time. For the best results, gradually increase each part of the F.I.T. formula:

- **Frequency**—how often you work out. Start with two workouts a week, then do more as you become stronger.
- **Intensity**—the speed and power of your movements. This could mean how much you hustle on the basketball court or how high you step in aerobics class. As you build strength and endurance over time, you can increase the intensity of your workouts.
- **Time (duration)**—how long you work out each time. How much time you spend moving is what counts.

Making Weight

To compete in certain sports, like wrestling, athletes need to weigh a specific amount. In other sports, such as gymnastics, athletes may think they need to compete at a low weight, but this is not always true. Teen athletes must remember that their bodies are still growing and compete in the right weight class.

Manage your weight for competition every day you train—not just the days before an event. Fasting, crash diets, or trying to sweat off weight will keep you from doing your best.

Bulk Up Muscles

Adding muscle may improve performance for some athletes. Trying to build muscle too fast and without physical activity, however, may build fat instead. Slow, steady weight gain is best. Do not gain more than 2 pounds (.9 kg) per week.

Lifting heavy weights can damage growing bones. Use your body's own weight to build muscle strength and endurance instead. Try pull-ups, push-ups, and leg lifts.

Stay away from any performance-enhancing steroid. A **steroid** is a drug that acts like male hormones. Teens who use steroids to build muscle often suffer permanent health problems. For example, steroids can damage the reproductive system.

HOT JOBS!

Consultant Dietitian

Consultant dietitians work with healthcare facilities, in private practice, and with some professional and amateur athletes. They plan eating strategies to match their clients' goals and lifestyles.

Careers Find out more about careers. Go to this book's Online Learning Center at **glencoe.com**.

Nutrition & Wellness Tips

No Salt Tablets

✓ Eat healthful foods—not salt tablets—after a workout or competition to replace sodium lost through sweat.

High-Protein Diets

Some athletes think they need to eat a high-protein, low-carbohydrate diet to build muscle and improve physical performance. Instead, eating a variety of foods for well-balanced nutrition is best, both for athletic performance and for overall health. Extra protein from food, protein powders, or supplements will not build muscle. Any extra protein turns into energy or gets stored as fat.

Some athletes use carbohydrates to prepare for competitive events through a practice called carbohydrate loading. **Carbohydrate loading** is strategy to increase the store of energy in the muscles. Several days before an event, athletes gradually decrease training and gradually increase the carbohydrates they eat. For trained endurance athletes, this helps the body store extra carbohydrates. Most people do not benefit from carbohydrate loading. Using this practice repeatedly could interfere with growth. It is not advised for teens.

✓ Reading Check **Explain** What is the danger of trying to lose weight for sports such as wrestling a day or two before a competition?

EASY RECIPES Everyday Favorites

Trail Mix

Customary	Ingredients	Metric
1 cup	Any whole-grain cereal	250 mL
¾ cup	Raisins	180 mL
½ cup	Roasted peanuts	120 mL
¼ cup	Sunflower seeds	60 mL
¼ cup	Dried cranberries	60 mL
¼ cup	Chocolate chips	60 mL

Try This!
Mix and Match
For variety, use a different cereal or add a different dried fruit.

Yield: 4 servings, ¾ cup (250 mL) each

1. Combine all ingredients and mix in a large bowl.
2. Store in an airtight container.

Nutritional Information Per Serving: 356 calories, 18 g total fat, (4 g saturated fat), 0 mg cholesterol, 60 mg sodium, 49 g total carbohydrate (6 g fiber, 31 g total sugars), 9 g protein.

Percent Daily Value: vitamin A 2%, vitamin C 4%, calcium 8%, iron 25%

After You Read

CHAPTER SUMMARY

Follow MyPyramid to get enough food energy and nutrients for your peak physical performance. Get most of your food energy from complex carbohydrates, not from extra protein. Carefully plan and choose what you eat and drink before, during, and after physical activity. Focus on frequency, intensity, and time in your workouts. Make nutrition an ongoing training strategy, even in the off-season. Drink enough fluids to avoid dehydration. Plain water is the best choice. Be cautious of eating plans or nutrition supplements that promise top performance or more muscle.

Vocabulary Review

1. **Use each of these vocabulary words in a sentence.**

Content Vocabulary

- dehydration (p. 163)
- electrolyte (p. 164)
- steroid (p. 165)
- carbohydrate loading (p. 166)

Academic Vocabulary

- develop (p. 162)
- strategy (p. 164)

Review Key Concepts

2. **Describe** how physical activity affects your nutrient needs.
3. **Discuss** smart food and fluid choices for before, during, and after physical activity.
4. **Analyze** common myths about sports nutrition.

Critical Thinking

5. **Analyze** Which would be a better lunch on the day of a late-afternoon gymnastics meet: a steak sandwich or spaghetti? Explain why. Add foods to your choice to make a balanced pre-competition meal.
6. **Analyze** this scenario. You are a long-distance runner on your school's track team. How could you use your management skills to make sure you get enough fluids?
7. **Design** a training regimen for a hockey player. What training activities and eating plan would you recommend? How could he or she stay motivated?
8. **Analyze** this situation. Your friend Julianna is planning to run a 5K race. She plans to eat only high-protein foods to prepare. Is this a good plan? Explain.
9. **Examine** the snack choices on your midday school lunch menu. Imagine you will be choosing. You and your classmates will have physical education 30 minutes after this snack. What foods would you choose, and why?

Real-World Skills and Applications

Set Goals and Make Decisions

10. Fueling Exercise Lauren is joining an all-night jump-rope-a-thon to raise funds for the Special Olympics. She wonders what to eat before and during the event to have enough energy to last all night. Write a paragraph to describe solutions that could help her reach her goal.

Collaborative and Interpersonal

11. Think Like a Coach Imagine that you are on the wrestling team. You notice that some team members are crash dieting to try to compete in a weight class lower than their appropriate weight. Write a paragraph to explain how you could help them understand the potential dangers.

Technology

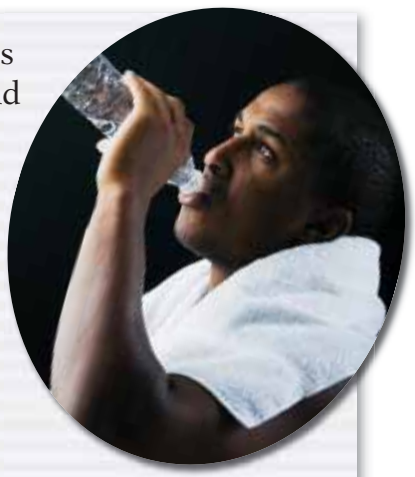
12. Design a Brochure Use publishing software to create a brochure for teen athletes about eating smart for sports. Include information about sports nutrition myths. Share your brochure with a school coach. Offer to share it with a team.

Financial Literacy

13. By the Bar or Box? You visit a local grocery store where granola bars are sold. Granola bars are available individually for $1.19 or in a box of 6 for $6.50. You want to purchase 6 granola bars. Write a paragraph to explain which is a better deal and why.

ACTIVE LEARNING

14. Training Table Menus Create five original menus featuring high-carbohydrate foods that you like and that would help fuel your body before a big sports competition. Trade your recipe list with a classmate and evaluate each other's plans.



ACTIVE LEARNING

15. Energy Bars Compare the calories and nutrients in several energy bars. Use information on food labels. Consider the cost and convenience of each. How would you rate these snacks? What other foods can provide portable nutrition for before or after physical activity?

NCTM Data Analysis and Probability Develop and evaluate inferences and predictions that are based on data.

Foods Lab

16. Your Sports Drink Create a juice beverage to enjoy after a workout. You might blend more than one juice or other beverage. Write the recipe with its name, ingredients, and directions, and describe why it makes a great drink for after a workout.

Additional Activities For additional activities go to this book's Online Learning Center at **glencoe.com**.

Academic Skills

English Language Arts

17. Dangers of Steroids Steroids often have dangerous, permanent side effects. Research the damage steroids can do. Write a script for a 60-second public service announcement about steroids.

NCTE 8 Use information resources to gather information and create and communicate knowledge.

Science

18. Sports Drinks Just for Sports Because they contain more sugar and acid than regular soda, sports drinks should be reserved for sports that require endurance. Which types of athletes need sports drinks?

Procedure Research the ingredients and effects of several sports drinks.

Analysis Write a paragraph to explain your findings.

NSES Content Standard F Develop an understanding of personal and community health.

Mathematics

19. Comparing Bottled Water Zack needs to drink enough water when running long distance. He likes the convenience of pre-bottled water he can buy at the store. He can buy three packs of six ½-liter bottles for $6.99, or he can buy one pack of twelve 1-liter bottles for $9.49. Show how Jack can compare the two packages to find the better deal.

Math Concept **Divide Integers** An integer is a whole number. Finding the better deal requires comparing the costs per unit of measure.

Starting Hint Find the total number of liters for each option, then divide to find the cost per liter. Round up to the nearest hundredth for cost.

Math For more math help, go to the Math Appendix

NCTM Number and Operations Understand the meanings of operations and how they relate to one another.

STANDARDIZED TEST PRACTICE

MULTIPLE CHOICE

Read the paragraph and choose the best answer. Write your answer on a separate piece of paper.

Test-Taking Tip When taking a test, if you have time at the end, check your answers and solutions. Did you answer each part of every question? Did you answer the questions asked? Do your answers look reasonable? Do your calculations check out?

The minerals that charge your body are called electrolytes. If you lose too many electrolytes while exercising, cramps, weakness, or nausea can result. Sports drinks contain electrolytes, but so do many foods.

20. Based on the paragraph, which of the following statements is true?

a. Sports drinks are the only source of electrolytes.

b. Too many electrolytes will cause cramps.

c. A healthful eating plan provides plenty of electrolytes.

d. Your body needs extra electrolytes.

II. POST-TEXT EXERCISES

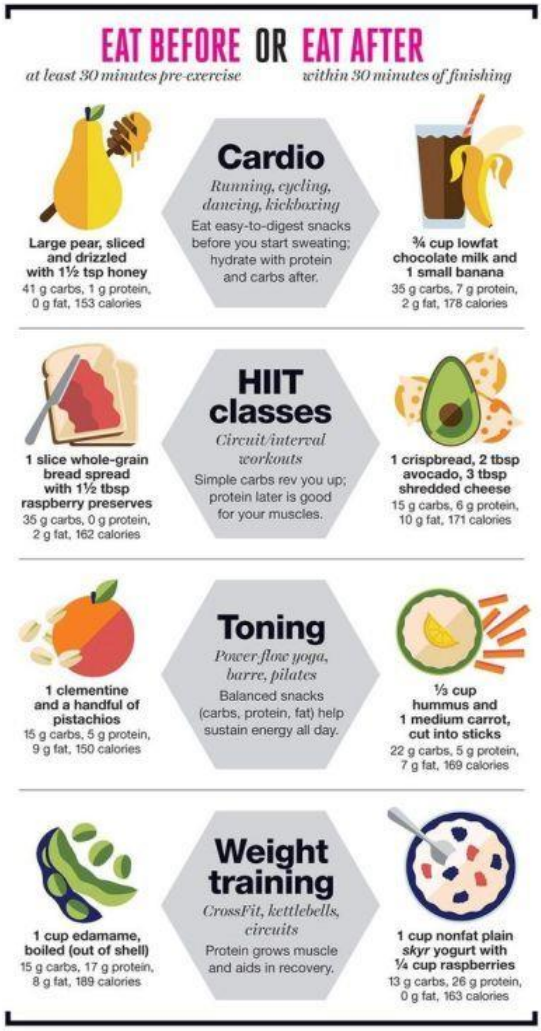
Exercise 1. *Agree or disagree with the statements. Prove your point of view.*

1. Carbohydrates provide fuel for athlete's working muscles.
2. Eat a light snack, such as some fruit, just before an activity if you are hungry.
3. Unless workout lasts more than one hour, athlete probably does not need to eat during the activity.
4. If athletes do not replace fluids lost through sweating, they may suffer from hydration.
5. Caffeinated drinks such as cola and energy drinks may increase anxiety.
6. Athletes who play seasonal sports may need as much food energy during their off-season.
7. Trying to build muscle fast and without physical activity, however, may build fat instead.
8. Eating a variety of foods for well-balanced nutrition is not good for athletic performance, but is beneficial for overall health.

Exercise 2. *Answer the questions in the Sections* ***"Vocabulary Review" and "Review Key Concepts"*** *on page 75.*

Exercise 3. *Discuss with your partner the Section* ***"Academic Skills"*** *on page 77.*
Complete the tasks given there.

Exercise 4. *Explain the information given below to summarise the information from Lesson 7. Provide recommendations of food intake for athletes before or after training. Give relevant examples and explanations.*



Exercise 5. *Based on the information above make a short presentation to your partner on how to choose food for daily consumption if the person is athlete or has active lifestyle. Include one of the following aspects:*

- Traditional eating habits VS those of athletes. Different food for different sports;
- The right (recommended) food before and after training;
- Correlation of food ingredients with available packaged snacks to eat during training;
- Top 5 rules of staying healthy for people who practice sports.

** Use active vocabulary from the PRE-TEXT EXERCISES.*

What Is Everyone Walking About?

It's simple, it's cheap, and studies show that walking may be one of the best forms of exercise.

Walking may be the perfect exercise. For starters, it's one of the safest things you can do with your body. It's much easier on the knees than running and, beyond an occasional stitch in the side, doesn't trigger negative side effects. Researchers believe that if everyone in the United States were to walk briskly 30 minutes a day, we could cut the incidence of many diseases 30 to 40 percent.

Brisk walking provides many of the same benefits as more intense activities, like jogging or aerobics. Just walk at a reasonably vigorous pace (3 to 4 miles per hour) for about half an hour, five or six times a week. You may not feel the benefits all at once. Evidence, however, suggests that over the long term, a regular walking routine can do a world of preventive good—from lowering the risk of stroke and diabetes to helping combat arthritis and high blood pressure.

Before you begin, a few pointers can help you get the most out of your walking routine. First, pay attention to your shoes. Walkers spend more time with the entire foot on the ground than do runners, so shoes for walking need more room at the front for the feet to spread.

Second, keep a record of your efforts, including how long you walked and how far you went. There's nothing like tracking your improvements to keep you motivated.

Third, prepare yourself properly. The best way to avoid muscle aches is to start slowly and incorporate gentle stretches into your pre-exercise warm-up and post-exercise cool-down.

Finally, set realistic goals. Remember: You don't need to win any races to get healthy. The secret to success is to keep a steady course.

TIME to THINK... About Walking

Create a schedule of your typical school day. Find at least three ways that you can increase the amount of walking that you do—for instance, taking the elevator rather than the stairs. Share your ideas with the class.

LESSON 8. Nutrition for Individual Needs. Nutrition throughout Life Cycle

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. How have your food preferences changed as you grew older?
2. Do you know anyone who has special health concerns about food?
3. Give few examples of health promotion campaigns for youth in your country.

* Answer few more questions in the Section Read to Learn Key Concepts on page 82.

Exercise 2. *Study the active vocabulary, check how these words are pronounced and translated.*

Word	Pronunciation/ Translation	Word	Pronunciation/ Translation
life cycle		lactate	
low birth weight		food jag	
prenatal		mealtime	
fetus		food serving	
pregnancy		convenience foods	
nourishment		physical limitations	

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Life cycle	A	is the unborn baby.
2.	Prenatal period	B	is the entire time from before birth through adulthood.
3.	Fetus	C	is minimally polluted area or the area protected from contaminants.
4.	Clean surrounding	D	is wanting just one food for a while.
5.	Healthy snacks	E	is the time between conception and birth.
6.	Food jag	F	are granola bars or other packed food to eat when hungry.

Exercise 4. *Match the collocations:*

meal	to avoid	high-fat	to set	negative	to feed	unsweetened	health
foods	attitude	the table	juice	anemia	schedule	department	a baby

Exercise 4. *Read the sentences, fill in the missing words.*

nutrition, fetus, renew, variety, living, encourage

1. The _____depends on the mother for its nourishment.
2. Calcium builds the baby's bones and teeth and helps to _____ the mother's bones.
3. Infant formula, prepared correctly, has _____ similar to mother's milk.
4. Children need the same food _____ and nutrients as adults and teens do.
5. Positive experiences with food will _____ children to become good eaters.
6. Healthful eating and active _____ are two of the smartest ways to be your personal best.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

CHAPTER 12

Nutrition Throughout the Life Cycle

Explore the Photo

Your meals and snacks have changed since you were a baby. You still need the same nutrients, but in different amounts. As a teen, you can enjoy a variety of foods. *How have your food choices changed since your childhood?*

Writing Activity

Dialogue

Family Memories Nearly everyone has a childhood or family story about food. Write a dialogue in which two people share a childhood or family food experience. Think about funny family stories or warm memories.

Writing Tips

1. **Give** each person their own voice.
2. **Use** dialogue for a purpose.
3. **Choose** language that sounds real and appropriate to the people talking.
4. **Use** quotation marks appropriately.

Workbook Stock/Knauer/Johnston/Jupiter Images

Reading Guide

Before You Read

Check for Understanding If you have questions as you are reading, that means you are checking your understanding of the material. To get the most out of the text, try to answer those questions.

Read to Learn

Key Concepts

- **Summarize** how nutrition needs change throughout the life cycle.
- **Explain** the importance of good nutrition for pregnancy.
- **Compare** how infant feeding changes in the first year of life.
- **Create** a healthful eating plan for children.
- **Explain** why good nutrition and active living are important for teens.
- **Discuss** how food and nutrition needs change during adulthood.
- **Identify** sources of food assistance.

Main Idea

Throughout the life cycle, people need the same nutrients, but in different amounts. At each life stage, people eat and enjoy different kinds of food.

Content Vocabulary

- life cycle
- prenatal
- fetus
- low birth weight
- lactate
- food jag

Academic Vocabulary

You will find these words in your reading and on your tests. Use the glossary to look up their definitions if necessary.

- specific
- environment

Graphic Organizer

As you read, list five ways to make the most of family meals. Use a graphic organizer like the one below to organize your answers.

Family Meals
1.
2.
3.
4.
5.

Graphic Organizer Go to this book's Online Learning Center at **glencoe.com** to print out this graphic organizer.

Academic Standards

English Language Arts

NCTE 4 Use written language to communicate effectively.

NCTE 5 Use different writing process elements to communicate effectively.

NCTE 9 Develop an understanding of diversity in language use across cultures.

Science

NSES Content Standard C Develop an understanding of matter, energy, and organization in living systems.

Mathematics

NCTM Number and Operations Compute fluently and make reasonable estimates.

NCTE National Council of Teachers of English
NCTM National Council of Teachers of Mathematics
NSES National Science Education Standards
NCSS National Council for the Social Studies

As You Read

Connect Think about how what you eat now differs from what you ate as a young child.

Vocabulary

You can find definitions in the glossary at the back of this book.

Nutrition Is Important at Every Age

Good nutrition throughout your life cycle is essential for your growth, energy, and wellness. The **life cycle** is the entire time from before birth through adulthood. The best advice for healthful eating and active living for anyone who is two years of age and older comes from the Dietary Guidelines for Americans and MyPyramid. The Recommended Dietary Allowances give **specific**, or particular, nutrient recommendations for both genders and all ages.

Reading Check **Recall** MyPyramid advice is meant for people of what age?

Eat for a Healthy Pregnancy

The **prenatal** period is the time between conception and birth. During the prenatal period, a single cell develops into a baby. The unborn baby is called the **fetus**. The fetus depends on the mother for its nourishment. Maintaining good nutrition and health habits, along with getting proper medical care, are a pregnant woman's most important responsibilities.

Before and During Pregnancy

Good nutrition helps prepare a woman for a healthy pregnancy. Women who are pregnant or may become pregnant need to pay careful attention to several nutrients. Folate, a B vitamin that is also called folic acid, helps the body make new cells. If a pregnant woman does not get enough folate, her baby may have a set of birth defects in the spine called spina bifida. Grain products are required by law to be fortified with folic acid. As the amount of blood increases in both mother and fetus, they both need more iron. Calcium builds the baby's bones and teeth and helps renew the mother's bones.

Foods from the Milk Group provide calcium and protein. Foods from the Meat and Beans Group provide iron as well as protein. Fruits, vegetables, dry beans, and fortified grain products are essential for folate and other nutrients.

Gaining 25 to 35 pounds (11 to 16 kg) during pregnancy is normal. Poor nutrition can lead to low birth weight. **Low birth weight** is a birth weight less than 5½ pounds (2.5 kg). Babies with low birth weight may develop health problems. A pregnant woman should add 300 calories a day from nutrient-dense foods to her diet.

Reading Check **Recall** What three nutrients may need special attention among pregnant women?

The Breast-Feeding Bond Breast-feeding creates a close bond between a mother and her infant. *Where can new parents go to get advice on breast-feeding?*

Infant Feeding

Infants change quickly during the first year! A baby may grow 50 percent longer and triple in weight. The brain and other organs also continue to develop. A baby needs the right nourishment. At first, mother's milk or infant formula is the only food a baby needs.

Mother's Milk or Formula?

Breast-feeding is an economical, natural way to feed babies. New mothers lactate. To **lactate** is to produce milk. This milk contains important nutrients, as well as antibodies that build immunity to infection. Mother's milk is easily digested, pre-warmed, and germ-free. Breast-feeding mothers should follow MyPyramid and drink enough fluids. This helps to ensure enough milk for their babies and enough nutrients for their own health. Mothers who face difficulty breast-feeding can get advice from a pediatrician, a lactation counselor, the public health department, and the La Leche League, a nonprofit organization that offers information and support to breast-feeding mothers.

Infant formula, prepared correctly, has nutrition similar to mother's milk. Most formulas contain modified, enriched non-fat cow's milk. Babies who cannot tolerate cow's milk can drink soy-based formulas.

Plain cow's milk cannot substitute for mother's milk or formula. It lacks some nutrients babies need. In their first year, babies cannot digest cow's milk properly. After the first year, many children can drink whole milk. It contains fats and proteins essential for growth.

HOT JOBS!

Social and Human Services Assistant

Social and human services assistants understand community services. They may administer services, such as food banks, and help people get food assistance.

Careers Find out more about careers. Go to this book's Online Learning Center at **glencoe.com**.

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Nutrition & Wellness Tips

A Family Affair

- ✓ Encourage children you know to eat more fruits and vegetables—help them to count the colors they eat every day!
- ✓ Encourage your family to participate in physical activities together, no matter what their ages.

Bottle-Feeding Basics

Prepare bottles carefully to ensure food safety and prevent injury. Always wash your hands before feeding a baby. Bottles and bottle nipples must be clean. The bottle should be warmed (not hot), but should *never* be warmed in a microwave oven! During bottle-feeding, babies must:

- Be held in a calm, clean **environment**, or conditions.
- Have their head and back securely supported.
- Surround the nipple with their lips.
- Be burped to release swallowed air.

Babies should rest after eating. It is okay if a baby does not finish a bottle. This usually means the baby is full. Discard any milk left in the bottle. Never put a baby to bed with a bottle. Sipping a bottle in bed can lead to tooth decay.

Solid Foods for Babies

Babies need their food served warm or at room temperature, not hot. They also need calm surroundings and time to chew and swallow. Someone should always be with the baby while he or she eats. Infant feeding progresses in the following stages:

- **Usually no sooner than six months:** Babies are physically ready to eat iron-enriched infant cereal.
- **By about seven to nine months:** Babies are ready for strained, single-ingredient foods like fruits, vegetables, and poultry. Offer unsweetened juice from a cup. Introduce new foods one at a time to easily identify food allergies.
- **By about 10 to 12 months:** Most babies can eat chopped soft foods, unsweetened dry cereals, plain soft bread, and pasta.
- **After one year:** Toddlers start to eat many foods that others in their family enjoy.

✓ Reading Check **Compare** What can babies eat at eight months compared with what they eat at two months?

Bottle-Feeding Skills Breast milk can be stored and given to the baby in a bottle. This allows the father to feed the baby. *What bottle-feeding techniques is the father using to properly feed his baby?*

Plainpicture/Normal/Jupiter Images

Healthful Eating for Children

For children ages two and older, MyPyramid is the best guide for making healthful choices. Children need the same food variety and nutrients as adults and teens do, but in different amounts. **Figure 12.1** shows how many calories most children need.

Meals and Snacks for Kids

Active, growing children need a regular meal schedule. They also need nourishing snacks because their stomachs are small, but their energy levels are high. They may not be able to eat enough at mealtime to satisfy their food needs.

Some foods are a choking hazard for children under three or four years of age. Avoid small, hard foods such as nuts, popcorn, raw carrot pieces, raisins, and seeds. Avoid hard candy and cough drops. Cut meat and poultry into small pieces, and slice grapes in half.

Safe, Easy, Kid-Friendly Snacks

After school, kids are often hungry. When the kitchen contains nourishing foods, smart snacking is easy and enjoyable. Older children can make these nutritious snacks by themselves:

- Tortilla chips or baby carrots and salsa
- Apple and cheese slices between crackers
- Fruit with milk or yogurt
- Peanut butter and banana slices on bread

Figure 12.1 **Calories for Kids**

How Much for Kids? These recommendations show the average daily calorie needs for a moderately active child. Moderately active means 30 to 60 minutes a day of moderate physical activity in addition to daily activities. *What are the MyPyramid guidelines for calorie needs for a child age 7 to 8 years old?*

Average Daily Calorie Needs for a Moderately Active Child

Age (years)	Boys	Girls
2	1,000	1,000
3	1,400	1,200
4 to 5	1,400	1,400
6	1,600	1,400
7 to 8	1,600	1,600
9	1,800	1,600
10	1,800	1,800
11	2,000	1,800
12	2,200	2,000

Science in Action

Growing Healthy Bones

Strong bones have a lot of calcium stored in them. Almost half of your adult bone mass forms during your teens. Even after you stop growing taller, your bones continue to become more dense. Only about 14 percent of teen girls and about 36 percent of teen boys get enough calcium.

Procedure Research to learn how calcium from food is deposited in bones and what other nutrients are needed to do so.

Analysis Write a paragraph to explain how a teen's food choices and activity levels affect bone density.

NSES Content Standard C
Develop an understanding of matter, energy, and organization in living systems.

Learning Good Eating Habits

If you have younger brothers or sisters, set a good example by eating healthful foods with them. Find recipes for snacks they will enjoy. With your help, younger children can have positive experiences with food. This will encourage them to become good eaters. It is not wise to reward good behavior with food or to discipline a child by withholding a favorite food. Using food in these ways teaches negative attitudes about eating.

Sometimes a young child goes on a food jag. A **food jag** is wanting just one food for a while. This is a step toward independence and not a cause for worry. Food jags usually do not last long. If a child is hard to please, do not give up. Continue introducing new foods in small amounts as you teach children to eat a variety of foods. Also, remember that:

- Children need mealtimes that are pleasant, not pressured.
- Children like colorful foods and interesting shapes.
- Small servings are best—children can always ask for more.
- Children like to participate in preparing meals, serving food, or setting the table.
- Children can decide how much they need to eat, and like to feed themselves.

Reading Check **Analyze** Why are snacks important for young children?

Nutrition for Your Teen Years

Healthful eating and active living are two of the smartest ways to be your personal best. The choices you make during your teen years will keep you fit in the years to come.

Eat to Be Your Best

You grow faster during your teen years than at any time since infancy. Like most teens, you probably need more of some food-group foods for a healthful, physically active lifestyle. Eat a small amount of high-fat foods. For energy, choose plenty of nutrient-dense foods that are high in complex carbohydrates.

Pay attention to certain vitamins and minerals during special teen years. Zinc is essential for growth. Iron supports increasing muscle mass. Females also need enough iron to avoid anemia. Calcium helps you grow strong bones. You can get all those nutrients by eating enough of the food-group foods!

Food for a Teen Lifestyle

You can fit healthful eating into your busy schedule with some planning and creativity.

- If you have a big after-school appetite, put portable snacks (fruit, crackers and cheese, raisins) in your school bag.
- If your after-school schedule interferes with family meals, make a plan with your family. Ask someone to set aside a plate of food for you to eat later. Make time for family meals as often as possible.
- If you are still hungry after eating quickly, slow down. Remember that it takes time to feel full.
- If you do not have time for breakfast or lunch, make time! You will feel better and perform better at school and at after-school activities.
- If you spend time with friends at fast-food places, be a role model. Order juice or milk. Try a salad.

Discover International Foods

Greece

For Greeks, dinner is a family event, often served late in the evening. Greek cuisine is often seasoned with oregano, mint, and garlic, and uses foods that thrive along the Mediterranean. These foods include olives and olive oil, eggplant, zucchini, tomato, green beans, okra, onions, artichokes, and citrus fruits. Lamb, seafood, chicken, feta cheese, yogurt, and honey are typical ingredients, too. The origins of many dishes go back to the ancient Greeks. Many, such as avgolemono (lemon-egg) soup, have Middle Eastern influences.

Languages Across Cultures

moussaka *(mü-'sä-kə)* a dish of layered eggplant with ground lamb or beef, often made with other vegetables and topped with a white sauce

souvlaki *(süv-'lä-kē)* skewered, grilled chicken, pork, swordfish, or shrimp

Recipes Find out more about international recipes on this book's Online Learning Center at **glencoe.com**.

NCTE 9 Develop an understanding of diversity in language use across cultures.

Eating with Your Friends

Food is part of many teen activities, such as parties, school games, and going to the mall. Plan to eat foods for flavor, nutrition, and fun. Here are some examples:

- **Party Foods** Vegetable-topped pizza, potato wedges and salsa, sparkling water mixed with juice.
- **Field Trip Snacks** Apples, granola bars, string cheese and crackers, canned fruit juice.
- **Mall Foods** Yogurt-fruit smoothie, bagel with hummus, oatmeal cookie.

✓ Reading Check **Discuss** What kinds of nutrient-rich snacks could you choose to satisfy after-school hunger?

Smart Eating During Adulthood

Good nutrition and physical activity are important during every stage of adulthood. Nutrient and energy needs change with adulthood stage: 19 to 30 years, 31 to 50 years, 51 to 70 years, and over 70 years.

Because adults' bodies have stopped growing, their energy needs are typically lower. They may become more sedentary. Adults need less energy for basal metabolism as they get older. Nutrient recommendations also change. Adults must balance calories eaten with calories used. Adults should also choose nutrient-dense foods from different food groups.

Stay Active, Keep Fit Staying physically active throughout life helps people maintain a healthy weight and reduce health risks. *Why do calorie needs decrease as adults get older?*

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Food for a Changing Life

Different adults have different food needs. Adults who eat well and stay active earlier in life are more likely to be healthy and active later. Other adults may have health problems that require a special diet and limit the foods they can eat.

Lifestyle changes also affect food choices. People who live alone may lose interest in preparing food. An older person who cannot drive or who lives on a limited or fixed income may find it difficult to buy healthful food.

Independence for Older Adults

Most older adults want to stay independent for as long as possible. To do this, they can use the same strategies used by busy families, such as buying convenience foods, cooking ahead, and freezing meals. Community services may provide shopping and meal assistance. Health care aides can teach new cooking skills to people with physical limitations.

Think about older people you know who live alone or have health problems. Could you offer your help with food shopping or meal preparation? Could you bring a meal you prepared or invite the person to your home?

Reading Check **Express** What challenges do some older adults face in getting the foods they need?

Healthy Families, Healthy Communities

To eat in a healthful way throughout the life cycle, people need family and community support.

Family Meals

Family meals bring people together and promote healthier eating. How can you make the most of family meals?

- Set a regular family mealtime so everyone can be there.
- Make family meals simple, quick, and healthful.
- Turn off the television. Postpone phone calls.
- Eat around a table, so you can talk and listen easily.
- Make table talk pleasant.

Healthful Food in Your Community

In almost every community, there are some people who cannot afford to meet the nutritional needs of their families. Fortunately, there are government, community, religious, and private programs that provide help with food and nutrition.

- **Food Stamp Program** This government program helps people with limited incomes buy food at grocery stores and farmers' markets. Food stamps work like cash.
- **Women, Infants, and Children (WIC) Program** This government program gives food assistance and nutrition education to pregnant and nursing women, infants, and preschool children.
- **Home-Delivered Meals** Hot or cold meals are delivered to disabled or frail people who cannot easily leave home.
- **Food Banks** These banks distribute food to people in need. Contributions come from food companies, individuals, community groups, supermarkets, and restaurants.
- **Community Kitchens** Low-cost or free meals may be served in schools, religious institutions, and other centers where older adults gather to eat and be with others.

✓ **Reading Check** **Discuss** How can you make the most of meals with your family?

EASY RECIPES International Flavors

Tzatziki

Customary	Ingredients	Metric
1	Cucumber	1
1 clove	Garlic	1
1 cup	Plain, low-fat yogurt	250 mL
1 Tbsp.	Lemon juice	15 mL
1½ tsp.	Olive oil	7 mL
½ tsp.	Dried mint	2 mL
¼ tsp.	Salt	1 mL

Try This!
Try using fresh mint or dill instead of dried mint. Use vinegar instead of lemon juice.

Yield: 4 servings, 6 oz (155 g) each

1. Peel and remove seeds from cucumber. Coarsely chop cucumber and finely chop garlic.
2. Combine all ingredients and mix well. Refrigerate.
3. Serve cold.

Nutritional Information Per Serving: 77 calories, 3 g total fat (1 g saturated fat), 5 g cholesterol, 201 mg sodium, 9 total carbohydrate (1 g fiber, 7 g total sugars), 4.6 g protein

Percent Daily Value: vitamin A 2%, vitamin C 8%, calcium 15%, iron 4%

After You Read

CHAPTER SUMMARY

The Dietary Guidelines and MyPyramid offer nutrition advice throughout the life cycle. Healthful eating before and during pregnancy helps ensure that mother and baby get the nutrients they need. Infant feeding progresses from mother's milk or formula to various soft then chopped foods. Children need the same food variety from MyPyramid as adults, but in different amounts. Growing teens need more nutrient-dense foods, especially if they are active. Adult food needs depend on physical activity level, health, and lifestyle. Community programs can support good nutrition for people of all ages.

Vocabulary Review

1. **Use each of these vocabulary words in a sentence.**

Content Vocabulary

- life cycle (p. 172)
- prenatal (p. 172)
- fetus (p. 172)
- low birth weight (p. 172)
- lactate (p. 173)
- food jag (p. 176)

Academic Vocabulary

- specific (p. 172)
- environment (p. 174)

Review Key Concepts

2. **Summarize** how nutrition needs change throughout the life cycle.
3. **Explain** the importance of good nutrition for pregnancy.
4. **Compare** how infant feeding changes in the first year of life.
5. **Create** a healthful eating plan for children.
6. **Explain** why good nutrition and active living are important for teens.
7. **Discuss** how food and nutrition needs change during adulthood.
8. **Identify** sources of food assistance.

Critical Thinking

9. **Compare** the calorie and nutrient recommendations for teen girls and boys. Use the Recommended Dietary Allowances in the Appendix. Explain the differences. Predict how these differences might affect food choices.

Real-World Skills and Applications

Set Goals and Make Decisions

10. Malnutrition Among the Elderly Your friends worry about their grandfather. Since their grandmother died recently, he has eaten poorly and lost weight. He does not like to cook or eat alone. How could they help him? What challenges might they face?

Interpersonal and Collaborative

11. When I Was Your Age Interview your grandparents or older family friends. Find out what practices they followed for feeding their children. Ask your family how these practices are different from the way you were raised. How are they similar? Draw conclusions.

Financial Literacy

12. WIC The groceries in Julia's cart at the market cost $65.37. However, some items, such as infant formula, are eligible for rebates under the Women, Infants, and Children (WIC) program. If the value of WIC-eligible groceries is $14.88, how much will Julia's groceries cost?

Technology

13. Health Greeting Card Use a computer to create one health greeting card each for a child, a teen, and an adult. Include wellness messages and healthful eating tips for their age. You can design your own cards or use an online template. Hand out copies of your cards.

ACTIVE LEARNING

14. Babysitter's Handbook Create a handbook of information for babysitters. Research and include information on bottle-feeding a baby. This should include how to safely warm formula, how to clean bottles and bottle nipples after feeding, and how to hold a baby while feeding. Include other babysitting advice.

NCTE 4 Use written language to communicate effectively.

ACTIVE LEARNING

15. Community Food Assistance Research food assistance programs in your area. Learn how teens can help. For example, teens can hold a canned food drive, volunteer at a food bank, or help an older adult with grocery shopping. As a group or by yourself, get involved with a program. Report on your volunteering.

Foods Lab

16. Cooking with Kids Find a cookbook for kids. Choose a healthful snack recipe from the book. Prepare it yourself. Then, make a plan to prepare the food with a child. Identify safety precautions and food preparation steps that a child can safely do.

Additional Activities For additional activities go to this book's Online Learning Center at **glencoe.com**.

Academic Skills

English Language Arts

17. Sing About Good Nutrition Create a call-and-response song to help children learn about healthful fruits and vegetables. Teach the song to your classmates.

NCTE 5 Use different writing process elements to communicate effectively.

Science

18. Folic Acid Fortification By law, many grain products must be fortified with folic acid.

Procedure Research to find out the benefits of folic acid.

Analysis Write a paragraph to explain how this law protects the health of developing babies.

NSES Content Standard C Develop an understanding of matter, energy, and organization in living systems.

Mathematics

19. Healthier Baby Food on a Budget Instead of buying 4-ounce jars of baby food for 50¢ each, Kim buys frozen peas for 99¢. Observing all safety rules, Kim makes baby food by putting the peas in a blender. Each bag makes 31 ounces. About how much money is she saving?

Math Concept **Estimation by Rounding** When rounding numbers, look at the digit to the right of the place to which you are rounding. It the digit is 5 or greater, round up. If it is 4 or less, round down.

Starting Hint First, find out how many jars Kim would have to buy to equal the amount of homemade blended peas. Then, subtract the costs to show savings.

Math For more math help, go to the Math Appendix

NCTM Number and Operations Compute fluently and make reasonable estimates.

STANDARDIZED TEST PRACTICE

MULTIPLE CHOICE

Read the paragraph and choose the best answer. Write your answer on a separate piece of paper.

Fruit juice can provide part of the day's Fruit Group total. Drinking too much fruit juice, however, can provide too many calories, and can crowd out milk and other nourishing foods. Children ages 1 to years should drink no more than ¾ cup (180 mL) of juice per day; 1½ cups (375 mL) is the maximum amount recommended for youth ages 7 to 18 years.

20. Based on the paragraph, which of the following statements is not true?

a. Drinking juice can help children and teens follow My Pyramid's Fruit Group recommendations.

b. Juice provides the same nutrients as milk.

c. The upper limit for juice is higher for teens than for young children.

d. Fruit juice is a nourishing beverage—in sensible amounts.

Test-Taking Tip When taking a test, always read the directions before you work on a section. Circle key words such as *not, contrast, similar,* and *different*. Failing to read directions can cause you to misunderstand what the test is asking.

II. POST-TEXT EXERCISES

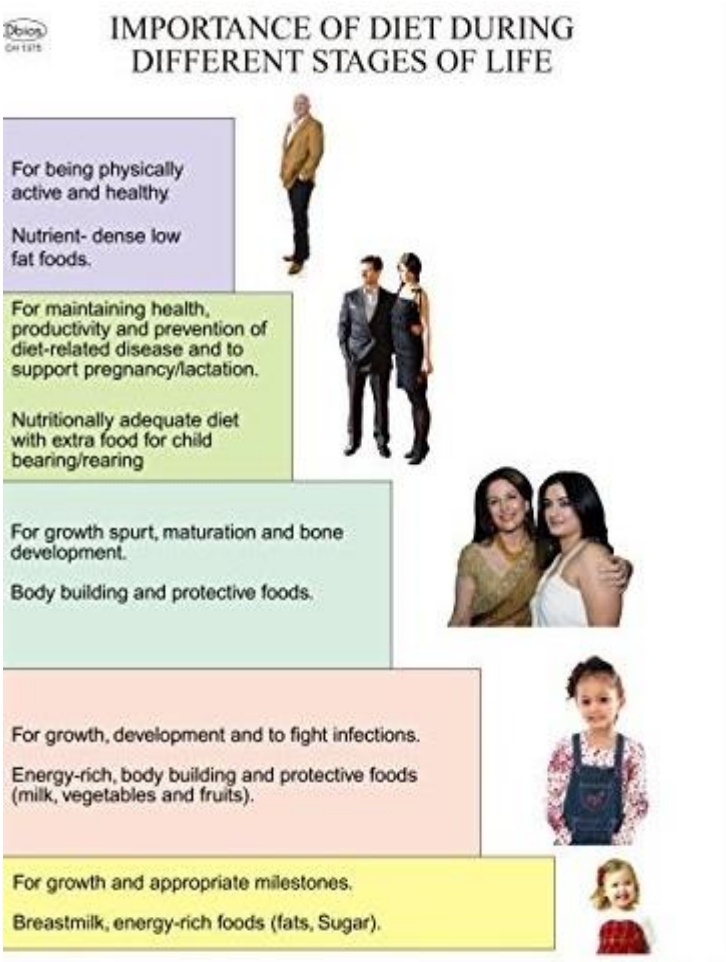
Exercise 1. *Agree or disagree with the statements. Prove your point of view.*

1. People grow faster during teen years than at any time since infancy.
2. For energy, choose plenty of fat foods that are high in calories.
3. Zinc is essential for muscle mass. Iron supports increasing growth.
4. If teens have a big after-school appetite, put portable snacks for them.
5. Nutrient and energy needs do not change with adulthood stage.
6. Adults must balance calories eaten with calories used.
7. People who live alone may lose interest in preparing food.
8. In almost every community there are some government, community and private programs that provide help with food and nutrition.

Exercise 2. *Answer the questions in the Sections* ***"Vocabulary Review" and "Review Key Concepts"*** *on page 92.*

Exercise 3. *Discuss with your partner the Section* ***"Academic Skills"*** *on page 94.*
Complete the tasks given there.

Exercise 4. *Explain the information given below to summarise the information from Lesson 8. Provide recommendations of food intake for people at different stages of their life. Give relevant examples and explanations.*



Exercise 5. *Based on the information above make a short presentation to your partner on how to choose food for daily consumption at different stages of person's life. Include one of the following aspects:*

- Traditional eating habits VS those of new modern trends. Different food practices that become wide-spread now;
- The right (recommended) food for people of different age groups (choose one);
- Correlation of food ingredients with available food products to buy in your country;
- Top 5 rules of staying healthy for people of any age.

** Use active vocabulary from the PRE-TEXT EXERCISES.*

TIME HEALTH
SCIENCE & TECHNOLOGY

More U.S. Teenagers Are Trying to Lose Weight Than in Years Past. That May Be Reason for Concern

BY JAMIE DUCHARME

Recent years have ushered in a wellness movement that emphasizes body positivity and holistic health over thinness and crash diets. But new federal data suggest that messaging hasn't fully changed behavior yet. In fact, the report shows that more American teenagers are trying to lose weight than in years past.

From 2013 to 2016, almost 38% of American adolescents ages 16 to 19 said they had tried to lose weight during the past year, according to a report from the U.S. Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics. That's up from about a quarter of adolescents who said the same a decade ago, according to previous research.

Rising childhood and adolescent obesity rates likely play a part in the increase, especially since the NCHS data showed that more than three-quarters of adolescents with obesity tried to lose weight. But weight-loss attempts outpaced increases in adolescent obesity, according to CDC data. Obesity rates among adolescents ages 12 to 19 climbed from 18.4% to almost 21% from 2009-2010 to 2015-2016.

Far more girls than boys reported trying to lose weight in the latest report: around 45%, compared to 30% of boys. Hispanic teenagers of both genders were more likely to say they had tried to lose weight compared to black, white and Asian youths.

Dr. Sarah Armstrong, an associate professor of pediatrics who researches adolescent obesity at the Duke University School of Medicine, says the increase suggests that despite cultural efforts to de-emphasize weight loss in favor of overall wellness, "there has really not been a shift in the social stigma and weight bias against people who are heavy," Armstrong says. "Teenagers experience this, maybe even more so than adults, because they are still developing their image of self." A study published July 16 in *Obesity Science and Practice* supports that theory, finding that younger people, and especially those who began struggling with their weight early in life, were more likely than others to internalize weight bias and stigma, which can damage health and self-esteem.

When teenagers try to lose weight, they mostly rely on traditional tactics, the NCHS data show. More than 83% said they had exercised in hopes of losing weight, followed by about 50% each who said they had consumed more water and less food.

But, Armstrong points out, the continuing rise in youth obesity rates suggests "the increased efforts to lose weight is not translating to weight loss. It should be a clear signal to all of us that we need to think about the systems and environmental-level drivers of obesity, and recognize that individuals won't solve the problem alone." Meaningful reductions in adolescent obesity will likely require better physical activity and nutrition programs at schools, more moderate use of technology, and substantive efforts from the food industry to improve nutrition and food quality, Armstrong says.

In addition, Armstrong cautions that even seemingly healthy behaviors, like working out and cutting back on calories, can quickly spiral into unhealthy territory, especially for teenagers. Eating disorders are thought to be most common among adolescents, and the American Academy of Pediatrics suggests that doctors and families avoid focusing on weight issues in teenagers, because doing so can promote disordered eating.

"An increased focus on being healthy is a good thing," Armstrong says. "But what we know, particularly in teenagers, is that their focus on weight and particularly weight loss tends to be in an unhealthy way. A focus on trying to be healthier and get to a healthier weight is important, but I worry about the methods."

LESSON 9. Nutrition for Individual Needs. Vegetarian Choices

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. Is vegetarianism popular in your country?
2. What kinds of vegetarianism do you know?
3. Give few examples of nutrition diversity promotion campaigns for people in your country.

* Answer few more questions in the Section Read to Learn Key Concepts on page 99.

Exercise 2. *Study the active vocabulary, check how these words are pronounced and translated.*

Word	Pronunciation/ Translation	Word	Pronunciation/ Translation
vegetarian		fortified	
lacto-ovo-vegetarian		whole-grain	
lacto-vegetarian		dairy products	
ovo-vegetarian		plant-based	
vegan		flavoured	
enriched		substitution	

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Vegetarian	A	eats only foods from plant sources.
2.	Lacto-ovo-vegetarian	B	eats dairy foods and foods from plant sources, but not eggs.
3.	Lacto-vegetarian	C	eats eggs and foods from plant sources, but not dairy foods.
4.	Ovo-vegetarian	D	is a person who avoids eating meat, poultry, and fish, and perhaps eggs and dairy foods.
5.	Vegan	E	eats all kinds of food including meat and dairy products.
6.	Non-vegetarian	F	eats dairy foods and eggs in addition to foods from plant sources.

Exercise 4. *Match the collocations:*

food	health	eating	complete	sunflower	ethnic	high-fiber	pregnant
benefits	supply	meals	women	style	protein	seeds	restaurants

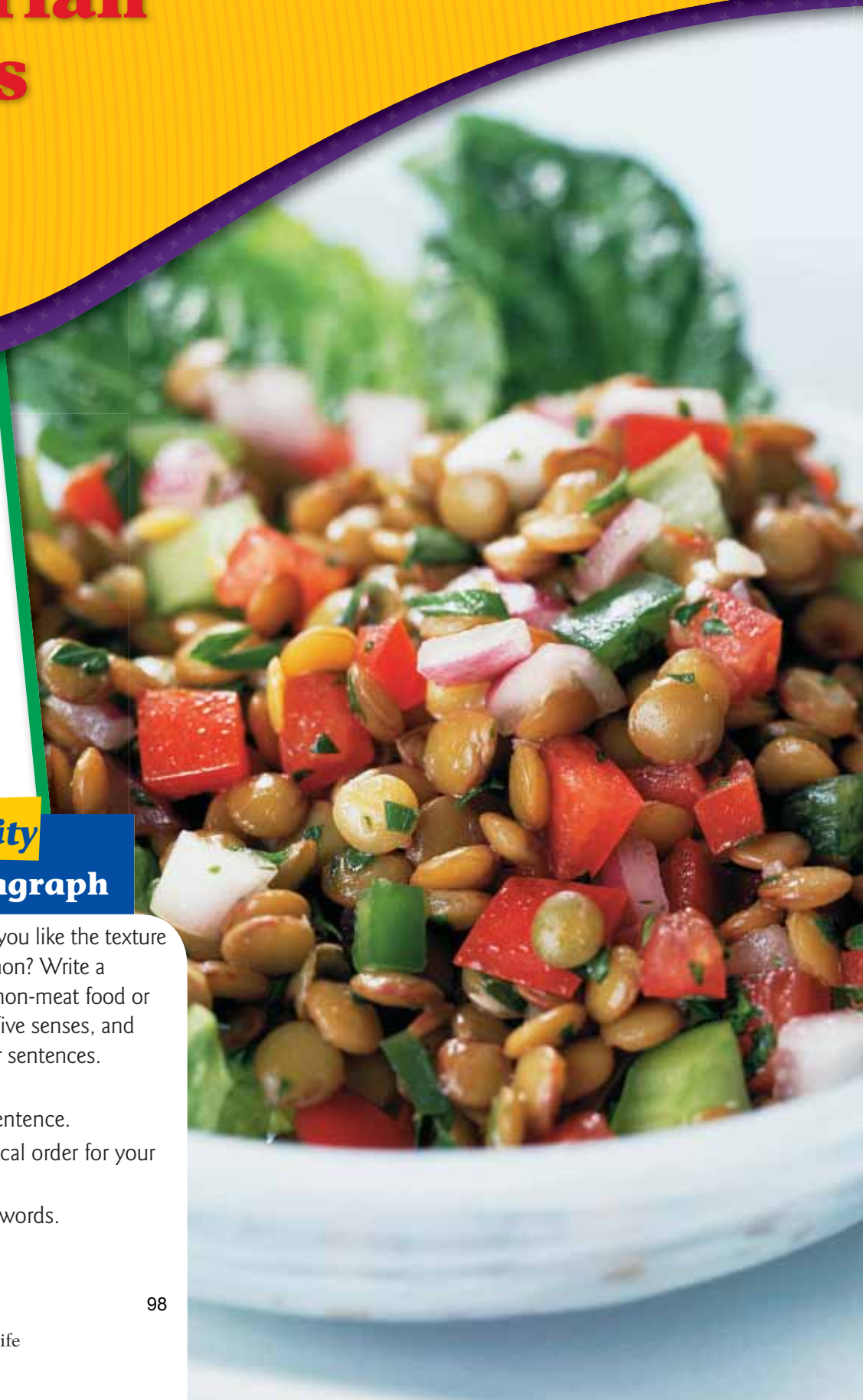
Exercise 4. *Read the sentences, fill in the missing words.*

fat, full, amino acids, religious, vegetables

1. A well-planned vegetarian diet is often low in _____ and cholesterol and high in fiber.
2. Some people are vegetarians for _____ or cultural reasons.
3. High-fiber meals may make people feel _____ before they get enough calories.
4. Vegetarians should eat a variety of plant-based foods to get all the essential _____ .
5. Vegetarians need to choose plenty of fruits, _____ and whole-grain products.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

CHAPTER 13
Vegetarian Choices



Explore the Photo

Vegetarian eating plans may have no food at all from animal sources. *What vegetarian dishes have you eaten?*

Writing Activity
Descriptive Paragraph

Vegetarian Sensation Do you like the texture of rice or the smell of fresh lemon? Write a descriptive paragraph about a non-meat food or dish that you enjoy. Use your five senses, and use plenty of adjectives in your sentences.

Writing Tips

1. **Include** a strong topic sentence.
2. **Present details** in a logical order for your reader.
3. **Select** precise transition words.

FoodPix/Jupiter Images

Reading Guide

Before You Read

Predict Read the Content Vocabulary words below. Write one or two sentences predicting what this chapter will be about.

Read to Learn

Key Concepts

- **Distinguish** between the different types of vegetarian eating styles.
- **Identify** the nutritional benefits and challenges of vegetarian eating plans.
- **Explain** how to use MyPyramid to make healthful vegetarian food choices.

Main Idea

Vegetarian foods can be healthful and delicious. Like everyone else, vegetarians need to make wise food choices, using MyPyramid as a guide.

Content Vocabulary

- vegetarian
- lacto-ovo-vegetarian
- lacto-vegetarian
- ovo-vegetarian
- vegan

Academic Vocabulary

You will find these words in your reading and on your tests. Use the glossary to look up their definitions if necessary.

- examine
- obtain

Graphic Organizer

As you read, use this challenge-solution chart to show the seven nutritional challenges that vegetarians face, and their solutions.

Challenges	Solutions

Graphic Organizer Go to this book's Online Learning Center at **glencoe.com** to print out this graphic organizer.

Academic Standards

English Language Arts

NCTE 5 Use different writing process elements to communicate effectively.

Mathematics

NCTM Number and Operations Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

Social Studies

NCSS I E Culture Demonstrate the value of cultural diversity, as well as cohesion, within and across groups.

NCSS IX H Global Connections Illustrate how individual behaviors and decisions connect with global systems.

NCTE National Council of Teachers of English
NCTM National Council of Teachers of Mathematics
NSES National Science Education Standards
NCSS National Council for the Social Studies

Vocabulary

You can find definitions in the glossary at the back of this book.

As You Read

Connect Think how you would get the nutrients you might miss if you avoided meat or dairy foods.

The Vegetarian Way

A **vegetarian** is a person who avoids eating meat, poultry, and fish, and perhaps eggs and dairy foods. Instead, vegetarians eat foods from plant sources, such as vegetables, fruits, grains and grain products, dry beans and peas, nuts, and seeds. Many vegetarians also eat eggs and dairy products.

Some people are vegetarians for religious or cultural reasons. Others are concerned about the treatment of animals or the sustainability of the world's food supply. Many people are vegetarians for health reasons. A well-planned vegetarian diet is often low in fat and cholesterol and high in fiber, which offers health benefits.

Vegetarians are described by the foods they eat:

- A **lacto-ovo-vegetarian** eats dairy foods and eggs in addition to foods from plant sources. This is the most common vegetarian eating style.
- A **lacto-vegetarian** eats dairy foods and foods from plant sources, but not eggs.
- An **ovo-vegetarian** eats eggs and foods from plant sources, but not dairy foods.
- A **vegan** *('vē-gən)* eats only foods from plant sources.

Anyone can enjoy vegetarian meals. Some people might eat vegetarian meals several times each week, but not every day. They might eat poultry and fish, but little or no red meat.

Reading Check **Explain** How do the four vegetarian eating plans differ?

Nutrients for Vegetarians

Healthy vegetarians know that food choices matter. The keys to a nutritious, healthful vegetarian eating plan are to follow MyPyramid guidelines, to **examine**, or study, food labels for information, and to eat enough variety every day.

Teen Vegetarians If you decide to become a vegetarian, get family support. Make a shopping list together with plenty of healthful vegetarian food choices. *What vegetarian main dishes could you prepare for a family dinner?*

Corbis/Jupiter Images

Nutrition Challenges for Vegetarians

Vegetarian diets are not always healthful diets. Some vegetarians eat too many calories, high-fat foods, and sugary foods. Other vegetarians do not eat enough fruits, vegetables, and whole-grain foods. To **obtain**, or receive, enough nutrients, vegetarians must eat enough of a variety of foods. Many vegetarians face these challenges:

- **Energy** High-fiber meals may make people feel full before they get enough calories. Some higher-calorie foods like dried fruits and nuts can help provide enough food energy.
- **Protein** Vegetarians should eat a variety of plant-based foods to get all the essential amino acids. Soybeans are a complete protein. Dry beans and peas, nuts, and seeds are nearly complete. Dairy foods and eggs also provide complete protein.
- **Calcium** Lacto-vegetarians can get calcium from dairy foods. Vegans can get enough calcium from foods such as dry beans, broccoli, calcium-processed tofu, and calcium-fortified orange juice.
- **Vitamin D** Lacto-vegetarians can drink fortified milk for vitamin D. Vegans can get vitamin D from fortified cereals and some soy beverages.
- **Vitamin B_{12}** Vitamin B_{12} is a vitamin that only comes from animal products. This vitamin is often added to foods eaten by vegetarians. It is easy for lacto-ovo-vegetarians to get enough vitamin B_{12}. Fortified foods such as cereal and soy milk can provide B_{12} for vegans.
- **Iron** Enriched, fortified, and whole-grain cereals and breads have iron. Other sources include dry beans, and some dark-green, leafy vegetables.
- **Zinc** Whole-grain products, dry beans, wheat germ, dairy products, and tofu provide zinc.

Children, teens, and pregnant women can be healthy vegetarians if they get enough food variety, nutrients, and food energy.

Reading Check **Recall** What nutritional challenges do many vegans face?

Math in Action

Healthy Amounts of Soy

Soy protein may help keep you healthy. Eating 25 grams of soy protein daily—in an eating plan that is low in saturated fat and cholesterol—promotes heart health. If you consume 12 ounces of soy milk, 2 ounces of tofu, and 2 tablespoons of soy nuts in a day, do you get more or less than 25 grams of soy protein? The amount of soy protein is:

- Soy milk: 10 grams in 1 cup
- Firm tofu: 13 grams in 4 ounces
- Roasted soy nuts: 19 grams in ¼ cup

Math Concept **Order of Operations** Equations are solved by first performing any operations within parentheses, then exponents, multiplication and division from left to right, and finally addition and subtraction from left to right.

Starting Hint Multiply the amounts of each food with the grams contained in them, then add the total.

NCTM Number and Operations Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

Math For more math help, go to the Math Appendix

Pair Vitamin C and Iron
To help your body absorb iron from rice, pasta, other grain products, beans, and peanut butter, pair them with foods rich in vitamin C, such as tomatoes and orange juice. *What iron-vitamin partnerships might you enjoy in a vegetarian meal?*

MyPyramid for Vegetarians

MyPyramid is flexible. It is a useful guide for both vegetarians and non-vegetarians. A smart vegetarian eating plan provides enough nutrients. Vegetarians need to choose plenty of fruits, vegetables, and whole-grain products. In addition, they need enough of these food-group foods:

- **Meat and Beans Group** Dry beans and peas, soy burgers, tofu, peanut butter, eggs, and sunflower seeds are protein-rich alternatives to meat, poultry, and fish.
- **Milk Group** Lacto-vegetarians can enjoy dairy foods. For calcium, vegans can choose fortified soy milk, soy cheese, and soy yogurt. Soy foods fortified with calcium and vitamin D are smart choices.

Vegetarian Meals

Vegetarian meals can be a feast of colors, flavors, and aromas. Planning and preparing vegetarian meals can be easy. Vegetarian meals are often inexpensive as well.

Plan for a variety of food. You can use familiar ingredients, and you can also try new ones. **Figure 13.1** shows sample vegetarian menus for a day.

Adapt Traditional Recipes

It is easy to modify favorite family recipes to make them vegetarian. You can substitute beans, lentils, soy products, and other protein-rich foods in many recipes with meat, poultry, and fish. The following tips can help you to get started thinking about adapting traditional recipes:

- Use extra beans in place of meat in chili.
- Substitute cooked beans or lentils for meat-based ingredients in a casserole. Top with toasted nuts or seeds for added flavor and crunch.

HOT JOBS!

Food Technologist
Food technologists apply food science to produce and distribute safe, nourishing, and wholesome food. Some specialize in certain products, such as soy.

Careers Find out more about careers. Go to this book's Online Learning Center at **glencoe.com**.

Foodfolio/Image State/Jupiter Images

- Add different chopped vegetables and beans to meatless spaghetti sauce.
- Top pizza with extra vegetables and crumbled soy burgers. Use soy cheese in place of mozzarella on pizza.
- Enjoy a bean burrito instead of one made with beef.
- Try crumbled firm tofu in place of ricotta cheese for lasagna.
- Make a stir-fry with soy burgers, firm tofu, or tempeh instead of meat or chicken.
- Use soy milk, soy yogurt, or soy margarine in place of dairy products in baked goods.
- Create a fruit smoothie with silken tofu or soy milk in place of cow's milk.

Figure 13.1 **Vegetarian Menus—Simple and Delicious**

Vegetarian Meals Every style of vegetarian eating is full of variety and flavor! *Which of these three menu plans would a vegan choose? Which menu plan is right for a lacto-vegetarian?*

	MENU 1	MENU 2	MENU 3
Breakfast	Scrambled egg Whole-wheat toast Orange juice Hot cocoa made with milk	Flavored yogurt Raisin bran muffin Cranberry juice	Whole-grain waffles topped with pecans Soy breakfast sausage Calcium-fortified orange juice Calcium-fortified soy milk
Lunch	Three-bean chili Cornbread Raw vegetables Banana Milk	Soy burger with cheese, lettuce, and tomato Broccoli slaw Peach halves Chocolate milk	Vegetable-barley soup Spinach salad with orange slices, almonds, and chickpeas Whole-grain breadsticks Calcium-fortified soy milk
Dinner	Cheese-spinach manicotti with tomato sauce Garden salad French bread slices Frozen yogurt topped with berries Water	Stir-fry with tofu cubes, vegetables, and cashews Brown rice Dinner roll Watermelon slices Milk	Bean and vegetable burrito with salsa Mango slices Spanish rice Baked apple topped with soy cheese Oatmeal cookies Iced tea
Snacks	Crackers with peanut butter Raisins Lemonade	Raw baby carrots Peanuts Apple juice	Pita triangles and hummus Fruit smoothie

Nutrition & Wellness Tips

Vegetarian Style

✓ Add tempeh, tofu, or wheat gluten (seitan) to soups and stews to boost protein.

Explore Vegetarian Foods

Vegetarian dishes are enjoyed in everyday meals in many parts of the world. Mexico has soft tacos with beans. In Asia, stir-fried vegetables and rice is a popular dish. Spicy vegetable stews are common in the Middle East.

Try some plant-based dishes from around the world that may be new to you. For example, you could try *mujudarah*, a Saudi Arabian dish. It is made from rice and lentils and flavored with lemon, onion, and cumin. Or try curry dishes from India—cooked vegetables, lentils, and curry seasoning over basmati rice. Peru combines a high-protein grain called *quinoa* with corn, beans, tomatoes, and other vegetables. Look in ethnic and vegetarian cookbooks for recipes. Explore vegetarian dishes at ethnic restaurants, too.

Reading Check **Reflect** What are two strategies for fitting vegetarian meals into your day?

EASY RECIPES Everyday Favorites

Southwest Salad

Customary	Ingredients	Metric
1 can (15 oz.)	Black beans, drained and rinsed	1 can (420 g)
1 can (11 oz.)	Sweet corn, drained	1 can (300 g)
1	Roma tomato, chopped	1
2 Tbsp.	Green onion, chopped	30 mL
2 Tbsp.	Fresh cilantro, chopped	30 mL
½ tsp.	Chili powder	2 mL
¼ tsp.	Ground cumin	1 mL
¼ cup	Low-fat vinaigrette salad dressing	50 mL

Try This!

Use red, navy, or soybeans instead of black beans. All make complete protein when combined with corn!

Yield: 4 servings, 8 oz. (200 g) each

1. In a large bowl, stir together all ingredients except salad dressing until well combined.
2. Divide mixture evenly among four salad plates.
3. Drizzle 1 Tbsp. (15 mL) dressing over each salad. Serve immediately.

Nutritional Information Per Serving: 173 calories, 3 g total fat, (0 g saturated fat),
0 mg cholesterol, 711 mg sodium, 30 g total carbohydrate (8 g fiber, 3 g total sugars), 8 g protein

Percent Daily Value: vitamin A 4%, vitamin C 15%, calcium 4%, iron 15%

After You Read

CHAPTER SUMMARY

Vegetarians eat foods from plant sources. Many also eat eggs and dairy products. People choose to be vegetarians for various reasons, including religious, cultural, health, and concern for animals. Several nutrients need special attention from vegetarians: protein, calcium, vitamin D, vitamin B_{12}, iron, and zinc. MyPyramid can guide vegetarians as they make their own healthful eating plans. Vegetarian meals may include familiar foods or introduce you to new plant-based dishes.

Vocabulary Review

1. **Use each of these vocabulary words in a sentence.**

Content Vocabulary

- vegetarian (p. 186)
- lacto-ovo-vegetarian (p. 186)
- lacto-vegetarian (p. 186)
- ovo-vegetarian (p. 186)
- vegan (p. 186)

Academic Vocabulary

- examine (p. 186)
- obtain (p. 187)

Review Key Concepts

2. **Distinguish** between the different types of vegetarian eating styles.
3. **Identify** the nutritional benefits and challenges of vegetarian eating plans.
4. **Explain** how to use MyPyramid to make healthful vegetarian food choices.

Critical Thinking

5. **Plan** a day of healthful meals and snacks for a vegan. Identify the food groups represented. Explain how your menu addresses nutrition challenges vegans may face.
6. **Analyze** a friend's comment. She said that any eating plan is healthful as long as it contains no meat. Is she right? Explain.
7. **Design** a vegetarian version of MyPyramid, using the shape and its food groups. Include food choices for all vegetarians, including vegans.
8. **Explain** how to find vegetarian foods in the supermarket with enough nutrients that vegetarian eating plans often lack.
9. **Modify** a meat-based recipe. Explain how to change the recipe to make a meal appropriate for a lacto-vegetarian or a vegan.

Real-World Skills and Applications

Set Goals and Make Decisions

10. Order Pizza Write a script for this situation: Four teens are at a pizza place. One is not a vegetarian. The second is a vegan. The third is a lacto-ovo-vegetarian, and the fourth is a lacto-vegetarian. Write a script of the conversation as each describes what to order and why.

Collaborative and Interpersonal

11. Dinner Guests A vegetarian has been invited to a non-vegetarian's home for dinner. Write two or more paragraphs to explain how the vegetarian can use good communication and interpersonal skills to explain his or her dietary needs. The explanation should show respect for the food choices of others.

Technology

12. Vegetarians at School With your teacher's permission, break into groups. Plan a video with two or three other students about healthful vegetarian meals at school. Consider vegetarian foods sold at school and brought from home. Create a storyboard and share it in class.

Financial Literacy

13. Compare Costs A grocery store sells a frozen vegetarian lasagna that serves two people for $7.50. It also has a frozen family-size vegetarian lasagna that serves four people for $12.95. Determine the individual serving cost to find which is the better value.

ACTIVE LEARNING

14. International Vegetarian Dishes People enjoy vegetarian dishes around the world. Collect six main-dish recipes from different countries. List each recipe and the non-meat protein sources in each recipe. Add these recipes to your recipe file with a brief description of the dish and its cultural connection.

NCSS I E Culture Demonstrate the value of cultural diversity, as well as cohesion, within and across groups.

ACTIVE LEARNING

15. Learn About Soy Learn more about a food made from soybeans: perhaps tofu, tempeh, soy milk, or soy burgers. Find it in the supermarket. Use label information to learn about the product's nutrients, health benefits, and uses. Write a summary of your research.

Foods Lab

16. Taste Test for Soy Burgers Cook and taste a soy burger. Write a paragraph to answer these questions: What does it taste like? What is its texture and color? How does it compare for nutrition and cost with a cooked beef patty of the same size? How might you use a soy burger in different types of recipes?

Additional Activities For additional activities go to this book's Online Learning Center at **glencoe.com**.

Academic Skills

English Language Arts

17. Write a Culinary Article Imagine that you write for a food and travel magazine. Research and write a 500-word article about rice and beans around the world. Organize your information logically in paragraphs with a main theme.

NCTE 5 Use different writing process elements to communicate effectively.

Social Studies

18. All About Soy Soybeans are used in many ways: as human food (tofu, tempeh, soy milk, soy burgers, other soy foods), for vegetable oil, for oil, as livestock feed, and for biofuel. Go online to learn more about soybeans. Write a paragraph to describe different uses and the possible impact of selling soybean crops for different uses.

NCSS IX H Global Connections Illustrate how individual behaviors and decisions connect with global systems.

Mathematics

19. Percents Meat, poultry, and fish are popular ingredients in many American meals. In the United States in 1980, people ate an average of 180 pounds of meat per year. By 2006, each American ate an average of 220 pounds of meat per year. By what percentage did meat consumption rise?

Math Concept **Fraction, Decimal, and Percent** A percent is a ratio that compares a number to 100. A percent can be converted to a decimal by dividing the percent number by 100.

Starting Hint Start by finding the difference in amounts people ate each year. Divide the recent total into the difference. Then, multiply by 100 to find the percentage.

Math For more math help, go to the Math Appendix

NCTM Number and Operations Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

STANDARDIZED TEST PRACTICE

ESSAY

Read the paragraph. Write your answer on a separate piece of paper.

Test-Taking Tip Highlight the content vocabulary terms in your notes to find them easily. Consider taking a section of notes about only vocabulary. One way to write definitions is in this format: vegan—someone who eats no meat or other animal products.

Vegetarian or not, almost everyone can benefit from adding more fruits and vegetables to their meals and snacks. It is easy to add a pear to a salad or fresh spinach to mashed potatoes. Consider adding a dessert of fruit. Eating more fruits and vegetables take a little planning.

20. Think about what you learned in this chapter. Write an essay about how you would plan a vegetarian meal or day's menu for yourself or your family. Include the vegetarian dishes you would choose and the ingredients included in each dish.

II. POST-TEXT EXERCISES

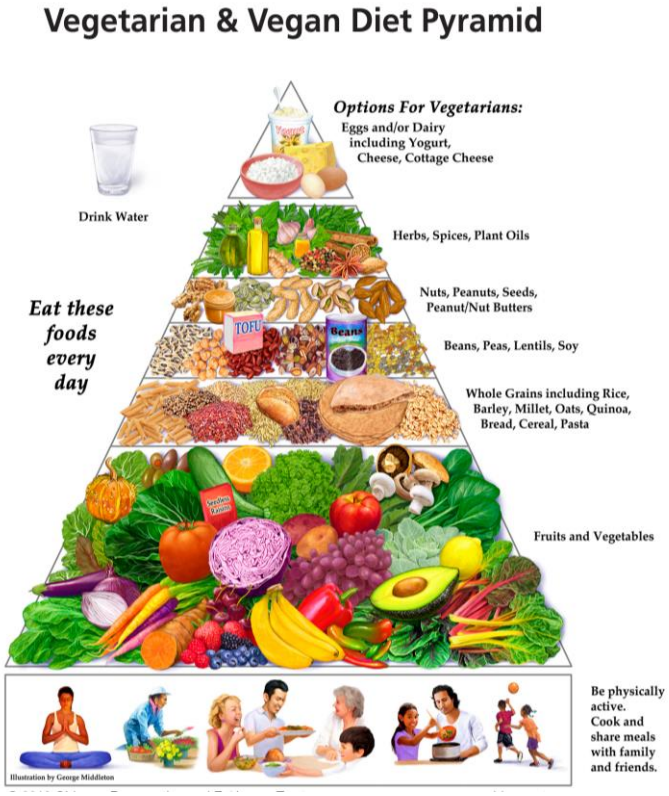
Exercise 1. *Study possible substitution of meat products for vegetarians. Add more from your experience.*

- Use extra beans in place of meat in chili.
- Substitute meat-based ingredients for cooked beans or lentils in a casserole.
- Top with toasted nuts or seeds for added flavor and crunch.
- Add different chopped vegetables and beans to meatless spaghetti sauce.
- Top pizza with extra vegetables and crumbled soy burgers.
- Use soy cheese in place of mozzarella on pizza.
- Enjoy a bean burrito instead of one made with beef.
- Try crumbled firm tofu in place of ricotta cheese for lasagna.
- Make a stir-fry with soy burgers, firm tofu instead of meat or chicken.
- Use soy milk, soy yogurt, or soy margarine in place of dairy products in baked goods.
- Create a fruit smoothie with silken tofu or soy milk in place of cow's milk.

Exercise 2. *Answer the questions in the Sections* ***"Vocabulary Review" and "Review Key Concepts"*** *on page 105.*

Exercise 3. *Discuss with your partner the Section* ***"Academic Skills"*** *on page 107. Complete the tasks given there.*

Exercise 4. *Explain the information given below to summarise the information from Lesson 9. Provide recommendations of food intake for vegetarians. Give relevant examples and explanations.*



Exercise 5. *Based on the information above make a short presentation to your partner on how to choose food for daily consumption of vegetarians. Include one of the following aspects:*

- Traditional eating habits VS those of vegetarians. Different food practices that become wide-spread now;
- The right (recommended) food for people who refuse from meat and dairy products;
- Correlation of food ingredients with available food products for vegetarians to buy in your country;
- Top 5 rules of staying healthy for vegetarians/vegans.

** Use active vocabulary from the PRE-TEXT EXERCISES.*

Vegans, Pescos, and Pollos

Vegetarians come in many forms, from the strict to the laid back. Here's a guide to the various flavors.

Ovo-Vegetarianism This group eats vegetables plus unfertilized eggs, on the theory that the hen would lay them even if we didn't eat them.

Lacto-Vegetarianism Vegetables and dairy products are eaten but not eggs. You can have, for example, butter, cheese, whipped cream, milk shakes, and ice cream.

Ovo-Lacto-Vegetarianism The most commonly practiced vegetarian regimen, it includes vegetables, eggs, and dairy. The diet is appealing because it has great variety yet uses no animal meat.

Pesco-, Pollo-, and Semi-Vegetarianism Pesco-vegetarians eat fish (because, they say, fish don't have advanced nervous systems). Pollo-vegetarians eat chicken. The newcomer to the list, semi-vegetarianism, is for people who frequently—but not totally—avoid meat and dairy. These three forms may represent a healthy diet, but they are not, by definition, vegetarian.

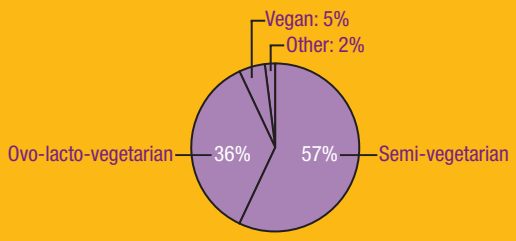
Veganism This group avoids all meat, dairy, eggs, or other animal products—even honey.

These vegetarian diets can have many health benefits. Certainly, that's the conclusion of studies presented at the International Congress on Vegetarian Nutrition. Reports stated that vegetarians have a healthier total intake of fats and cholesterol. They also indicated that older vegetarians use less medication than do older meat-eaters.

With knowledge about nutrition, you can eat like a king from the vegetable world. Ordinary people, however, are not nutrition professionals. People on vegetarian diets need to be smart eaters to get all their nutrients, while avoiding a high-fat, high-calorie diet of starches and cheeses. A meatless (or nearly meatless) diet can be healthful, but researchers advise that vegetarians should always keep caution on the menu.

TIME to THINK... About Vegetarianism

In a recent poll of 10,000 Americans, 4 percent reported that they considered themselves to be vegetarians. Of that 4 percent, this graph shows how they described themselves:



Take an in-class poll. How do your results compare to our poll?

Chapter 6 *Review*

After You Read

Use your completed Foldable to review what you have learned about managing weight and maintaining healthy body composition. List ways that you might use what you have learned in your daily life.

FOLDABLES™ Study Organizer

EXPLORING HEALTH TERMS

Answer the following questions on a sheet of paper.

Lesson 1 *Replace the underlined words with the correct term.*

Body Mass Index (BMI)	**underweight**
overweight	**obesity**
nutrient-dense foods	**body image**

1. The way you see your body is your BMI.
2. The ratio of weight to height used to assess body size is body image.
3. Fruits and vegetables are nutrient-poor foods.
4. Obesity refers to weighing less than the standard weight range for a certain height.

Lesson 2 *Identify each statement as True or False. If false, replace the underlined term with the correct term.*

bulimia nervosa	**eating disorder**
fad diets	**anorexia nervosa**
weight cycling	**binge eating disorder**

5. The repeated pattern of loss and regain of body weight is bulimia nervosa.
6. An extreme, harmful eating behavior that can cause serious illness or even death is an eating disorder.
7. Anorexia nervosa is a condition in which the irrational fear of becoming obese results in severe weight loss from self-imposed starvation.
8. Compulsive overeating is called weight cycling.

Lesson 3 *Match each definition with the correct term.*

dietary supplement	**rehydration**
electrolytes	**vegan**
herbal supplement	**vegetarian**
megadose	

9. Restoring lost body fluids.
10. A person who eats only plant foods.
11. A nonfood form of one or more nutrients.
12. A chemical substance from plants that may be sold as a dietary supplement.

RECALLING THE FACTS

Use complete sentences to answer the following questions.

1. Explain the relationship between energy balance and a healthy weight.
2. Analyze the relationship between maintaining a healthy weight and disease prevention. Name three diseases that can be prevented by maintaining a healthy weight.
3. List three weight-management strategies.
4. How does regular physical activity help promote a healthy weight?
5. What are some risks of long-term fasting?
6. Name three risks associated with diet pills.
7. Describe the causes, symptoms, and treatment of the eating disorder bulimia nervosa.
8. Describe the causes, symptoms, and treatment of binge eating disorder.
9. Explain how dehydration and electrolyte imbalance are related.
10. How can a vegetarian diet benefit health?
11. Why might taking an herbal supplement be risky?
12. Why is proper nutrition important for mothers and babies?

THINKING CRITICALLY

1. **Synthesizing.** Why might a person who is on a weight-loss plan become undernourished? How can this condition be avoided?
2. **Analyzing.** Find two diet plans featured in magazines. Use what you know about good nutrition and the Food Guide Pyramid to identify the strengths and weaknesses of each plan.
3. **Applying.** Apply what you have learned about nutrition and vegetarian eating by using the Food Guide Pyramid to plan a sample one-day vegan menu.

Standardized Test Practice

ELA

Read the passage below and then answer the questions.

A Choice

After rehearsal last night, I went out with some friends from drama club. I listened while the waitress took everyone's order. When she turned to me, I asked if she could bring me a salad without meat. Then the questions from my friends began: "You wear leather shoes don't you?" "So, you think you are better than we are?" "Are you sure you are so healthy?" "What about the poor little vegetables you are killing?"

I have been a vegetarian since the sixth grade, so I am pretty used to the questions, jokes, and sarcasm. I have never thought that being a vegetarian makes me "better" than anyone. I don't know if I am healthier than other people. I made the decision for myself, and I don't try to force it on others. But I can't help thinking that it is definitely time for others to understand why some people are vegetarians.

I am a vegetarian because I have concerns about the ways that food animals are raised. Many of my vegetarian friends choose vegetarianism for other reasons. Some believe that by eliminating meat from their diets they are avoiding unhealthy chemicals. Some choose vegetarianism to combat their high cholesterol. Others choose it for religious or cultural reasons. Vegetarians have educated themselves and made a decision. Nonvegetarians should respect this decision.

1. The author's friends might have reacted differently to her vegetarianism if they understood

- **A** the reasons for her decision.
- **B** the cost of raising animals for food.
- **C** her love of animals.
- **D** the history of vegetarianism.

2. Which phrase in the second paragraph represents the main idea?

- **A** I don't know if I am healthier.
- **B** I made the decision for myself.
- **C** I have been a vegetarian since the sixth grade.
- **D** I don't try to force it on others.

3. Write a paragraph about something you feel strongly about. Provide details to explain why you feel this way.

LESSON 10. Consumer Issues: Facts or Fiction

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. How do people get to know what food is good for them?
2. What is the influence of media/advertising in this issue?
3. Give few examples of food myths you know.

* Answer few more questions in the Section Read to Learn Key Concepts on page 114.

Exercise 2. *Study the active vocabulary, check how these words are pronounced and translated.*

Word	Pronunciation/ Translation	Word	Pronunciation/ Translation
media literacy		breakthrough	
accurate information		herbal supplement	
physicians		side effect	
science-based education		emotional appeal	
health fraud		reliable research	
advertisement		exaggerate	

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Media literacy	A	is false and possibly harmful approaches to health care.
2.	Health fraud	B	is the activity or profession of producing advertisements for commercial products or services.
3.	Herbal supplement	C	is a secondary, typically undesirable effect of a drug or medical treatment.
4.	Advertising	D	is knowing how to find reliable information sources, evaluate the information and apply what you learn
5.	Side effect	E	is the process of providing or obtaining the food necessary for health and growth.
6.	Nutrition	F	is a substance that comes from plants.

Exercise 4. *Match the collocations:*

to explain	reliable	nutrition	cooking	sensible	to interact	to persuade	to apply to
information	lifestyle	results	with medicine	to buy	experts	humans	techniques

Exercise 4. *Read the sentences, fill in the missing words.*

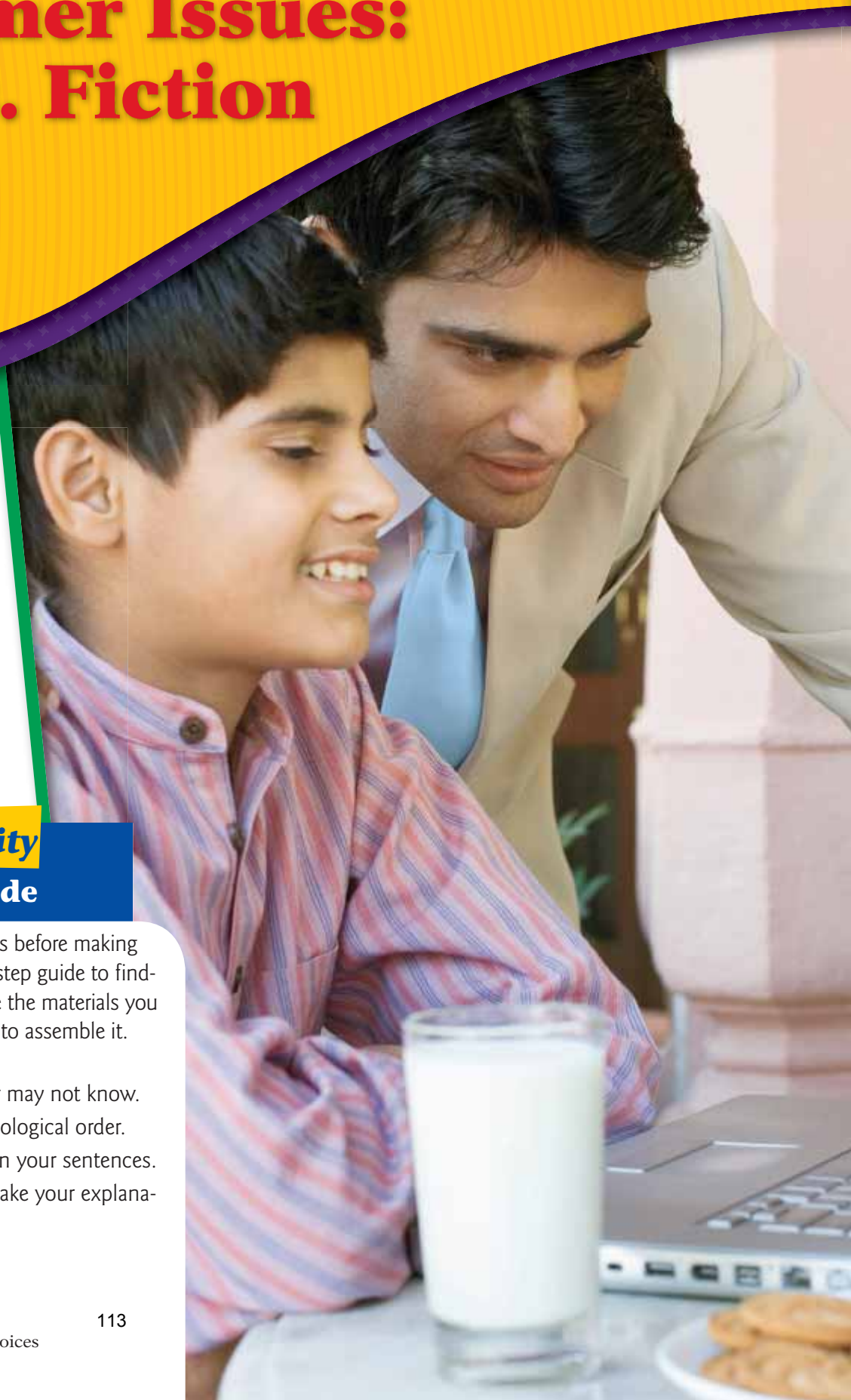
like, poor, cause, makes, build

1. Chocolate and greasy foods _____ pimples.
2. Sugar _____ you hyper active.
3. Carbohydrates _____ bread and pasta make you fat.
4. Nutrient supplements can make up for _____ eating.
5. You can _____ muscle by eating more protein.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

CHAPTER 15

Consumer Issues: Fact vs. Fiction



Explore the Photo

Smart choices for wellness are based on scientific facts. *Where do you find facts about food and nutrition?*

Explore the Photo Answers may include teachers of food science and nutrition, health teachers, doctors, and school nurses. Encourage the use of reliable sources.

Writing Activity

Step-by-Step Guide

Expert Advice Get the facts before making food choices. Write a step-by-step guide to finding sound food advice. Include the materials you need to create it and the steps to assemble it.

Writing Tips

1. **Explain** terms the reader may not know.
2. **Write** the steps in chronological order.
3. **Use transition words** in your sentences.
4. **Use precise verbs** to make your explanation clear.

FoodPix/Jupiter Images

Reading Guide

Before You Read

Prepare with a Partner Before you read, work with a partner. Read the headings and ask each other questions about the topics that will be discussed. Write down the questions you both have about each section. As you read, answer the questions you have identified.

Read to Learn

Key Concepts

- **Identify** sources of reliable food and nutrition information.
- **Evaluate** food advertisements.
- **Recognize** false health claims.
- **Interpret** food and nutrition news.

Main Idea

You can use food and nutrition knowledge, critical-thinking skills, and decision-making abilities to make smart decisions for wellness.

Content Vocabulary

- media literacy
- health fraud
- herbal supplement

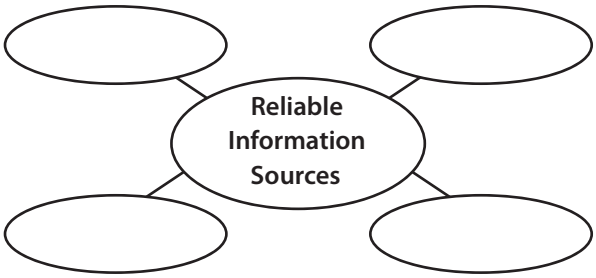
Academic Vocabulary

You will find these words in your reading and on your tests. Use the glossary to look up their definitions if necessary.

- accurate
- conflict

Graphic Organizer

As you read, use a graphic organizer like the one below to list four generally reliable sources of health information.



Graphic Organizer Go to this book's Online Learning Center at **glencoe.com** to print out this graphic organizer.

Academic Standards

English Language Arts

NCTE 6 Apply knowledge of language structure and conventions to discuss texts.

Mathematics

NCTM Number and Operations Compute fluently and make reasonable estimates.

NCTM Number and Operations Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

Social Studies

NCSS VI A Power, Authority, and Governance Examine persistent issues involving the rights, roles, and status of the individual in relation to the general welfare.

NCSS VII H Production, Distribution, and Consumption Apply economic concepts and reasoning when evaluating historical and contemporary social developments and issues.

NCTE National Council of Teachers of English
NCTM National Council of Teachers of Mathematics
NSES National Science Education Standards
NCSS National Council for the Social Studies

Find the Facts on Food and Nutrition

Have you done a report on food or nutrition? If so, you know that nutrition information is everywhere. There are news, talk, and cooking shows on television and radio. Magazines, newspapers, books, pamphlets, and brochures have advice. Many Web sites have cooking, nutrition, and wellness information. Even your family and friends may have advice. With so much information, many people become confused about nutrition and health.

You need to be a good consumer of information to make food choices for wellness. You must have media literacy. **Media literacy** is knowing how to find reliable information sources, evaluate how **accurate**, or factual, the information is, and apply what you learn.

Who Are the Experts?

No matter where the information comes from, make sure the source is reliable, or trustworthy. To be reliable, a writer must either be an expert or present facts from expert sources.

Many food and nutrition experts have degrees in food science or nutrition from colleges and universities. These experts usually offer reliable information. Physicians and nurses also receive nutrition training. Students at culinary schools prepare for careers as chefs and learn cooking techniques for good nutrition.

Most nutrition experts show their science-based education credentials with letters after their names. The letters CFCS mean that a person is certified in family and consumer sciences. The letters RD mean that a person is a registered dietitian.

Nutrition & Wellness Tips

Reliable Web Sites

✓ Look for Web sites with URLs that end with .gov (government) or .edu (education). These usually indicate reliable sources of online information.

Vocabulary

You can find definitions in the glossary at the back of this book.

As You Read

Connect Think of some of the sources where you have found nutrition information recently.

As You Read Answer
Answers may include Web sites, this textbook, the teacher, magazines, and TV shows.

Photo Caption Answer
You can trust a registered dietitian to give you good advice.

Talk to an Expert Registered dietitians have special training that qualifies them to provide expert advice on nutrition. *What is the advantage of talking with a registered dietitian when you need nutrition advice?*

Blend Images/Jupiter Images

When You Have Questions

Use reliable sources of information when you have questions about food, nutrition, and wellness. Here are some reliable sources of information:

- **At School** Your school nurse, food and nutrition teachers, health teachers, and family and consumer sciences teachers.
- **In Your Community** Registered dietitians, doctors, city or county nutritionists, specialists from a state university, consumer groups, and the local office of the U.S. Food and Drug Administration (FDA).
- **National Organizations** The American Dietetic Association, American Heart Association, and the American Association of Family and Consumer Sciences.
- **Government Web Sites** National Institutes of Health (NIH), Centers for Disease Control and Prevention (CDC), FDA, and the Food and Nutrition Information Center of the United States Department of Agriculture (USDA).

Reading Check **Discuss** Why is media literacy important for wellness?

Math in Action

Vitamin C from Food

Food, not supplements, is the best source of vitamins. Teen boys should get at least 75 mg of vitamin C daily; girls need 65 mg. Use addition to plan a combination of foods from the list below that provides you with the right amount of vitamin C.

- 1 (7.5-in, or 19 cm) carrot — 4 mg
- 1 medium apple — 8 mg
- 1 large tangerine — 26 mg
- 2 cups fresh spinach — 16 mg
- 1 medium tomato — 16 mg

Math Concept **Front-End Estimation**
Front-end estimation can be used to quickly estimate sums and differences before adding or subtracting.

Starting Hint Use addition to find combinations of foods that will total at least 75 mg for boys, or at least 65 mg for girls. While you can have more than one serving of any food, try to use as many different items from the list as possible.

NCTM Number and Operations Compute fluently and make reasonable estimates.

Math For more math help, go to the Math Appendix

Advertising

Food companies spend billions of dollars every year on advertising for radio, television, magazines, and newspapers. Putting a food or beverage brand in a movie or TV show is another example of advertising. Advertisements often include information that is biased in favor of the advertiser.

Almost every advertisement has one purpose: to persuade you to buy. Ads may not provide all the facts or options you need to make the best decisions for your health.

Some ads may tempt you to believe that a product or service will make you more popular or attractive. They may use celebrities and athletes, music, and graphics to make the product seem irresistible. Sometimes ads even look like news stories.

Reading Check **Recall** How do advertisers try to influence you?

Math in Action Answer
Answers will vary, but should add up to at least 75 mg for boys, and at least 65 mg for girls.

Reading Check Answer
Media literacy helps you evaluate information to make better choices.

Reading Check Answer
Advertisers use athletes, celebrities, music, and graphics to tempt you to buy products or services.

HOT JOBS!

Food and Nutrition Writer

Food and nutrition writers write for magazines, newspapers, Web sites, and other media. They conduct research, do interviews, and attend events to gather information.

Careers Find out more about careers. Go to this book's Online Learning Center at **glencoe.com**.

True or False?

Have you ever heard a food or supplement promoted as a cure, secret, breakthrough, guarantee, or miracle food? Words like these are usually hype! There are also many myths about nutrition and supplements. (See **Figure 15.1**.)

The way to stay healthy is with a sensible lifestyle and smart eating. However, many people spend money on products that promise quick and easy health fixes. These products are usually a waste of money and can create a false sense of hope for a cure. Some people who sell these products claim to have qualifications that they do not have. This is why it is important to learn to recognize health fraud. **Health fraud** is false and possibly harmful approaches to health care. The Federal Trade Commission and the FDA help protect Americans from health fraud.

Using a food or supplement as an easy health fix may have serious consequences. For example, very high doses of some vitamins can have harmful side effects. These products are never a good substitute for healthful lifestyle choices and proper medical care.

Figure 15.1 **Nutrition Myths and Truths**

How Food Myths Spread Some beliefs about food are based on myths, not facts. Even so, these myths spread from person to person. *What other food and nutrition myths, besides the ones listed on the chart, have you heard?*

Myth	Fact
"Chocolate and greasy foods cause pimples."	Hormone changes cause acne, not chocolate or greasy foods.
"Sugar makes you hyper."	Hyperactivity is not related to eating candy or sweet drinks. Scientists do not yet know all the reasons for hyperactivity.
"Carbohydrates like bread and pasta make you fat."	Carbohydrates are the body's best energy source. A slice of bread has only about 70 calories. Half a cup of pasta has about 100 calories. Excessive calories come from big portions or high-fat spreads or sauces.
"Nutrient supplements can make up for poor eating."	No single supplement provides all the nutrients and other substances that food supplies. Supplements also do not supply enough food energy to meet your body's needs.
"You can build muscle by eating more protein."	Only physical activity builds muscles. Without physical activity, extra protein from food can become body fat.

Figure Caption Answer Answers will vary, but may include fresh vegetables are always better than frozen or canned, and margarine always contains less fat than butter.

Herbal Supplements

An **herbal supplement** is a substance that comes from plants. Herbal supplements are often promoted with health claims. However, scientists do not know everything about what they do, how they interact with medicine, or how safe they are. Some herbal supplements can be dangerous. Always talk to your doctor before taking any herbal supplement. When you are unsure whether advice about food and nutrition is reliable, ask yourself:

- Does the advice identify good foods and bad foods? No food is good or bad. Your overall food choices are what count.
- Does the advice use emotional appeals and personal stories to prove a claim? Only good research can prove a claim.
- Does the advice fit with what you already know?

Nutrition & Wellness Tips

Contact Food Companies

✓ Check food labels for the Web site addresses and toll-free phone numbers of food companies for answers to your consumer questions.

Reading Check **Predict** What might happen if you used an herbal supplement to treat an illness instead of seeking medical care?

Reading Check Answer The supplement could produce harmful side effects while having no effect on the illness. It might also delay reliable health care.

Food and Nutrition in the News

You have probably seen news reports about scientific studies on food and nutrition. Do not change your food choices based on a single report. The results of one study are just one piece of a large puzzle. Sometimes, the results of a study **conflict**, or disagree, with the results of other studies. This is a natural part of the scientific process. Scientists must do many studies before they can agree on what the results mean. Research needs to be repeated before it can be considered reliable.

It is important to pay careful attention when you hear news about nutrition studies. Some news reports may exaggerate or not fully explain the results of the research.

Photo Caption Answer Before you try any food or herbal product that has health claims, check with a qualified nutrition expert or your doctor.

Beware of Claims Supplements such as bee pollen, shark cartilage, and spirulina are often promoted with misleading claims. *What would you say to a friend who thinks you should try the latest herbal supplement?*

Plush Studios/Blend Images/Corbis

Think Critically About News

It is important to use critical thinking skills when reading about health news. If you do not understand something you read, ask a doctor, nurse, registered dietitian, or teacher questions such as:

- Who did the research? Are the researchers qualified?
- Who paid for the study? This may influence the results.
- Was the study performed on animals or humans? Animal studies might not apply to humans.
- How large was the study? Small studies may not draw the right conclusions.
- What do other experts on the topic or studies about the topic say? Other studies may have reached different conclusions.
- Were study participants like you? Even good scientific studies may not apply to you.

Reading Check Answer
News reports often fail to fully explain research results. Research needs to be repeated before it can be considered reliable.

✓ **Reading Check** **Explain** Why should you pay careful attention to news reports about nutrition research?

EASY RECIPES Everyday Favorites

Cinnamon Baked Apples

Customary	Ingredients	Metric
5	Apples	5
½ cup	Packed brown sugar	125 mL
1 tsp.	Cinnamon	1 mL
1 tsp.	Lemon juice	1 mL

Try This!
Serve this over waffles or with ice cream.

Yield: 6 servings, ½ cup (125 mL) each

1. Preheat oven to 350 degrees. Peel, core and slice apples into quarters, then cut each quarter into three pieces. Put into a large bowl and mix with other ingredients.
2. Pour into a baking dish and put in oven.
3. Stir occasionally. Serve when apples are tender, about 30 minutes.

Nutritional Information Per Serving: 122 calories, 0 g total fat, (0 g saturated fat), 0 mg cholesterol, 9 mg sodium, 33 g total carbohydrate, (3 g fiber, 30 g total sugars), 1 g protein

Percent Daily Value: vitamin A 0%, vitamin C 10%, calcium 4%, iron 4%

After You Read

CHAPTER SUMMARY

A wise consumer uses critical-thinking skills to evaluate food and nutrition information. Reliable information comes from qualified food, nutrition, and wellness experts. Advertisers use powerful techniques to influence your buying decisions. You must judge whether the advertising is true for you. Be alert for false, misleading, or exaggerated food or nutrition claims. The results of nutrition research studies often appear in the news. Remember that the study may not apply to you, and that a single study is not enough to change your food choices.

Vocabulary Review

1. **Define each vocabulary term in your own words.**

Content Vocabulary

- media literacy (p. 214)
- health fraud (p. 216)
- herbal supplement (p. 217)

Academic Vocabulary

- accurate (p. 214)
- conflict (p. 217)

Review Key Concepts

2. **Identify** sources of reliable food and nutrition information.
3. **Evaluate** food advertisements.
4. **Recognize** false health claims.
5. **Interpret** food and nutrition news.

Critical Thinking

6. **Analyze** a newspaper article about food and nutrition. Summarize the article, then determine if it offers reliable information.
7. **Evaluate** a Web site that has health claims about a new scientific study. How would you determine whether the site has reliable information?
8. **Explain** what questions you should ask in this situation: You see a TV news report stating that a certain food has been shown to increase the risk of heart disease. However, you have also read that the same food may help prevent cancer.
9. **Hypothesize** what might happen if you tried to eliminate carbohydrates from your meals and snacks because you heard that they would make you fat. Would this be a wise course of action? Why or why not?

Real-World Skills and Applications

Set Goals and Make Decisions

10. Health TV Imagine that you are on the staff of the school's television channel. You want to start a talk show with practical, reliable advice about health and nutrition for teens. Make an outline of the topics and guests you would have on the program.

Interpersonal and Collaborative

11. Advertise School Meals Plan an advertising campaign for your school's breakfast or lunch program. Work with a classmate to identify the campaign's goal and message. Create a slogan and visuals. Be creative, engaging, and honest.

Financial Literacy

12. Buy One, Get One Free This week, the 18-oz. box of your favorite whole-grain cereal is $0.50 off the regular $4.49 price. The smaller, 12.9-oz. box costs $3.79. You will buy just one box. How much will you pay per oz. for each size? Which box is less expensive per oz.?

Technology

13. Herbal Supplements Design a Web page with facts about an herbal supplement. Use reliable sources of information to research the benefits and risks of using the supplement. Footnote your sources, and include hyperlinks.

The flu vaccine is a preventive measure against certain strains of influenza. It does not eliminate the chance of getting the flu. People who are allergic to eggs should consult their doctor before getting vaccinated.

ACTIVE LEARNING

14. Food Advertising Count all the food advertisements you see or hear for one day. Find them from a variety of sources. Collect examples. As a class, discuss where the ads appeared, what advertising techniques were used, and the possible effects of these ads on teens' lives.

ACTIVE LEARNING

15. Consumer Protection The United States government has enacted legislation to protect consumers from fraud. Find out about a consumer's basic rights. If you were the victim of fraud, what steps might you take to get justice?

NCSS VI A Power, Authority, and Governance Examine persistent issues involving the rights, roles, and status of the individual in relation to the general welfare.

Foods Lab

16. Test Product Claims Find several ads with claims for a food product, such as better tasting or ready in 10 minutes. Choose one product to taste-test or prepare in class. Does it fulfill the advertising promise? Document and share your findings in a visual presentation.

Additional Activities For additional activities, go to this book's Online Learning Center at **glencoe.com**.

Academic Skills

English Language Arts

17. Persuasive Ads Identify techniques used in persuasive writing. Find three advertisements that use these techniques. Then analyze the techniques used in each ad and explain whether each ad is persuasive, misleading, or both.

NCTE 6 Apply knowledge of language structure and conventions to discuss texts.

Social Studies

18. New Ways to Advertise Many companies pay for their products or logos to appear on popular shows. This is called product placement. With the permission of a parent or teacher, watch a TV show and note the products you see. Write a paragraph to describe what these product placements tell you about the audience.

NCSS VII H Production, Distribution, and Consumption Apply economic concepts and reasoning when evaluating historical and contemporary social developments and issues.

Mathematics

19. Percents Some companies use infomercials to sell their products on TV. Infomercials are long commercials that look like informational shows. Of 191 infomercials broadcast during one month, 73 sold a weight-loss or health-care product. What percent of the infomercials does this represent?

Math Concept **Percentages** A fraction can be expressed as a percent by first converting the fraction to a decimal, and then converting the decimal to a percent by moving the decimal point two places to the right.

Starting Hint Set up a ratio, or fraction, with the number of health-care infomercials as the numerator, and the total number of infomercials as the denominator.

Math For more math help, go to the Math Appendix

NCTM Number and Operations Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

STANDARDIZED TEST PRACTICE

ESSAY

Read the paragraph. Then read the writing prompt and write your essay on a separate piece of paper.

Test-Taking Tip Building your vocabulary will help you on many kinds of tests. Practice new vocabulary and concepts with your parents and other adults you know.

Knowing what sources of nutritional information to trust can be confusing. You may hear that a particular food is helpful, and then later hear that it also can be harmful. For example, one food may be known to help the heart, but hurt the liver.

20. Think about what you learned in this chapter. How do people usually make choices about what to eat and how to exercise? How can people make informed choices about food and health? Write an essay to explain your answer.

II. POST-TEXT EXERCISES

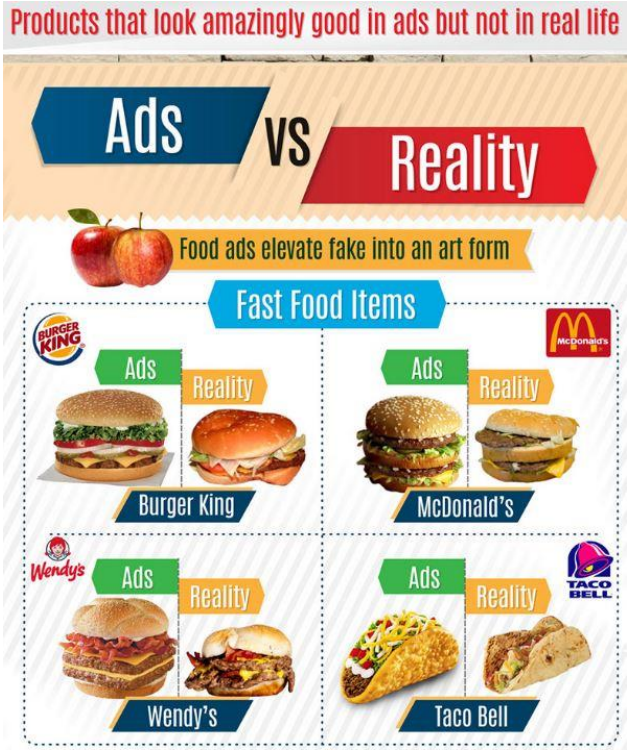
Exercise 1. *Agree or disagree with the statements. Prove your point of view.*

1. Advertisements often include information that is biased in favor of product.
2. Ads provide all the facts to make the best decisions for person's health.
3. Celebrities and athletes, music, and graphics make the product in ad more attractive.
4. Today few people spend money on products that promise quick and easy health fixes.
5. Using food supplement s may have serious consequences.
6. Even small doses of some vitamins can have harmful side effects.
7. Food myths are created by advertisers.
8. Use of emotional appeals and personal stories to prove products is illegal.

Exercise 2. *Answer the questions in the Sections* ***"Vocabulary Review" and "Review Key Concepts"*** *on page 120.*

Exercise 3. *Discuss with your partner the Section* ***"Academic Skills"*** *on page 122. Complete the tasks given there.*

Exercise 4. *Explain the information given below to summarise the information from Lesson 10. Provide recommendations of buying and consuming food wisely for people in your country. Give relevant examples and explanations.*



Exercise 5. *Based on the information above make a short presentation to your partner on how to choose food for daily consumption and how to be cheated by ads. Include one of the following aspects:*

- Media coverage/advertising of consumer goods VS food products. Different food promotion strategies used in your surrounding (comment on fast food ad in the photo);
- Supplements, their types and functions (choose one and describe it);
- Food related myths you have heard, how much are they misleading;
- Top 5 rules of buying food products.

* *Use active vocabulary from the PRE-TEXT EXERCISES.*

TIME HEALTH
SCIENCE & TECHNOLOGY

Confused By Expiration Dates? You're Not Alone. Here's What They Really Mean

BY JAMIE DUCHARME

Most Americans are needlessly tossing out packaged food—not because it's gone bad, but because they take the date stamped on it far too literally. That's according to a recent study published in the journal *Waste Management*, which surveyed more than 1,000 people about the phrases and dates on food packages.

Many Americans wrongly believed that food product dates—often prefaced by "best by" or "sell by"—are federally regulated and indicate the point after which the food is no longer safe to eat. (Neither is true: labeling decisions are made voluntarily by food companies and are meant to help consumers determine how fresh a food is, according to the USDA.) As a result, 84% of people throw out food when it's close to the package date at least occasionally, the researchers found.

The study shows "not only that consumers widely misunderstand current labels, but also that misunderstanding and misplaced trust in the labels lead to excess reported discards," the authors write. Here's what you need to know about food labels and what to toss when.

What are the differences between food date labels?

"Best by" refers to when a food is at peak flavor or quality, says Janell Goodwin, a technical information specialist with the USDA (who was not involved with the study). "Sell by" indicates how long a store should sell or display a product for inventory management reasons. And the "use by" date is the last recommended day that a product can be eaten at peak quality, Goodwin says. "These are all dates of quality and freshness, not of safety," she says. Yet in the *Waste Management* study, 42% of people thought "use by" referred to safety, and 19% thought the same of "sell by."

In an attempt to clear up confusion, some industry groups, including the Grocery Manufacturers Association (GMA) and the Food Marketing Institute, are pushing to narrow the list of food date labels to only two options: "best if used by," which would relate to freshness and quality, and "use by," which would refer to the last safe day to eat highly perishable foods. While some food companies now voluntarily follow this two-date system, as far as the federal government is concerned, no date that's stamped on a package refers to safety.

Should you throw out food past its label date?

There's no reason to trash something just because the date printed on the package has come and gone, Goodwin says. "If the date passes during home storage, a product should still be safe and wholesome if handled properly until the time of spoilage is evident," she says. Instead, use your senses: Spoilage bacteria will typically produce a noticeable change in odor, flavor or texture. If none of these have developed, it's probably safe to keep your food. (You can help protect yourself from bacteria that cause food-borne illnesses, like E. coli and salmonella, by cooking or reheating foods to recommended temperatures.) The only product with a firm use-by date is infant formula, Goodwin says. Otherwise, you can usually trust your gut over the package date.

Can you freeze food that's going bad?

Freezing excess food, like meat and bread, is a great way to cut down on waste. If you know you likely won't use all of something, freeze it sooner rather than later, Goodwin recommends.

"Anything that's frozen will not spoil, no matter when you freeze it," Goodwin says. But "the longer you wait to freeze an item, the less the freshness and quality will be" when you defrost it. Frozen food should stay safe indefinitely, but its quality may degrade over time. Find the USDA's recommended storage times here. When it is time to defrost, the safest way to do so is by placing food in the refrigerator until it thaws, rather than leaving it out on the counter.

LESSON 11. Planning Nutritious Meals and Snacks

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. How much is planning your meals important to stay healthy?
2. Do you create the menu of the day/week when shopping for food?
3. Describe what convenience food is for you.

* Answer few more questions in the Section Read to Learn Key Concepts on page 127.

Exercise 2. *Study the active vocabulary, check how these words are pronounced and translated.*

Word	Pronunciation/ Translation	Word	Pronunciation/ Translation
trade-off		make-your-own meals	
convenience food		bagel	
brunch		topped with nuts	
appetizer		sliced fruit	
family meals		valid	
meal patterns		solution	

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Menu	A	are the time, money, and energy needed to complete a task.
2.	Trade-off	B	is a breakfast-lunch combination.
3.	Resources	C	is giving something up so you can have something else.
4.	Convenience food	D	are usually large meals that provide lots of nutrients.
5.	Brunch	E	is a list of foods to be served.
6.	Hearty meals	F	is a partly prepared or ready-to-eat food.

Exercise 4. *Match the collocations:*

make	low-fat	to eat	correct	body	packed	challenging	side
away	pattern	recipes	cells	from scratch	milk	dishes	lunches

Exercise 4. *Read the sentences, fill in the missing words.*

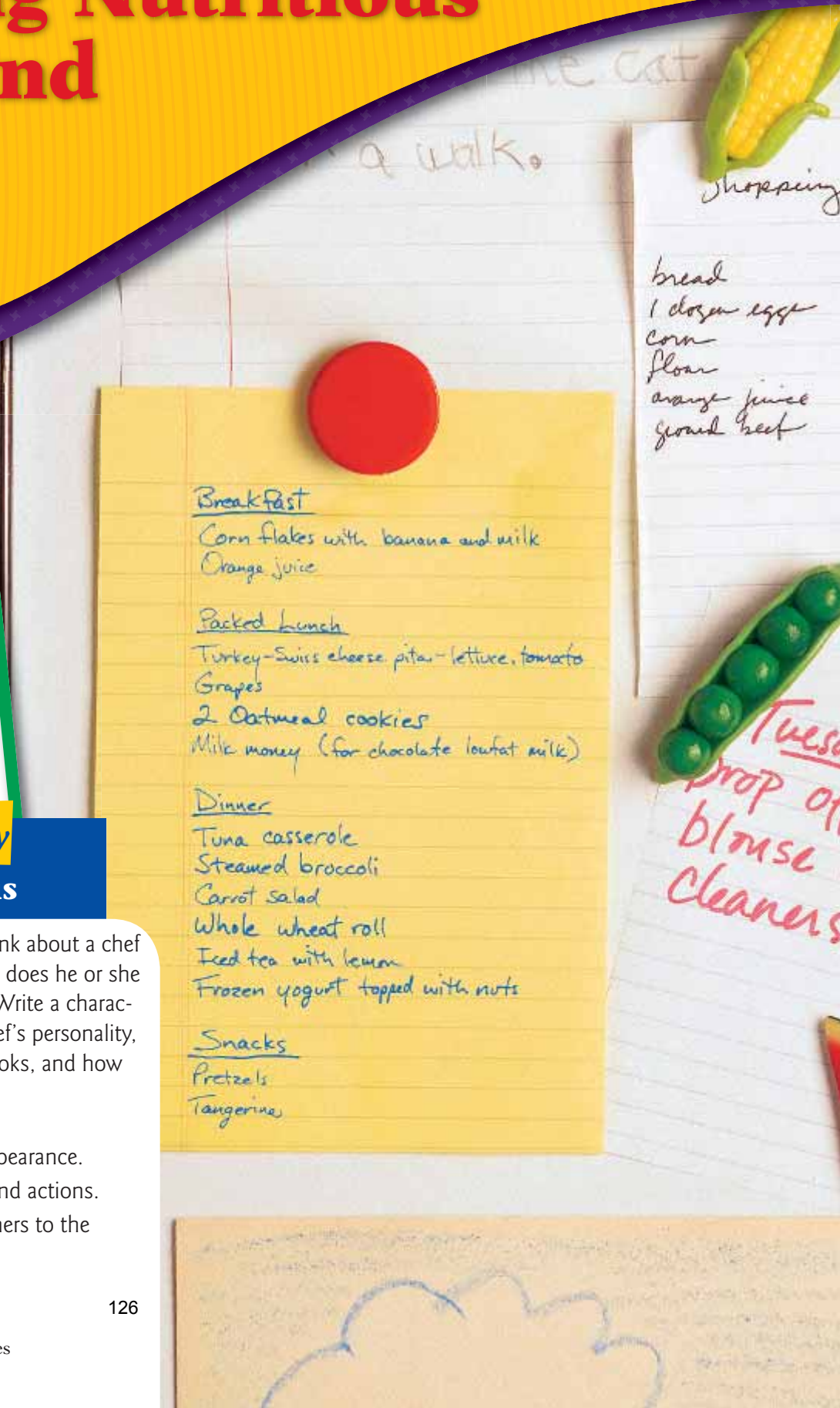
cooking, budget, tools, menus, expensive

1. Your food _____ needs to cover the cost of all your food, including the food you eat away from home.
2. Plan _____ to use foods you already have at home.
3. Consider your _____ skills. As you build your skills, you will be able to tackle more challenging recipes.
4. Make sure you have all the kitchen _____ you need.
5. Convenience foods are often more _____ than foods you make from scratch.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

CHAPTER 16

Planning Nutritious Meals and Snacks



Explore the Photo

Making a meal is more than following a recipe. You must plan what to serve, prepare it, and have it ready on time. *What management skills can help you plan a successful meal?*

Explore the Photo Answer
Common answers may include: goal-planning and decision-making skills; ability to identify and use resources; understanding of others' needs.

Writing Activity

Character Analysis

Television Personalities Think about a chef in the media who you like. What does he or she say about meal times and food? Write a character analysis that describes the chef's personality, what kinds of foods he or she cooks, and how healthful his or her message is.

Writing Tips

1. **Describe** the character's appearance.
2. **Analyze** his or her words and actions.
3. **Explain** the reactions of others to the character.

Punchstock/Comstock Images

Reading Guide

Before You Read

Helpful Memory Tools Successful readers use tricks to help them remember. Scan the headings in the chapter and think about memory tools you can use to help you to remember the information.

Read to Learn

Key Concepts

- **Identify** things to consider when you plan a meal.
- **Discuss** why it is important to eat breakfast.
- **Explain** how to pack a meal to eat away from home.
- **Describe** the components of a meal.
- **List** ways to make smart choices about snacking.

Main Idea

Learn to plan meals and snacks that are nourishing and appealing. For meals your family and friends will enjoy, consider individual needs and preferences, your resources, nutrition, and variety.

Content Vocabulary

- menu
- resources
- trade-off
- convenience food
- brunch
- appetizer

Academic Vocabulary

You will find these words in your reading and on your tests. Use the glossary to look up their definitions if necessary.

- affect
- valid

Graphic Organizer

As you read, indicate the reasons a person should eat each meal and an example of a food eaten at each meal time or snack.

	REASON	EXAMPLE
Breakfast		
Lunch		
Dinner		
Snacks		

Graphic Organizer Go to this book's Online Learning Center at **glencoe.com** to print out this graphic organizer.

Academic Standards

English Language Arts

NCTE 1 Read texts to acquire new information.

NCTE 9 Develop an understanding of diversity in language use across cultures.

NCTE 12 Use language to accomplish individual purposes.

Mathematics

NCTM Number and Operations Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

Science

NSES Content Standard A Develop abilities necessary to do scientific inquiry.

NSES Content Standard F Develop an understanding of personal and community health.

NCTE National Council of Teachers of English
NCTM National Council of Teachers of Mathematics
NSES National Science Education Standards
NCSS National Council of the Social Studies

Vocabulary

You can find definitions in the glossary at the back of this book.

Plan Meals Wisely

There is no single correct pattern of eating. Your lifestyle, schedule, family, culture, and physical needs **affect**, or influence, when and how much you eat. Planning a menu takes management skills. A **menu** is a list of foods to be served.

As You Read

Connect What nutritious meals have you planned recently?

As You Read Answer Meals described should include nutrient-dense foods.

Plan Family Meals

Great meals provide nutrient-dense foods that look and taste good, and that go well together. Successful menus often start with the main dish. Other foods complement that dish. As you plan your menus, consider:

- **Food Preferences** Who will eat the meal? What do they like and dislike?
- **Nutrition** Use MyPyramid to include the right variety and food-group amounts each day to match the energy and nutrient needs of the people you are feeding.
- **Special Food Needs** Plan menu options for people with food allergies or other special needs so that everyone can enjoy the food.
- **Age** Teens and physically active adults may need larger portions or different foods than younger siblings or older grandparents. Small children may like simpler foods.
- **Meal Patterns** Will this be a light meal or the day's main meal? How do snacks fit in?
- **Schedules** Plan family meals as often as possible. Plan a menu that can be reheated easily to avoid stress and save time.
- **Your Resources** Consider your resources. **Resources** are the time, money, and energy needed to complete a task.

Photo Caption Answer A child might want simpler foods. Children and older adults might need smaller portions. An active, growing teen may need more calories and bigger portions. Students should discuss how to adjust the menu shown for their own family's needs.

Meals Across the Lifespan Consider age, gender, special needs, and food preferences as you plan successful and healthful menus for your family. *Why might these family members have different calorie needs? How would you change this menu for your family?*

Image Source/Jupiter Images

Manage Your Resources

Meal management helps you plan satisfying, healthful meals that match your schedule and resources. Resources include:

- **Time and Energy** Using resources often involves a trade-off. A **trade-off** is giving something up so you can have something else. If time and energy are short, choose a simple menu or convenience foods. A **convenience food** is a partly prepared or ready-to-eat food. Be careful when choosing convenience foods. They are often more expensive than foods you make from scratch.
- **Money** Consider your budget. Your food budget needs to cover the cost of all your food, including the food you eat away from home.
- **Food** Plan menus to use foods you already have at home. Add ingredients you still need to your shopping list.
- **Kitchen Skills** Consider your cooking skills. As you build your skills, you will be able to tackle more challenging recipes.
- **Kitchen Equipment** Make sure you have all the kitchen tools you need.

Consider Food Preferences

Your family members probably like different foods. Follow this advice when menu conflicts occur:

- **Look for compromises.** If you like green pepper but your sister does not, make a salad with green pepper on the side.
- **Take turns.** Prepare your favorite recipe this time and your brother's favorite next time.
- **Prepare less-favorite foods in different ways.** If a family member does not like cooked spinach, try serving a raw spinach salad instead.
- **Plan make-your-own meals occasionally.** Arrange ingredients for sandwiches and salads in serving dishes. Let everyone pick the ingredients they want.

Reading Check **Discuss** Why do you need to consider your resources when you plan a meal?

Science in Action

Soda and Healthy Bones

Compare the ingredients and Nutrition Facts of soda and milk. Soda does not have the many bone-building nutrients milk has. Regular soda provides only calories and added sugars, and diet soda has no calories and few if any nutrients.

Procedure Research the possible effects of regularly drinking soda in place of milk or calcium-fortified soy milk with your meals.

Analysis Explain the effects of regularly substituting milk or fortified soy milk with sodas as a mealtime beverage. What are the possible effects of drinking soda for snacks, too? Describe how your body uses calcium for bone health and overall good health. List foods to include in meals and snacks that provide calcium.

NSES Content Standard A
Develop abilities necessary to do scientific inquiry.

Science in Action Answer
Student responses should note that growing bones need calcium to grow to their optimal strength. Calcium has other body roles, including helping muscles contract. The body also needs vitamin D from milk and some fortified soy milk for bone health. Drinking soda can also add excess calories, which impacts body weight. Calcium can come from milk, yogurt, and cheese, as well as calcium-fortified soy milk and orange juice.

Reading Check Answer
You need to know that you have the necessary equipment or that you can provide a substitute. Other resources include time, energy, money, and kitchen skills.

Breakfast Is a Healthy Start

Between dinner and breakfast, you may fast, or not eat, for 12 hours. The word *breakfast* means to break, or end, the fast. Breakfast refreshes your energy supply. Your body uses energy for breathing, growing, and other body processes while you sleep. By morning, your body cells need a new supply of energy for later in the day.

Breakfast also enhances mental and physical performance, helps control weight, and helps you avoid mid-morning hunger. People who skip breakfast may not get all the nutrients they miss in the morning.

Nutrition & Wellness Tips

Save Time and Calories

- ✓ Plan one dish to serve twice: a bowl of chili today and leftover chili over a baked potato tomorrow, for example.
- ✓ Eat a baked potato with salsa instead of French fries as a side dish.

Breakfast Choices

Breakfast refers to when you eat, not what you eat. It can supply up to one-third of your body's daily nutrient needs. Plan menus with foods from MyPyramid. Cereal topped with nuts, berries, and milk is a typical breakfast. Here are some other choices:

- A toaster waffle with strawberries and instant hot cocoa made with milk
- Ham and cheese on an English muffin with carrot sticks and grapefruit juice
- A blender shake (made with milk and sliced fruit) and whole-wheat toast
- A bagel and a yogurt-juice drink

Easy Breakfast Solutions

People give many excuses for skipping breakfast. These are not usually **valid**, or good, reasons. Each excuse has an easy solution:

Photo Caption Answer
Answers will vary but should include nutrient-dense foods from MyPyramid's food groups like the examples given on this page.

Start Your Day with Breakfast There are no strict rules about the foods you eat for breakfast, as long as they are healthful. *What foods could you eat before going to school?*

FoodPix/Heather Winters/Jupiter Images; Creatas Images/Punch Stock

- **"I'm not hungry when I get up."** Get ready for your day first, and then eat breakfast.
- **"Eating a big breakfast makes me fat."** Breakfast helps control your appetite so you do not overeat later.
- **"I don't have time!"** Make breakfast the night before. Pack crackers, cheese, and grapes to eat on your way to school.
- **"I don't like breakfast foods."** Eat what you like. A sandwich or last night's leftovers are good choices.

Reading Check **List** What are three reasons to eat a nutritious breakfast?

Pack Your Meals

Keep nutrition, ease, and food safety in mind when you pack a portable meal. Many salads and sandwiches are great for packed lunches. Even hot chili can be packed to go in a container that keeps food hot.

Pack a Lunch

A well-planned packed lunch contains nutrient-rich foods, including fruit, vegetables, and whole-grain products. It may have high-protein foods, such as lean meat, peanut butter, or soy nuts. Low-fat yogurt can add calcium-rich dairy foods to your meal. Be creative. Find different foods that provide the nutrients you need.

HOT JOBS!

Caterer

Caterers plan, prepare, and serve appealing menus for many different types of events. They work with their clients to develop menu plans while considering budget, equipment, and time.

Careers Find out more about careers. Go to this book's Online Learning Center at **glencoe.com**.

Reading Check Answer Breakfast supplies nutrients, helps with mental and physical performance, weight control, and avoiding mid-morning hunger.

Pronunciation Key Help students pronounce international terms. Go to the Pronunciation Key in the Glossary at the back of this book.

Discover International Foods

Mexico

Chicken, rice, tortillas, beans, avocados, tomatoes, and other foods found in Mexican cuisine add variety. They are loaded with nutrients. Corn and wheat tortillas are served as a wrap for burritos and soft tacos, or in mixed dishes such as enchiladas. From mild to spicy hot, more than a hundred different types of chili peppers add flavor. Mole ('mō-lā), a rich chile-chocolate sauce, is traditionally served over chicken or as a stew-like main dish. Flan (flän) is an egg custard often served for dessert.

Languages Across Cultures

arroz con pollo *(ä-ros kon pō-yō)* rice with chicken

queso blanco *(kāsō blaṇ-kō)* Mexican-style white cheese

Recipes Find out more about international recipes on this book's Online Learning Center at **glencoe.com**.

NCTE 9 Develop an understanding of diversity in language use across cultures.

How to Pack Food

Keep hot foods hot and cold foods cold. Harmful bacteria can multiply and make you sick if food is not kept at a safe temperature. Follow these guidelines to pack food safely:

- Pack foods in airtight containers to keep them fresh.
- Wash fresh fruits and vegetables before packing them.
- Refrigerate perishable lunch items until you pack them.
- Freeze your sandwich the night before. Sandwiches made with eggs, jelly, mayonnaise, or raw vegetables do not freeze well.
- Pack sandwich vegetables separately. Otherwise, they will wilt or make the bread soggy.
- Wait until morning to put cold foods into your lunch tote.
- Pack perishable foods in an insulated container with a frozen juice can, a bag of ice cubes, or a frozen gel pack.
- Wash, rinse, and dry your lunch tote after each use.
- Keep your lunch in a clean, cool place. Avoid sunny or warm areas, and dirty places such as inside a gym bag.
- Pack salad and dressing separately.

Reading Check Answer
Answers will include information from the bulleted list on this page.

Reading Check **List** What are three ways to keep your packed lunch safe to eat?

Light or Hearty Meals

Do you like to eat a big meal for breakfast, lunch, or dinner? Your body uses calories from meals in the same way no matter when you eat. You might plan a hearty brunch. **Brunch** is a breakfast-lunch combination. If your midday meal is big, you might prefer a light dinner. Use MyPyramid's guidelines to plan all of your meals, whether they are light or hearty. This will help you to ensure that your meals provide the nutrients your body needs. See **Figure 16.1** for ways to make a meal appealing.

Light Meals

Light meals often supply about one-third of the day's nutrients. Light meals should include foods from several food groups. Which food groups are in these healthful light meals?

- Grilled chicken salad with greens with a whole-grain roll, kiwifruit, and chocolate milk.
- Scrambled egg with berries, a rye bagel, and hot cocoa.
- Chicken burrito with sliced red peppers, zucchini sticks, and low-fat milk.

Hearty Meals

Many families eat hearty meals in the evening. Hearty meals are usually large meals. They provide lots of nutrients. The components of a hearty family meal may include:

- **Appetizer** An **appetizer** is a small portion of food, such as a soup or salad, served at the start of a meal.
- **Main Dish** A main dish is usually a meat, bean, or hearty mixed-food dish such as a shrimp and vegetable stir-fry.
- **Side Dishes** A side dish is a dish that accompanies and complements the main dish. Common side dishes include vegetables, rice, salad, or bread.
- **Beverage** A nutritious beverage such as milk, soy milk, or water goes with every meal.
- **Dessert** Many dinners end with dessert.

Reading Check **Discuss** How can MyPyramid help you plan a light or hearty meal?

Reading Check Answer MyPyramid can help with planning meals that include foods from several food groups and that offer more food variety and better nutrition.

Figure 16.1 **Create Enticing Meals**

Meals with Appeal You can use a variety of foods to create enticing and nourishing meals. *What makes this meal appealing? What food groups are represented?*

Color Include at least one brightly colored fruit or vegetable in each meal. You can also garnish the plate. A garnish is an edible decoration.

Texture Include crisp or chewy, smooth or chunky, hard or soft textures.

Flavor Include a variety of flavors—strong spicy flavors with milder flavors.

Temperature Include hot and cold foods.

Size and Shape Plan different sizes and shapes on the plate.

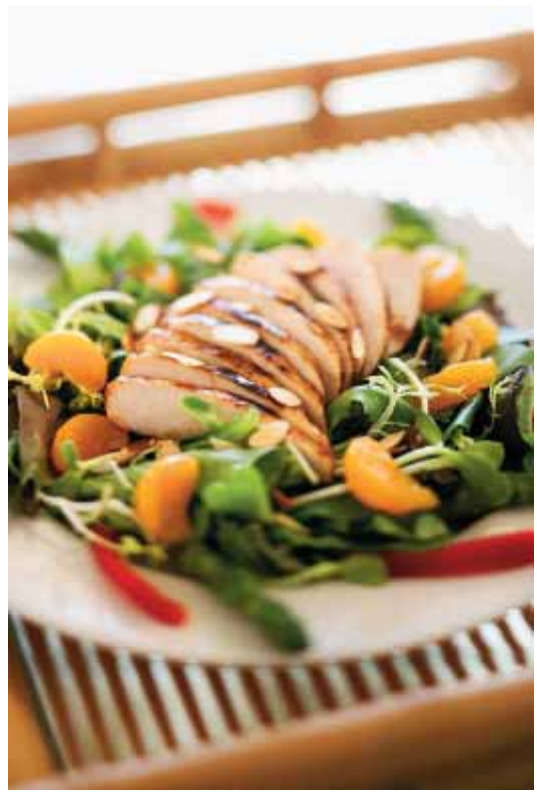


Figure Caption Answer This meal is appealing because of its color, texture, and proportions. Foods from the Meat and Bean Group, Bread Group, Fruits and Vegetables Group, and Dairy Group are shown.

Smart Snacking

Snacks give you energy and provide nutrients you may have missed at mealtime. To make smart choices about snacking:

- Pick nutrient-dense, lower-fat snacks from the five food groups, such as fruit, vegetables, yogurt, or lean meat.
- Fill in food-group gaps with nutrient-dense food group snacks.
- Avoid higher-fat or high-calorie snacks, such as candy bars.
- Time small snacks two to three hours before mealtime.
- Use the Nutrition Facts on food labels to compare snack choices.

Reading Check Answer
Choose nutrient-dense snacks from the five food groups; pick mostly lean and lower-fat or fat-free foods; choose snacks to fill in food-group gaps.

Reading Check **Discuss** How can you get the most nutrition from your next snack?

EASY RECIPES International Flavors

Chicken Quesadillas

Customary	Ingredients	Metric
1	Jalapeno pepper	1
½ lb.	Grilled chicken breast, cut into cubes	250 g
1½ cups	Monterey Jack cheese, grated	375 mL
¼ cup	Green onion, chopped	60 mL
1 Tbsp.	Cilantro, chopped	15 mL
8 each	Corn tortillas	8 each
1 tsp.	Vegetable oil	5 mL

Try This!
Healthful Options
Serve with salsa. Add pinto or black beans to the quesadilla. You can also try it with beef or pork instead of chicken.

Yield: 4 servings, ⅓ pound, (150 g) each

1. Cut open jalapeno pepper, remove and discard the seeds. Cut the pepper into tiny squares.
2. Mix chicken, cheese, green onion, cilantro, and jalapeno in a bowl.
3. Spread the mixture on the tops of four tortillas. Cover each with a second tortilla.
4. Pour a little of the oil in a pan and cook the quesadilla until the cheese is melted and the two tortillas stick together. Flip the quesadilla once while cooking.
5. Slice and serve.

Nutritional Information Per Serving: 301 calories, 12 g total fat, (6 g saturated fat), 55 mg cholesterol, 432 mg sodium, 26 g total carbohydrate (3 g fiber, 1 g total sugars), 23 g protein

Percent Daily Value: vitamin A 6%, vitamin C 4%, calcium 30%, iron 10%

After You Read

CHAPTER SUMMARY

Successful meals and snacks should match your needs, preferences, resources, and skills. When you plan meals, you may need to make trade-offs to manage your time, energy, and budget. Breakfast provides food energy and nutrients for your day. Nutritious breakfasts can include easy-to-prepare, nutrient-dense foods you like. Meals can be light or hearty. Plan meals that provide enough food-group choices to meet your daily nutrient and energy needs. Appealing meals have a variety of colors, textures, temperatures, flavors, shapes, and sizes. Well-chosen snacks also provide nutrients and food energy.

Vocabulary Review

1. **Use each of these vocabulary words in a sentence.**

Content Vocabulary

- menu (p. 224)
- resources (p. 224)
- trade-off (p. 225)
- convenience food (p. 225)
- brunch (p. 228)
- appetizer (p. 229)

Academic Vocabulary

- affect (p. 224)
- valid (p. 226)

Review Key Concepts

2. **Identify** things to consider when you plan a meal.
3. **Discuss** why it is important to eat breakfast.
4. **Explain** how to pack a meal to eat away from home.
5. **Describe** the components of a meal.
6. **List** ways to make smart choices about snacking.

Critical Thinking

7. **Compare and contrast** the costs and benefits of making food from scratch versus using convenience foods.
8. **Design** a complete hearty dinner with roasted chicken as the main dish. Categorize the components of the meal and describe ways to make it nourishing and appealing.
9. **Analyze** the advantages of holding a potluck Thanksgiving dinner for 20 relatives of all ages. Explain strategies you could use to you reach your menu goals with the right variety of foods.

Real-World Skills and Applications

Set Goals and Make Decisions

10. Manage Resources Brainstorm three trade-offs you might make in managing resources for a meal. One example is cooking a side dish rather than buying it prepared. Explain why making trade-offs is important in good management.

Technology

12. Menu Costs Use a calculator to plan a nourishing dinner for your family for three different food budget levels. Plan each menu. Determine the costs for each ingredient. Figure the cost of the total menu. Then, figure the cost per person.

Collaborative and Interpersonal

11. Interview a Meal Planner Interview someone who plans meals for large groups of people, such as the school's food-service director. What does he or she consider when planning meals? How are menus created? Summarize your interview.

Financial Literacy

13. School Lunch Tyrell can buy lunch at the school cafeteria for $2. If he packs his own lunch at home, his average cost is $1.10. How much money could Tyrell save in a five-day week if he packs his lunch every day?

ACTIVE LEARNING

14. Ethnic Menus Using ethnic cookbooks or other sources, find a menu for a traditional meal from another culture. Create a visual presentation to show how it fits within the food groups. In what ways does it reflect the advice for meal appeal? How does it differ? What might explain the differences?

NCTE 1 Read texts to acquire new information.

ACTIVE LEARNING

15. Snack Record For three days, record what you eat for snacks and where, when, and with whom you eat them. Do you notice a pattern in your snacking? How often did you include food-group snacks in your eating plan? How could you improve your snack choices?

Foods Lab

16. Popcorn Comparison Compare these different types of popcorn: popcorn popped on the stove top or in an air popper with no added butter or salt; and store-bought pre-bagged popcorn. Write a report describing the flavor, equipment and skills needed, cooking time, cost per serving, and fat and sodium content per serving. Prepare each type. Explain which popcorn you prefer, and why.

Additional Activities For additional activities go to this book's Online Learning Center at **glencoe.com**.

Academic Skills

English Language Arts

17. Healthful Breakfasts Create a public service announcement to promote smart breakfast eating. Include a catchy phrase that responds to common excuses for skipping breakfast. Record your announcement and present it to your class.

NCTE 12 Use language to accomplish individual purposes.

Science

18. Senses and the Menu Successful menus provide good nutrition and appeal to your senses. Your taste buds, nose, skin, and eyes evaluate food and send messages to your brain, which can signal saliva flow.

Procedure Track the sensory qualities in your meals over the next 2 to 3 days. What affects your desire to eat a meal?

Analysis Write a paragraph to describe how planning meals that appeal to your senses might help you eat for good nutrition, too.

NSES Content Standard F Develop an understanding of personal and community health.

Mathematics

19. Make-Ahead Meals To save time and money, Brit's family cooks many meals in one day, then freezes them for later. Brit is making three meals of chili to freeze. She needs to increase the recipe for chili, which uses $\frac{2}{3}$ cup of tomato sauce, by 3-fold. How much tomato sauce will she need?

Math Concept **Multiplying Rational Numbers** Whole numbers can be converted to fractions by using 1 as the denominator. Multiply the numerators and multiply the denominators, and simplify the answer.

Starting Hint Express the increase in the recipe as a fraction. Multiply the amount of tomato sauce needed for one recipe by this fraction. Then, simplify the answer in its lowest terms.

Math For more math help, go to the Math Appendix

NCTM Number and Operations Understand the meanings of operations and how they relate to one another.

STANDARDIZED TEST PRACTICE

ESSAY

Read the paragraph. Write your answer on a separate piece of paper.

Test-Taking Tip In timed writing, you may feel the urge to rush. If you rush without a plan, you may lose focus. Instead, invest two or three minutes in planning.

Have you ever made an unhealthy eating choice because of convenience? Sometimes it seems easier to go through the drive-through than to buy the ingredients and make the meal. It takes planning to eat more healthfully, but it can be done!

20. Think about your own life and the choices you make about what to eat every day. How can you make healthful and practical choices? Write an essay describing a plan for your daily life.

II. POST-TEXT EXERCISES

Exercise 1. *Explain what the following statements mean, providing examples.*

1. Look for compromises in food prepared for family.
2. Take turns in cooking.
3. Prepare less-favorite foods in different ways.
4. Plan make-your-own meals occasionally.
5. Prepare fast breakfast.
6. Find time to eat something for breakfast.
7. Pack food in airtight containers.
8. Vary light and hearty meals.

Exercise 2. *Answer the questions in the Sections* ***"Vocabulary Review" and "Review Key Concepts"*** *on page 135.*

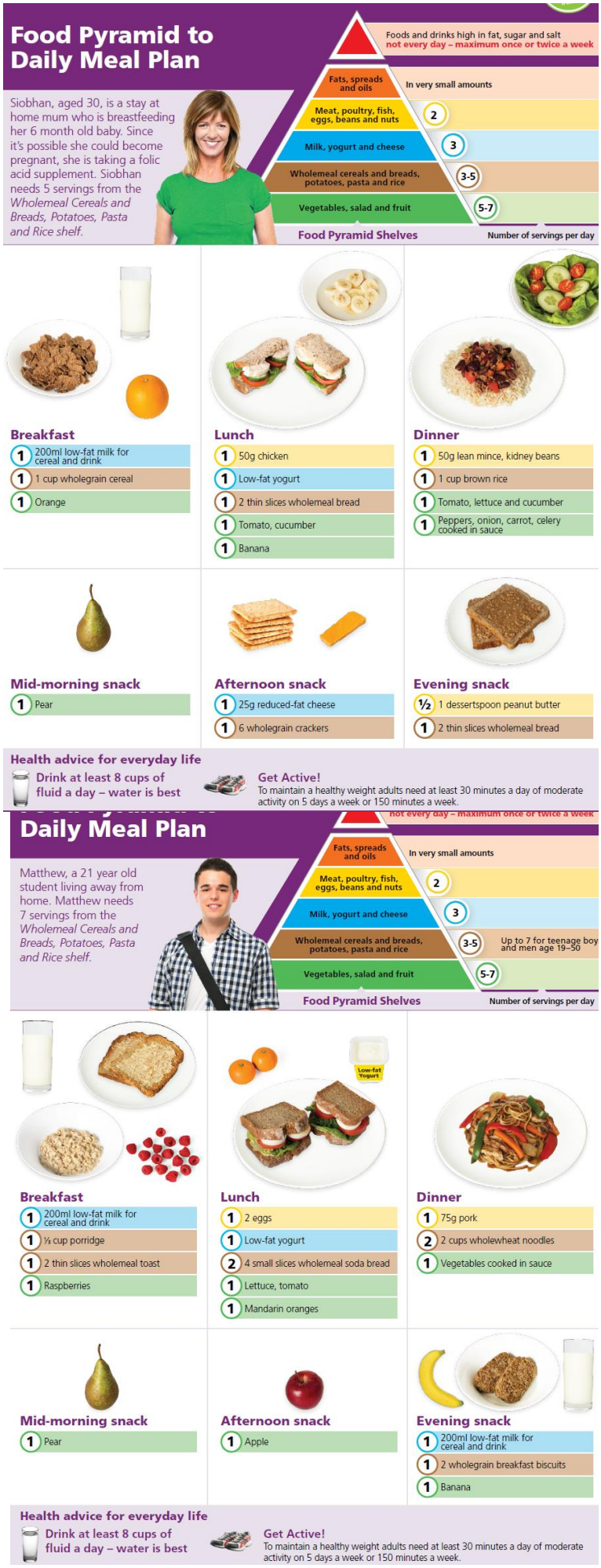
Exercise 3. *Discuss with your partner the Section* ***"Academic Skills"*** *on page 137. Complete the tasks given there.*

Exercise 4. *Explain the information given below to summarise the information from Lesson 11. Provide recommendations on developing health eating habits for people in your country. Give relevant examples and explanations.*

Exercise 5. *Based on the information above make a short presentation to your partner comparing daily food plan of Siobhan and Matthew. Include one of the following aspects:*

- how their age and lifestyle influence their choice of food;
- number of servings and size of portions;
- Top 5 rules of planning what people eat on the regular basis.

** Use active vocabulary from the PRE-TEXT EXERCISES.*



TIME HEALTH
SCIENCE & TECHNOLOGY

6 'Healthy' Snacks a Nutritionist Will Immediately Cut From Your Diet

BY CYNTHIA SASS / HEALTH.COM

Many of my clients think they eat pretty healthfully in general. So they're often surprised when I recommend nixing snacks they believed were smart choices. But once they hear why their go-tos aren't ideal, they're all for making the switch to options that actually are nutritious and energizing. Take a look at these six packaged bites that you might consider "health foods"—plus the alternatives that offer more overall nutrients, and help you avoid unwanted additives.

Veggie chips or puffs The fresh veggies on the packaging can be deceiving. Be sure to check the ingredients on those veggie chips and puffs before you add them to your cart. You'll often find potato flour and/or potato starch, cornmeal or rice flour as the main ingredients—not veggies. Because of the starchy add-ins, these snacks can pack far more calories than plain vegetables.

To get your crunch fix—and a whole lot more nutrition—stick with the real deal, like baby carrots, broccoli florets, sliced bell pepper and cucumber, paired with hummus or guacamole for dipping.

Vegan cookies Simply being vegan doesn't automatically make a food healthy or better for you. Vegan cookies are a perfect example: Many are made with loads of sugar and refined flour, and lack fiber and nutrients.

And a vegan label doesn't negate the importance of portion control. If you're craving something sweet, make your own no-bake vegan "cookies" using a combo of nutrient-rich whole foods, like almond butter, rolled oats and chia seeds, with a little bit of maple syrup and vanilla. And needless to say, get your fix with just a few—not the entire batch.

Gluten-free crackers Not all gluten-free crackers are created equal, so reading the ingredient list is key. But it's important to note that "gluten-free" is not synonymous with "healthy." In some brands of gluten-free crackers, for example, the first two ingredients are white rice flour and vegetable oil—a refined grain paired with an oil heavy in omega-6 fatty acids, which have been linked to inflammation. The calories and carbs can also add up quickly, rivaling the amounts in potato chips.

For a crunchy gluten-free snack made from a whole grain, reach for olive oil popcorn instead.

Fruit snacks The word fruit may be in the name, but the ingredients of one popular brand of fruit snacks include fruit puree combined with corn syrup, sugar, cornstarch, artificial flavors and artificial colors. Fruit snacks made with these ingredients can easily pack about 20 grams of carb in a serving the size of a ping pong ball. You could get the same amount of carbs from eating a baseball-size serving (one cup) of fresh blueberries, a medium apple, or two kiwis, all of which come bundled with filling fluid and fiber, along with antioxidants and more overall nutrients.

If you like fruit leather made with 100% fruit, that's fine. But remember that fruit leather is more concentrated than fresh fruit, so sticking with the portion size stated on the label is key.

Trail mix The healthfulness of trail mix really depends on how it's made. Many brands contain dried fruit that's been sweetened with sugar and treated with artificial preservatives, in addition to sugar-laden add-ins, like candy-coated milk chocolate. Per quarter cup (which is a serving about the size of a golf ball), these varieties can pack close to 200 calories and not much nutritional value.

Instead, make your own. Include tree nuts, like almonds, walnuts, pecans or pistachios, as well as seeds, like pumpkin or sunflower, as the primary ingredients.

Pita chips They may seem like a healthier alternative to potato chips, but the main ingredient in most varieties is refined white flour (think white bread in a chip form). A one-ounce serving, about 10 chips, contains around 130 calories, including 5 grams of fat, 19 grams of carb, with only 1 gram as fiber, and no significant nutrients.

LESSON 12. Shopping for Food

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. Where do you prefer to go shopping for food?
2. Do you have a list of purchases when shopping for food?
3. Describe how you choose what food to buy (price, expire date, manufacturer, etc).

* Answer few more questions in the Section Read to Learn Key Concepts on page 142.

Exercise 2. *Study the active vocabulary, check how these words are pronounced and translated.*

Word	Pronunciation/ Translation	Word	Pronunciation/ Translation
food budget		health claim	
impulse buying		comparison	
staples		store brand	
Nutrition Facts		generic brand	
Daily Values		national brand	
nutrient content		open dating	

Exercise 3. *Match the columns to get the right definitions:.*

No.	Term		Definition
1.	Food budget	A	is buying something you don't need just because it appeals to you.
2.	Impulse buying	B	provide specific information about the nutrition in one serving of the food.
3.	Staples	C	are basic food items you keep on hand, such as rice or flour.
4.	Nutrient content claim	D	states that a food has more or less of a nutrient or food substance
5.	Daily Values	E	is an amount of money the family plans to spend on food.
6.	Nutrition Facts	F	are the recommended amounts in an eating plan.

Exercise 4. *Match the collocations:*

to sell	nourishing	crop	impulse	to save	government	artificial	harvest
menus	yields	time	season	groceries	criteria	buying	ingredients

Exercise 4. *Read the sentences, fill in the missing words.*

states, provides, carry, judge, compare

1. Use Nutrition Facts to _____ the calories and nutrients in different foods.
2. The Daily Values helps you_____ how much of a nutrient each serving provides.
3. Foods must meet government criteria to _____ nutrient content claims.
4. A health claim states that a food _____ health benefits, e.g., "lowers the risk of cancer."
5. Structure or function claim _____ that a nutrient substance provides a benefit for body.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

CHAPTER 17
Shopping for Food

Explore the Photo

You can use shopping skills to make smart decisions about flavor, nutrition, price, quality, safety, and convenience. *What affects your decisions when you shop for food?*

Explore the Photo Answers may include price, personal preferences for certain foods, store displays, and money and time available.

Writing Activity

"How-to" Paper

Business Communication Cooking for yourself requires preparation. Write a "How-to" paper that describes how to prepare for a shopping trip. Be detailed in your instructions and use clear, concise sentences.

Writing Tips

1. **List** all the steps in order.
2. **Name** all the materials you will need.
3. **Include** an introduction and a conclusion.
4. **Use** transition words and phrases.

Photo Edit/David Young-Wolff

Reading Guide

Before You Read

Prepare with a Partner Before you read, work with a partner. Read the headings and write down questions you both have about the chapter.

Read to Learn

Key Concepts

- **Outline** the components of a food shopping plan.
- **Identify** how to use food labels for smart shopping decisions.
- **Summarize** how to shop for value, quality, and food safety.
- **List** six ways to be a courteous customer when you shop.

Main Idea

Smart food shopping is important for wellness. Wise consumers choose foods for nutrition, quality, value, food safety, and their menu plan.

Content Vocabulary

- food budget
- impulse buying
- staples
- Nutrition Facts
- Daily Values
- nutrient content claim
- health claim
- comparison shopping
- unit price
- store brand
- generic brand
- national brand
- open dating

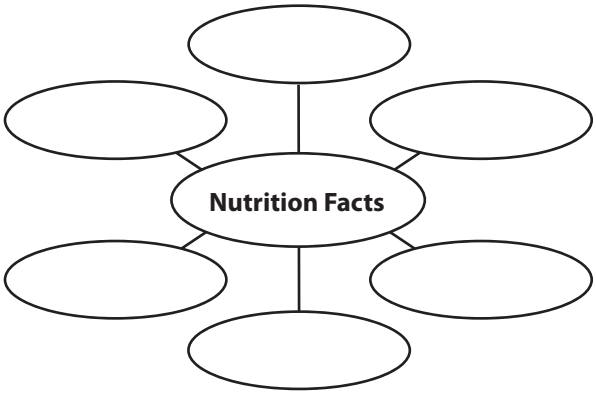
Academic Vocabulary

You will find these words in your reading and on your tests. Use the glossary to look up their definitions if necessary.

- economic
- estimate

Graphic Organizer

As you read, use a graphic organizer like the one below to list the six items that must be on a Nutrition Facts label.



Graphic Organizer Go to this book's Online Learning Center at **glencoe.com** to print out this graphic organizer.

Academic Standards

Mathematics

NCTM Number and Operations Compute fluently and make reasonable estimates.

NCTM Data Analysis and Probability Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.

English Language Arts

NCTE 4 Use written language to communicate effectively.

Social Studies

NCSS IX D Global Connections Analyze the causes, consequences, and possible solutions to persistent, contemporary, and emerging global issues.

NCTE National Council of Teachers of English
NCTM National Council of Teachers of Mathematics
NSES National Science Education Standards
NCSS National Council for the Social Studies

Plan to Shop

A successful shopping plan starts by making decisions at home. How much can you spend? Where and when will you shop? Planning saves money, time, and effort.

Vocabulary

You can find definitions in the glossary at the back of this book.

Your Food Budget

Most families have a food budget. A **food budget** is an amount of money the family plans to spend on food. That may include food eaten at home and away from home. Plan menus within your budget, then make wise shopping decisions. You can plan appealing, nourishing menus on almost any budget.

Food prices depend on many **economic**, or cost-related, factors, such as processing, packaging, and transportation. Brand, product form and variety, packaging, and store type also affect price. Partly prepared or ready-to-eat foods may cost more. Fresh fruit and vegetables can cost more when they are out of season or when weather conditions result in smaller crop yields.

Check for food specials in newspapers and store flyers. Look for coupons, and plan menus around specially priced foods.

As You Read

Connect Think about how you make decisions when you go shopping.

As You Read Answer
Responses may mention impulse buying, using a list, or other strategies.

Your Shopping List

A shopping list is an important food budget management tool. A shopping list can help you:

- Shop faster and save money.
- Prevent impulse buying. **Impulse buying** is buying something you do not need just because it appeals to you.
- Avoid repeat trips to the store to buy items you forgot.
- Buy exactly what you need. Check your menu and list foods by amount and form. For example, do you need sliced or crushed canned pineapple?
- Ensure that you have enough staples. **Staples** are basic food items you keep on hand, such as rice or flour.
- Organize your shopping. You can group items according to store layout to save time.

Photo Caption Answer By checking ahead, you buy only what you need in the amount you need. That way, you will not forget something or buy too much or too little of anything.

Check Ahead Before You Shop A shopping list will help you save money and time. You will buy what you need for the menus you plan to prepare. *Why is it important to check what foods you have on hand before going to the store?*

Rob Melnychuk/Corbis/Jupiter Images

Where to Shop

You have many choices when shopping for food. When deciding where to shop, consider location, prices, store hours, and the types of food sold. Choose clean stores that sell good-quality food, offer a good selection, and have helpful workers. Here are some examples of different types of places to shop for food:

- **Supermarkets** Supermarkets sell thousands of foods. They offer specials, food sampling, and coupons. Many also provide pharmacy, florist, or bank services.
- **Specialty Stores** These stores carry certain types of foods. Fish markets, butchers, bakeries, and ethnic food stores are specialty stores.
- **Convenience Stores** These small stores have a very limited selection of foods. Many sell lots of packaged snack foods. The price of food at convenience stores is usually much higher than at other types of food stores.
- **Food Cooperatives** Co-ops buy food in large quantities and sell to members at lower prices. Variety may be limited.
- **Farmers' Markets** These markets often sell locally grown and produced foods. Most are open for limited times during growing and harvest seasons. In some areas, farmers' markets are open year-round.
- **Warehouse or Discount Stores** These are similar to supermarkets, but food is often sold in larger quantities and at lower prices.
- **Online Stores** Some stores sell groceries online, including specialty and regional foods. Buying food from online stores can be very expensive because you are paying a higher fee for the convenience of having the food selected and delivered to you.

Nutrition & Wellness Tips

Read Between the Lines

✓ Read the Nutrition Facts on food labels to check the number of calories in foods promoted as fat-free.

When to Shop

How often you buy food depends on your schedule, your storage space, and your personal preferences. Some people prefer to buy their food fresh every day. This requires more time. Other people prefer to shop just once a week. This saves time. You can also shop when the store is not crowded to save time.

Shop when you are not hungry. Hungry shoppers often buy more food than they need. A hungry shopper is much more likely to make impulse buys of snack foods, too.

Reading Check **Recall** Where can you buy food?

Reading Check Answer
You can buy food at many places, including supermarkets, specialty stores, convenience stores, food cooperatives, farmers' markets, warehouse or discount stores, and online stores.

Read Food Labels

By law, food labels must provide the food's name and its description, amount, ingredients, Nutrition Facts, manufacturer or distributor, and allergen labeling if allergens are present. (See **Figure 17.1**.) The U.S. Food and Drug Administration regulates food labels, except for those on meat and poultry. The U.S. Department of Agriculture regulates meat and poultry labels.

Food Labels list important information that will help you analyze the foods you may eat or drink. Use them to make decisions toward the most healthful choices for your nutritional needs.

Figure 17.1 **Food Labels**

Food Label Information Food labels provide valuable information to help you make wise food choices. *How might you use food labels to choose canned chicken broth with less sodium?*

DESCRIPTION	The description tells about the food and how it is prepared.
AMOUNT	This lists the quantity of the food by volume or by net weight without the weight of the container.
NUTRITION AND HEALTH INFORMATION	Information about the calories and nutrients is on the Nutrition Facts part of the label. This also may include health claims.
FOOD EXCHANGES	This information helps people with diabetes make food choices. It is based on Exchange Lists for Meal Planning from the American Diabetes Association and the American Dietetic Association.
INGREDIENTS	All ingredients, including additives, are listed by weight, from most to least.
ALLERGEN LABELING	The common allergens peanuts, eggs, wheat, tree nuts, soybeans, shellfish, fish, and milk are listed.
DIRECTIONS	This tells how to store or prepare the food. Sometimes there is a recipe.
MANUFACTURER/ DISTRIBUTOR	The name, address, and Web site of the company that makes or distributes the product appears on the label.
UNIVERSAL PRODUCT CODE (UPC)	The UPC identifies the item with a bar code. At checkout, a scanner reads the item and price. The UPC also helps track inventory.
FRESHNESS DATE	Some foods, especially perishable foods, are dated.

Figure Caption Answer You can read the label to check the nutrient content for broth. You can read the label to see if it says less sodium, no-salt-added, or no salt. You can check the Nutrition Facts to find the amount of sodium per serving.

Check for Nutrition Information

Use food labels to find answers to these questions and choose foods that provide the calories and nutrients you need. The following is some of the information you may find on food packaging.

- **Nutrition Facts** provide specific information about the nutrition in one serving of the food. Use this information to compare the calories and nutrients in different foods. (See **Figure 17.2**.) Nutrition Facts are based on **Daily Values**, the recommended amounts in an eating plan. The Daily Values helps you judge how much of a nutrient each serving provides.
- A **nutrient content claim** states that a food has more or less of a nutrient or food substance: for example, that the food is low-fat. Foods must meet government criteria to carry these claims. (See **Figure 17.3** on page 241.)
- A **health claim** states that a food provides health benefits, for example, "lowers the risk of cancer." Claims must be based on scientific evidence.
- A structure or function claim states that a nutrient or food substance provides a benefit in the body, for example, "helps maintain bone health." These claims are also regulated.

Figure Caption Answer
Eating two servings means you ate twice the amount of everything.

Figure 17.2 **Nutrition Facts**

Nutrition Lists Nutrition Facts on labels can help you choose foods for the nutrients and calories they provide. *What if you ate two servings?*

CALORIES The total calories and calories from fat in one serving.

NUTRIENTS The metric amounts of fats, cholesterol, sodium, carbohydrate, fiber, and protein in one label serving. Sometimes other nutrients are included.

VITAMINS AND MINERALS The % Daily Value of the vitamins and minerals.

SERVING SIZE AND NUMBER A serving size is a specific amount. The Nutrition Facts are for one serving.

% DAILY VALUE The percentage that one serving provides of the Daily Value for some nutrients. The % Daily Value also helps you judge how much of a nutrient a serving provides. In the 5-20 guide, 5 percent or more is low; 20 percent or more is high.

PERCENT DAILY VALUES EXPLANATION This shows a total for a 2,000-calorie-a-day eating plan.

HOT JOBS!

Grocery Store Worker

Grocery store workers stock shelves and help customers. Other jobs in grocery stores include butchers, bakers, checkout clerks, and produce and dairy managers.

Careers Find out more about careers. Go to this book's Online Learning Center at **glencoe.com**.

Reading Check Answer Name of food and description, amount, ingredient list, Nutrition Facts, manufacturer or distributor information, and allergen labeling.

Other Label Information

Food labels provide other information to help you shop wisely and make informed decisions about your food choices. You may see these words on food packaging:

- **Organic** A food may be produced to be 100 percent organic, or it may be considered organic with 95 percent organic ingredients. These terms are regulated by the U.S. Department of Agriculture. Look for the USDA Organic seal.
- **Natural** This means that the food is not processed very much. The label must also explain why it is natural—for example, if it has no artificial ingredients.
- **Fresh** This term can be used only on raw food that has not been frozen, heated, or treated with preservatives.

Reading Check **Identify** By law, what information must appear on a food label?

Shop for Value, Quality, and Food Safety

At the food store, you can put your shopping skills to work. Use your shopping list, and compare prices, amounts, and nutrition information.

Compare Food Prices

You have many ways to save money on food. One of the best ways is to use comparison shopping. **Comparison shopping** is comparing prices of different forms, container sizes, and brands in order to get the best value for your dollar.

You can use the unit price to compare costs for similar foods and different-size packages. The **unit price** on the shelf tag tells how much an ounce, pound, or other unit of the item costs. If the shelf tag has no unit price, **estimate**, or use your knowledge to guess, what the unit price would be. Divide the price of the item by the number of units.

To save money, you can use coupons and look for store specials. You can also buy store brands or generic brands. A **store brand** is used for a supermarket's own product. Store brands often cost less than national brands. A **generic brand** is a brand that usually has a plain label and no brand name. Generic brands usually cost the least. A **national brand** is a brand sold by major food companies. National brands are usually more expensive because they include the cost of promotions and advertising. Finally, you can sign up for frequent-customer cards. Some stores give customers with these cards special savings.

Buy the Right Amount

A larger container often costs less per unit, but not always. Check the unit price of each item. Buy a large size only if you can store it properly and use it all before it spoils. If not, you will waste food and money.

Buy only what you need of perishable foods, which may spoil quickly. Fresh fruits and vegetables, meat, chicken, fish, eggs, and milk are perishable.

If packages of meat or produce contain more than you want, ask a butcher or store clerk to package a smaller amount.

Figure 17.3 **Nutrient Content Claims**

Label Language Certain label terms are defined by the government. They can be used on the label only if the product meets the requirements. *How can nutrient content claims on labels help you?*

Nutrient Content Claims	What the Claims Mean	Other Terms
Free	An amount so small it probably has no effect. *For example:* Fat-free means less than 0.5 gram of fat per label serving.	no, zero, without, insignificant
Low	An amount defined as low for each nutrient or substance, or for calories. *For example:* Low-fat means 3 grams of fat (or less) per label serving.	few, little, contains a small amount of
Reduced	An amount describing a food with at least 25 percent less calories, fat, saturated fat, cholesterol, sugars, or sodium than a regular food.	fewer, lower, less
High	An amount that is 20 percent or more of the Daily Value for a nutrient. *For example:* High in calcium means at least 200 milligrams of calcium per label serving.	rich in, excellent source of
Good source	An amount that is 10 to 19 percent or more of the Daily Value for a nutrient. *For example:* Good source of calcium means 100 to 190 milligrams of calcium per label serving.	contains, provides
More	An amount that is 10 percent or more of the Daily Value for a nutrient. *For example:* More iron means at least 1.8 milligrams of iron per label serving.	enriched, fortified, added, extra, plus
Lean	Less than 10 grams of fat, 4.5 grams or less of saturated fat, and less than 95 milligrams of cholesterol per 3-ounce cooked serving.	Less fat
Light	One-third fewer calories or 50 percent less fat than the traditional version. Or, 50 percent less sodium than the traditional food. Sometimes, light also describes the food itself, such as light brown sugar. In these instances, it is not a nutrient content claim.	Lite

Figure Caption Answer Nutrient content claims can give you a general idea about the nutrients or calories in a product. You need to check the Nutrition Facts for specific amounts in one label serving.

Choose the Right Form of Food

Many foods are sold fresh, frozen, or canned. Canned, frozen, and cooked fresh vegetables and fruits have about the same nutrient content. You can decide which is best for you by comparison shopping. Store them properly to keep their nutrients.

All forms of fruits and vegetables—fresh, frozen, and canned—provide important nutrients in a nutritious meal plan. The price of fresh fruits and vegetables may be lower or higher at different times of the year. Fresh fruits and vegetables are often more flavorful when they are in season—but they cannot be stored for long. Canned and frozen products are convenient. Canned foods are cooked already. They can be stored the longest.

Foods are also sold in different forms: for example, whole, sliced, or chopped. Read the description on the label. Choose the right form for the food you will prepare.

Sometimes you may choose to pay an additional amount as a trade-off for convenience. A frozen dinner probably costs more than the same homemade meal—unless you need to buy more ingredients than you will use in that meal.

Shop for Food Safety and Quality

Food bought at its peak contains the most nutrients. Follow these guidelines to shop with food safety and quality in mind:

- Look for undamaged containers. Give bulging, rusted, or dented cans or broken containers to a clerk. Check safety seals and buttons.
- Handle fresh fruits and vegetables gently. Bruised fruits and vegetables spoil faster.

Photo Caption Answer
The 100% orange juice is all juice; the other is not. The ingredient list shows other ingredients, including water and added sugars in the orange soda.

Which Would You Buy? Drinks with an orange flavor are not always juice. A product that is all juice will say 100% juice on the label. *Which of these beverages is all juice? What can you learn from the ingredient list?*

- Fill your cart and grocery bags carefully so fruits, vegetables, and other soft foods are not bruised or crushed.
- Buy refrigerated and frozen foods last or they may get warm.
- Be sure all refrigerated items feel cold.
- Be sure frozen food packages are frozen solid. Ice crystals or discoloration may mean that the package has thawed and been refrozen.
- Put raw meat, poultry, and fish in plastic bags. This will prevent their juices from leaking onto other foods.

Open Dating

Some foods have dates stamped on the package. **Open dating** means the packages are marked with dates that help consumers know about how long the product will be fresh. For example, the package may read "Sell by May 31" or "Best if used by June 8." A sell-by date means you can buy food by this date and still store it for a reasonable time. A best-if-used-by date tells when food is at its peak quality. Some foods, like bakery items, have packing dates. These dates relate to peak quality when foods were packed, not food safety.

After You Shop

The way food is handled and stored affects quality and safety. Take food home and store it right away. Milk, meat, and other perishable foods, as well as hot and cold take-out foods, need to be refrigerated. Frozen food must be kept frozen. Follow the safety information found on all of your packages.

Reading Check **List** What are three ways you could save money at the supermarket?

Customer Courtesy

Courtesy from customers makes shopping more pleasant for everyone. Follow these guidelines to be courteous while shopping:

- **As You Shop** Return food you do not want to its proper place. Politely ask a clerk if you need help. Be patient when you wait your turn at the service counters. If you break something, get a clerk for clean-up. Do not block traffic by leaving your cart in the middle of the aisle.

Math in Action

Mental Math

Ian has a coupon that will allow him to take 20% off the cost for a deli salad. He estimates that the salad will cost $5.69 before the discount. Use rounding and percentages to estimate what his bill will be with the extra 20% off.

Math Concept **Estimate by Rounding** When rounding numbers, look at the digit to the right of the place to which you are rounding. If it is 5 or greater, round up; if it is 4 or less, round down.

Starting Hint Round up Ian's total bill to the nearest tenth, then move the decimal one place to the right to find 10% off. Double this to find 20% off, then subtract it from Ian's current total.

NCTM Number and Operations Compute fluently and make reasonable estimates.

Math For more math help, go to the Math Appendix

Math in Action Answer Rounding to the nearest tenth is $5.70. Ten percent of $5.70 is $0.57; $0.57 × 2 = $1.14. Subtract this from the original amount ($5.69 − $1.14 = $4.55).

Reading Check Answer Answers may include: Using unit prices to compare brands and sizes; using coupons; shopping specials; buying store or generic brands if they are cheaper than national brands; using a frequent-customer card.

- **At the Checkout Counter** Take your cart out of line if you have forgotten something so that you will not keep others waiting. Use the express checkout lane only if you have the number of items allowed. If you scan products yourself, follow directions. Have your coupons and payment ready.
- **In the Parking Lot** Take your shopping cart to the cart return so it will not damage cars or get in the way of traffic. Park in a handicapped space only if you are qualified to do so.

Reading Check Answer If you need to leave the checkout line because you forgot something, take your cart with you. Use the express checkout lane only if you have the appropriate number of items. Have your payment and coupons ready.

You can also make food shopping smoother and more fun by sharing the responsibility with friends and family members. Break your list into two or more parts, and each tackle one. You can help others by picking up groceries for an elderly or ill neighbor or a busy friend.

Reading Check **Recall** What are three ways you can be courteous at the checkout counter?

EASY RECIPES Everyday Favorites

Fruit Salad

Customary	Ingredients	Metric
1 cup	Green grapes, halved	250 mL
2 tsp.	Lemon juice	10 mL
2 each	Apples, cored, sliced	2 each
½ cup	Dried cranberries or raisins	½ cup
1 can (6 oz)	Mandarin oranges, drained	1 can (185 mL)
1	Banana	1 each

Try This!
Substitute other fresh and canned fruits.

Yield: 8 servings, ½ cup (125 g) each

1. Put apples in a medium bowl and mix with the lemon juice.
2. Carefully slice the grapes into halves and add to the bowl.
3. Add the grapes, mandarin oranges, and cranberries or raisins to the bowl.
4. Peel and slice the banana and add to the other fruit. Mix gently.

Nutritional Information Per Serving: 78 calories, 0 g total fat (0 g saturated fat), 0 mg cholesterol, 1 mg sodium, 20 g total carbohydrate (2 g fiber, 16 g total sugars), 1 g protein

Percent Daily Value: vitamin A 4%, vitamin C 20%, calcium 0%, iron 2%

After You Read

CHAPTER SUMMARY

A shopping plan can help you save money, time, and effort. You may buy food in many places. Food labels provide information to compare foods. Use comparison shopping, unit pricing, open dating, coupons, and food specials to get more for your money. Buy the amount and form of food you will use. Remember food quality and safety. Be courteous as you shop.

Vocabulary Review

1. **Use each of these vocabulary words in a sentence.**

Content Vocabulary

- food budget (p. 236)
- impulse buying (p. 236)
- staples (p. 236)
- Nutrition Facts (p. 239)
- Daily Values (p. 239)
- nutrient content claim (p. 239)
- health claim (p. 239)
- comparison shopping (p. 240)
- unit price (p. 240)
- store brand (p. 240)
- generic brand (p. 240)
- national brand (p. 240)
- open dating (p. 243)

Academic Vocabulary

- economic (p. 236)
- estimate (p. 240)

Review Key Concepts

2. **Outline** the components of a food shopping plan.
3. **Identify** how to use food labels for smart shopping decisions.
4. **Summarize** how to shop for value, quality, and food safety.
5. **List** six ways to be a courteous customer when you shop.

Critical Thinking

6. **Analyze** the unit prices of two food items your family buys regularly. Conduct research to determine if your family is getting the best value.
7. **Compare and contrast** the label information on two different kinds of cereal.
8. **Create** a shopping plan for a family dinner menu. List smart shopping strategies.
9. **Compare and contrast** the time and resources involved in going on one major food shopping trip weekly, compared with several smaller ones.

Real-World Skills and Applications

Decision Making

10. Food Budgets Explain the factors that help a family decide how much money to spend on food. Why might one family need to spend a larger percentage of its income on food than another family? Write your answer in two or more paragraphs. Give specific examples.

Collaborative and Interpersonal

11. Label Information As a class, gather a variety of food labels. Include labels for all food groups and for several mixed foods. Using the Nutrition Facts, arrange the products from most to least per label serving for calories and then for different nutrients. Draw conclusions, and create a summary of your findings.

Technology

12. Electronic Shopping List Use spreadsheet software to create a checklist of foods for your family's shopping list. Include staples and items your family buys often. Categorize items by their store location where you usually shop. Use the list while shopping. Report any changes you would make and why.

Financial Literacy

13. Unit Pricing When you go shopping at the supermarket, you find that dry pasta costs $1.10 for a 12-ounce bag. Another bag of pasta costs $1.20 for a 16-ounce bag. Calculate the unit price, or price per ounce. Which is the best value? Show the calculations in your answer.

ACTIVE LEARNING

14. Price Comparison Compare the prices of the same food sold in several ways: national brand vs. store brand; economy size vs. regular size; supermarket vs. discount or warehouse store; canned vs. frozen. For each comparison, describe the pros and cons.

ACTIVE LEARNING

15. Supermarket Tour Tour a nearby supermarket. Find an unfamiliar food product. Use the package label, unit pricing, and other store resources, including store workers, to write a brief description of each product. Explain which of these foods you might buy and why.

Foods Lab

16. Compare Bread Conduct a taste test of four kinds of bread, with three having at least one whole-grain ingredient. Write a summary of the taste test that rates the breads for flavor, texture, appeal, and price. Analyze the label information. How do the breads compare nutritionally? Which would you buy, and why?

Additional Activities For additional activities go to this book's Online Learning Center at **glencoe.com**.

Academic Skills

English Language Arts

17. Food Packaging Imagine that you work for a food company. Write the text for the packaging of a new healthful convenience food. Sketch the design. Include Nutrition Facts. Make appropriate factual claims that promote the product to people your age.

NCTE 4 Use written language to communicate effectively.

Social Studies

18. Shopping Frequency In many parts of the world, kitchens may have small refrigerators. In some places, electricity may not be readily available. Research how these factors might affect food shopping habits. Present your results in a report to your class.

NCSS IX D Global Connections Analyze the causes, consequences, and possible solutions to persistent, contemporary, and emerging global issues.

Mathematics

19. Food Budget Lin Bailey wants to compare the ways her family spends money on food. Create a pie chart to show the Bailey's weekly food budget. The family of four spends $250 per week, with $25 spent in restaurants, $20 on fast food, $10 on school meals, and $195 on groceries. Organize the pie chart by category.

Math Concept **Statistics** Statistics involves collecting, analyzing, and presenting data. The data can then be shown in tables and graphs.

Starting Hint Determine the percentage of each amount by dividing the category amount by the total amount. Use the percentages to create a pie chart.

Math For more math help, go to the Math Appendix

NCTM Data Analysis and Probability Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.

STANDARDIZED TEST PRACTICE

MULTIPLE CHOICE

Read the paragraph. Write your answer on a separate piece of paper.

Test-Taking Tip When you sit down to take a math test, jot down on your scrap paper important equations or formulas that you want to remember. This way, you will not worry about forgetting them during the test.

You could buy a head of lettuce for 79¢. Or you could buy an 8-oz. bag of lettuce for $3.19. The bag contains different varieties of prewashed lettuce, as well as shreds of radish and carrots.

20. Based on the paragraph, which of the following statements is true?

a. Lettuce heads are not a good deal.
b. Bags of salad are always a good deal.
c. You may choose to pay for convenience as well as the food.
d. Buying lettuce is too expensive.

II. POST-TEXT EXERCISES

Exercise 1. *Explain what the following food label information in Figure 17.1 on page 145, providing relevant examples.*

- Description
- Amount
- Nutrition and health information
- Food exchanges
- Ingredients
- Allergen labeling
- Directions
- Manufacturer/ distributor
- Universal product code (UPC)
- Freshness date

Exercise 2. *Answer the questions in the Sections* ***"Vocabulary Review" and "Review Key Concepts"*** *on page 152.*

Exercise 3. *Discuss with your partner the Section* ***"Academic Skills"*** *on page 154.*
Complete the tasks given there.

Exercise 4. *Explain the information given below to summarise the information from Lesson 12. Comment on signs on food packs in your country. Give relevant examples and explanations.*

Exercise 5. *Based on the information above make a short presentation to your partner describing food shopping habits of citizens of your country. Include one of the following aspects:*

- Where to buy food;
- What / how much food to buy;
- Top 5 rules of shopping for food wisely.

** Use active vocabulary from the PRE-TEXT EXERCISES.*

TIME HEALTH
SCIENCE & TECHNOLOGY

Why Paying for Nutrition Saves Money on Health Care

BY HILARY K. SELIGMAN , SETH A. BERKOWITZ AND SANJAY BASU

The foods we eat play a central role in our health. The epidemics of our time—obesity, heart disease, type 2 diabetes—are intimately tied to unhealthy patterns of eating. But eating healthy is also expensive, making it particularly challenging for the 12% of US households who have to worry whether they can afford enough food each month.

For the 41 million Americans living in these households, a common coping strategy is to purchase cheaper, less healthy foods in an effort to make their food budgets last longer. Over time, however, these unhealthy dietary patterns can have a significant impact on a person's health. Children living in food-insecure homes suffer two to four times as many health problems and are less likely to reach their academic potential. Pregnant women who are food insecure are more likely to develop gestational diabetes and deliver pre-term or low birth-weight babies. Food-insecure adults are more likely to have diabetes, high blood pressure, heart disease, kidney disease and osteoporosis.

The trouble doesn't stop there. Once you have one of these illnesses, food insecurity often makes that illness harder to manage. One in three Americans with chronic illness has trouble affording food, medication or both. Moreover, the stress of worrying about where your next meal is coming from is associated with depressive symptoms, which only makes the task of managing a complex disease harder. It is not surprising, then, that food insecurity comes with a cost. On average, food insecure people in the U.S. incur an extra $1,800 in medical costs every year, accounting for $77.5 billion in additional health care expenditures.

The United States has some of the most robust programs in the world for people facing hunger. The Supplemental Nutrition Assistance Program (SNAP), for example, helps 20.5 million households stretch their budgets to purchase food. Recently, our study team wanted to learn whether SNAP saves money in health care costs. In a new study published in *JAMA Internal Medicine*, we found that people who are enrolled in SNAP have health care expenditures that are, on average, $1,400 less per year compared with similar people who are not enrolled in SNAP.

Despite this, White House has proposed cutting SNAP by $193 billion over 10 years—a cut of more than 25%—which would dramatically impact many people's ability to afford food for themselves and their children. Could these cuts wind up costing more than they save? When SNAP benefits were reduced in 2013, we saw a rise in hospital admissions for dangerously low blood sugar, likely as people with diabetes ran out of food, leading to millions of dollars in extra medical costs.

SNAP works. It was designed to decrease food insecurity in the U.S., and it does. Now we are learning that SNAP may protect health, too. This is why cuts to SNAP could be so devastating. In addition to putting millions more people at risk of hunger, these cuts could strain our health care system, and threaten the public's health. With so much at stake, cutting SNAP doesn't make sense.

Hilary Seligman, MD, is director of the Food Policy, Health and Hunger Research Program at the University of California San Francisco's Center for Vulnerable Populations and senior medical advisor for Feeding America.

Seth A. Berkowitz, MD, MPH, is assistant professor of medicine in the Division of General Internal Medicine and Diabetes Population Health Research Center, Massachusetts General Hospital and Harvard Medical School.

Sanjay Basu, MD, PhD, is assistant professor of medicine in the Department of Medicine, Center for Population Health Sciences and Center for Primary Care and Outcomes Research at Stanford University and faculty in the Center for Primary Care, Harvard Medical School.

LESSON 13. Eating Well When Away from Home

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. What are the options of eating out in your city?
2. What are generally accepted table manners in your country?
3. Describe the last time you visited restaurant or cafe.

* Answer few more questions in the Section Read to Learn Key Concepts on page 159.

Exercise 2. *Study the active vocabulary, check how these words are pronounced and translated.*

Word	Pronunciation/ Translation	Word	Pronunciation/ Translation
entrée		side dishes	
cuisine		host or hostess	
à la carte		courteous	
healthful living		pickled	
health regulations		smoked	
sequence		grated	

Exercise 3. *Match the columns to get the right definitions:*

No.	Term		Definition
1.	Entrée	A	means without side dishes.
2.	Cuisine	B	is a main dish.
3.	Preparation methods	C	are salad dressing, butter, cream sauce, and gravy which often have a lot of calories and fat.
4.	Toppings	D	refers to specific foods and cooking styles.
5.	Side dishes	E	Are the ways the food is cooked, baking or broiling, roasting.
6.	À la carte	F	are foods like rice or potato added to the main course.

Exercise 4. *Match the collocations:*

main	special	personal	preparation	dressings	foodborne	nutritional	self-service
service	dish	buffets	illness	needs	techniques	and toppings	choices

Exercise 4. *Read the sentences, fill in the missing words.*

self-service, specific, necessary, preparation, personal

1. Eating at restaurants takes time, and you get _____ service.
2. Fast-food counters, cafeterias, _____ buffets, and delis have limited menus.
3. Most menus are organized in a sequence, or _____ order.
4. To make smart menu choices, get _____ information from the menu.
5. Ask the waiter to describe ingredients, _____ techniques, and portion sizes.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

CHAPTER 18

Eating Well When Away from Home

Explore the Photo

On average, people in the United States eat about 25 percent of their meals away from home. *How does eating away from home affect your overall eating plan?*

Explore the Photo Meals eaten away from home may make up a large portion of your weekly food choices. Your food choices can have a big impact on wellness.

Writing Activity

Cause-and-Effect Paragraph

Customer Comments Running a restaurant is a complex business. Write a cause-and-effect paragraph that explains a situation in a restaurant that has a consequence. If the service is excellent, for example, the business may become very successful.

Writing Tips

1. **Write** a clear introduction.
2. **Use** appropriate transitions to show the relation between the cause and the effect.
3. **Include** an introduction and a conclusion.

G.G. Images/Jupiter Images

Reading Guide

Before You Read

Use Notes Have a notepad on hand when you are reading the chapter. When you find unfamiliar ideas or terms, write them down. After you have finished reading, find answers for your questions.

Read to Learn

Key Concepts

- **Describe** factors to consider when choosing a restaurant.
- **Explain** how to make smart menu choices.
- **Describe** courteous behavior when you eat away from home.
- **Explain** how to handle a restaurant bill.

Main Idea

It is important to make wise choices when you eat away from home. Restaurant courtesy and menu knowledge are important.

Content Vocabulary

- entrée
- cuisine
- à la carte

Graphic Organizer Go to this book's Online Learning Center at **glencoe.com** to print out this graphic organizer.

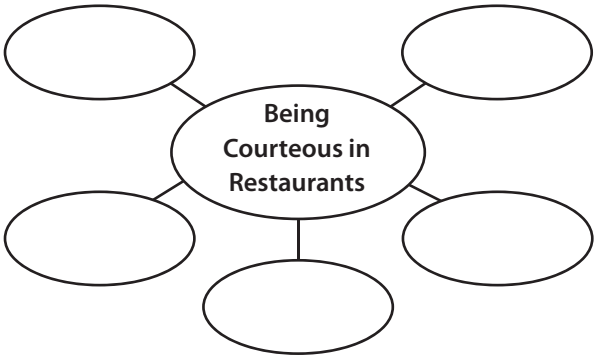
Academic Vocabulary

You will find these words in your reading and on your tests. Use the glossary to look up their definitions if necessary.

- regulation
- sequence

Graphic Organizer

As you read, fill in a web diagram like the one below. Fill in the surrounding circles with information you find in this chapter.



Academic Standards

English Language Arts

NCTE 5 Use different writing process elements to communicate effectively.

NCTE 9 Develop an understanding of diversity in language use across cultures.

NCTE 12 Use language to accomplish individual purposes.

Mathematics

NCTM Number and Operations Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

Science

NSES Content Standard F Develop an understanding of personal and community health.

Social Studies

NCSS IA Culture Analyze and explain the ways groups, societies, and cultures address human needs and concerns.

NCTE National Council of Teachers of English
NCTM National Council of Teachers of Mathematics
NSES National Science Education Standards
NCSS National Council for the Social Studies

As You Read

Connect How can you make restaurant meals part of your plan for good nutrition?

As You Read Answer
Student responses should convey personal needs and preferences, nutrition, time, food, and budgetary influences on their choices.

Restaurant Choices

When you are away from home, you may choose where to eat depending on what you want to eat, where you are, how much time you have, and what you can afford. Be sure to know your options, needs, budget, and time. Before you pick a restaurant, consider the cost, the types of food served, variety on the menu, nutrition in the foods served, type of service, and cleanliness, as well as the restaurant's suitability for your special needs or preferences.

Cost, Speed, and Service

Table-service restaurants, where servers take orders at the table, often cost more than other places. Eating at these restaurants takes time, and you get personal service. If you have special food needs or preferences, servers are usually happy to accommodate you. It may be worth it to spend more for table service for special or relaxed meals.

Fast-food counters, cafeterias, self-service buffets, and delis have limited menus. This may mean that you have fewer choices for healthful living. Service is usually faster but less personal. Remember that quick may not mean inexpensive. Be sure to check prices carefully.

Reading Check Answer
Consider the cost, type of food, variety on the menu, nutrition, type of service, and cleanliness, as well as the amount of time you have and your special needs or preferences.

Cleanliness Counts

When you choose a place to eat, look around. Is everything clean? Public health **regulations**, or rules, require strict sanitation to prevent foodborne illness. If you see signs that food safety and cleanliness are neglected, talk to the manager.

Reading Check **Explain** How would you choose a restaurant?

Photo Caption Answer
The amount of money you want to spend, the amount of time you have (fast food is quicker), how much service you want, whether you want food cooked to order, and the menu choices offered.

Check the Menu Some restaurants post menus outside to help you decide if you want to eat there. *If you had to choose between a fast-food and a table-service restaurant, what would influence your decision?*

Robert Cook/Alamy Images

Make Smart Menu Choices

Most menus are organized in a **sequence**, or specific order: appetizers or starters, salads, soups, entrées, side dishes, desserts, and drinks. An **entrée** is a main dish. To make smart menu choices, get information from the menu, order to match your nutrition needs, understand menu terms, and be careful about portion sizes and how much you eat.

Vocabulary

You can find definitions in the glossary at the back of this book.

Get Information

Learn about different cuisines and menu terms. **Cuisine** refers to specific foods and cooking styles. Make sure to:

- Check signs, leaflets, and Web sites for information about the food served.
- Ask the server. Most servers can describe ingredients, preparation techniques, and portion sizes.
- Read the menu thoroughly.

Science in Action Answer

Answers will vary, but should note the restaurant surveyed and the menu options analyzed. The student should note whether the options are healthful and cite specific reasons why or why not.

Order for Nutrition and Variety

Make an effort to make nutritional choices when eating away from home. Order sandwiches on whole-wheat bread. Add vegetables to burgers, sandwiches, and pizza. Choose salad, slaw, or another vegetable side dish. Order low-fat or fat-free milk.

Order Lighter Menu Options

Calories can add up quickly when you dine out. Understand preparation methods, side dishes, and toppings so that you can order to match your nutrition and calorie needs.

- **Preparation Methods** Choose baked or broiled fish, meat, or poultry for less fat and fewer calories. Buy nutrient-dense snacks.
- **Side Dishes** Ask about side dishes. Order a lower-calorie item à la carte when you can. **À la carte** means without side dishes.
- **Toppings** Salad dressing, butter, cream sauce, and gravy often have a lot of calories and fat. Order dressings and toppings on the side, food without the topping, or a lower-fat alternative.

Science in Action

Evaluate Menu Options

Some menus carry nutrient content claims such as low-fat or low-sodium. Federal laws that apply to these terms on packaged food labels also apply to restaurant menus.

Procedure Get a menu from a restaurant or a restaurant's Web site that claims to have healthful menu options. Evaluate how much more healthful the healthful options are than similar items on the menu. You may need to do research on nutrition information to evaluate the healthfulness of the options.

Analysis Record your findings in a chart. Include how the ingredients differ and the nutrition information for each menu option. Write a paragraph about your observations. Reflect on how the more healthful options compared to the other options.

NSES Content Standard F
Develop an understanding of personal and community health.

HOT JOBS!

Server

Restaurant servers take customers' orders, serve food, answer customer questions, and prepare restaurant bills. Skilled servers know about food.

Careers Find out more about careers. Visit this book's Online Learning Center at **glencoe.com**.

Understand Menu Terms

The words used on menus can help you make healthful choices. These terms are clues to the nutrients and calories of menu items:

- Breaded, buttered, creamed, deep-fried, and rich suggest more calories and fat.
- Broiled, cooked in its own juices, grilled, steamed, and stir-fried suggest fewer calories and less fat.
- Cured, pickled, smoked, and prepared with soy sauce suggest more sodium.
- Au Gratin means topped with bread crumbs or grated cheese.
- Au Jus means the dish is served in the juices from roasting.
- Florentine means the dish is served with spinach.
- Primavera means the dish is prepared with fresh vegetables.
- Scalloped means the dish is baked in a cream sauce.

Restaurant Portions

Restaurant portions are often bigger than you need. Ask for a half portion, or split an order with someone. Order an appetizer and side dish without an entrée. If you are served a larger portion than you should eat, eat some food at the restaurant and take the rest home.

Reading Check Answer Answers include understand menu terms, order lighter options, order small portions.

Reading Check **Explain** How can you avoid eating too many calories when you dine out?

Use Good Restaurant Manners

Good manners and courtesy make eating together pleasant for everyone. Knowing what to do also keeps everyone comfortable. In a fast-food place, remove your tray from the table and discard any waste.

Get Your Table

When you plan to dine at a table-service restaurant, call ahead to reserve a table. Arrive on time. Give your name, the number of guests, and the time you prefer. Call to cancel the reservation if you cannot go.

Brand X Pictures/Jupiter Images

When arriving at a restaurant with or without a reservation, let the host or hostess lead you to a table unless a sign says to seat yourself.

Be Courteous

During your visit to a restaurant, be patient and considerate. Follow these other tips to be courteous:

- Catch the server's attention with eye contact and a smile.
- Tell your server politely if anything is wrong.
- Thank the server, especially for handling special requests.
- Leave a tip for service.
- Talk quietly. Do not talk to others at another table, unless you quietly go there. Conversations should not bother others.

Reading Check **Describe** What are three ways to show courtesy to the server at a restaurant?

Reading Check Answer Three answers may include: Be patient and considerate. Quietly attract the server's attention with eye contact and a smile. Politely let the server know if anything is wrong. Thank the server, especially for handling special requests. Leave a tip for service.

Pay the Bill

Handle the bill politely. If everyone will pay separately, ask for separate checks before ordering. You also can let one person pay, then settle the bill together later. When someone else is paying, be thoughtful of the cost.

Pronunciation Key Help students pronounce international terms. Go to the Pronunciation Key in the Glossary at the back of this book.

Discover International Foods

Vietnam

The food of Vietnam reflects ingredients produced in Southeast Asia, and the Chinese and French who once ruled there. The cuisine uses vegetables, fruits, rice, and noodles. Noodles are made from wheat, rice, and mung beans. They are served in soup, salads, and stir-fries, and mixed with meat, fish, herbs, and vegetables. Nuoc mam (*nü-'äk 'mäm*), a reddish fish sauce made of fermented anchovies, adds flavor to many Vietnamese dishes. Most dishes are not spicy hot. Fruit is a popular dessert: oranges, bananas, starfruit, rambutans, and loquats are favorite fruits.

Languages Across Cultures

pho *(fō)* noodle dish; as translated "your own bowl." Pho bo is beef-noodle soup seasoned with cinnamon, cloves, and ginger and made with lime, bean sprouts, and onion.

goi cuon *(gòi cuốn)* mixed salad roll with pork, shrimp, herbs, and rice vermicelli wrapped in rice paper.

Recipes Find out more about international recipes on this book's Online Learning Center at **glencoe.com**.

NCTE 9 Develop an understanding of diversity in language use across cultures.

Reading Check Answer
Ask for separate checks before ordering, or let one person pay and settle the bill later.

Discuss any mistake on the bill quietly with the server. Place your money or credit card with the bill so the server sees it. Leave the tip on the table, or add it to you credit card bill. The standard tip for good service is 15 to 20 percent of the bill before tax. Leave at least 50 cents on small orders.

Reading Check **Explain** How should you handle a bill if more than one person will pay?

EASY RECIPES International Flavors

Vietnamese Spring Rolls

Customary	Ingredients	Metric
4	Rice paper wrappers	4
½ cup	Rice vinegar	125 mL
½ cup	Sugar	125 mL
1 Tbsp.	Fresh mint	15 mL
½ Tbsp.	Fish sauce	8 mL
1 tsp.	Ginger, minced	5 mL
1 tsp.	Lemon juice	5 mL
2	Carrots, medium size	2
4	Green lettuce leaves	4
8	Cooked shrimp, cold	8

Vietnamese Flavors
Substitute cooked chicken or pork. Try using sprouts or cabbage instead of carrots.

Yield: 4 servings, one roll each.

1. Submerge rice paper wrappers in cold water to rehydrate them.
2. Combine rice vinegar, sugar, mint, fish sauce, ginger and lemon juice in a bowl. Chill for at least one hour.
3. Cut carrots into thin strips about 2 inches long.
4. Dry and spread out one of the rice paper wrappers. Lay down one of the lettuce leaves on top. Near one side, lay down two shrimp. Top with carrot strips and sprinkle with extra mint.
5. Roll up starting from the side with the shrimp. Stop halfway through, tuck in the sides and finish rolling up. Slice the roll diagonally across the middle. Repeat with the other three wrappers.
6. Serve cold with chilled sauce for dipping.

Nutritional Information Per Serving: 150 calories, 1 g total fat, (0 g saturated fat), 22 mg cholesterol, 236 mg sodium, 35 g total carbohydrate (2 g fiber, 28 g sugars), 4 g protein

Percent Daily Value: vitamin A 130%, vitamin C 10%, calcium 4%, iron 8%

After You Read

CHAPTER SUMMARY

Where you dine out depends on what you want to eat, where you are, how much time you have, and your budget. Your knowledge of MyPyramid and the Dietary Guidelines can guide your food choices. Order a variety of nutrient-rich foods, be cautious about portion sizes, and understand preparation methods and menu terms so you can order carefully to control calories and fat. Good manners make eating out pleasant for everyone. During a visit to a restaurant, be patient and considerate. Paying the bill courteously is part of restaurant manners.

Vocabulary Review

1. **Use each of these vocabulary words in a sentence.**

Content Vocabulary
- entrée (p. 251)
- cuisine (p. 251)
- à la carte (p. 251)

Academic Vocabulary
- regulation (p. 250)
- sequence (p. 251)

Review Key Concepts

2. **Describe** factors to consider when choosing a restaurant.
3. **Explain** how to make smart menu choices.
4. **Describe** courteous behavior when you eat away from home.
5. **Explain** how to handle a restaurant bill.

Critical Thinking

6. **Examine** sources of information you would consult if you plan to go to a restaurant with someone who has a food allergy.
7. **Compare and contrast** how a teen can make healthful choices or unhealthful choices while eating at fast-food restaurants.
8. **Evaluate** how eating at school is different from eating in a restaurant.
9. **Analyze** why you might have a better dining experience at a restaurant if you are courteous to the server and to others around you.

Real-World Skills and Applications

Goal Setting and Decision Making

10. Restaurant Job Imagine that your goal is to be a server in a table-service restaurant for an after-school job. What steps might you take to prepare for the interview and the job to reach your goal? Write a paragraph outlining these steps.

Collaborative and Interpersonal

11. Restaurant Manners With your teacher's permission, form groups and discuss a negative or uncomfortable situation you may encounter in a resturant. Creatively present ways to resolve the problem in positive ways to your class. Role-play the situation for your class.

Technology

12. Create a Restaurant Menu Choose a name and theme for a new restaurant you would like to open. Design a menu using a graphics program. Include nutrition information. Share your menu with your class.

Financial Literacy

13. Split the Bill Three friends go out to eat and split the bill equally. The bill lists two entrées for $4.95, one entrée for $6.25, three drinks for $1.50, a dessert for $5.75, and a side order for $1.25. Each friend decides to tip 20%. How much does each friend owe?

ACTIVE LEARNING

14. Vending Machine Survey You can buy food away from home from vending machines. Conduct a vending machine survey to identify the types of foods and drinks sold. Include container sizes and prices. Analyze your findings for nutrition, variety, price, and other factors. Draw conclusions.

ACTIVE LEARNING

15. Ethnic Food Restaurants Get a menu from an ethnic restaurant. Go online if needed. Decide which menu items are your best choices for good nutrition. Explain how to get information about the menu. In class, list your options and explain your choices.

NCTE 12 Use language to accomplish individual purposes.

Foods Lab

16. Analyze Fast Food Find a recipe for a taco salad and prepare it. Compare the recipe to a specific fast-food version of a taco salad. Use information from the fast-food restaurant chain to find out about the nutritional value of the fast food. Compare the taste, appeal, calories, nutrients, and cost. Identify ways to make the homemade version more healthful than the fast-food version. Share your analysis and conclusions in class.

Additional Activities For additional activities go to this book's Online Learning Center at **glencoe.com**.

Academic Skills

English Language Arts

17. Menu Dictionary Using local and online restaurant menus, create a dictionary with at least 10 menu terms. Include pronunciation guides for unfamiliar terms. Note whether the term gives clues to the nutrient or calorie content. Compile a class menu dictionary.

NCTE 5 Use different writing process elements to communicate effectively.

Social Studies

18. Ethnic Utensils In America, most dishes are eaten with forks, spoons, and knives. In some other countries, some dishes are eaten with bare hands or chopsticks. Choose an ethnic dish that is not eaten in the traditional American manner. Describe the dish, identify its place of origin, and describe how to eat it properly.

NCSS IA Culture Analyze and explain the ways groups, societies, and cultures address human needs and concerns.

Mathematics

19. Delivery Tipping Servers and deliverers count on tips to bring their pay up to minimum wage. If you order a pizza delivered to your home, figure a reasonable tip by estimating 15% of the cost of the pizza before any delivery fee. What would you tip a person bringing you a pizza costing $15.99, including a $1.00 delivery fee?

Math Concept **Percent** A percent (%) is a ratio that compares a number to 100. Convert a fraction to a decimal by dividing the numerator by the denominator.

Starting Hint Find first how much the pizza itself costs before the delivery fee. Then, find 15% of the pizza's cost for a tip. Round up to the nearest tenth.

Math For more math help, go to the Math Appendix

NCTM Number and Operations Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

STANDARDIZED TEST PRACTICE

MULTIPLE CHOICE

Read the paragraph and choose the best answer to the question. Write your answer on a separate piece of paper:

Test-Taking Tip Choose a vocabulary word you need to learn, write it on a sticky-note, then write its definition in your own words. Post the note in a place where you will see it throughout your day.

Most American restaurants serve overly large portions. This is often a way to promote the restaurant and make the meal look like a good value. Plan on bringing home excess food when you dine out so that you do not overeat.

20. Based on the paragraph, which of the following statements is true?

- **a.** Planning ahead can help keep you from overeating.
- **b.** All restaurants serve too much food.
- **c.** Restaurants want people to overeat.
- **d.** Restaurants rely on dietitians.

II. POST-TEXT EXERCISES

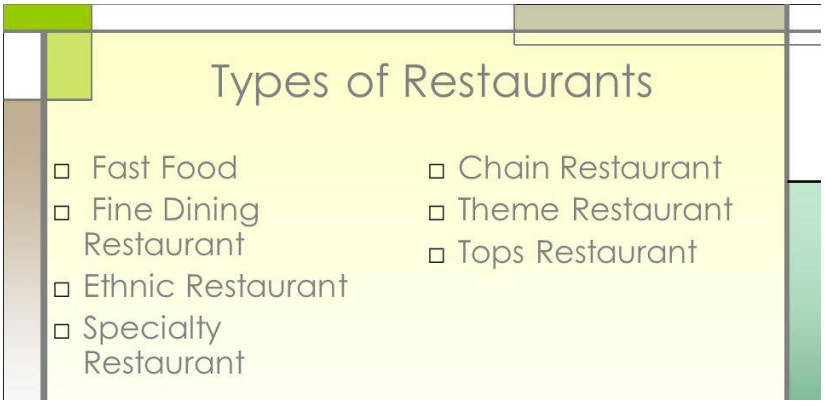
Exercise 1. *Explain what the following statements mean, provide some more tips of "restaurant behaviour".*

- Catch the server's attention with eye contact and a smile.
- Tell your server politely if anything is wrong.
- Thank the server, especially for handling special requests.
- Leave a tip for service.
- Talk quietly. Do not talk to others at another table, unless you quietly go there.
- ….

Exercise 2. *Answer the questions in the Sections* ***"Vocabulary Review" and "Review Key Concepts"*** *on page 165.*

Exercise 3. *Discuss with your partner the Section* ***"Academic Skills"*** *on page 165. Complete the tasks given there.*

Exercise 4. *Explain the information given below to summarise the information from Lesson 13. Provide recommendations on how to behave in the restaurant of your country. Comment on the types of restaurants below. Give relevant examples and explanations.*



Exercise 5. *Based on the information above make a short presentation to your partner describing cafes and restaurants in your country. Include one of the following aspects:*

- types of restaurants;
- criteria to choose which restaurant to go to (cuisine, atmosphere, location, price, service);
- number of servings and size of portions offered to customers;
- Top 5 rules of visiting the restaurant.

** Use active vocabulary from the PRE-TEXT EXERCISES.*

TIME HEALTH
SCIENCE & TECHNOLOGY

4 Ways to Make Grilling Healthier This Summer

BY **JAMIE DUCHARME**

Cookouts are a summer staple. And while they do provide some health perks—fresh air, home cooking and time with friends and family—they can also come with risks. Follow these guidelines to make your grilled meals better for you.

1. Grill like a pescatarian

Cooking most meat at temperatures above 300°F can produce potentially cancer-causing chemicals called heterocyclic amines (HCAs), according to the National Cancer Institute. But fruits and vegetables like corn, peaches, peppers, eggplant, pineapple, squash and watermelon hold up well on the barbecue and don't form HCAs when they're cooked. And though most types of fish produce HCAs when prepared at high temperatures, certain seafoods—including shrimp, scallops, oysters, crayfish and lobsters—don't seem to form the compounds, says J. Scott Smith, a professor of food chemistry at Kansas State University.

2. Don't overcook your entrée

In addition to being carcinogenic, some of the toxins produced by grilling meat may also increase your risk of developing Type 2 diabetes. They do so by interfering with processes that regulate inflammation and insulin sensitivity, says Gang Liu, a postdoctoral nutrition researcher at the Harvard T.H. Chan School of Public Health, whose research has linked high-heat cooking to an increased risk of the disease. To limit your exposure, "avoid cooking the meats until charred or very well done," Liu says, and eat grilled foods in moderation.

3. Think beyond red meat

Studies have found that eating red meat may increase the risk of heart disease, cancer, diabetes and early death. Processed meats— like sausage, bacon and hot dogs —seem to be even worse, increasing your risk of colorectal cancer and packing in salt and preservatives. When cooked at high temperatures, nitrite and nitrate preservatives may react with compounds naturally found in meat to trigger the formation of toxins called nitrosamines. Like HCAs, these are considered carcinogens. For these reasons, poultry, fish or plant-based proteins are smarter choices than red meat. But if you must, pick something minimally processed, like steak. Unprocessed red meat has plenty of iron, protein and B vitamins, so for most people, it's fine to eat occasionally. Just think of a burger as a treat, rather than your go-to grillable.

4. Make a protective marinade

Slicking meat with a marinade made of oil, water, vinegar and antioxidant rich spices—like rosemary, oregano and thyme—for about 30 minutes prior to cooking can at least partially block HCA formation, Smith's research has found. (Wrapping meat in aluminum foil before grilling may also cut down on HCAs.) Ground pepper appears to be effective too. In one study, Smith found that mixing a gram of it with 100 g of ground beef blocked the formation of HCAs. If that mixture tastes too strong, add in some herbs and garlic.

LESSON 14. Food and Culture

I. PRE-TEXT EXERCISES

Exercise 1. *Answer the following questions.*

1. How do you understand the concept of ethnic food?
2. What are your favourite national dishes that are common in your country?
3. Describe how eating habits in your country changed due to globalization.

* Answer few more questions in the Section Read to Learn Key Concepts on page 172.

Exercise 2. *Study the active vocabulary, check how these words are pronounced and translated.*

Word	Pronunciation/ Translation	Word	Pronunciation/ Translation
diversity		canned tuna	
cuisine		commerce	
custom		heritage	
environment		plentiful	
skewers		biased	
smoked salmon		exaggerated	

Exercise 3. *Match the columns to get the right definitions:*

No.	Term		Definition
1.	Diversity	A	is the beliefs, values, attitudes, behaviours, history, and expressions shared by a group of people.
2.	Cuisine	B	is the external factors influencing the life and the activities of people.
3.	Culture	C	is the variety of people of different races and cultures.
4.	Custom	D	is a food commonly enjoyed by an ethnic group.
5.	Ethnic food	E	is the typical foods and ways of preparing foods associated with a region, country, or cultural group.
6.	Environment	F	is the way a group of people traditionally behave.

Exercise 4. *Match the collocations:*

ancient	to recognize	to use	strict	external	coastal	to enjoy	recipes in
rules	a spoon	cookbooks	times	meals	importance	factors	areas

Exercise 4. *Read the sentences, fill in the missing words.*

similarities, reflect, change, ethnic, background

1. Learning about food customs helps you respect the _____ and differences among different peoples.
2. Cultural influences include ethnic _____ and religious practices.
3. Some foods may seem _____ , but they are not.
4. Cultures _____ over time, and so do their food customs.
5. Foods for holidays and celebrations _____ culture.

Exercise 5. *Read and translate the text. Do the* POST-TEXT EXERCISES.

CHAPTER 3
Food and Culture

Explore the Photo

Cultural Foods Delicious food is found everywhere. *What are the benefits of enjoying foods from other cultures?*

Writing Activity

Journal Entry

Ethnic Food Every country has its own foods, cuisine, and eating styles. Write a journal entry about the foods you have grown up eating. Think about your family traditions, the way the food is cooked, and the herbs, spices, and other seasonings used to flavor your food.

Writing Tips

1. **Date** your entry.
2. **Let ideas flow freely.** Let one idea lead to another.
3. **Use specific examples.** Write about experiences, reactions, and observations.

InsideOutPix/Jupiter Images

Reading Guide

Before You Read

Preview Choose a Content Vocabulary word that is new to you. Find it in the text and write down its definition.

Read to Learn

Key Concepts

- **Explain** the connection between culture and food choices.
- **Describe** influences on the development of the cuisines of the United States and Canada.
- **Identify** ways to learn about healthful foods from other cultures.

Main Idea

Culture and food supply determine the food customs of different regions and groups. Foods of other cultures can offer wellness.

Content Vocabulary

- diversity
- cuisine
- culture
- custom
- ethnic food
- environment
- regional food

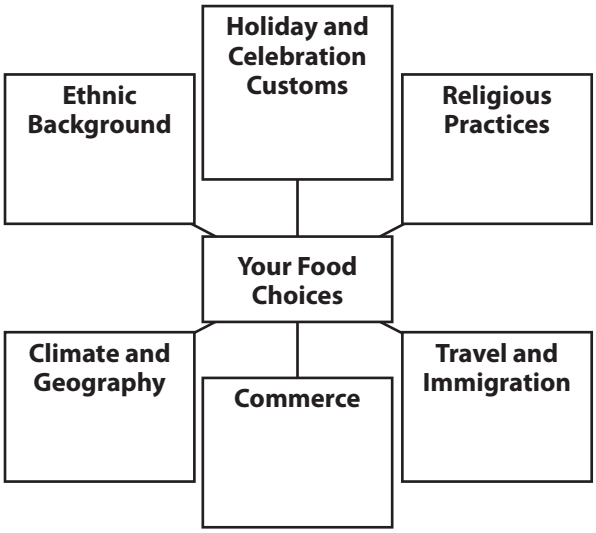
Academic Vocabulary

You will find these words in your reading and on your tests. Use the glossary to look up their definitions if necessary.

- trait
- community

Graphic Organizer

As you read, write notes about the many influences on your food choices.



Graphic Organizer Go to this book's Online Learning Center at **glencoe.com** to print out this graphic organizer.

Academic Standards

English Language Arts

NCTE 9 Develop an understanding of diversity in language use across cultures.

Mathematics

NCTM Measurement Apply appropriate techniques, tools, and formulas to determine measurements.

NCTM Algebra Represent and analyze mathematical situations and structures using algebraic symbols.

Social Studies

NCSS I A Culture Analyze and explain the ways groups, societies, and cultures address human needs and concerns.

NCSS III I People, Places, and Environments Describe and assess ways that historical events have been influenced by, and have influenced, physical and human geographical factors in local, regional, national, and global settings.

NCTE National Council of Teachers of English
NCTM National Council of Teachers of Mathematics
NSES National Science Education Standards
NCSS National Council for the Social Studies

Different Foods, Different Customs

As You Read

Connect How does culture influence the way you eat?

Throughout history, food has connected people from different places. Consider the history of these popular foods:

- Yogurt was first produced in ancient times. Food historians think it was probably made by Middle Eastern nomads.
- Oranges, which first grew in Asia 20 million years ago, were brought to the Americas by the Spanish.

The flavors of healthful eating today show the rich diversity of global foods and cultures. **Diversity** is the variety of people of different races and cultures. No matter where you go in the world, you will find cuisines with foods that are like and unlike those you grew up with. **Cuisine** is the typical foods and ways of preparing foods associated with a region, country, or cultural group.

Vocabulary

You can find definitions in the glossary at the back of this book.

Sometimes, the same foods are prepared in different ways in different cultures. For example, salmon is often served raw in Japan, while it is typically smoked or grilled in Alaska and British Columbia. Sometimes, different foods are made in the same ways. For example, skewers of grilled meat are found in many places. Middle Eastern cooks usually make them with lamb, while many American cooks use beef.

People eat differently around the world. Some use only spoons. Others use chopsticks or their fingers. In some places, people pass dishes of food from person to person. Elsewhere, people reach into a large family bowl in the middle of the table. Culture and the food supply influence these differences.

Rice Around the World In Japan, people eat rice plain or with chopped vegetables or fish. Italians enjoy a rice dish called risotto. Rice and beans are popular in parts of Latin America. *How do other cultures use rice in their cooking?*

JSA Rice

Food and Culture

Culture is the beliefs, values, attitudes, behaviors, history, and expressions shared by a group of people. Some parts of culture are easy to recognize, such as food, clothing, music, and language. Culture also includes people's thoughts and beliefs.

Culture determines many food customs. A **custom** is the way a group of people traditionally behave. Food customs include how food is prepared as well as when, where, how, and with whom it is eaten. Groups within a culture also have customs. Besides pizza and hamburgers, what foods are associated with American teens? Besides vegetables and whole grains, what foods may be popular among health-focused people?

Some foods are considered special. These foods have a high cultural status. For example, many Americans put a higher status on steak and lobster than on ground beef and canned tuna. The status of foods often varies from one culture to another. In some countries, for example, insects are considered to be special treats.

Culture and Food People around the world eat food that is influenced by their culture. *What are some dishes that you know of from another culture?*

Ethnic Background

An ethnic group includes people with common cultural **traits**, or characteristics. Nationality, race, and religion affect ethnicity. An **ethnic food** is a food commonly enjoyed by an ethnic group. Ethnic food traditions are passed from parents to children, who learn to enjoy their family's ethnic foods. Food traditions of many ethnic groups shaped today's American cuisine.

Religious Practices

Many religions use foods for symbolic purposes and feasts. Fasting, or not eating, is another religious custom. Some religions forbid certain foods and have strict rules for others. For example, Orthodox Jews do not eat meat and dairy products at the same meal. Many Christians avoid eating meat on Fridays during Lent. Muslims and Orthodox Jews do not eat pork. In strict Hinduism, beef is not allowed. In many religious cultures, sharing food with friends and even strangers is an important part of life.

Holiday and Celebration Customs

In most cultures, certain foods are linked with certain events. For example, many cultures celebrate harvests, national holidays, and religious holidays by having feasts. Families celebrate birthdays, graduations, and weddings with foods from their family and culture. Food traditions are important in life's special moments.

Nutrition & Wellness Tips

Eat Japanese Style

- ✓ Learn to eat with chopsticks to help you eat more slowly and enjoy food more.
- ✓ Try sushi for a fresh heart-healthy alternative to fried fish.

Peter Adams/Index Stock Imagery/Jupiter Images

Local Food Supply

People's food choices are influenced by their environment. **Environment** is the external factors influencing the life and the activities of people. Plentiful and locally available foods are usually more important to a culture's food customs than hard-to-find foods. What foods are plentiful where you live? What makes those foods easy to grow or to buy?

Climate and Geography

A culture's traditional foods depend largely on what grows nearby. For example, cuisines from coastal areas often include a lot of seafood.

Because of modern transportation and food preservation, today's cuisines depend less on locally grown foods. Many people, however, value local foods for their fresh flavor and cultural importance.

Commerce

Throughout history, people have exchanged foods through commerce. That explains why the same foods are grown in different places and why many cuisines include foods grown elsewhere. For example, bananas that first came from Asia now grow in Central America, where they are exported to the United States. Politics, trade policies, and food safety regulations affect commerce and food prices.

Immigration and Travel

Travel has always been an important way to learn about new foods. When people move to a new place, they often want the comfort of familiar foods. In colonial days, European settlers brought chickens, cows, wheat, oats, oranges, and carrots to the Americas. European explorers brought tomatoes, potatoes, and chocolate from the Americas to Europe.

Reading Check

Identify What are some factors that affect people's food choices and customs?

Global Connections
Through international commerce, American fast food is sold around the world. *What foreign foods are sold in the United States?*

Owen Franken/Corbis

Foods of the United States and Canada

The United States and Canada have food traditions that range from everyday foods like fried chicken and corn on the cob to holiday favorites like turkey and pumpkin pie. What food traditions does your family observe?

Our Food Heritage

American and Canadian food customs started with foods grown, gathered, and hunted by Native Americans—such as turkey, squash, corn, peppers, and cranberries. Many immigrant groups have influenced American and Canadian cuisine as well. Consider these groups and the dishes they brought:

- Germans: apple strudel
- Scandinavians: meatballs
- British Islanders: fish and chips
- Italians: pasta dishes
- Mexicans: tortillas
- Chinese: stir-fried vegetables

American cuisine continues to change. Immigrants from Latin America, Asia, Eastern Europe, Africa, the Middle East, and elsewhere continue to add new foods and flavors to our food choices.

Math in Action

Doubling Twice

To make one banana lassi (yogurt drink) from India, mix these ingredients in a blender: ½ cup (125 mL) sliced bananas, 1 cup (250 mL) plain yogurt, ½ cup (125 mL) water, 2 tsp. (3 mL) sugar, and 1 tsp. (1 mL) cardamom. How much banana and yogurt do you need to make two lassis?

Math Concept **Ratios** You can use ratios to compare two related numbers. The ratio of bananas to yogurt is 1:½, or 2:1. You can also express ratios using fractions with whole numbers as the numerator and denominator: 2/1

Starting Hint Ratios are easy to double because you multiply both numerator and denominator by 2.

NCTM Measurement Apply appropriate techniques, tools, and formulas to determine measurements.

Math For more math help, go to the Math Appendix.

Foods that the Americas Gave the World

The foods tomatl, mahiz, and papa may sound unfamiliar, but they are eaten every day in America. *Tomatl* is the Aztec (ancient Mexican) name for tomato. *Mahiz* meant corn among the Arawak people of the Caribbean. *Papa* is the word for potato in Quechua, an ancient South American language. Until about five hundred years ago, all these foods grew only in the Americas. Then explorers brought them to the rest of the world. People in other countries embraced the new foods.

Corn, beans, and squash sustained Native Americans before the Europeans arrived. Most corn in the United States grows in the Midwest, while beans and squash are plentiful in many areas, including Northern and Southern regions.

An American Original
Corn is an American original—and one of the most important crops in the United States. *What are three ways that people in the United States eat corn?*

Regional Foods

Have you tasted Florida key lime pie, or fiddlehead soup from New Brunswick? Every region of the world has regional foods. **Regional foods** are foods that are special to one geographic area.

Most regional foods develop because the climate and land are good for producing the ingredients. Many regions in the United States are well known for their popular foods.

- The South is known for peach desserts and pecan pies.
- Maple syrup flavors many dishes in New England and Southeastern Canada.
- Typical Midwestern meals include pork and corn.
- The area surrounding the lakes of Minnesota and central Canada are ideal for growing wild rice.
- The upper Pacific Coast is famous for salmon and berries.
- Alaskan cuisine features game meat such as deer and elk.
- Pineapple is used in many Hawaiian dishes.

Regional Foods that Reflect Ethnic Diversity

Some regional foods reflect ethnic diversity. For example, creole cooking in Louisiana combines the cooking styles of French, Spanish, Native American, and African settlers. Southern cooking—with foods such as grits, okra, and catfish—blends the traditions of African slaves, European settlers, and Native Americans. On the West Coast and in Hawaii, foods reflect the influence of Asian immigrants. Southwestern cuisine has strong influences from Mexico, Central America, and South America.

✓ Reading Check **Explain** What factors influence an area's regional foods?

Jupiter Images/FoodPix/Leigh Beisch

Your Passport to Nutrition

Nutritious and tasty foods come from every part of the world. When you enjoy meals and snacks from other cultures, you learn about those cultures and get the benefits of food variety.

Healthful Foods from Many Cultures

Consider the nutritional benefits of including regional and ethnic foods in your meals and snacks. Remember that eating plenty of vegetables, fruits, beans, and whole-grain foods is good nutrition advice no matter where you live in the world.

- In some Asian cuisines, meals often include sliced vegetables and tofu.
- Many Mediterranean cuisines feature fresh salads.
- Fruit soups and yogurt are common in Middle Eastern cultures.
- Hispanic cuisines include combinations of beans and rice seasoned with herbs, spices, and vegetables.

Explore the World of Food

Whether you travel within your local **community**, or area, or visit another country, you can explore regional and ethnic ingredients and dishes. Try these tips:

- Visit local farmers' markets and farms.
- Try foods at regional or ethnic festivals.
- Look for regional or ethnic foods in your supermarket.
- Eat local foods when you travel.
- Find interesting ethnic or regional recipes in cookbooks.
- Watch television shows about regional or ethnic foods.
- Eat at ethnic restaurants. Ask about unfamiliar foods.

HOT JOBS!

Food Historian

Food historians research, analyze, and interpret information about what people ate in the past. They also study how people produced, gathered, and prepared their foods.

Careers Find out about more careers. Go to this book's Online Learning Center at **glencoe.com**.

Ethnic Flavors Many ethnic foods are identified by their seasonings. Italian foods often include garlic and olive oil, while foods from India are often seasoned with curry. Many Middle Eastern foods include lemon and parsley. *How would you cook chicken to give it an ethnic flavor?*

Jupiter Images/FoodP...

Respect Food and Cultural Diversity

Learning about food customs helps you respect the similarities and differences among different peoples. When you watch, listen, and ask questions about other cultures, you can avoid stereotyping other people, their culture, or their foods. A cultural stereotype is a biased or exaggerated belief about the traits of a group of people.

Some foods may seem ethnic that are not. For example, fried tortillas for tacos are an American version of Mexican food. These crisp tacos are popular in Tex-Mex cuisine. Similarly, chop suey is served in many Chinese restaurants, but the dish was created in America.

Remember that cultures change over time, and so do their food customs.

Recognize foods and food customs you have in common with other cultures. Enjoy and learn from the similarities as well as the differences!

Reading Check **Identify** What are three ways you could add cultural diversity and ethnic flavors to your food choices?

EASY RECIPES Everyday Favorites

Hummus

Customary	Ingredients	Metric
1 cup	Canned garbanzo beans	250 mL
¼ cup	Tahini (sesame seed paste)	75 mL
2 Tbsp.	Lemon juice	30 mL
1 clove	Garlic, minced	1 clove
dash	Salt	dash
1 Tbsp.	Minced fresh parsley	15 mL

Yield: About 1¼ c (300 mL)

1. Drain and rinse the beans, then puree them in a blender (or mash with a fork).
2. Add tahini, lemon juice, garlic, and salt. Blend until smooth.
3. Place mixture in a serving bowl. Garnish with minced parsley.
4. Serve as a spread or a dip for toasted pita chips or raw vegetables.

Nutritional Information Per Serving: 93 calories, 5 g total fat (1 g saturated fat), 0 mg cholesterol, 161 mg sodium, 8 g carbohydrates (2 g fiber, 1 g total sugars), 4 g protein

Percent Daily Value: vitamin A 2%, calcium 6%, vitamin C 6%, iron 4%

After You Read

CHAPTER SUMMARY

Culture and the food supply influence cuisine and food customs around the world. Cultural influences include ethnic background and religious practices. Foods for holidays and celebrations reflect culture. The food supply is influenced by climate, type of land, commerce, immigration, and travel. Regional foods, including regional American foods, reflect many influences. Learning to enjoy a variety of foods from different cultures and regions can add flavor, pleasure, and nutrition to your meals and snacks.

Vocabulary Review

1. **Use each of these vocabulary words in a sentence.**

Content Vocabulary

- diversity (p. 38)
- cuisine (p. 38)
- culture (p. 39)
- custom (p. 39)
- ethnic food (p. 39)
- environment (p. 40)
- regional food (p. 42)

Academic Vocabulary

- trait (p. 39)
- community (p. 43)

Review Key Concepts

2. **Explain** the connection between culture and food choices.
3. **Describe** influences on the development of the cuisines of the United States and Canada.
4. **Identify** ways to learn about healthful foods from other cultures.

Critical Thinking

5. **Explore** how exposing young children to foods from different cultures might help them to be more open-minded as they get older.
6. **Analyze** how modern methods of travel and communication affect and will continue to affect cultural and regional food customs.
7. **Distinguish** how corn, beans, and squash are used in American cuisine. Why have they been important parts of American cuisine?
8. **Analyze** how a regional Louisiana gumbo reflects the influences of several cultures.
9. **Distinguish** how regional cuisine develops. Why are some foods popular in different regions of the United States?

Real-World Skills and Applications

Problem Solving

10. Making Decisions You invite a foreign exchange student from Indonesia to your home for dinner. You want to prepare a meal that she can eat and enjoy. Write a paragraph to describe the things you should consider when deciding what foods to serve.

Interpersonal and Collaborative

11. Make Connections Interview a relative to learn about your family history and food customs. Take notes during your interview. Find out about favorite family recipes. Share what you learned with your class. Explain the importance of the recipes in your family's culture.

Financial Literacy

12. Plastic or Ceramic? At a coffee shop you can buy coffee in a paper cup for $1.50 or in a refillable ceramic mug for $6. Refills of the ceramic mug are $1. How many refills do you need to buy to make buying the mug a better value than buying individual paper cups of coffee?

Technology

13. Electronic Recipe File Start a recipe collection in an electronic file. Collect and label at least three recipes for each category: 1) local regional dishes, 2) other regional American dishes, and 3) ethnic or global recipes. Share your recipe collection with your classmates.

ACTIVE LEARNING

14. Learn About Ethnic Cuisine Get a menu from an ethnic restaurant where you live, or, with your teacher's permission, find one online. Identify all the menu terms that are unique to the ethnic cuisine, and define them. Create a poster to display the menu and definitions in class.

ACTIVE LEARNING

15. Potatoes Around the World Trace the geography and history of the potato. Where did potatoes originate? In what countries are they grown and eaten today? How are potatoes prepared in different countries? How did potatoes affect history in Ireland? Make a world map that shows key points in the history of the potato in the form of a timeline.

NCSS III I People, Places, and Environments Describe and assess ways that historical events have been influenced by, and have influenced, physical and human geographical factors in local, regional, national, and global settings.

Foods Lab

16. Chips and Dip Prepare three styles of chips and dip with foods from different cultures. You might choose Mexican salsa or guacamole with tortilla chips, Indian chutney with chapati, and Middle Eastern baba ghanoush with toasted pita triangles. Compare the textures and flavors.

Additional Activities For additional activities go to this book's Online Learning Center at **glencoe.com**.

Academic Skills

English Language Arts

17. Foreign Food Glossary Write a glossary of ten food-related terms. Include the spelling, pronunciation, and meaning of the words. Combine your list of words with your classmates' lists of words to make a classroom reference of food terms from around the world. Present your classroom food glossary reference to the school librarian for other students to use.

NCTE 9 Develop an understanding of diversity in language use across cultures.

Social Studies

18. Compare/Contrast Many cuisines feature noodles. Choose two noodle dishes from separate countries. Use a chart, paragraph, or Venn diagram to describe how they compare and contrast.

NCSS I A Culture Analyze and explain the ways groups, societies, and cultures address human needs and concerns.

Mathematics

19. Create a Chart Injera is a flat Ethiopian bread resembling a large pancake. One batch of injera makes six pieces. Cait made two batches for a party, then tore each piece into three strips for dipping. Create a chart showing how many pieces and strips of injera you can make from two, three, and four batches.

Math Concept **Variables and Expressions** Use variables, or placeholders, for batches (b), pieces (p), and strips (s) to solve the multiplication problems for the table.

Starting Hint Create a chart with the following column headings: Batches, Pieces, Strips. Complete four rows showing different numbers of batches.

Math For more math help, go to the Math Appendix

NCTM Algebra Represent and analyze mathematical situations and structures using algebraic symbols.

STANDARDIZED TEST PRACTICE

MULTIPLE CHOICE

Read the paragraph and choose the best answer. Write your answer on a separate piece of paper.

Pizza is one of the most popular foods in the world, but it comes in different forms. Europe has a strict definiton of traditional Italian pizza. English muffin pizzas would not make the cut. Frozen pizzas prepared in the American way do not. But then, you might not recognize Sicilian pizzas with all the toppings baked right into the crust!

20. Based on the paragraph, which of the following statements is true?
- **a.** Everyone loves pizza.
- **b.** All Italians like English muffin pizzas.
- **c.** Europeans do not freeze pizza.
- **d.** People often use different ways to make pizza.

Test-Taking Tip Be careful when you see generalizations. Sentences using words such as *all, none, always, never,* or *every* are often stereotypes.

II. POST-TEXT EXERCISES

Exercise 1. *Explain how the following tips can help you to explore a new food culture. Provide some more tips of "gastronomic tours".*

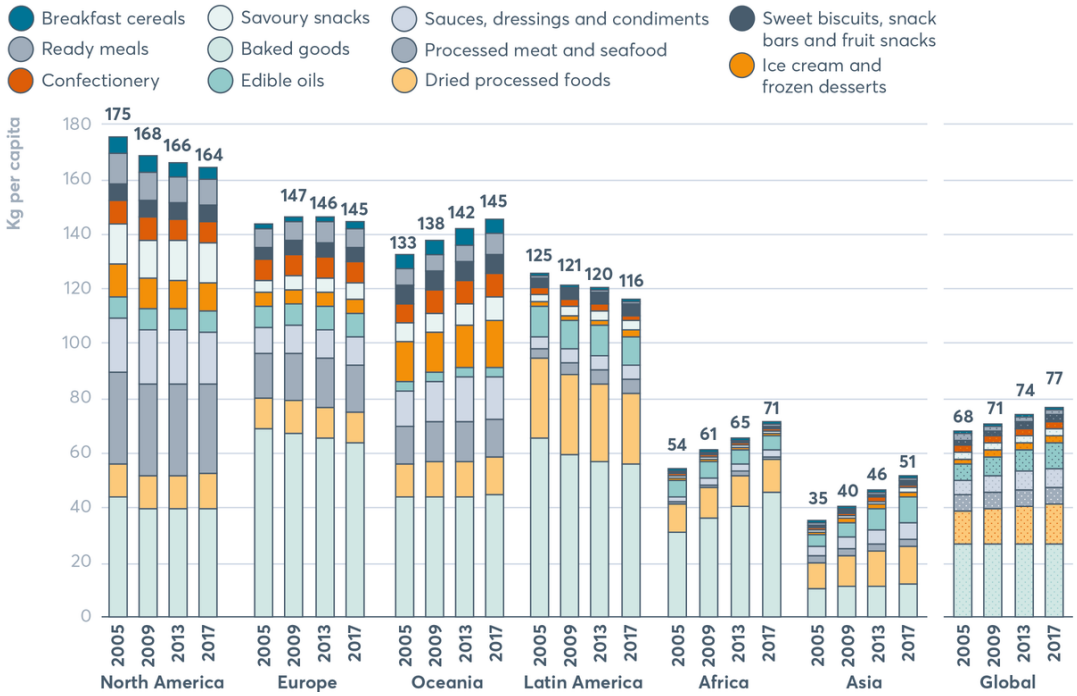
- Visit local farmers' markets and farms.
- Try foods at regional or ethnic festivals.
- Look for regional or ethnic foods in your supermarket.
- Eat local foods when you travel.
- Find interesting ethnic or regional recipes in cookbooks.
- Watch television shows about regional or ethnic foods.
- Eat at ethnic restaurants. Ask about unfamiliar foods.

Exercise 2. *Answer the questions in the Sections* ***"Vocabulary Review" and "Review Key Concepts"*** *on page 180.*

Exercise 3. *Discuss with your partner the Section* ***"Academic Skills"*** *on page 182. Complete the tasks given there.*

Exercise 4. *Explain the information given below to summarise the information from Lesson 14. Provide recommendations on how to explore national eating habits of your country as well as the countries you visit. Comment on the diagram "What People Eat and Why It Matters" below. Give relevant examples and explanations.*

What People Eat and Why It Matters



Exercise 5. *Based on the information above make a short presentation to your partner describing national cuisine in your country. Include one of the following aspects:*

- what factors determine food diversity in your country (geography, climate, food heritage, commerce, globalization);
- globalization as the moving force of food change (travelling, food transportation, media);
- examples of food that has become internationally popular;
- Top 5 things that influence people's choice of food.

** Use active vocabulary from the PRE-TEXT EXERCISES.*

TIME HEALTH
SCIENCE & TECHNOLOGY

Here's What Eating Processed Foods for Two Weeks Does to Your Body

BY **MANDY OAKLANDER**

Ultra-processed foods—the kinds made irresistible by sugar, fat and salt—are ubiquitous in the U.S., making up as much as 60% of the average American diet. But a small, intensive new study published in the journal *Cell Metabolism* shows that their low price and convenience comes at a cost to health.

When people ate a highly processed diet for two weeks, they consumed far more calories and gained more weight and body fat than they did when they ate a less processed diet—even though both diets had the same amounts of nutrients like sugar, fat and sodium.

It wasn't a shock to find ultra-processed foods weren't healthy—other research has linked them to a higher risk of cancer and obesity. What was unexpected was that sugar, fat and salt didn't seem to be what was driving people to overeat. "I was surprised by the results," says Kevin Hall, lead author of the study and senior investigator at the National Institute of Diabetes and Digestive and Kidney Diseases at the National Institutes of Health. "It's the first trial that can actually demonstrate that there is a causal relationship between something about ultra-processed foods—independent of those nutrients—that cause people to overeat and gain weight."

In the study, 20 healthy adults lived for a month in a lab, where all of their meals and snacks were prepared for them. The two meal plans were either highly processed or unprocessed, and everyone ate one—then switched to the other—for two weeks at a time. (Foods like canned ravioli, chicken nuggets, bagels and diet lemonade comprised the ultra-processed diet; the unprocessed diet had salads, scrambled eggs, oatmeal and nuts.)

Both diets contained nearly identical nutrient profiles, with the same amount of sugar, fat, sodium, fiber and more. But the meals had very different effects. When people ate a highly processed diet, they ate about 500 more calories per day than they did on the less-processed diet. They also gained about two pounds over the course of two weeks on the ultra-processed diet—and lost about the same amount on the unprocessed diet.

They ate faster, too, which could be one reason why they gained more weight. "Ultra-processed food tends to be softer, which makes it easier to chew and swallow," Hall says. "One of the theories is that if you're eating more quickly, you're not giving your gut enough time to signal to your brain that you've had enough calories and that you're full and to stop eating. By the time the brain gets that signal, it's too late—you've already overeaten."

People's hormones also changed depending on how processed their meals were. Even though people said they felt equally full and satisfied on both diets, the unprocessed diet led to an increase in an appetite-suppressing hormone called PYY and a decrease in the hunger hormone ghrelin. "Both of these hormonal changes that took place, for reasons we don't fully understand, tend to support our observation," Hall says. On an unprocessed diet, "people spontaneously reduce their calorie intake, leading to weight loss and body fat loss, without them having to count calories or even intentionally do so."

Avoiding ultra-processed food isn't easy, especially financially. In the study, the ingredients for the unprocessed meals cost about 40% more than for the ultra-processed foods, Hall says. But the study provides the latest proof that cutting down on processed foods may be worth the extra price and effort.

Unit 6 Thematic Project

Consider Nutritional Information

Nutritional information is factual information. Advertisements designed to sell food, however, do not always reveal the truth about the food. Being a critical consumer of information can help you make smart food choices.

My Journal

If you completed the journal entry from page 210, refer to it to see if the foods you ate on that particular day were smart food choices and how they could have been improved.

Project Assignment

In this project you will:

- Conduct research.
- Write a summary of your research.
- Create a poster displaying nutritional information about and advertisements for food items from a chain restaurant.
- Write interview questions.
- Interview someone in your community.
- While interviewing, take notes, and after interviewing, transcribe your notes.
- Make a presentation to your class.

Academic Skills You Will Use

English Language Arts

NCTE 1 Read texts to acquire new information

NCTE 8 Use information resources to gather information and create and communicate knowledge

STEP 1 Choose and Research a Topic

Conduct research about one of the following topics or another topic of your choice that is approved by your teacher. In addition, find examples of nutritional information from and advertisement about a chain restaurant. Write a summary of your research.

- Strategies marketers use to advertise food.
- How to make healthy nutritious choices at fast-food restaurants.
- Efforts to enact menu education and labeling laws.

STEP 2 Plan Your Interview

Use the results of your research to develop questions you will use to interview someone in your community who is qualified to discuss your research topic. Keep these writing skills in mind while you develop the questions.

Writing Skills

- Use complete sentences
- Use correct spelling and grammar
- Organize your questions in the order you want to ask them

STEP 3 Connect with Your Community

Interview someone in your community about your research and the information you found. You could interview a marketing professional, a dietician, or a restaurant owner, chef, or legislator about menu education and labeling laws.

Interviewing Skills

- Record responses and take notes.
- Listen attentively.
- When you transcribe your notes, write in complete sentences using correct spelling and grammar.

STEP 4 Create Your Final Report

Use the Unit Thematic Project Checklist to plan and give an oral report and create your poster comparing factual nutritional information with advertising information. Use these speaking skills as you present your final report.

Speaking Skills

- Speak clearly and concisely.
- Be sensitive to the needs of your audience.
- Use standard English to communicate.

STEP 5 Evaluate Your Presentation

Your project will be evaluated and reviewed based on:

- Depth of interview and questions
- Content of your presentation
- Mechanics—presentation and neatness

Evaluation Rubric Go to this book's Online Learning Center at **glencoe.com** for a rubric you can use to evaluate your final report.

Project Checklist	
Plan	✓ Conduct research. ✓ Write a summary of your research. ✓ Write interview questions. ✓ Conduct an interview. ✓ Transcribe the notes from your interview. ✓ Create a poster displaying nutritional information about and advertisements for food items from a chain restaurant. ✓ Plan a five-minute presentation.
Present	✓ Make a five-minute presentation to your class that explains the results of your research and interview. ✓ Describe your poster, pointing out specific details about the nutritional information of various dishes sold by the restaurant, healthful and the types of information in and not in the advertisements. ✓ Invite the students of the class to ask any questions they may have. Answer these questions. ✓ When students ask questions, demonstrate in your answers that you respect their perspectives. ✓ Turn in your research summary, interview questions, interview notes, and poster to your teacher.
Academic Skills	✓ Conduct research to gather information. ✓ Communicate effectively. ✓ Organize your presentation so the audience can follow along easily. ✓ Thoroughly express your ideas.

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