Explore the Photo
Independence usually increases as a child gets older. How can seven- to twelve-year-olds show independence?
Thematic Project Preview

**Unit**

**Develop an Exercise Program**

By completing this unit, you will learn that children ages seven to twelve experience significant changes in their physical, emotional, social, and intellectual growth and development. In your unit thematic project, you can show how getting plenty of exercise plays an important role in these changes.

**My Journal**

**Exercise and Development** Write a journal entry about one of the topics below. This will help you prepare for the unit project at the end of the unit.

- Explain why getting regular exercise is important to growth and development.
- Identify exercises that are appropriate for growing children.
- Discuss how lack of physical exercise might affect a growing child physically, emotionally, socially, and intellectually.
Chapter Objectives
After completing this chapter, you will be able to:

- **Describe** the two significant stages that occur between ages seven and twelve.
- **Explain** why children’s motor skills improve between the ages of seven and twelve.
- **List** the nine topics in the Dietary Guidelines for Americans.
- **Identify** five areas that contribute to overall physical health and wellness.

Writing Activity: Advertisement

**Improving Motor Skills** To improve their motor skills and learn new skills, many young people take classes. Examples might include ballet, tap dancing, or karate. Choose one type of class that interests you. Use the tips listed below to write an advertisement for the class.

**Writing Tips** When writing an advertisement, always keep your audience in mind. Otherwise, you will not be able to attract and hold their attention. Here are some tips for writing an advertisement:

1. Write a title and introduction that will grab the reader’s attention.
2. Focus on the benefits of your class.
3. Keep your sentences short and simple; avoid using jargon, or terms specific to your activity. People might not know what those words mean.
Section 16.1 Growth and Development from Seven to Twelve

Section 16.2 Caring for Children from Seven to Twelve

Explore the Photo
Children from seven to twelve vary greatly in weight and height. Why might a ten-year-old be worried if he is shorter than his friends?
Before You Read
Two-Column Note-Taking  Fold a sheet of paper in half lengthwise. Label the left side “Main Ideas,” and the right side “Details.” As you read, fill in each side.

Read to Learn
Key Concepts
• Describe the two significant stages that occur between ages seven and twelve.
• Explain why children’s motor skills improve between the ages of seven and twelve.

Main Idea
Children ages seven through twelve go through many changes, ending with puberty. Because of these extensive changes, they often become sensitive about the appearance of their bodies.

Content Vocabulary
• growth spurt
• puberty
• scoliosis
• body image
• eating disorder
• menstruation

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

• profound
• ultimate

Graphic Organizer
As you read, look for three changes that occur in both boys and girls during puberty. Use a diagram like the one shown to help organize your information.

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.

Science
NSES C Develop an understanding of the behavior of organisms.
Growth from Seven to Twelve

From the ages of seven to twelve, children go through a period of profound, or overwhelming, physical changes. A sudden spurt of growth adds to their height. Their bodies begin to take on the physical characteristics of adulthood. There are two significant stages during these years: middle childhood and the preteen years. Middle childhood runs from ages seven through ten. During this period, children build on the growth and skills that began in early childhood. Eleven- and twelve-year-olds are in the preteen years. They are just beginning the path to being an adult.

Height and Weight

From the ages of seven to ten, boys and girls grow in height an average of just over two inches (5.1 cm) per year. This is a slower rate of growth than they experienced as preschoolers, toddlers, or infants. The gain in height is usually at a regular pace, but a child can have a growth spurt. A growth spurt occurs when a child grows very rapidly in a short period of time. For nine-year-old Ahmad, that meant the pants he bought at the start of the school year were too small by November.

The average rate of growth increases during the preteen years. It is during this time that many children go through puberty. Puberty is the set of changes that result in a physically mature body that is able to reproduce. Girls tend to go through puberty a bit earlier than boys. This means the girls are often taller than the boys in their class at this time. Boys have larger average gains in height between the ages of 12 and 14, when they typically go through puberty. Figure 16.1 on page 454 shows the average heights of boys and girls from seven- to twelve-years-old.

During this period, growth takes place in different parts of the body at different times. Typically, the hands and the feet are the first to grow, followed by the arms and legs, and then finally the torso. Sometimes one part of the body grows faster than other parts. This can cause embarrassment.

In terms of weight, boys and girls gain an average of about 6½ pounds (2.9 kg) each year during middle childhood. During the preteen years, this increases to about 10½ pounds (4.7 kg) for girls and 9½ pounds (4.3 kg) for boys. Because puberty typically occurs in boys about two years later than girls, boys have a greater annual weight gain than girls after about age twelve.
Experts believe that heredity is the most influential factor in determining a child’s ultimate, or final, height. When parents are considered to be below average in height, it is likely that their children will be short.

Nutrition is an important influence on a child’s weight during these years. A child who eats foods low in fat and high in nutrients is less likely to have a weight problem than one who eats fatty foods that are low in nutrients. Physically active children are also less likely to be overweight. Figure 16.2 offers tips on how to help children enjoy organized sports.

**Proportion and Posture**

A tall and lean five-year-old typically remains tall and slim through middle childhood. However, as seven- to twelve-year-olds grow, their proportions change. Their legs lengthen, adding height and bringing the head more in proportion to their body. Children also become stronger and develop greater muscle tone in their legs, arms, and torso. Balance and coordination continue to improve.

Some older children and preteens develop a curve of the spine called scoliosis. **Scoliosis** is a sideways curvature of the spine, affecting posture. Scoliosis may be treated with exercise, a brace, or surgery.

**Body Image**

Some children become sensitive about their body image. **Body image** refers to how a person thinks his or her body looks. Children may become self-conscious about the changing shape of their bodies. Too often, images of thin celebrities and models make children think that they must be thin to be beautiful.

Preteens may experience an unhealthy preoccupation with food and thinness. They see themselves as overweight when they really are not. This, along with other factors, can put preteens at risk for developing an eating disorder. An **eating disorder** is a serious pattern of overeating or restrictive eating. Eating disorders can have a devastating effect on the body and can even lead to death. For more information about eating disorders, see page 462.
Good Sportsmanship
Respect for other players and the game should be one of the most important lessons a child learns.

Appropriate Sports
Children should only play sports for which they have the physical maturity.

Play for Fun
Children benefit more when they are encouraged to play for fun and for individual skill development, rather than playing just to win. Look for a coach with this attitude.

Good Sportsmanship
Respect for other players and the game should be one of the most important lessons a child learns.

Good Days and Bad Days
Prepare children for both failure and success in sports.

Children typically learn team sports in groups and often compete against others. Why is it more important for children to play for fun than to play to simply win?
Puberty and Television

Melatonin is a hormone that causes drowsiness. Researchers have found that when children do not watch television, their bodies produce more melatonin. This is linked to puberty starting earlier.

**Procedure**
Conduct research to learn more about the link between a child’s melatonin levels and the amount of time spent watching television.

**Analysis**
Prepare an oral report explaining what you have learned from your research. End your report with your opinion as to whether watching television can cause children to enter puberty earlier.

Boys

In boys, facial hair begins to appear, and the voice deepens during puberty. Sometimes the deepening does not take place smoothly, and a boy’s voice may occasionally crack, or change tones. This is due to the growth of the larynx and vocal cords. A boy’s shoulders broaden, and his muscles grow larger.

Girls

Girls typically experience more profound changes at puberty. Their breasts begin to enlarge, their waist narrows, and their hips widen. The sexual organs develop and become capable of releasing mature eggs. Most girls begin to have menstrual periods about two years after puberty begins. **Menstruation** is the monthly cycle in which an egg is released and the uterus prepares for a possible pregnancy. Girls’ menstrual periods may be irregular at first, and not occur every month. Some girls experience discomfort and cramping with menstrual periods.

Permanent Teeth

Primary teeth are the first set of teeth formed. Most children lose all of their primary teeth between the ages of five and thirteen, and most of the permanent teeth appear at this time, too. Permanent teeth are the second set of teeth formed. There are 32 permanent teeth. As mentioned in Chapter 13, the first permanent teeth to emerge are the set of molars that appear around the age of six. Around age twelve, a second set of molars emerges behind the first set. A third set of molars, called the wisdom teeth, appears later. The last four teeth appear between the ages of 17 and 21.

Puberty

Puberty usually occurs between the ages of nine and sixteen. Researchers believe that the start of puberty is related to heredity as well as nutritional and environmental factors. On average, however, puberty starts at about the age of ten for girls and about one to two years later for boys. Significant physical changes trigger the onset of puberty. The pituitary gland, found in the brain, begins sending out hormones that cause a number of profound physical changes in the body.

Fine Motor Skills

Fine motor skills are skills that involve the refined use of small muscles. It is possible to work on one’s fine motor skills with activities that teach the brain to control hand and finger movements to a high degree. One such activity is typing. The more a person practices typing, the better his or her fine motor skills will become. This is why learning to type often involves performing routine drills over and over again.

**Science Inquiry** Typing can help develop fine motor skills. What other activities do you think could help in this development?
In both boys and girls, a significant growth spurt occurs during puberty. Children gain 25 percent of their total adult height through this growth spurt. Hair appears under the arms and in the pubic area for males and females. Sweat and oil glands become more active, and a child can begin to experience body odor and acne.

**Motor Skills**

In the years from seven to twelve, a child’s motor skills improve greatly. As the body matures, most children experience the following:

- Greater muscle strength
- Faster reaction time for responding to a stimulus, such as catching a ball
- Improved precision in activities such as balancing and aiming
- Greater speed
- Increased flexibility for bending and stretching easily

Thanks to all these more developed skills, children at these ages enjoy active play. Some take lessons to learn to swim and dance, and participate in gymnastics. Team sports are popular. Many children this age will prefer sports that use their improved motor skills, such as skating or bicycling, over simpler activities such as running or jumping.

With the increase in muscular strength comes more muscle control. Hand-eye coordination improves and both gross and fine motor skills become easier and smoother. More complex tasks become possible. For example, catching a baseball is a challenge for a seven-year-old, but a ten-year-old can manage it quite easily. Playing computer games can help children improve their fine motor skills. However, parents should still limit a child’s time with computer games due to the impact on brain development.

Fine motor skills development is also evident in children’s abilities to play musical instruments, do arts and crafts, and even writing. There is an obvious improvement in handwriting between five and seven years. And by eight, children start writing in script. As with any skill, motor skills improve with practice.
Before You Read

Take Breaks  It is important to take frequent study breaks. They allow your brain time to process what you have already covered and get ready to remember new information.

Read to Learn

Key Concepts
- List the nine topics in the Dietary Guidelines for Americans.
- Identify five areas that contribute to overall physical health and wellness.

Main Idea
The Dietary Guidelines for Americans and the USDA's MyPyramid Plan are helpful in meeting nutritional needs. Children need to stay active and learn to take care of their bodies.

Content Vocabulary
- fiber
- MyPyramid
- sedentary activity
- sealant
- orthodontist

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

Graphic Organizer
As you read, look for the five food groups included in MyPyramid. Use a chart like the one shown to help organize your information.

<table>
<thead>
<tr>
<th>MyPyramid</th>
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<tr>
<td>1.</td>
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<td>4.</td>
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<td>5.</td>
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</tbody>
</table>

Academic Standards

English Language Arts
NCTE 7  Conduct research and gather, evaluate, and synthesize data to communicate discoveries.

Science
NSES A  Develop abilities necessary to do scientific inquiry, understanding about scientific inquiry.

Social Studies
NCSS V F Individuals, Groups, and Institutions  Evaluate the role of institutions in furthering both continuity and change.

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
Nutrition

During middle childhood and the pre-teen years, children experience tremendous physical and emotional growth. Good nutrition from a well-balanced diet is essential for growth, development, learning, and health. Children in this age group require good nutrition to grow, develop, learn in school, and feel their best. Such diets contain essential nutrients and a good balance of carbohydrates, fat, and protein. The Dietary Guidelines for Americans and the U.S. Department of Agriculture’s MyPyramid Plan can help ensure that meals and snacks have the variety and amount of food that children need for a healthful diet.

Dietary Guidelines

The Dietary Guidelines for Americans is a useful tool for children and adults. The guidelines present a comprehensive plan for incorporating nutritious foods and physical activity into daily life. They include 41 recommendations, grouped into the following nine topics:

- **Get enough nutrients within your calorie needs.** Everyone needs a certain amount of calories in a day. The amount each child needs will vary based on age, activity level, and current weight.
- **Maintain a healthy weight.** Ask your doctor what a healthy weight range is for your child. Being overweight can cause many health problems both in childhood and later in life.
- **Be physically active every day.** Children and teens need at least one hour of physical activity most or all days of the week. Physical activity has both short-term and long-term health benefits for children.
- **Choose whole grains, fruits, vegetables, and milk.** Foods made from whole grains help form the foundation of a healthy diet. They provide fiber plus many nutrients. **Fiber** is an indigestible plant material that helps the digestive system work properly. Many children fail to get the recommended servings of fruits and vegetables. These foods contain essential vitamins and minerals, fiber, and other substances important for good health. It is important for young children to drink whole milk every day. It provides vitamins and minerals necessary for the developing bones and body systems.

Nutrition at School

School-age children have greater independence in choosing the foods they wish to eat during the day. How can parents teach children to make healthy food choices?
• **Limit fats and cholesterol.** You need to eat fats, but only in small amounts. No one needs a diet high in fatty or fried foods and snacks. Most fats that are eaten should come from fish, nuts, and vegetable oils, rather than from red meat sources.

• **Be choosy about carbohydrate foods.** Sugars and starches are carbohydrates. Children should get carbohydrates from sugar that is naturally present in fruit and milk. Foods with added sugar such as candy can lead to tooth decay.

• **Reduce sodium and increase potassium.** Sodium helps control body fluids. However, too much sodium is linked to high blood pressure, heart attack, and stroke. Choose and prepare foods and beverages with little added salt. Potassium is found in many fruits and vegetables.

• **Avoid alcoholic beverages.** Just as the mother should avoid alcohol when pregnant, a child should never be given alcohol. Even a taste can be harmful to a child’s developing body.

• **Keep food safe.** Food needs to be properly stored and prepared to help avoid food-borne illness.

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**MyPyramid**

**MyPyramid** is a guide for healthful eating and active living that was developed by the U.S. Department of Agriculture (USDA). By entering information such as your age, weight, and activity level, the MyPyramid Web site will create a customized plan just for you! It shows how much and what kinds of foods you need each day. It also offers physical activity advice.

MyPyramid is divided into five food groups, plus an oils category. The five food groups include grains, vegetables, fruits, milk, and meat and beans. The meat and beans group is where you get your protein. Eating from all five food groups each day will ensure you get all the nutrients your body needs. This is especially important for children since their bodies are still developing.

**Making Food Choices**

As children become more independent, they begin to make more of their own food choices. They may make or buy some of their own snacks and meals. Peers or the media may influence these choices, which often take place away from home. For example, Leah can choose from various foods offered at her school.
school for lunch. When she brings a lunch from home, Leah sometimes trades the fruit from her packed lunch for cookies or chips. Despite outside influences, family remains the primary influence on a child. Modeling good eating behavior is one of the best ways to teach a child good eating habits. Here are a few specific things that families can do:

- **Eat meals together.** Show by example that healthful eating habits include eating both the right foods and the right amounts.
- **Offer healthy choices.** Serve varied, well-balanced meals that are low in fat, sugar, and salt. Offer appealing choices from all the food groups.
- **Be prepared.** Stock the kitchen with a variety of nutritious foods for snacks.
- **Make treats special.** Limit sweets and deep-fried foods to special occasions.
- **Control portions.** Offer children smaller portions than an adult would eat. Allow and encourage children to stop eating when they feel full.
- **Serve dairy daily.** Make calcium-rich foods and beverages a part of a child’s diet to help ensure strong bones.

**Starting the Day Right**

Breakfast is an important meal for both children and adults. It provides the vital fuel that people need to begin the day. Researchers have found that children who eat breakfast have a greater capacity, or ability, for learning and participation. They also have a greater ability to concentrate, especially on tasks that require problem solving and creativity. Skipping breakfast can result in headaches, fatigue, and restless behavior, which interfere with classroom learning.

A healthy breakfast includes two servings from the grain group, one from the dairy group, and one from the fruit group. An example of a nutritious breakfast might include a bowl of cereal and a piece of fruit. National school breakfast programs help provide this nutrition and ensure that all children can begin the school day the right way.

**Eating Disorders**

Most children go through periods when they rebel against what is served at mealtime. Many children sneak sugary treats from time to time. This is normal behavior. However, a
small percentage of children begin to develop eating disorders. There are several types of eating disorders. The three main types include:

- **Anorexia Nervosa** This is an intense fear of weight gain distinguished by starvation techniques and severe weight loss. Symptoms can include fatigue, dizziness, refusal to eat, or excessive exercise.

- **Bulimia** Bulimia involves periods of out-of-control eating followed by purging the body of food, often through vomiting. Symptoms can include fatigue, scars on the hands, laxative use, and going to the bathroom after or during meals.

- **Binge Eating** This disorder includes periods of highly excessive eating, followed by weight gain. Symptoms can include eating to the point of pain, frequent dieting without weight loss, or hiding food.

Researchers believe that some children with eating disorders may be preoccupied with being thin due to a poor body image. Others might see people they admire display eating disorders and want to be like them. Some might have psychological problems, such as depression or low self-esteem. Many strive to please others and feel that food is the only thing they can control in their lives. Children with eating disorders need counseling from a trained professional. Parents should not hesitate to consult a professional if they notice unusual eating patterns or sudden weight gain or loss in their daughter or son. Also encourage children to tell a teacher or school counselor if they notice or suspect a problem in their friends.

### Analyze
Why is eating breakfast important for children?

#### Parenting Skills

**How Can Parents Help an Overweight Child?**

Parents of an overweight child are often concerned about the health and emotional issues their child may face. They may be unsure of how to help. Here are some ways parents can offer support and guidance.

- **Consult with the child’s doctor.** Ask for guidance on providing a healthy diet.

- **Focus on health rather than weight.** Do not make losing weight the main issue. Involve the whole family in a healthy eating plan.

- **Make a variety of healthy foods available.** Giving children choices makes them more willing to try new things.

- **Encourage regular physical activity and limit television viewing.** Encourage the child to participate in physical activities he or she enjoys. Be active daily and plan activities the whole family can participate in.

- **Offer unconditional love and support.** Caregivers should make it clear that the child is loved and accepted at any weight.

**Take Charge** Imagine you are the parent of an overweight child. Write a list of five steps you plan to take to encourage your family to eat a healthier diet.
Physical Health and Wellness

Everyone wants to help children be as physically healthy as possible. Being physically active can greatly increase overall health. Establishing healthy habits now will help children be healthier adults. Getting enough sleep, taking care of your body and teeth, and following safety rules are also important.

Physical Fitness

Children today are less likely to walk or ride their bikes to school than were their parents. Many children are less fit than they should be. They run the risk of becoming set in a pattern of inactivity that could result in health problems, especially when they are older.

One reason for the decline in fitness levels is that children spend hours every day in sedentary activities. A **sedentary activity** is an activity that involves little exercise, such as watching television or playing computer and electronic games. The hours children spend in front of a screen take time away from physical activity. Parents and other caregivers make the best role models for healthy living by limiting their own television viewing and their children’s time in front of screens, and by joining children in physical activities.

To promote physical fitness, parents should look for a variety of developmentally appropriate activities that their children might enjoy. It is good to include activities that can be continued later in life, such as hiking, biking, swimming, dancing, skating, basketball, or tennis. Children need at least an hour of physical activity each day. Parents who remain physically active are role models for their children.

“Physical growth that occurs during this time is more rapid than at any time since infancy. Besides growing bigger and taller, the maturing child begins to develop bodily characteristics that distinguish the male and female adult.”

— Virginia K. Molgaard, family life specialist, Iowa State University
### Safe Practice vs. Examples

<table>
<thead>
<tr>
<th>Safe Practice</th>
<th>Examples</th>
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<tbody>
<tr>
<td>Keep doors locked when home alone.</td>
<td>✦ Never open the door to a stranger when home alone, even to someone who is wearing a uniform.</td>
</tr>
<tr>
<td>Wear protective gear.</td>
<td>✦ Never engage in sports without the proper protective gear, such as a bike helmet or shin guards.</td>
</tr>
</tbody>
</table>
| Know how to get help in an emergency.  | ✦ Know what constitutes an emergency.  
✦ Know how to dial 911 in an emergency.  
✦ Practice by playing the “What If?” game. For example: “What if you woke up at night and smelled smoke?” |
| Pay attention to traffic.               | ✦ Cross streets at crosswalks only after checking for oncoming cars.  
✦ Obey any restrictions concerning which streets may be crossed. |
| Stay away from strangers.              | ✦ Never get into a stranger’s car or go near a stranger.  
✦ Run and scream if you feel threatened. |
| Walk in groups.                        | ✦ Older children can accompany younger children when they walk to school. |
| Trust your feelings.                   | ✦ If someone, including an adult, makes you feel afraid or uncomfortable, get away and tell a trusted adult. |
Sleep

Most children get busier as they get older. During the evening, school-age children have homework to complete, and perhaps a karate class or a music lesson. Getting to bed on time can be a challenge, but experts recommend enforcing a bedtime for school-age children. The National Sleep Foundation recommends that children this age get from ten to eleven hours of sleep each night. It helps their performance in school, as well as their mood.

Caring for Teeth

By age seven, children may need reminders, but they can brush their own teeth at least twice a day and floss daily. Additional brushings may be needed if very sugary or gummy food is eaten. A dental checkup and cleaning at least once a year is recommended to help prevent tooth decay. Sometimes fluoride treatments are given. Pediatric dentists can help ease fears about visiting the dentist.

Tooth decay occurs when bacteria in the mouth produce acids that break down tooth enamel and expose the softer parts of the tooth. Bacteria produce acids from sugars that a person eats or drinks. As children get older, they have more access to sugary foods and drinks. These have negative health effects and are linked to tooth decay. For these reasons, sugary foods and sweet drinks should always be limited in a child's diet.

To prevent tooth decay, some dentists place a sealant on children’s teeth. A sealant is a thick plastic coating. Dentists usually place these sealants on permanent molars. Molars are teeth that are especially adapted to grinding food. Sealants have proven to be an effective way to help prevent decay.

Sometimes permanent teeth do not come in straight. This can sometimes cause problems with the way teeth fit together. If so, a dentist may refer the child to an orthodontist. An orthodontist is a dental specialist who concentrates on fixing irregularities of the teeth. The orthodontist can determine whether the child would benefit by having braces, separators, or retainers to straighten the teeth.

Personal Hygiene

Seven- to ten-year-olds are often unconcerned about good hygiene. This is not because they want to be dirty. They just cannot be bothered to take the time to bathe or shower. They would rather spend their time playing games or reading books. To prevent battles over bathing, there are several things parents or caregivers can do:

- **Focus on the essentials.** Make sure that the child washes hands before eating and after using the bathroom. Brushing teeth should be done daily and does not take.

- **Give choices when possible.** Let the child choose between showering and taking a bath. Give a choice of shampoo. Let the child choose the day’s outfit. Children, like adults, respond well to having control over decisions that affect them.

- **Send positive messages.** Comment on how refreshing a shower is, or how relaxing and warm a bath feels. This signals to children that bathing and showering bring benefits besides simply getting clean.
The lack of interest in hygiene often changes around age ten. At about this time, the physical changes of puberty increase the need for cleanliness. With puberty, the body produces more sweat, so preteens may develop body odor. In addition to a daily bath or shower, they may need to start using deodorant or antiperspirant. Preteens often need to change into fresh clothes after physical activity. Parents should help preteens make this transition, or change. Sometimes children are unaware of body odor. Parents can help by offering a change of clothes, rather than pointing out the child’s smell. Often, preteens will become more interested in choosing their own soap or shampoo, based on the scent.

During puberty, the oil glands in the pores of the skin produce more oil. At times the production can be excessive, resulting in acne and a greasy appearance to the hair. These problems usually go away over time, as the body’s production of skin oil goes down. Encourage preteens to remedy the problem. Acne-prone skin should be washed twice a day with warm water and mild soap to help suppress, or control, outbreaks. Excessive scrubbing can make acne worse. For extreme cases, there are prescription medications that can be used. Also, shampoo and conditioner are available that are formulated for oily hair.

**Checkups and Vaccines**

Annual checkups can help prevent illnesses. Before starting fifth grade children typically receive a tetanus and diphtheria booster, and sometimes an MMR booster. MMR stands for measles, mumps, and rubella. A booster is a shot that increases the effectiveness of a previous immunization. Chicken pox and hepatitis B vaccinations are also strongly recommended before the age of thirteen. Children should also receive annual flu shots. This is especially true for children with weak immune systems or chronic lung conditions, such as asthma.
Chapter Summary

Most children grow steadily during middle childhood. Some may become sensitive about their body image, which can put them at risk for eating disorders. Good dental hygiene practices are important. The Dietary Guidelines for Americans and the USDA’s MyPyramid Plan can be helpful in developing good eating habits and are essential for good health. Increased interest in personal hygiene often begins during the preteen years. Annual checkups and vaccinations help to prevent illnesses.

Vocabulary Review

1. Create multiple-choice test questions for each content and academic vocabulary term.

**Content Vocabulary**
- growth spurt (p. 453)
- puberty (p. 453)
- scoliosis (p. 454)
- body image (p. 454)
- eating disorder (p. 454)
- menstruation (p. 456)
- fiber (p. 459)
- MyPyramid (p. 460)
- sedentary activity (p. 463)
- sealant (p. 465)
- orthodontist (p. 465)

**Academic Vocabulary**
- profound (p. 453)
- ultimate (p. 454)
- capacity (p. 461)
- suppress (p. 465)

Review Key Concepts

2. **Describe** the two significant stages that occur between ages seven and twelve.
3. **Explain** why children’s motor skills improve between the ages of seven and twelve.
4. **List** the nine topics in the Dietary Guidelines for Americans.
5. **Identify** five areas that contribute to overall physical health and wellness.

Critical Thinking

6. **Predict** What might happen to a child who is not taught the importance of a balanced diet?
7. **Make Inferences** Why do you think eating disorders are developing at a younger age?
8. **Contrast** How are personal hygiene needs different for a preteen and a seven- to ten-year-old?
9. **Analyze** Why do you think preteens may not get enough sleep?
10. **Apply** Suppose that you help coach a team of young athletes. How might you educate parents about the importance of being a positive influence at sporting events?
11. **Children’s Games**  Choose a cultural group, such as Hispanic or Chinese, to which some people in your community belong. Interview a member of this group or conduct research to learn about games the children in this culture play. Focus on games that involve physical activity. Demonstrate one of the games to your class.

12. **Food Intolerances**  Many people have problems tolerating certain foods. Imagine that you have just learned you have celiac disease. Conduct research to learn about celiac disease and write a report explaining it. Include in the report a list of the foods you cannot eat and a list of foods you can use as substitutes.

13. **Encourage Physical Activity**  Physical activity can help children remain strong and healthy. It can also help improve their self-image. Parents and teachers can be central in helping children achieve an active lifestyle.

   **Procedure**  Observe preteens at a playground. Note how many are engaged in active play or sports. Also note how many are just sitting and talking.

   **Analysis**  Write a report in which you discuss the percentage of preteens that were inactive. Then present ideas on how a teacher might encourage these less active children to engage in more physical activity.

   NCTE 7  Conduct research and gather, evaluate, and synthesize data to communicate discoveries.

14. **Encourage Good Hygiene**  Imagine you are the parent of a 12-year-old boy. You think your son should pay more attention to his personal hygiene. Create a checklist of items to help him remember all the tasks he needs to complete each day. Then write a dialogue in which you present the checklist and explain why his hygiene is important.

15. **Create a Slide Show**  Suppose you need to teach seven-year-olds how to care for their teeth. Use application software to create a slide show that explains how to brush and floss teeth. The slide show should include art and language appropriate for seven-year-olds.

16. **Plan Snacks**  Imagine that you work at an after-school program for seven- to ten-year-olds. Plan five nutritious snacks for the children. Research the cost of each planned snack. Each snack should cost no more than 50 cents per child. Create a chart listing the snacks and the cost of each.

**Real-World Skills**

**Problem-Solving**  

14. **Encourage Good Hygiene**  Imagine you are the parent of a 12-year-old boy. You think your son should pay more attention to his personal hygiene. Create a checklist of items to help him remember all the tasks he needs to complete each day. Then write a dialogue in which you present the checklist and explain why his hygiene is important.

**Technology Skills**  

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**Financial Literacy**  

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**Additional Activities**  For additional activities, go to this book’s Online Learning Center at glencoe.com.
Academic Skills

English Language Arts

17. Write a Letter  Imagine that you are a school nurse. A group of parents is stating that childhood vaccines can cause health problems. Write a letter to the editor of your local newspaper in which you explain why vaccines are safe and vital to the health of children. Conduct research to learn facts to include in your letter.

Mathematics

18. Take a Hike  It is often difficult to fit family time into busy lifestyles. A family walk is a great way for parents and children to interact and talk. Suppose a family goes for a 1½ hour hike. According to the trail map, the hike was 2.3 miles round trip. How fast was the family walking?

Math Concept  Rate  A rate is a ratio of two measurements having different kinds of units, such as miles per hour.

Starting Hint  Divide the total distance (2.3 miles) by the total time (1½ hours). To convert the fraction to a decimal, first write it as an improper fraction (½), then divide the numerator (3) by the denominator (2).

Science

19. Evaluate a Child’s Diet  The U.S. Department of Agriculture (USDA) has established guidelines for healthy eating for children. The MyPyramid Web site can provide guidelines based on a person’s age, height, weight, and activity level.

Procedure  Ask a preteen to keep track of all the food he or she eats for one day.

Analysis  Go to the MyPyramid Web site to determine the dietary guidelines for the child. Create a chart that compares the child’s diet to these guidelines.

Math Concept  Use mathematical models to represent and understand quantitative relationships.

Science

20. According to this passage, ingesting trans fats can ____.

a. increase your chances of having diabetes
b. make you obese
c. increase your chances of having a heart attack
d. lead to a vitamin deficiency

Test-Taking Tip  If you do not know the answer to a question, first cross off any choices you know are wrong. This will make it easier to evaluate the remaining ones.