Explore the Photo

The teen years can be both fun and challenging. How would you describe your teen years?
Explore Careers in Child Care

After completing this unit, you will learn that there are many career choices for those who wish to work in child care or early childhood learning. In your unit thematic project you can look at some of the options available.

My Journal

Thoughts on Child Care 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.

- Discuss reasons you may or may not be interested in a career in child care or early childhood learning.
- Describe experiences you have had with child care either as a babysitter, or as a child when someone cared for you.
Chapter Objectives

After completing this chapter, you will be able to:

- List three main areas of change for adolescents.
- Identify three ways parents can help adolescents make good nutrition choices.
- Describe the four main influences on personal identity development.
- Identify the three roles of peers on a teen’s social development.
- List the major influences on a teen’s moral development.
- Identify three factors that influence how a student learns in school.
- Compare and contrast Piaget and Vygotsky’s theories of intellectual development in adolescence.

Writing Activity

Journal Entry

Growing and Changing  Many changes occur during the teen years. You change physically, emotionally, socially, morally, and intellectually. Write a journal entry describing some of the changes you have experienced since becoming a teen.

Writing Tips  Use these tips to write an effective journal entry:

1. Use freewriting to write whatever comes to mind.
2. Use details to make images clear.
3. Tell how you feel now and how you felt before.
During adolescence, teens continue to develop socially. What kinds of social activities do you enjoy with your friends?
Reading Guide

Before You Read
Adjust Reading Speed Improve your comprehension by adjusting reading speed to match the difficulty of the text. Reading slower may take longer, but you will understand and remember more.

Read to Learn
Key Concepts
- List three main areas of change for adolescents.
- Identify three ways parents can help adolescents make good nutrition choices.

Main Idea
During puberty, many physical changes occur. These changes make good hygiene, eating well, exercising, and getting enough sleep especially important.

Content Vocabulary
- testosterone
- estrogen

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

Graphic Organizer
As you read, list what it means to eat right. Use a diagram similar to the one shown to organize your information.

---

Go to connectED.mcgraw-hill.com to print out this graphic organizer.
Physical Development During Adolescence

The term adolescence has a number of meanings. Generally, it refers to the complex time of life when a child begins to mature into an adult. In that sense, the ages of adolescence vary from person to person. It may begin at age 11 or 12. In this chapter, adolescence refers to the teen years, ages 13 to 19.

The teen years are among the most challenging for both the teens and their families. An adolescent, or teen, experiences many changes. Three main areas of change include coping with changing emotions, handling new social situations and influences, and using new intellectual abilities. However, the physical changes associated with adolescence are the most obvious signs that a teen is moving toward adulthood.

Adolescence is a time of rapid growth in height and weight. It is also a time of physical changes throughout the body. Both males and females grow taller and become stronger. At the same time, they mature sexually, going through the changes brought on by puberty. While this phase marks the development of sexual characteristics, puberty also includes other kinds of physical changes. Powerful hormones in the body bring on the physical changes of adolescence.

Once the changes of puberty begin, they continue with a rush that can be confusing and even a bit scary. This is especially true when teens or preteens are not prepared. Their only information may come from their friends, who may not be reliable sources. Parents need to prepare their children before puberty begins. Parents should reassure their children that this type of physical growth is normal. A delay in puberty is also usually normal.

Height and Weight

Charts showing average heights are less helpful during this stage because individual growth patterns are so inconsistent. During puberty, it is not unusual for a teen to grow three to five inches (7.6 to 12.7 cm) in height each year for several years. By about age 16, males are often bigger and stronger than most females of the same age. Many teens reach their full adult height by age 16.

To image-conscious teens, size matters. Those who go through puberty early may feel uneasy while at the same time being the object of their peers’ envy. Others who mature later may feel that there is something wrong with their bodies. In many sports, players who are larger tend to have an advantage. Cultural expectations also shape teens’ feelings about size. In the United States, for example, it is more acceptable to be a small adult female than a small male.


**Males**

Between the ages of 11 and 18, a typical male will double his weight from about 75 pounds to 150 pounds (34 kg to 68 kg). In the same time span, he will grow about 14 inches (36 cm) taller.

Eighteen-year-old Mario is average for his age. At nearly 70 inches (178 cm) tall, Mario weighs 150 pounds (68 kg). His shoulders are wider than they were a few years earlier, and he has become noticeably more muscular.

**Females**

Gina’s growth has been typical for an adolescent girl. As an 11-year-old, she was 57 inches (145 cm) tall and weighed 80 pounds (36 kg). By the age of 14, she was slightly smaller than average at 62 inches (157 cm) tall and 105 pounds (48 kg). Now at age 15, she has grown about another 2 inches (5 cm) and has gained 9 more pounds (4 kg).

Girls usually do not grow much taller after about age 15. The average height for females in late adolescence remains just slightly over 5 feet 4 inches. Many girls do, however, gain some additional weight. The average female weighs 125 pounds (57 kg) at age 18. Of course, few teens are exactly average.

**Sexual Development**

Some of the most significant changes in adolescence are those of sexual development. As teens experience rapid growth spurts, girls develop physically into women and boys grow into men. During this time, teens become capable of sexual reproduction. Girls’ bodies release eggs, and boys’ begin to produce sperm.

**Males**

Males, on average, mature sexually about two years later than females. Between the ages of 13 and 15, boys’ genitals become larger, and their testes, or testicles, begin to produce sperm. Sperm are the male reproductive cells.

Additional changes are caused by testosterone (tes-ˈtə-stə-ˈrōn). **Testosterone** is a hormone produced by the testicles. Testosterone levels in a boy’s body begin to rise rapidly at the beginning of puberty. A boy has reached puberty when he experiences ejaculation, the ejecting of semen. Semen is fluid that contains sperm. The first ejaculation often occurs during sleep.

**Females**

As you learned in Chapter 16, girls generally begin to mature sexually by the age of 11 or 12. As teens, they experience rapid growth. They also go through the outward changes associated with sexual development.

Menstruation begins about two years after breasts begin to develop. The beginning of menstrual periods indicates that a girl’s body has increased its production of estrogen. **Estrogen** is a hormone produced by the ovaries. Ovaries are two small glands located next to the uterus, the organ in which a baby develops in a pregnant female. The ovaries also produce eggs, the female reproductive cells.

Usually, an ovary releases one ovum, or egg, every 28 to 32 days. If the ovum is not fertilized
Talk Honestly

During puberty, parents can help to reassure teens about the changes that are happening in their bodies. How much do parents need to tell young adolescents about their sexuality?

by male sperm, it dissolves and drains out of the body along with a bloody discharge. This is the menstrual flow. Thus the menstrual cycle is the way the female body discards an unfertilized egg each month and then replaces it with a new one. An average menstrual period lasts from three to seven days.

Some girls experience irregular periods when they first start to menstruate. An erratic menstrual cycle is usually nothing to worry about. In the great majority of cases, a girl's cycle evens out within a year or so. However, if menstrual periods are extremely irregular, or if they are painful or prolonged, she should see a doctor.

Girls entering puberty may experience weight gain. This is normal. The addition of body fat is one of the effects of estrogen. The young teen is becoming a woman, and her body is beginning to round out.

Reading Check Explain By what age do many teens reach their full adult height?

Health and Wellness

Health and hygiene needs change during adolescence. However, making wise food choices, keeping clean, exercising, and getting enough sleep are still the keys to good health.

With their busy schedules, teens often do not take good care of themselves. It often seems easier to grab a snack than to sit down for a well-balanced meal. Adequate sleep and exercise may also be neglected. Thus, it is not surprising that low self-esteem is common among teens. There is a relationship among these factors. See Figure 19.1 for tips on improving your self-image while staying healthy.

Nutrition

Puberty and related growth spurts have an impact on nutritional needs. A balanced diet of nutritious foods is needed to fuel growth, as well as normal body processes. Teens typically consume more calories than usual during growth spurts.

Certain vitamins, such as zinc and iron, are especially important during the teen years. Use the MyPyramid Plan to help ensure your body is getting the nutrients it needs to help it stay strong and active during your teen years.

Eating right means avoiding foods high in fat, sugar, and salt, as well as taking sensible portions. Overeating, especially of high-calorie foods, can lead to obesity. Parents can help by making nutritious food choices available, setting a good example, and paying attention to portion sizes.

In the Hasegawa household, for example, bowls of food are not set on the table for family members to help themselves. Instead, Mrs. Hasegawa serves each person a plate of food with reasonable portions. If her children are still hungry, they can ask for seconds.
Most people would like to have confidence. What advice would you give to a friend who wanted to become more confident?

<table>
<thead>
<tr>
<th><strong>Choose good nutrition.</strong></th>
<th>The body needs breakfast to get the body and mind going, but it is the most skipped meal. Starting the day with a nutritious breakfast can boost achievement.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exercise regularly.</strong></td>
<td>Any type of exercise can improve fitness and give a feeling of well being when done regularly.</td>
</tr>
<tr>
<td><strong>Think positively.</strong></td>
<td>Everyone has some good features. They might include an interesting face, a strong body, or a great personality. Those who concentrate on their good features instead of real or imagined imperfections stand out for their positive attitude.</td>
</tr>
<tr>
<td><strong>Look inside.</strong></td>
<td>It is common to worry about what others think, but the solution is not to just follow the crowd. Having the courage to be an individual makes it easier to see and appreciate the best qualities in others.</td>
</tr>
<tr>
<td><strong>Be strong.</strong></td>
<td>Make decisions independently. Teens who have a good self-concept can withstand peer pressure because they believe in themselves. Their strength comes from within, not from what others say about them.</td>
</tr>
</tbody>
</table>

Teens are often “on the go” and find it hard to eat right. But even teens can practice good nutrition. They should make an effort to carry healthful snacks, such as fruit or granola bars, to maintain energy through the day. They should also be sure to drink plenty of water. Some other tips for teens to follow are:

- **Eat slower.** It takes time for your body to feel full. Eating slower can help you eat the right portions of food.
- **Eat breakfast.** It is important for teens to eat a healthy breakfast to get the energy to start their day.
- **Make better choices.** You can still eat out with your friends, but order juice instead of soda. Ask for vegetable toppings on your pizza instead of meat. Order smaller portions instead of upsizing.

**Sleep**

Everyone needs adequate sleep. The body, especially the brain and nervous system, restores itself during sleep. Teens need at least eight and one-half hours of sleep every night. Unfortunately, most only sleep about seven hours. They tend to go to bed late. Then they find it difficult to get up in the morning. Negative effects of too little sleep can include:

- Difficulty concentrating in school. This can lead to lower grades.
- Becoming irritated more easily and losing emotional control.
- Impaired coordination and slower reaction time. This can affect performance in activities such as sports or driving.
- Decreased resistance to illness.
Many teens enjoy extracurricular, or optional, activities such as athletics or clubs that are outside the regular curriculum. Some teens take on too many of these activities though. Some teens have part-time jobs during the school week. Others spend late nights on the computer or watching television. Good choices, time-management skills, and a regular sleep schedule can help teens get the rest they need.

Physical Fitness

A moderate amount of daily exercise is important for everyone, including teens. It builds strong bones and muscles and benefits the heart and blood vessels. Unfortunately, nearly half of Americans between the ages of 12 and 21 do not exercise on a regular basis. Physical inactivity sets the stage for possible obesity and the development of other health problems later in life.

There are many ways teens can add physical activity to their daily routine. Doing so helps the body cope with stress and strengthens muscles, including heart muscles. Physical activity is any activity that gets your body moving. It can be as simple as walking the dog before school or playing ball in the afternoon with friends.

Sleep and the Brain

Scientists have conducted many experiments on sleep deprivation. They keep subjects awake for several days and observe them closely. The frontal cortex of the brain controls speech, memory, and the ability to solve problems. It relies on sleep to function properly. After three days, most people in these studies had difficulty thinking, hearing, or seeing clearly.

Science Inquiry Even though they are nearly adults, teens still need eight and one-half hours of sleep each night to function at their best. What might explain this?

Teens should try and get at least 60 minutes a day of moderate to vigorous physical activity. This can help maintain a healthy weight, increase your flexibility and endurance, and improve your health. Try joining a sport team after school. Or get a friend to join you for regular walks or bike rides. Even helping out with household chores like mowing the lawn can count towards your daily physical activity.
It is often helpful for teens to set a fitness goal. Keeping a fitness log of your daily activity can help to reach your goal. Note the intensity and duration of each activity. Perhaps your goal would be to jog in a 5K charity run. You could begin by running just 15 minutes a day. Gradually increase your time and distance. Be sure to keep track of what you do each day. Use your log to check your progress toward your goal. Once you reach your goal, set a new goal. Reward yourself with something other than food.

**Hygiene**

Personal cleanliness routines become more important in adolescence. Perspiration odor and oily skin and hair are common problems. Fortunately, most teens care about their appearance and how they are perceived by others. Regular baths or showers remove dirt, sweat, and dead skin cells. Deodorant or antiperspirant helps control body odor. Clean clothes also help present a fresh image. Make sure to wear clean socks every day so that your feet stay healthy.

Teens should use water and a mild soap to wash their face each morning and at night. In addition, you should try to avoid touching your face with your hands throughout the day. Brushing your hair each day and regular shampooing will help keep dirt from building up. Brushing or combing will also help distribute the natural oils in your hair.

Fingernails and toenails should be kept clean and trimmed. Your nails help protect and support the tissues of your fingers and toes. They also add to your overall appearance and image. Just as important to your health and appearance are your teeth. You should brush and floss your teeth every day. Brushing your teeth after eating can help prevent tooth decay and other diseases. Nothing helps make a better first impression than a good-looking smile.

---

**Section 19.1 After You Read**

**Review Key Concepts**

1. **Describe** the roles of estrogen and testosterone.
2. **Explain** why teens need to pay more attention to hygiene than younger children.

**Practice Academic Skills**

**English Language Arts**

3. Follow your teacher’s instructions to form into groups. Work with your group to brainstorm answers to the following questions. Write a list of your answers. Between adolescent girls and adolescent boys, who do you think has a more difficult experience in terms of physical changes and development? Why? Compare your group’s list of answers with the other groups’ lists.

**Mathematics**

4. John’s weight increased from 75 pounds at age 11 to 150 pounds at age 18. This is an increase of 100 percent. Angie’s weight increased from 80 pounds to 125 pounds in the same time. By what percentage did Angie’s weight increase? Show how you arrive at your answer.

**Check Your Answers** Go to [connectED.mcgraw-hill.com](http://connectED.mcgraw-hill.com) to check your answers.
Emotional Difficulties of Teens

Before You Read

Be Organized A messy environment can be distracting. To lessen distractions, organize an area where you can read this section comfortably.

Read to Learn

Key Concepts
- Describe the four main influences on personal identity development.
- Identify the three roles of peers on a teen’s social development.
- List the major influences on a teen’s moral development.

Main Idea
Adolescents must form a personal identity and handle emotional difficulties. They also develop social relationships and a personal value system.

Content Vocabulary
- personal identity
- identity crisis
- depression
- bipolar disorder
- morality
- moral maturity
- popular culture

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

Graphic Organizer
As you read, list and describe three emotional difficulties that many teens experience. Use a chart like the one shown to help organize your information.

<table>
<thead>
<tr>
<th>Emotional Difficulties of Teens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Graphic Organizer Go to connectED.mcgraw-hill.com to print out this graphic organizer.
Emotional Development of Adolescents

As teens move toward adulthood, they work to establish their individuality. They typically become more attached to their friends and less dependent on their families. These and related changes can cause tension between teens and their parents.

Adolescence is the time of life when a person asks, “Who am I?” and tries to answer that question. While it is often a period of confusion, it can also lead to a strong sense of self.

Teens find that their emotions become more powerful and more difficult to control. Emotions can even be frightening. Teens must learn to control their emotions. Sometimes they struggle to do so. When teens’ emotions become too overwhelming, they may need the help of friends and family to cope.

Personal Identity

During early adolescence, young teens begin to develop the mental capacity to form ideas and opinions that are theirs alone. This continues to build their individual identification.

They see that their ideas and opinions may differ from those of their family and friends. In this way, they begin to experience a strong personal identity. Personal identity is a sense of oneself as a unique individual. Teens begin to understand that their ideas, attitudes, and opinions are what form their personality. At this stage, adolescents are forming the personality that they will present to the world as adults.

As they develop a personal identity, teens grow more concerned with what their peers think of them. Some become self-conscious or self-absorbed. Young teens, in particular, tend to worry about their physical appearance.

Later in adolescence, a teen’s sense of personal identity strengthens. Teens become better at understanding others’ feelings. Their personalities often show more compassion and responsibility.

Influences on Identity Development

Social and cultural influences strongly affect the formation of a personal identity. These influences include family, peers, media, and the future.
Family  Even though teens sometimes rebel against parental authority, family continues to be an important influence. Some teens and their parents maintain close emotional ties through this period. Other teens become especially close to another family member, such as a sibling or grandparent.

To parents it may sometimes seem that their teen is rejecting the family’s values and beliefs. This may be true in the short term. However, an adult’s personal identity usually incorporates much of what he or she learned while growing up.

Peers  A teen’s classmates and friends are forming their own personal identities. Peer pressure is an especially strong influence for teens. Those in a peer group often adopt the tastes and beliefs of more popular members. More confident teens evaluate those ideas and beliefs, accepting some and rejecting others. In this way, they can form a strong identity that is their own.

Media  Popular media can also influence your personal identity. Television, movies, books, advertisements, and music all portray different values and beliefs. It is important to remember that much of what you see in the media is not realistic. The actions of characters in books, movies, and television shows are often exaggerated. These are all created to be entertaining. Advertisements are designed to try and influence you. Be sure to evaluate what the ads are saying and decide for yourself if it is true.

The Future  By mid to late adolescence, teens have to start thinking about their lives as adults. By planning for a career or further education, they can start to see themselves as unique and independent individuals in the adult world. Deciding what they want to do or be in the future can affect the choices they make today. A teen who decides he or she wants to be an engineer in the future might join the science club today.

Theories of Identity Development  Many researchers have studied how adolescents form their sense of self. Two leaders in this field of study are Erik Erikson (1902–1994) and James Marcia (b. 1937).

**Erikson’s Identity vs. Confusion**  Erik Erikson noted that even the most well-adjusted adolescent may experience some confusion about identity or sense of self. He and other psychologists considered this normal because adolescence is the time of life when teens strive to discover who they are. Erikson recognized that this confusion can become a serious problem for some teens.

Erikson believed that social and cultural influences have a strong effect on how teens develop a sense of self. He believed that one of the most significant influences is peer pressure. Peer pressure is the influence of friends in the same age group. Erikson held that conforming too rigidly to the attitudes and opinions of one’s peers could result in an identity crisis. An identity crisis is a confusion about one’s personal identity that results from failing to find a strong identity, or sense of self, through personal exploration.

**Marcia’s Identity Processes**  James Marcia elaborated on Erikson’s theory by offering ways for teens to solve their identity crisis. Marcia believes that there are four paths to a sense of personal identity. Most teens explore more than one of these paths.

On the first path, teens accept the values of their parents and other respected adults without questioning those values. On the second
What Would You Do?

Dealing with Feelings
Cameron grinned and waved his new driver’s license as he walked in the house. He had been confident he would pass the test and had planned to drive his friends to a game on the weekend. But when he asked to use the car, his parents said no. They told him he was still too inexperienced to drive the family car without an adult along. Cameron was angry and humiliated. He had bragged to his friends that he would be driving them. He had to call and tell them that his parents would not let him drive. Cameron refused to speak to his parents for two days. He felt they treated him like a child, and he was determined to make sure they understood how upset he was.

Write About It Put yourself in Cameron’s parents’ place. Why might they have made the decision they did? Write a paragraph in which you explain to Cameron why his parents made their decision.

path, teens are unsure of their values. They are determined to find an identity, but they are still in the process of developing it. On the third path, adolescents have no clear sense of identity and they are not attempting to find one. On the fourth path, adolescents have solidified their values and have developed a sense of identity. These individuals may redefine this identity in adulthood, but they have made choices they are comfortable with for now.

The Push for Independence
Teens naturally want more freedom. Many parents are often reluctant to grant that freedom. Parents want to protect their children from the dangers and disappointments that more freedom brings. As one mother put it, “Aiden can’t remember to pick up his dirty socks or take his homework to school. The idea of his roaming around on that motorcycle he wants to buy is very scary. My goal is to keep him alive and well, even if he hates me for it.” Parents want teens to prove they are ready for more independence. Teens do not always see the need to do so.

Teens want to spend more time with friends and less time with family. Parents often want more time with their teens because they know the teens are getting ready to leave home. These opposing positions can lead to friction and arguments at home. Teens’ tendency to begin questioning adult wisdom and authority also causes tension. All of these changes in attitudes and actions can cause tension between teens and adults.

The need to move toward independence is a major concern of teens. Understanding the importance of this need can help parents better respond to teens’ concerns. Teens typically want to spend more time with their friends without adult supervision. They enjoy practicing adult skills, such as driving, and want to explore the world on their own.

Parents sometimes worry that lack of supervision can lead to reckless or even illegal behavior, sexual activity, and possibly pregnancy. They may also worry about a teen’s safety while driving alone. They may worry that a teen with too much freedom will neglect schoolwork. Teens need to experience a reasonable amount of independence. That is how they learn the consequences of their decisions as they transition to young adulthood. When a teen asks for more freedom, parents should consider:

• Has the teen usually been responsible, well behaved, and truthful?
• Do I know and trust the teen’s friends and their families?
• Does the teen drive safely and understand all traffic laws?
• Is he or she doing well in school?

If parents answer yes to all of these questions, they should consider increasing a teen’s privileges. However, it should be clear that these privileges will be taken away if any serious trouble results. This understanding will be a strong incentive to use the newly won independence in a responsible way. Often, parents and teens can come to agreeable rules by talking about them together.
Handling Emotional Difficulties

Adolescence is a very emotional time of life. Ideally, its pleasures include making new friends, learning new skills, and becoming active at school and possibly in the community. However, life does not always go smoothly. Sometimes the pressures of school, family, social life, and physical changes can be difficult to handle.

Everyone goes through difficult times. For teens, emotional ups and downs are normal. But sometimes significant emotional problems do occur. Recognizing the symptoms of emotional problems in a teen is an important step in preventing those problems from leading to serious consequences.

Depression

Feeling disappointed or sad from time to time is common, but there is an important difference between temporary sadness and true depression. With depression, feelings of intense sadness last for long periods of time and prevent a person from leading a normal life. Depression can result from the loss of a loved one, family problems, the break-up of a close friendship, or failure in school. It can also be linked to the accumulation of smaller problems. A teen’s feelings of being unable to cope with stressful situations can be unbearable.

Females have a higher risk of depression because of hormonal changes. However, they also are more likely to seek help for depression than males. Some of the warning signs for depression include:

- Feelings of sadness most or all of the time.
- Feelings of emptiness.
- Lack of energy.
- Difficulty concentrating.
- Loss of interest in social activities, school, or activities that were formerly pleasurable.
- Unexpectedly poor grades.
- A change in eating or sleeping habits.

If these warning signs are ignored, there are risks for further consequences. Anyone who sees signs of depression in a teen should act. Friends can tell the teen’s parents, school counselor, or other responsible adult. Consulting a family physician or school counselor is a good first step. If the depression persists, the parents should consult a mental health professional.

Feelings of Depression

Teens sometimes sink into depression if their lives are not going the way they want them to. How can you help a friend who is suffering from depression?
Anxiety

Many people who suffer from depression also show signs of anxiety. A large number of people, including teens, experience this heightened feeling of uneasiness, fear, or uncertainty. Although there are different types of anxiety, all involve some degree of worry.

Some possible traits of anxiety include fear of social situations, shortness of breath or racing heart, sadness, difficulty sleeping, and panic attacks. Heather, who suffers from anxiety, avoids elevators, crowded areas such as movie theaters, and parties where there will be strangers. She knows being in such places makes her feel faint.

Teens who experience excessive worry should talk to a guidance counselor or doctor about the problem. If anxiety sufferers turn to alcohol or drugs to help cope, they can easily develop substance abuse problems. For information on anxiety disorders, see the Respond to Special Needs feature on page 475.

Bipolar Disorder

Mood swings and other emotional changes are a normal part of growing up. Sometimes, though, mood swings go beyond what is normal for most teens. Some teens exhibit signs of bipolar disorder. A bipolar disorder is a psychiatric disorder characterized by extreme changes in mood, from highly energetic to depressed and withdrawn, sometimes fluctuating rapidly. One week they may be manic. Manic means intense experiences of heightened mood. The next week, they are depressed and withdrawn again, causing others to wonder what is going on. These changes could occur over the course of days, weeks, or months.

Bipolar disorder was formerly called manic depression. It can affect people of nearly all ages. It affects males and females about equally. Scientists are not sure what causes the condition, but they think it results mostly from chemical imbalances in the brain.

During the manic phase of bipolar disorder, the individual may experience exaggerated happiness and optimism, racing thoughts and speech, and reckless behavior. When in the...
depressive phase, the individual may have feelings of guilt or worthlessness, a loss of energy, and an inability to take joy in anything.

The cycles of manic behavior and depression can each last for weeks or months, but sometimes they are much shorter in length. The periods of abnormal behavior may be separated by a time when the person acts more normally. Although there is no cure for bipolar disorder, it can be managed with medication and supportive treatment.

**Peer Influences on Social Development**

Peers play an important role in teens’ social development. Adolescents become less dependent on parents and other adults. Most teens become more involved with peers.

**Peer Groups**

There may never be a time in life when the need for acceptance is greater than during adolescence. Not making the volleyball team or not being invited to a classmate’s party can be devastating. As teens form their identity, they may place great importance on the acceptance and admiration of their peer group.

During this time, there is a tendency for teens to conform to the ideas and behavior of the group. They may listen to the same music and watch the same television shows. Most teens do not want to stand out as being different. This is especially true in the early teen years. Charlie would go see the latest horror movie with his friends so he would fit in. But at home, he liked to watch romantic comedies.

An adolescent’s conformist behavior can upset parents. The parents worry that teens will forget their many years of careful guidance. Such worries are often unfounded. Often, a teen seeks out a peer group that shares some of the same values.

---

**Social Relationships in Adolescence**

During adolescence, teens explore their independence and self-expression through their social relationships with friends. Teens may hang out with their friends, talk to them on the phone, and communicate online. They may do all of these in the same day. Parents may wonder how they find so much to talk about.

At the same time, teens may begin to rebel against the authority of their parents and other adults. Teens may feel that the adults are trying to stifle, or discourage, their self-expression.
Romantic Involvement

During adolescence, most teens gain experience being part of a couple through dating relationships. Young teens may spend more time thinking about their appearance and how to be noticed than actually dating. The rise and fall of romantic relationships can bring emotions that are difficult to control. However, such experiences give teens a better idea of what to look for in someone to marry.

Close Friends

The most important peers in a teen’s life are the close friends with whom teens share their secret dreams and fears. A teen may tell things to a best friend that he or she would never confide to a parent or other adult.

Having at least one close friend helps a teen navigate the trials of adolescence. Because friends are free to speak their minds with one another, adolescents can learn from a close friend how to alter their behavior or ideas. This lets them do so without the fear of rejection present in a larger group. Having a best friend also gives teens someone to talk to when things are worrying or angering them.

Opportunities for Social Interaction

As adolescents move into their middle and late teens, they typically become involved in more social activities. These activities can be both for pleasure and in service of the community.

Having a Good Time

There are many ways teens can have fun. These range from parties and time with friends, to sports and after-school activities. School and community organizations such as student government or the Boys and Girls Clubs provide opportunities for new friendships.

Taking part in such activities is not just enjoyable. It is also a vital part of becoming a well-adjusted person. It may also help discover what career one might pursue. An adult who did not participate in a variety of activities as a teen may have more trouble developing social skills.

Making a Social Contribution

It is also valuable for teens to become involved in activities that aid their communities. Some teens volunteer in hospitals, with charity events, or on environmental projects.

Critical Thinking

Conduct research to learn more about the medical and psychological treatments available for eating disorders. Compile your findings in a one-page report.

Eating Disorders

Eating disorders such as anorexia nervosa (anorexia) and bulimia nervosa (bulimia) are psychological disorders. Anorexia is characterized by a refusal to maintain a minimally normal body weight. Bulimia is repeated episodes of binge eating followed by behaviors such as self-induced vomiting.

Eating disorders often start in adolescence. More than 90 percent of cases occur among females. Anorexia and bulimia affect as many as 3 percent of adolescent and young adult females. The incidence of anorexia appears to have increased in recent decades. Compared with adolescents who have normal eating patterns, those who have eating disorders tend to have lower self-esteem and a negative body image. They also have feelings of inadequacy, anxiety, social dysfunction, depression, and moodiness. Eating disorders can cause many severe complications. People who have eating disorders should receive immediate medical and psychological treatment.
There are always organizations and programs seeking volunteer workers. Groups such as the Family, Career and Community Leaders of America (FCCLA) can give teens opportunities to design and carry out community projects.

**Reading Check** Explain What are two sources of tension between teens and their families?

### Moral Development of Adolescents

Peers, family, community, and the media all play a role as teens develop their own ideas about right and wrong. Moral development guides teens’ behavior as it gives them a greater awareness of the rules of society. Some teens test the limits and make unwise choices.

As they leave childhood behind, teens look forward to taking their places in the adult world. Part of the quest for adulthood involves developing morality. **Morality** is a sense of right and wrong that guides decisions and actions.

Morality is based on values. A person’s set of values may be referred to as a moral compass. Like the tools that help hikers find their way and avoid getting lost, values give direction to life. They help people make decisions that are right for them and help people avoid losing their way. During adolescence, teens must develop a moral compass to guide them through life.

Moral development is an important part of the maturing process. Teens who develop a reliable moral compass are more likely to make positive decisions. They are less likely to be lured into negative behaviors. Those who do not have a good moral compass are more likely to make poor choices. They may find themselves at odds with society’s rules and laws.

### Kohlberg’s Levels of Moral Development

One of the most prominent theorists on the subject of moral development was psychologist Lawrence Kohlberg (1927–1987). Kohlberg believed that moral development takes place in six stages and that awareness of other people increases at each stage.

At the first stage, the notion of what is right and wrong is quite simple. It is based on the idea of law and order. The individual obeys rules to avoid being punished. He or she does not hit for fear of being hit in return. At Kohlberg’s second stage, the level of morality is egocentric. What is right is what benefits the self. In the third stage, the individual seeks to do what is right in order to gain the approval of others.

**Moral Compass**

As teens develop a strong set of values to guide them, they often join people who share the same values. **Do your friends tend to have the same or different values than you?**
The individual in the fourth stage of moral development seeks to obey the law and fulfill his or her duty. This person recognizes that a safe society must have rules of behavior. The person accepts and agrees to the rules that have been decided by others.

Kohlberg did not believe that all adults reach the fifth stage of moral development. At this stage, the individual better understands the feelings of others. He or she develops a genuine interest in others’ welfare. The person becomes more aware of belonging to a family and community, and having social responsibilities. He or she recognizes that moral principles are based on individual values. Moral principles are tied to the need to uphold a system of moral laws for the good of society.

Kohlberg’s sixth and highest stage of moral development, in which people are able to recognize and respect other people’s points of view, is called moral maturity. The individual is concerned about whether the rules of society are just and fair. People at this stage make decisions based on equal respect for all people.

According to Kohlberg, each stage represents a milestone in moral development. Most people who reach the higher stages do so during adolescence and adulthood.

**Influences on Moral Development**

Moral development is an ongoing process that occurs within the context of a person’s family, community, and society as a whole. As teens decide what is important to them and strive to establish their own value system, the positive and negative influence of others grows more important.

**Peer Pressure**

Peer groups can have a big influence on teens’ moral development. Because teens are still discovering who they are and what is important to them, they look to their peers for approval and guidance. Peers also help teens clarify their values by discussing what is important and providing feedback. Positive influence from peers helps teens build stronger convictions, or beliefs, and behave according to their values.

Teens who are desperate to become more popular or to gain acceptance can be more open to negative peer pressure. They may look up to peers who break the rules and show little regard for their own well-being or that of others. Instead of condemning immoral or

---

**Media Messages**

A popular movie can send messages. Do you think today’s movies are more likely to influence teens positively or negatively? Why?
illegal conduct, these teens imitate it in the hope of gaining praise and acceptance. This is how many teens get involved in drugs, drinking, sexual activity, shoplifting, and other negative behaviors that they later regret.

**Popular Culture**

Teens’ moral development is also influenced by the popular culture. **Popular culture** is the culture that prevails in modern society. Today, the media tend to dominate popular culture. Television, movies, music, magazines, and advertising all show behaviors and can influence perceptions of right and wrong.

The media sometimes present negative behaviors in ways that may seem glamorous to adolescents. A rock star uses vulgar language. A movie shows violence as an acceptable way to resolve differences. Advertisements for alcohol suggest that people have more fun when they drink. Television programs show rude, immoral, and selfish behavior as amusing and harmless. Teens who are trying to establish their own identities need critical thinking skills to interpret all these messages.

**Family and Community**

Parents have a responsibility to teach their children moral values and help them develop an accurate moral compass. Schools reinforce the basic values a society needs to function, such as honesty and cooperation. Many families and individuals also draw on their religious faith for moral guidance. Some teens seem to reject the values of their parents, but with time most come to recognize the importance of a system of morality that all can live by. Parents who practice what they preach and live according to their stated values are more likely to have a positive influence.

Open and honest communication within the family helps teens learn values. Parents should discuss core values such as honesty and responsibility within the context of daily life. This can help teens see the role these values play in keeping families and societies functioning. Teens also learn more about values by having more responsibility within the family. As they make their own choices and mistakes, they can learn from each experience.

Of course, some teens do break the rules and get into trouble. Parents who know or suspect that a teen is engaging in morally unacceptable behavior need to confront the teen. Even though teens may be reluctant to talk to their parents about such problems, it is their parents’ duty to help them change their wrong behavior.

Teens learn moral responsibility within the community too. Every community has expectations and rules to follow. Teens discover that they must follow the rules or suffer the consequences. Gradually, they also recognize the reasons behind rules and laws. As they learn to respect the rules of society, teens become better prepared to live successfully in that society.

Sometimes, despite a family’s best efforts, a teen seems determined to pursue immoral and harmful behaviors. In such cases, the family may need to seek outside help. The teen might be more willing to listen to a favorite teacher than to a family member. Some families choose to get assistance from a member of the clergy or a school counselor. Teens with serious behavioral problems may need help from professional counselors. Counseling may include the family as well as the teen.

**Write About It**

How could Tyrell help his family understand and deal with his mood swings? Write a script of a possible conversation between Tyrell and his mother and sister in which Tyrell explains his feelings.

---

**Dealing with Mood Swings**

“I never know what to expect from my fourteen-year-old son,” said Yolanda. “One minute, Tyrell is hugging me before he leaves for school and telling me he loves me. The next minute, he’s making fun of his sister’s singing and telling me I need clothes that don’t make me look so much like an old lady. When I confront him about it, he always shrugs and says, ‘Mama, you know I was just joking.’ He spends a lot of time in the basement alone instead of being with his family.”
Linking Behavior to Personal Values

A teen's personal values will guide his or her behavior. Teens who develop strong values are most likely to avoid negative behaviors. Those who give little thought to morals are more likely to have problems. Teens who mature early are most at risk for engaging in negative behavior. They look older than other teens their age, and are often pulled into older peer groups. Unfortunately, their mental and emotional maturity lags behind their physical maturity.

Sexual activity carries many risks for teens, including pregnancy and sexually transmitted infections (STIs). Some STIs can be cured if they are caught early. Others are incurable. Teens who engage in sexual behavior run the risk of serious long-term consequences. Teens who choose abstinence from sexual behavior avoid the risk of STIs.

Other risky behaviors that can have consequences include drug use and crime. Teens who use drugs risk serious damage to their health. Death rates are significantly higher for teens who use drugs than for those who do not. Teen drug users also run the risk of contracting HIV/AIDS because the disease can be transmitted by sharing needles. People who become addicted to drugs also may resort to crime to support their drug habit. By abstaining from premature sexual activity, drugs, and other self-destructive behaviors, teens show they value and respect themselves.

Consider the risks, negative influences, and potential problems teens encounter. It is hardly surprising that parents are concerned about helping teens develop a good moral compass to guide their behavior. Teens who receive careful and caring guidance as they build their value system are most likely to stand up to negative peer pressure and media influences.
Reading Guide

Section 19.3

Intellectual Development of Adolescents

Before You Read

Use Color As you read this section, try using different color pens to take notes. This can help you learn new material and study for tests. You could use red for main ideas, blue for details, and green for examples.

Read to Learn

Key Concepts

• Identify three factors that influence how a student learns in school.

• Compare and contrast Piaget and Vygotsky’s theories of intellectual development in adolescence.

Main Idea

Teens experience great intellectual growth due in part to educational experiences. There are different theories about teen intellectual development.

Content Vocabulary

• prefrontal cortex

• amygdala

• abstract thought

Academic Vocabulary

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

• sophisticated

• profound

Graphic Organizer

As you read, list the reasons adolescents experience significant intellectual growth. Use a web diagram like the one shown to organize your information.

Graphic Organizer Go to connectED.mcgraw-hill.com to print out this graphic organizer.
Brain Development
in Adolescents

Dramatic advances in brain development come with the physical and emotional changes of the adolescent years. Teens start to think less like children and more like adults as their brains mature. They gain the ability to think in more complex and sophisticated, or refined, ways. This ability lets teens do increasingly difficult mental tasks and use better judgment.

In the early teen years, adolescents experience major intellectual growth. One reason for this growth is the physical changes in the brain. Other reasons include gains in education and life experience.

Changes in the Brain

There are brain imaging techniques that allow scientists to observe the changes that occur in brain functioning during adolescence. It is now known that the brain starts to grow again just before puberty. The brain then continues to mature for several years.

The part of the brain that undergoes the most dramatic changes is the prefrontal cortex. The prefrontal cortex is the part of the brain that sits just behind the forehead and controls planning, organization, prioritizing, and other complex thought processes. The growth and maturing of the prefrontal cortex makes it possible for teens to reason better and to control their impulses. As teens mature they rely more on the prefrontal cortex and less on impulses.

Until the prefrontal cortex is fully developed, teens tend to rely more on the amygdala (ə-ˈmig-də-lə). The amygdala is the part of the brain that controls fear, joy, and other emotional reactions. Teens have a tendency to use the emotional part of their brain more than the thinking part. This can lead to impulsive actions based primarily on instinct.

Just as in earlier stages of development, the teen brain makes many more new connections than it actually needs. It then goes through a period of consolidation, in which unused connections cease functioning.

Increase Brain Power

The “use it or lose it” principle suggests that teens can increase their intellectual powers. How can teens take advantage of this opportunity?
Brain researchers say this process indicates that the adolescent brain is a work in progress. They suggest that what teens do during this period of development can affect their thinking skills for the rest of their lives. Those who challenge themselves to develop their intellectual powers are more likely to develop strong brain connections and more advanced thinking skills.

**Educational Experiences**

Even though there are different theories about intellectual development, there can be no doubt that education has a profound, or deep, impact on learning. This is true for students of all ages. The school experience is especially important for teens, though. This is because of the changes that take place in the brain at this stage.

Research has identified factors that influence how a student learns in school. Three main factors are the classroom environment, the degree of discipline and guidance at the school, and the involvement of parents.

**Classroom Environment**

How would you describe the environment in your favorite class? It is not surprising that when the learning environment is positive and stimulating, more learning takes place. Those who know that they will not be criticized for giving a wrong answer in class feel more comfortable participating.

When students feel at ease in the classroom, they generally have a more positive attitude about school. This usually translates into more learning when compared with similar students who have negative feelings about school.

**School Discipline and Guidance**

The degree of discipline and guidance in a school also add to the atmosphere of the classroom and the success of the students. Students who respect their teachers are more willing to learn. Less discipline can mean more disorder. This makes it harder for students to focus and learn. A low level of discipline can also lead to misbehavior which disrupts class activities and interferes with learning. Studies have shown that the level of discipline in a school is not related to its size, financial status, or location.

A school with strong discipline generally has close ties to the community. This means more parental involvement. These schools also have high behavioral expectations. With this comes a commitment by all of the school staff to maintain appropriate behavior. In addition, these schools usually have a strong guidance

---

**Self-Destructive Behaviors**

Adolescence is a time for trying new things. It is not uncommon for teens to experiment with drugs and alcohol. Some try them to fit in. Others do it because they are curious, or as a form of rebellion. Unfortunately, engaging in this kind of behavior can be harmful to one's health and safety. The use of drugs or alcohol can lead to aggressive behavior and health risks, such as seizures and vomiting. Overdosing on drugs or alcohol can be fatal.

**Be Prepared**

Teens will often drive after using alcohol or drugs. Use print or online resources to research the number of auto accidents involving teens and alcohol or drugs. Write a speech to share what you learn with your class.

---

“Critical thinking skills begin to develop during puberty, and no one is quite sure when these skills stop developing. Children entering the teen life stage are now able to think in gray areas. No longer is everything black and white.”

— Denise Witmer, teen development expert and author, *The Everything Parent’s Guide to Raising a Successful Child*
Period Characteristics

<table>
<thead>
<tr>
<th>Period</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensorimotor</td>
<td>Children learn through their senses and own actions.</td>
</tr>
<tr>
<td>Birth–2 years</td>
<td></td>
</tr>
<tr>
<td>Preoperational</td>
<td>Children think in terms of their own activities and what they perceive at the moment.</td>
</tr>
<tr>
<td>2–7 years</td>
<td></td>
</tr>
<tr>
<td>Concrete Operations</td>
<td>Children can think logically but still learn best through experience.</td>
</tr>
<tr>
<td>7–11 years</td>
<td></td>
</tr>
<tr>
<td>Formal Operations</td>
<td>People are capable of abstract thinking.</td>
</tr>
<tr>
<td>11–adult</td>
<td></td>
</tr>
</tbody>
</table>

The Role of Parents

Although teens often seem embarrassed by their parents, they generally still want their parents’ support. Caring parents do more than simply make sure that their teen goes to school every day and does the required homework. They might ask questions about schoolwork, offer suggestions for completing assignments, assist their children as needed, or attend school functions.

Parents also need to emphasize the importance they place on education. If teens skip school or fail to complete homework, parents need to get to the root of the problem. They can then help the teen find ways to resolve it. Regular attendance and homework are essential parts of a good education. A good education is a key to a fulfilling life.

Recall What does the prefrontal cortex control?

Teen Intellectual Development

Many people have studied the intellectual growth of adolescents. Two leaders in this field of research were Jean Piaget and Lev Vygotsky.

Piaget’s Theory

Adolescents have reached the fourth and final stage of Piaget’s four main stages of intellectual development. Piaget called this stage the period of formal operations.

As shown in Figure 19.2, Piaget said this stage of intellectual growth begins at about age 11 and continues into adulthood. During this period, young people become capable of abstract thought. Abstract thought is the capacity to consider “what if” situations, to create sophisticated arguments, and to reason from different points of view.

With their expanding intellectual abilities, young people can organize their thoughts and find solutions to everyday problems. They can also absorb information and apply it to their own lives. Thus they can start making intelligent decisions about their future.
Piaget has had a very strong influence on the field of child psychology. However, some people have criticized his theories. They argue that his four stages present too rigid a picture of intellectual development. Many believe that there are more than four stages throughout a person’s life span. Some of Piaget’s critics also believe that he underestimated the influence of culture and social interaction on learning. One theorist that felt this was Lev Vygotsky.

**Vygotsky’s Theory**

Vygotsky differed from Piaget in that he placed a stronger emphasis on social interactions. In fact, he saw a clear connection between intellectual development and social interaction. Vygotsky believed that children develop the ability to think by interacting with parents, teachers, and peers. In this way, they learn to think, gain mastery over their environment, and use language.

Vygotsky believed that language is the most important tool for influencing intellectual development. Younger children use it simply to communicate. Adolescents use it as a kind of inner speech to guide what they think and do.

Vygotsky used the term *zone of proximal development* to explain his theory about the role of instruction in a child’s learning. The zone of proximal development is the difference between what a child is capable of learning unaided and what the child could learn with the help of a parent or teacher or by working with peers. It is a measure of learning potential. Vygotsky emphasized that only through teamwork with teachers and other students could students meet their potential.

This is put into practice in the classroom when the teacher assigns projects to a group instead of an individual. Also, some teachers offer additional help with assignments outside of the normal classroom hours. In this way, the student can learn from the teacher’s expertise.

---

**Review Key Concepts**

1. **Explain** why the brain of an adolescent is said to be a work in progress.
2. **Define** Vygotsky’s term *zone of proximal development*.

**Practice Academic Skills**

**English Language Arts**

3. Consider your classes. Do you feel that you learn better in a small-group setting in which you work with peers? Or do you work better on your own? Write a letter to one of your teachers explaining why you do or do not learn better in small-group settings.

**Social Studies**

4. Parents generally have a desire to participate in their child’s growth and development. This includes their intellectual development. Conduct research to create a list of actions parents can take to enhance intellectual development in their teen children. Your research might include reading articles on brain development or an interview with a parent educator.

**Check Your Answers** Go to [connectED.mcgraw-hill.com](http://connectED.mcgraw-hill.com) to check your answers.
Coaches train athletes to improve their skills.

Coaches organize athletes and teach them the fundamentals of individual and team sports. They train athletes for competition by holding practice sessions to perform drills that improve the athletes’ form, technique, skills, and stamina. Along with refining athletes’ individual skills, coaches are responsible for teaching good sportsmanship, a competitive spirit, and teamwork.

Where Do Coaches Work?

Some coaches form businesses to train athletes. Others work for schools, recreation centers, or universities. Some coaches work with individual athletes, while others coach teams in competition.

Education and Training

Education and training requirements for coaches vary greatly by the level and type of sport. Coaching jobs require immense overall knowledge of the sport, usually acquired through years of experience at lower levels.

Aptitudes, Abilities, and Skills

Coaches must have the ability to teach. Energy, physical endurance and strength, and an interest in working with young people are also needed.

Academic Skills

English language arts are used by coaches to communicate with athletes, their families, and other staff. Science skills are used to develop fitness and training routines. Psychology skills can help with motivating the athletes.

Explore Careers

Research related careers such as sports instructors, umpires, trainers, or sports officials. Choose one career and write a paragraph to describe it. Also propose short-term and long-term goals needed to achieve the chosen career. Explain whether this career interests you, and why.
Chapter Summary

During adolescence, the physical changes that occur due to puberty are completed. It is important for teens to practice good personal hygiene, eat well, exercise, and get enough sleep. An important part of adolescence is establishing a strong personal identity. During the teen years, peers become more important. Social and cultural influences affect moral development. Changes in the brain during adolescence enable teens to reason better and control impulses. In Piaget’s stage of formal operations, teens become capable of abstract thought. Vygotsky believed that social interactions are essential for learning. Positive educational experiences contribute to intellectual growth.

Vocabulary Review

1. Use at least six of these content and academic vocabulary terms in a short essay about peer pressure.

Content Vocabulary
- testosterone (p. 522)
- estrogen (p. 522)
- personal identity (p. 528)
- identity crisis (p. 529)
- depression (p. 531)
- bipolar disorder (p. 532)
- morality (p. 535)
- moral maturity (p. 536)
- popular culture (p. 537)
- prefrontal cortex (p. 540)
- amygdala (p. 540)
- abstract thought (p. 542)

Academic Vocabulary
- adolescent (p. 521)
- extracurricular (p. 525)
- stifle (p. 533)
- conviction (p. 536)
- sophisticated (p. 540)
- profound (p. 541)

Review Key Concepts

2. List three main areas of change for adolescents.
3. Identify three ways parents can help adolescents make good nutrition choices.
4. Describe the four main influences on personal identity development.
5. Identify the three roles of peers on a teen’s social development.
6. List the major influences on a teen’s moral development.
7. Identify three factors that influence how a student learns in school.
8. Compare and contrast Piaget and Vygotsky’s theories of intellectual development in adolescence.

Critical Thinking

9. Draw Conclusions Why can the teen years be both the most difficult and the most rewarding period of life for many people?
10. Infer What qualities or characteristics do you think allow some teens to get along well with others while remaining true to their own opinions and beliefs?
11. Interview a School Counselor  Interview a school counselor about the frequency of eating disorders among students. Ask for the rate of incidences among males and females, and by age level. Also ask about local resources to help with eating disorders. Compile your information in a chart. Include a paragraph about help that is available to students with eating disorders.

12. Research Sleep Habits  Keep track of the number of hours of sleep you get during the next seven days. Are you getting the recommended eight and one-half hours of sleep each night? If not, what changes could you make in your habits? Write a realistic plan of action that would give yourself enough sleep time.

13. Observe Teaching Styles  There are many different teaching methods. A teaching method that works for you may not work for your friend.

   **Procedure**  During each of your classes, note how the teacher teaches. Is the class mostly lecture or demonstration? Is there interaction between students and teacher? Are assignments given to groups or individuals?

   **Analysis**  Use your notes to create a table that shows the teaching methods used, the subjects of the classes, and the number of teachers who use them. Write a summary of your findings.

Real-World Skills

<table>
<thead>
<tr>
<th>Interpersonal and Collaborative Skills</th>
<th>Technology Skills</th>
<th>Financial Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Work in Teams  Follow your teachers instructions to form into groups. Brainstorm a list of possible reasons why teens may engage in negative behaviors. Based on one of the reasons, work together to write a dialogue in which you persuade a peer to change her negative actions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Information Literacy  List the advantages and disadvantages of having a close friend. Do the advantages outweigh the disadvantages? Use word processing software to create a report of your findings.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. The Cost of Fitness  Choose three types of fitness programs you might enjoy and research the cost of each. For example, you might choose taking classes at a gym or hiking with friends. Be sure to consider the cost of any equipment needed, as well as any membership fees. Create a table to compare the costs and write a paragraph telling which activity you would like to try and why. Is cost the most important factor in your decision?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Academic Skills

**English Language Arts**

17. **Persuade Your Audience** Teens in a peer group often adopt the tastes and beliefs of more popular members. Write a persuasive essay to convince other teens about the potential dangers of blindly following the crowd.

**Mathematics**

18. **Meal Planning** To practice budgeting, a mother assigns one day of the week to her teenaged son Bryce to plan and prepare dinner. Bryce is given $20 to spend. He decides to make cheeseburgers and fries. At the store, he finds buns for $2.99, a package of cheese for $3.95, one pound of lean meat for $4.49, lettuce for $1.49, a tomato for $0.75, and a bag of frozen fries for $4.39. Bryce is worried that he will not have enough money. If the tax rate is 7%, how much money will he need total?

**Math Concept** **Multiplying by Percents**

To multiply by percents, change the percent to a fraction with 100 in the denominator. Then change the fraction to a decimal.

**Starting Hint** Add up the cost of all the items. Then multiply your answer by 7 percent to get the amount of tax. Add the tax to the cost of the items for a total cost.

For math help, go to the Math Appendix at the back of the book.

**Science**

19. **Create a Hypothesis** Follow your teacher’s instructions to form teams of two. Think about this question: Do you think that thin, average, and overweight people eat different portion sizes when compared to one another?

**Procedure** Work with your partner to create a hypothesis of the eating habits of people for each weight category. At a food court or cafeteria, discreetly observe and take notes on the eating habits of four anonymous people in each weight group.

**Analysis** Report your findings in a chart. Does your hypothesis seem true? What other possible factors are involved in weight besides portion sizes?

---

**Standardized Test Practice**

**ESSAY**

Read the prompt. Then answer the question by writing an essay. Use details and examples to illustrate your points.

According to sleep experts, sometime in late puberty, the teen body secretes the sleep-related hormone melatonin later than before. This means that teens may feel fully alert later into the evening, making it physically more difficult for them to get up in the morning.

20. How might teens best deal with this hormonal change?

**Test-Taking Tip** Plan your essay before you begin writing. Jot down the main points you want to focus on. Refer to these points as you write.