

Section 1:1
Your Life Path

Section 1:2
Heredity

Section 1:3
Environment

Key Questions

Questions to answer as you study this chapter:

- What is self-identity?
- . Why is it important to know who I am?
- · How did I get to be the way I am?

Chapter Objectives

After studying this chapter, you will be able to

- · recognize the unique qualities of your life path.
- identify factors that impact your identity.
- relate major developmental tasks of the teen years to future changes.
- evaluate the influence of heredity on personal characteristics.
- explain how factors in the environment can influence growth and development.
- **plan** ways to respond to heredity and environment with resiliency.

Life Sketch

"What are you going to do after graduation?" Ava asked her friend Molly.

Molly's response was eager and excited. "I plan to go to the state college next fall and get a degree in interior design. I'd like to spend a semester in Italy. You know, the state college has a great student exchange program. I'm sure that experience will help me get a good job. I'd like to stay in the Miami area after I graduate from college," Molly said.

"Molly sure has her life together," Ava thought as she listened to all of Molly's plans. Molly was known for setting goals and accomplishing them. There was no doubt she would achieve her dreams for the future.

"I'm still trying to figure out who I am," Ava said to herself. "Where am I going? Will I be a success at what I do someday?"

Getting Started

Have you ever questioned yourself about your future? Almost all young people ask such questions as they try to learn more about themselves. They want to plan for the future and set directions for their lives.

Thinking about the future can be both exciting and scary. Getting a job and living on your own may sound exciting to you. You may be looking forward to getting married and having your own family.

Some events that lie ahead may seem frightening because of the unknown. Will you get the education you need? Will you find a job you like? Will you succeed at that job?

You may feel uncertain about future relationships. Will you know when you are really in love? Whom will you marry? Will your marriage be happy? Will you be a good parent?

Life does not come with a set of directions to answer your questions. However, in this book you will find information related to these important life events.

Looking at the experiences of people who have succeeded in different aspects of life can be helpful. They have learned how to find the information they need and use it wisely. They have developed certain skills that help them in their personal relationships. This book uses the experiences of such people to identify information and skills that can be useful to you.

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section

Know Key Terms

life span developmental task self-identity

Your Life Path

Sharpen Your Reading

Outline concepts as you read, listing key points under the following headings: Definition, Qualities of Your Life Path, Changes Along Your Life Path, and Preparing for Change.

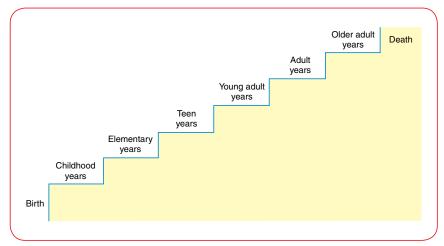
Boost Your Vocabulary

Pick an object that you think describes you and explain how it relates to your identity. Include your strengths and areas you need to improve.

Life can be thought of as a path. Your birth marks the beginning of your path in this world. Death marks the end of this path. Your path from birth to death is called your **life span**, 1-1.

No one knows just how long their life span will be. The average life span today for men is 72 years; for women, it is 79 years. These are averages expected for people who are teens

You are unique. No one else is exactly like you. You started your life path with your own set of genes, received from your parents. A **gene** is the basic unit of heredity. Your unique pattern of genes is defined as your DNA, which has about three billion base pairs of genetic material. Your DNA is so distinctive that it can be used as a method of identification



1-1 Although your life path is unique, you will pass through the same growth stages as all people do.

As a unique person, you have your own daily life experiences. You also share many experiences with others. Your life path crosses their life paths every day. You depend on other people and are influenced by them. In turn, they are influenced

Some people have a direct influence on your life path. They may give you food, clothes, and shelter so you feel warm and secure. They may give you a hug or praise so you feel loved. Such actions and words affect you in a direct way.

People's actions can also influence you indirectly. For instance, you may not be invited to a friend's party. As a result, you feel hurt although no one speaks directly to you about it. You can also directly or indirectly impact others. Who you are, what you say, and what you do or do not do are all important.

Use What You Learn

Think of the last item you purchased. Who was indirectly affected by your purchase? Who was directly affected?

Changes over Your Life Span

As a teen, you have major developmental tasks to achieve. A developmental task is a skill that society expects of individuals at various stages of life. Accomplishing these tasks successfully helps you become an adult, 1-2.

Understanding and **Accepting Yourself**

One developmental task of the teen years is to figure out who you are. Asking the question "Who am I?" helps you clarify your self-identity. This is a sense of individuality. Exploring the answers to this question will help you feel that vou have worth and value.

Identifying who you are can help you accept yourself. When you accept yourself, it is easier to believe that others will accept you as you are.

Developmental Tasks

- Understand and accept who you are.
- Make healthful choices that help you grow to maturity.
- Develop mature relationships with
- Prepare for an occupation.
- Prepare for marriage and family living.

1-2 Teens have major developmental tasks to accomplish as they enter adulthood.

There is no need to pretend—you can let others know the real you. Accepting yourself can help you develop relationships with others.

Growing to Maturity

Knowing your self-identity will also allow you to make choices that will help you grow to maturity. When you know and accept yourself as you are, you recognize your good and bad points. You can use your strengths to make choices that help you reach personal goals. You can also make choices to improve the areas in which you are

Developing Mature Relationships

Adolescence is a time for growth toward maturity in many relationships. During the teen years, your position in the family changes. Your relationship with your parents becomes one of decreasing dependence and increasing independence. You gain a new respect for your parents as you mature.

Friendships also change and mature. True friendships, which involve care and concern for a friend's well-being, become important. This is true of friendships with both sexes.

In addition, relationships develop with people at work. As you get your first job and gain work experience, you learn to become a member of a work team. Learning to work well in a group makes it possible to succeed at work.

Preparing for an Occupation

Adolescence is a time to prepare for the future and look ahead to living on your own. One task of the teen years is to choose and prepare for an occupation. When choosing a career, you will need to consider your interests, abilities, personality, and goals. Career education will help you prepare for a job you will enjoy.

Preparing for Marriage and Family Living

Adolescence is a time to learn how to build close relationships with others. What qualities can help you develop a relationship with another person who may become your spouse? What skills are needed to get along with others? How can you work together on a project or solve a problem together? This is a time to develop skills that help you get along with others. These skills will help you experience long-lasting relationships.

You can also learn about growth and development. What is needed to help someone grow to maturity? How can you help others reach their potential? Developing these skills will help you prepare for marriage and family living.

Investigate Further

How could having a job help you achieve developmental tasks of the teen years? How could being in a school sport or club help you grow in these areas?

Preparing for Change

Change is a normal part of life. Many fear change, though, because it brings unknowns. People prefer individuals and experiences they know are pleasant. When change comes, it brings new experiences. This can make anyone feel uncomfortable or afraid, 1-3. You can avoid these feelings by learning about change and using the right skills to manage it.



1-3 You may be excited about going to college, yet fear that you will not be able to pass college-level courses.

Gathering Information

Learning as much as possible about upcoming changes can help you prepare for them. For instance, it is helpful to know what body changes to expect as you grow. Then you will understand that the changes occurring are normal. You will also know that others are experiencing the same things.

You can expect many changes when you get your first job or apartment. Couples experience change when they start going out, get engaged, or get married. Still more changes are involved with parenting.

What information will help you adjust to life's changes? What can be expected? What feelings have others had as they went through these changes? Knowing what to expect is the first step in preparing for change.

Developing Skills to Adjust

Developing skills that help you adjust is the second step in preparing for change. A new job may require skills for managing time. You may need new skills for communicating your thoughts or ideas to others. In a relationship, you may need to develop skills for sharing your inner feelings. With patience and practice, these and many other skills can be learned.

Managing the Change

The third step is to develop a plan to manage change. This step can help make the experience a positive one. For example, what changes might occur when you get your first full-time job? Will your family expect you to buy all your own clothes? If so, you will need to budget so you have money to purchase them.

How would your personal schedule change with a full-time job? You could plan a schedule that includes time to work, relax, and see friends and family. Planning can help you manage the increased demands on your time.

The completion of high school will be a time of change for you. How will you prepare for these changes? What information will you gather to help you grow in a positive way? Will

it be information related to college or technical training, getting a job, or living on your own? What skills will you need to be successful in achieving your goals? What plan will you have for managing all these choices?

The more you know about the changes you will experience, the more confident you will be to face them. Planning for change will make you less likely to fear it.

Use What You Learn

Identify a change you will be facing in the near future. What questions would you like answered before this change takes place?

Review Section 1:1

- 1. List three benefits of knowing your identity.
- List the five developmental tasks of the teen years.
- 3. List three ways a person can prepare for an expected change.

section 1:2

Heredity

Sharpen Your Reading

Diagram the concepts of heredity using a graphic organizer. As you read, fill in key points along the branches. Use the following headings: *Who Am !?—Your Identity* and *Hereditary Factors*.

Boost Your Vocabulary

Draw a diagram that shows how information flows in the brain from one nerve cell to another.

Know Key Terms

heredity genetics chromosomes traits Punnett square intelligence neurons dendrites synapse neurotransmitters carrier family tree

When planning for the future, it can help to look at the influences that shaped your life in the past. These factors often continue to influence you. One main factor that affects personal development is heredity. Your **heredity** is the sum of the qualities that were passed from your ancestors through your parents to you, 1-4. The



1-4 These children have physical characteristics similar to their parents' because of heredity.

qualities you inherit make you a unique human being. Your hair color, facial features, and height are examples.

Besides influencing all your physical qualities, heredity is a major factor in your personality development. Your heredity influences the way you look, feel, and behave. Knowing about the qualities you inherit will give you some insight to your own potential development. You will also pass on to your children part of what you inherit from your parents. The science that studies heredity is called **genetics**.

Genes

Each human being begins life with his or her own set of genetic material. A person normally inherits 23 rod-shaped particles called **chromosomes** from each biological parent. Chromosomes carry hereditary information from each parent. The father and mother each contribute 23 chromosomes. The child inherits a total of 46 chromosomes. This genetic "blueprint" exists in the nucleus of every cell in the body.

Chromosomes contain long, ladder-type strands of DNA that carry genetic information. The parts of the ladder that carry information occur in pairs. These are the genes. There are about 30,000 genes. Genes determine all inherited characteristics, or **traits**.

Physical Characteristics

The genes you inherit affect your body. Your physical appearance may be similar to a brother, sister, or another family member because of inherited genes. However, the genes that come from both parents combine in different patterns in their children. As a result, brothers and sisters have different traits.

Are you tall, short, or average height? Are you male or female? What color are your eyes, hair, and skin? These are some of your inherited traits

Dominant and Recessive Genes

Some genes are dominant while others are recessive.

- When present, dominant genes determine the nature of a certain trait in a person. A dominant gene always overrules a recessive gene. Chart 1-5 lists some examples of physical traits that are dominant.
- Recessive genes determine the nature of the trait only when two of them are present. The child must receive one recessive gene from each parent.

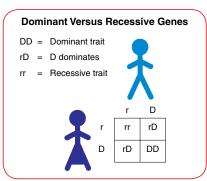
Scientists use letters such as *DD* and *rr* to identify a person's genotype for various traits. A *genotype* is the genetic makeup of an individual or group. Capital *D* signifies a dominant trait such as brown hair. A lowercase *r* signifies a recessive trait such as blonde hair. A person with two dominant genes, genotype *DD*, will have brown hair. A person with one recessive and one dominant gene, genotype *rD*, will also have brown hair because the dominant *D* gene is present. A person with two recessive genes, genotype *rr*, will have blonde hair. In the case of eye color, a person with two recessive genes will have blue eyes.

Scientists use a **Punnett square**, invented by R.C. Punnett, to determine what possible gene pairs may result from combining two genes, 1-6. The genes of the parents are identified along two adjacent sides of the square—one parent per side. Each possible combination is recorded in an inner box. A total of four combinations are possible. Consequently, each offspring will have a 25 percent chance of inheriting the characteristic indicated in each box.

Many traits are influenced by more than one pair of genes. For example, height seems to be determined by at least four pairs of genes. When several genes influence a trait, more variations may result in offspring.

Inherited Traits				
Dominant Traits		Recessive Traits		
Black or brown hair	Long full lashes	Blond hair	Short thin lashes	
Full lips	Curly hair	Thin lips	Straight hair	
Free earlobes	Freckles	Attached earlobes	Lack of freckles	
Dimples in cheeks	Feet with normal	No dimples in	Flat feet	
High and narrow	arches	cheeks	Normal vision	
nose	Farsightedness and	Broad nose		
Brown eyes	astigmatism	Blue eyes		

1-5 This chart shows some of the inherited traits that dominate over recessive traits.



1-6 A Punnett square illustrates the possible combinations of a pair of inherited genes. The parents in this example each have one dominant and one recessive gene.

Think More About It

What are some ways you think genetic research might help the human race? What are some possible negative effects?

Brain Development and Intelligence

The way your brain grows, develops, and functions is affected by genes and factors in your environment. Your brain development will affect your intelligence. Intelligence is your capacity for mental activity. It affects your ability to learn, understand, reason, and think.

How Your Brain Functions

People are born with over 100 billion nerve cells in the brain called **neurons**. See 1-7. The neurons have many extensions that look like fingers. These fingers are called **dendrites**. Nerve cells send information back and forth through the dendrites.

The space between the dendrites of two neurons is called a **synapse**. The body makes chemicals in the synapses that allow messages to be carried from one neuron to another. These chemicals are called **neurotransmitters**.

Different neurotransmitters result in different types of messages. For example, some messages speed up a body response; others slow it down. Some chemicals produce a positive feeling, while others help information flow to different parts of the brain. The way your body responds is controlled by the neurotransmitters.

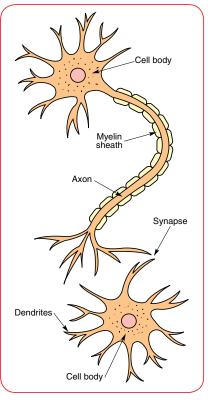
The chemicals that are produced in your synapses can be affected by both your heredity and your environment. For example, certain chemicals are produced when you sleep, and different chemicals are produced when you are awake. Other chemicals are produced when you are in danger or in a stressful situation. These responses are genetic. Environmental factors can also affect which chemicals are produced in the synapses. These factors include the food you eat and how physically active you are.

How Your Brain Grows and Develops

Each brain cell connects to thousands of other brain cells. As you grow and develop, your brain increases the dendrite connections in the areas or pathways that are used. Certain stimuli are needed within the environment for this development to proceed.

Parts of the brain that are not used are trimmed back, and those nerve cells die off. This is where the term *use it or lose it* applies to brain development. The critical time for learning to take place is called a *window of opportunity*. If the window is missed, the cells die off and the related development does not take place.

For example, you are born with the capacity to learn any language. The pathways of your brain that are used to learn the language you speak continue to develop, and many dendrite connections form. The parts you could use to learn other languages die off because you do not use them. After age 10, you are still able to learn another language. However, you may not speak it as fluently as you would if you had learned it earlier.



1-7 A nerve cell, or *neuron*, can send 250 to 2500 nerve impulses each second.

Although your heredity determines the number of brain cells you start with, your environment affects the number of connections made. Good nutrition is important for brain development. A stimulating environment is just as important. To reach your full potential, all these factors need to come together. (You will learn more about the parts of the brain and how to stimulate development in Chapter 2.)

Use What You Learn

Give examples of the use-it-or-lose-it rule. Include activities that improve with practice.

Hereditary Diseases

Certain diseases and disabilities are inherited. With advances in medicine, there are new ways to identify these disease traits. Scientists can take a sample of your DNA and identify your particular gene traits. The genotypes of healthy people are compared to those with various diseases. For instance, scientists know that some diseases result from a change in the sequence of genes on a chromosome. This information should help identify causes of and cures for many diseases.

Some people are a **carrier** of a disease. This means they can pass the disease to their children but never have it themselves. This situation occurs because they have one recessive gene carrying the disease trait and a dominant gene carrying a healthy trait. When both parents are carriers, their children have one chance in four of inheriting that disease.

Heredity is also a major factor in mental retardation in children, 1-8. Down syndrome is a chromosome disorder that occurs mostly in children born to women over 40 years old. As women age, their DNA molecules may be altered in some way. Altered DNA passed on to a child may result in hereditary diseases.

Each person is likely to carry some defective genes, but no problems result because the dominant genes are healthy. Defective genes affect a person when they are inherited in pairs. This is why marriage between blood relatives is discouraged. Children of these marriages have a higher chance of inheriting pairs of defective genes, which may result in birth defects and even death.

Investigate Further

How might researchers and doctors use DNA information to help identify causes of and cures for hereditary diseases?

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1-8 Down syndrome results when a child inherits an extra chromosome. One of the effects of this condition is mental retardation.

Genetic Counseling

Genetic counselors help people understand how hereditary diseases and disabilities are passed on. Some people may already know that a hereditary condition exists in their family. Couples who have a child with an inherited disease may want to seek genetic counseling before having more children. Also, couples related by blood may want to seek genetic counseling before having a family.

Your family tree is a list of your blood relatives for several generations. By tracing your family tree, you can identify conditions that could be hereditary in your family. By checking the life span of past generations, you can determine the average life span in your family. You can also trace other dominant or recessive traits that are passed from one generation to the next.

Medical Research Versus the **Right to Privacy**

New technologies make it possible to gather information about each person. This ability raises some concerns about the welfare of private citizens. For instance, if you have a genotype similar to a person with Alzheimer's disease, would you want to know this? Would you want your insurance company, your employer, or others to know? Could such information lead to

Concerns for the personal well-being of individuals must be considered. The ability to use a technology to gather such information must be weighed against a person's right to keep the information private and confidential. Such issues will continue to be raised as technology becomes more advanced.

Review Section 1:2

- 1. Name five characteristics that a person inherits.
- 2. Explain the difference in the effects of a dominant gene and a recessive gene on the way a trait is expressed.
- 3. Describe how the use-it-or-lose-it rule applies to brain development.
- 4. Explain why a marriage between close relatives is a health risk.
- 5. Under what circumstances might a couple seek genetic counseling?

section

Environment

Sharpen Your Reading

Add to the graphic organizer you prepared for Section 1:2. Include branches listing the environmental factors that affect growth and development. Add the heading Environmental Factors.

Boost Your Vocabulary

Find or draw pictures illustrating each of the key

Know Key Terms

environment sibling cultural heritage peers technology media resiliency

Your **environment** includes everything in your surroundings, 1-9. Family, friends, home, and school are part of your environment. Your senses of seeing, feeling, hearing, smelling, and tasting bring you information from your environment. All these factors influence your

Both heredity and environment influence personal development. You inherit certain traits that affect the way you look and behave, but then your environment takes over. Your heredity determines your potential for development. Your environment determines if or how that potential is reached.

The Influence of the **Family Environment**

The family is usually the major human influence in a person's life. This is especially true during the preschool years, when children spend most of their time with parents, grandparents, or other family members.

Most families want to provide a nurturing environment in which children feel secure and protected. Physical needs for food, clothing, and shelter are met. A child's needs to be with people and to give and receive love are met. Children also have opportunities to learn, explore, and create. In such an environment, family members can grow and develop to maturity.

The Prenatal Environment

The prenatal environment is the child's surroundings before birth. The way a woman cares for herself during pregnancy will affect her baby. Eating properly and avoiding harmful drugs and medications are healthful practices. Good health increases a woman's chance of having a healthy baby.

Environmental Factors

- Family
- Cultural heritage and society
- School
- Peers
- Community
- Religion
- Technology
- Media and electronic entertainment
- Stress and violence

1-9 Many factors in the environment influence your growth and development.

Poor health care, on the other hand, can have a negative, long-term impact. Substance abuse by a pregnant woman, poor nutrition, or exposure to harmful radiation can permanently affect a baby's brain development.

The Family in the Early Years

Families need to create a safe environment for a baby to grow and develop. That means they need to take care of the baby, keep the baby warm and fed, and protect the baby from things that are harmful.

However, babies need more from their environment than just physical care. They also need an environment that helps them feel secure and loved. This helps them grow emotionally and socially. Families need to hold, cuddle, talk to, and play with the baby. They need to respond to the baby's cries.

When children receive warm, loving, and consistent care, they tend to feel safe and secure, 1-10. They will want to explore their environment. The sights, sounds, smells, and textures they experience help them grow and develop. With such stimulation, their intellectual development increases.

As they explore, children discover they are independent and can do things on their own. The child's environment should promote the growth of independence. Families can provide tasks for children to do by themselves, such as picking up toys or getting dressed. When children are not allowed to try some tasks on their own, they may



1-10 Reading stories to children makes them feel safe and loved.

doubt their abilities. They may feel ashamed of their lack of skills. Instead of growing toward independence, they become more dependent on others.

Families can also help children learn how to fit into their surroundings. An environment with well-defined limits helps young children learn to control their own behavior. For instance, they discover that when they kick something, it moves. They learn that it is okay to kick balls, but not to kick brothers and sisters! In this way, they learn that some activities are safe and acceptable while others are not.

Think More About It What does consistent care mean? What kinds of behaviors would you expect to see in a family that provides consistent care?

The Family in the Teen Years

The family can help teens through the changes of the teen years by providing a loving and caring environment that encourages growth. Such an environment will help both you and your family cope with changes as you become more independent. A caring environment will also help you accept your identity and develop healthy relationships with others.

One way your family can encourage your growth is to allow you more opportunities to make personal decisions. Suppose, for instance, you want to go on a school-sponsored ski trip. You could take the responsibility for making your reservation. Earning the money for the trip could be your responsibility, too. Taking more responsibility also helps you develop your own capabilities for decision making.

Remind yourself that your parents need time to adjust as you change and develop. You may be changing faster than your parents are adjusting. You can help your family maintain a loving family environment through your actions. Show respect for their ideas, requests, and feelings. This will help them listen and show respect for your thoughts and feelings.

Family Structure

The structure of a family can influence many areas of a child's life. A family may include any combination of a father, mother, children, grandparents, or other relatives. Sometimes the family includes stepparents or stepchildren. Not all children grow up with both parents in the family.

Changes in family structure often affect the family's ability to provide a stimulating environment. For instance, there may not be enough money for all the children's needs. There may not be enough time to listen, share, encourage, or guide each child.

Whatever the family structure may be, it is important that the family fulfills its functions and meets the needs of each family member. Sometimes others, such as grandparents, older siblings, babysitters, stepparents, or community youth leaders, help make this happen.

Use What You Learn

What kinds of activities in a family environment could help a teen grow to maturity?

The Influence of Siblings

A **sibling** is a brother or sister. They can be the source of fun and good times together. Siblings can also be the source of conflict and competition.

À family environment that includes siblings can be beneficial. Siblings can learn much from each other. An older sibling may teach a younger sibling. They often play together and can be good companions. They can learn to share as they play. They can learn to work together to do a task. Experiences with siblings can help children learn to get along with others.

Sibling Position

Being the first, the last, or a middle child in the family can make a difference in a child's development. Being an only child may also affect development. Parents are usually idealistic with their first child. They have high expectations for him or her. Older siblings may be given more responsibility in the family. They may be expected to do things for themselves. They may be required to set an example and care for younger siblings. As a result, oldest children often develop skills for making decisions, organizing tasks, and supervising others, 1-11.

The youngest child often receives a lot of attention. Older siblings may do tasks that the voungest child could and should learn to do alone. As a result, younger children may be slow to develop self-help skills such as dressing themselves. Sometimes younger children may struggle to get a chance to express themselves. When they do get a chance to talk, others may not take them seriously. In some families, the expectations for the youngest child are lower than for the oldest child. Families may provide fewer limits and fewer responsibilities. In these situations, the youngest child may appear lazy or undisciplined. In other families, the youngest child develops skills rapidly to keep up with older siblings.



1-11 Older siblings may be asked to help care for younger children in the family.

The middle child is not always given the same responsibility as the oldest child or the same attention as the youngest child. Children respond to this middle position in different ways. Some middle children become peacemakers. They find themselves trying to settle differences between other brothers and sisters. Some put extra effort into their work, trying to outdo an older sibling. Then, there are others who respond by choosing unacceptable activities that will get attention.

An only child does not experience the daily give-and-take of close sibling relationships. He or she does not experience the conflicts that siblings often have. As a result, this child may take longer to learn to resolve conflicts with playmates. Most families with an only child try to provide opportunities for interaction with other children so these skills are learned.

An only child generally spends more time with adults in one-on-one situations. This can stimulate adultlike behavior at an earlier age. However, an only child is usually the center of attention in those situations. When the attention stops, the adultlike behavior is often replaced with immature actions and attitudes. Interaction with other children of the same age encourages the child to behave more maturely.



Your Cultural Heritage and Society

Each family environment is strongly influenced by its cultural heritage. Your **cultural** heritage is learned behavior that is passed from generation to generation. Your family's guidelines and beliefs are part of your heritage. The holidays you celebrate, the foods you eat, and the religious traditions or ceremonies you observe are part of your culture.

Every culture in the world has its unique way of life. The families within these cultures pass on their customs and traditions to their children. Within a large society, children are exposed to different cultural experiences. A child in a small farm town has different experiences from those of a child in a large city. From these experiences, children learn the appropriate behaviors of their culture.

Multicultural influences in a society can also affect life experiences within the family, 1-12. Not everyone in a community will have similar views or ways of living. A diverse community can enrich the lives of all. Sharing values and traditions within a community can help members understand one another. This can help them develop mutual respect even though they are different in some ways.

Use What You Learn

What multicultural influences can you identify in your community? In what ways have these influences affected you personally?

The School Environment

School-age children are busy experiencing new situations and becoming more self-reliant. They learn new skills, make new friends, and join group activities. Their interests outside the family grow.

Families can help children adjust to their new environment by providing encouragement, love, and acceptance. They can help children practice skills learned at school. They can attend school events and show an interest in their children's schoolmates. This can help children develop a positive attitude about their schoolwork.

A quality school environment provides a setting that encourages students to learn and grow. School facilities and after-school activities can provide chances for students to interact with schoolmates in clubs or sports. A curriculum should offer a wide range of courses that stimulate students' intellectual growth. Counselors can help students choose courses that meet career needs.

	Multicultural Influence on American Families		
African-	Husband and wife have more equal roles.		
American	Bonds between relatives are strong.		
	Emphasis on intergenerational ties is strong.		
	Children are highly educated.		
	Extended family households are common.		
Hispanic-	The extended family is highly valued.		
American	Cooperation and assistance is common among relatives.		
	Many are bilingual.		
	Catholicism is an important factor.		
Asian-American	Recent immigrants tend to retain values and traditions of homeland.		
	Family ties are strong.		
	Males and females are expected to contribute to family income.		
	Achievement, education, hard work, and loyalty are valued.		
Native-American	Kin include the clan—a group of related families.		
	 Ceremonies and rituals mark transitions into adulthood and contribute to ethnic identity. 		
	Tribal identities and practices are strong.		
European- American	Values and traditions vary widely.		
	Kinship groups are important.		
	Families prefer living close in ethnic neighborhoods.		

1-12 Your cultural heritage can give you a sense of identity and strengthen family bonds.

Teachers in a quality school environment encourage students by helping them find areas in which they can succeed. Some students need praise and encouragement. Some need opportunities to lead. Some need slower-paced materials. Others need more challenging work.

Remember the *use-it-or-lose-it* rule as it applies to the developing brain? The school years are a time to stimulate brain development by exploring many different experiences and repeating them. By repeating them, a permanent impression is made so the skills learned in school are not lost in the future.



The Influence of Peers

Your **peers** are the people who are your age. The influence of your peers is greatest during the teen years. Your relationships with them are

important. You will share many experiences that will influence the way you see yourself. From interacting with your peers, you make judgments about how you look, how important you are, and how successful you are. Your peers can make you feel like you fit in and belong. At other times, they can make you feel left out.

Your peers can also influence the plans you make for your future. You may make decisions about your education based on your peers' choices. You might seek your best friend's opinion of your career or marriage partner. Peers also influence many of your immediate actions since you often face the same decisions that affect them.

Sometimes your peers may make choices that you feel are not right for you. When this happens, you need to make your own choice rather than follow the group. Choices related to sex, alcohol, drugs, and tobacco can affect you for the rest of your life.

Teens can offer understanding to one another as they face similar situations. They can share common experiences and feelings. Peer relationships help you learn what qualities you like or dislike in a friend. You also learn to identify such qualities within yourself. These interactions help teens understand their own identity.

As teens spend time with their friends, they learn to develop close relationships, 1-13. Close friends feel accepted for who they are. They are able to share and communicate deep inner feelings without fear of being embarrassed or laughed at. When young adults have trouble developing such relationships, they feel alone and isolated. Close relationships are important because they help prepare the young adult for marriage.

Your Community's Influence

The community in which you live is part of your environment. Many different types of communities exist, ranging from small towns to big cities. Each community has a particular influence on its residents. A community may influence the jobs that people have, the friends



1-13 Spending time together on common interests can help develop close friendships.

they make, and the activities they join. Most communities offer housing, schools, parks, recreation facilities, police and fire protection, and places to shop and work.

The community environment is influenced by the resources available. A variety of industries or businesses provide job opportunities. A selection of affordable housing allows people to meet their housing needs. Schools with good teaching staffs, facilities, and programs offer quality education. Parks and recreation programs attract families with children.

Other community resources also influence the lives of its residents. Clean air and clean streets provide a healthful environment. A low crime rate makes residents feel more secure and protected. A variety of shopping facilities offer convenience. Opportunities to increase knowledge are provided by libraries as well as technical colleges and universities. Religious institutions draw people of similar beliefs. A community with many resources encourages young people to stay and build a life for themselves and their families.



The Influence of Religion

Within a culture, religious beliefs influence your outlook on life and provide guidelines for living. What is the purpose of life? What should you try to accomplish in life? How should you live your life? What happens when you die?

Religious beliefs can provide meaning and direction to a person's life. Associating with others of the same belief and being an active member of the group is usually an important part of a person's environment, 1-14.

Technology and the Environment

Technology is a powerful element in today's environment. It influences every aspect of life. **Technology** is the practical application of knowledge. Technology is also the process of using knowledge to solve problems.

Look around you—technology is part of your everyday world. New technologies influence the food you eat, the clothes you wear, the car you drive, and the work you do. New technologies may even affect your personal growth and relationships.

You may wonder how one aspect of society can have such a far-reaching impact. Changes in technology have resulted in higher standards of living. More goods are available at lower



1-14 Religious beliefs impact a family's values.

prices. More information is available faster. Fewer people work at labor-intense jobs. Medical advances result in people living longer. These effects are generally considered very positive.

On the negative side, an emphasis on technology may cause people to judge their quality of life by money or material objects. They may spend all their free time using technology, such as playing video games. This may lead to neglecting personal growth and relationships.

Today, new technologies constantly provide the means for new discoveries. Serious thought should be given to the social and human impacts new technologies may have. An understanding of both positive and negative impacts can help you make choices that will lead to personal growth.

The Influence of Media and Electronic Entertainment

Technology has increased the types of media and entertainment sources available. **Media** include television, radio, newspapers, magazines, and the Internet. These are used to communicate with large groups of people and in many cases provide entertainment as well.

Movies, videos, TV shows, video games, MP3 players, and video phones are forms of electronic entertainment that have changed with new technology. As people have more technology in their homes, the creators of media and entertainment can influence the public—sometimes without people realizing it is happening.

Watching television and movies is one of the most popular leisure pursuits. For many individuals, the people seen daily on television become models to imitate. Television provides models for making friends, developing relationships, and achieving romantic success. Are the models you watch on TV healthy models? Are they realistic? Do you agree with the values they portray?

Some research shows a link between violent, aggressive behavior and watching violent videos or playing violent video games. When you choose movies to watch and video games to play, choose carefully. They may affect the way you control your emotions and actions.

Think More About It

How do you feel after playing video games for several hours? What steps can you take to be sure the media you use for entertainment has a positive impact on your life?

The Effects of Advertising

Advertising strongly influences how you spend your money. It is designed to stimulate sales of goods and services by giving you information about the items. Ads can provide useful information about food, clothing, entertainment, and other items. You can find out about new or improved products in the market.

Being aware of how ads influence you can help you make wiser choices. Advertisers conduct research to find out why people prefer certain items over others. That information helps them develop ads that display their products in appealing ways. Advertisers constantly try to persuade you to choose their products over others.

You might want to consider how media influences your daily life, 1-15. What information can be useful to you in your personal growth?

Stress, Violence, and the Global Environment

Today's fast-paced society pressures people to succeed at school, work, and home. It is also a society with increased stress from terrorism, war, and violence. This pressure can put stress on the family and on individual lives.

Some stress is positive because it prompts a person to act. For example, feeling stress over a future test will probably cause you to study



1-15 Advertising affects buying decisions, often unconsciously.

hard for it. The more stress you experience personally, the more it can affect your growth and development.

Extreme or long-term stress can have a negative effect on your growth. It can result in special developmental needs. Constant exposure to stress and violence can put the body in a state known as fight or flight. This is the body's immediate tendency to defend itself or flee to safety. The biological impact of living in this state during development is negative. A child may react by being impulsive, aggressive, and hyperactive. The ability to think logically and develop language skills may also decrease.

A child who has developed in a stressful environment may have special learning needs. This is not necessarily the fault of anyone in particular. Sometimes unknown factors affect the brain's development. It is important that parents, teachers, and others who work with these children understand their special needs and the best ways to help them learn. This help is necessary for the child to reach his or her maximum potential for growth and development. (Additional information about managing stress and its effects is found in Chapter 3.)

Use What You Learn

What are some ways that violence in your environment could affect growth and development? Do you think movies or video games could stimulate a fight-or-flight response?

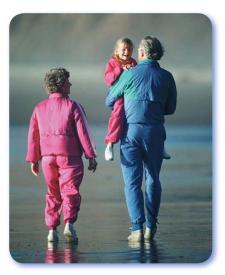
The Environment in the Adult Years

A person's job is a very important environmental influence during the adult years. It influences many aspects of the person's life and identity. Just like young children, adults identify themselves by what they are able to do. A person's job has a title that identifies the worker. If a person works at something that he or she feels is important and worthwhile, it increases personal feelings of worth. Doing a job well gives workers a sense of satisfaction.

Many young adults take a spouse and follow the path of marriage and parenting as they create a new generation. They pass their *heritage*—their family guidelines and beliefs—on to their children. Children become a new influence in the adult's environment. Experiences in parenting and later in grandparenting can also influence an adult's identity. All these family experiences can lead to a full and satisfying life, 1-16.

Responding with Resiliency

Many factors impact how you developed into who you are today. As you study the effects of heredity and environment, you may ask,



1-16 For these grandparents, sharing activities with their grandchild provides feelings of fulfillment.

"What can I do about them now?" Scientists are constantly learning new things about the brain and the human body's amazing ability to respond with **resiliency**. That means the body adjusts to setbacks and makes changes to survive and reach its maximum growth and development. For instance, individuals who suffer an injury to a part of the brain respond by using other parts of the brain not specialized for that role. The brain compensates for its loss as much as possible.

Certain aspects of development may have been hindered by your heredity or your environment. The key question is this: In what ways can you respond with resiliency? What can you do to stimulate your own growth to maximum development?

Remember the brain's potential to keep developing as it gets used? You can learn a new skill, read more, or develop new interests. As you learn something new and expand your interests, your brain development increases. Do not worry about the "brain power" you do not have. Make the most of what you have and you will gain more.

Seek positive experiences that enhance your personal growth and development. These experiences will help you progress to maturity. They encourage you to act independently, tackle challenges, develop your identity, and extend yourself into a new generation.

Review Section 1:3

- List six factors in the environment that might affect a person's growth and development.
- 2. Give two examples of how a family's cultural heritage influences a person's identity.
- Name one advantage of being (A) an older child, (B) a middle child, and (C) the youngest child.
- 4. How can teens help one another mature?
- 5. Explain the biological effect of a stressful environment on the development of the brain.
- 6. What are three aspects of the environment that may become part of an adult's identity?
- Explain what it means to respond to your hereditary and environmental background with resiliency.

Think It Through

A Hereditary Disease

Linda is a sophomore in high school. She has already lived longer than is common for a person in her condition. She has cystic fibrosis. Her parents don't have the disease; neither does her brother or sister. However, the disease is hereditary.

Linda appears healthy to those who meet her, but she doesn't have much longer to live. Every day she undergoes therapy to thin the mucous that affects her breathing and digestion.

Her family members help her with the daily treatments. They have grown very close to one another, realizing that Linda's life will be short. They have also tried to help her live a normal life. She does very well in school. Her grades are high and she has won honors for her achievements.

The stress constantly affects her family. Frequent visits to the hospital strain the family finances. The daily therapy routines take enormous time and energy. Family members also feel the emotional strain of not knowing just how long Linda will live

Questions to Guide Your Thinking

- Who in Linda's family are carriers of cystic fibrosis? Using "D" for a dominant healthy gene and "d" for a gene for cystic fibrosis, identify a gene-type for both her mother and her father.
- What are the chances that each child in this family would have cystic fibrosis? What are the chances that Linda's brother, Dan, and her sister, Tricia, are carriers of cystic fibrosis? (Use a Punnett square to diagram the answer.)
- 3. Why might Linda's siblings seek genetic counseling before getting married and starting their own families? What information should the counselor be able to provide? How could this information affect a marriage?
- 4. Linda's family environment has been affected by her disease. How has her family responded to stimulate Linda's growth and development? Because of Linda's disease, in what areas might the growth of other family members be slowed? In what areas might their personal growth be enhanced?

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Chapter Summary

As a teen, several major changes in your life path await you. These include living on your own. working at a job, choosing a marriage partner, and raising a family. An important step in preparing for such changes is knowing and accepting your personal identity.

You are a unique person. You inherited unique characteristics from your biological parents. Your heredity influences every aspect about you. Your inherited traits can also be passed on to future generations.

The development of your inherited characteristics is influenced by your environment. Everything and everybody in your environment affect your growth and development. Your heredity and environment work together to make you a unique person. Understanding how these factors impact you can help you make choices. These choices can help you reach your full potential for development.

Assess...

Your Knowledge

- 1. Define self-identity, heredity, and environment.
- 2. List the major developmental tasks of the teen years.
- 3. Identify the hereditary factors that affect development.
- 4. Identify the environmental factors that impact development.

Your Understanding

- 5. What can you do to prepare for future life
- 6. How is your life path unique? How is your life path interdependent with others?
- 7. How does each developmental task of the teen years relate to future changes in life?
- 8. How does heredity affect the way a person grows and develops?
- 9. How does a person's environment affect his or her growth and development?

Your Skills

- 10. Evaluate your personal characteristics and explain which ones are influenced by your
- 11. Analyze how the global environment has affected you personally and explain ways that it has affected your growth and development.
- 12. Predict ways you could respond with resiliency to various factors in your life.
- 13. Identify a change that you will face when you graduate from high school. Describe the steps you can take to prepare for that change.

Think Critically

- Writing. Choose one of the following activities and write a paragraph predicting the consequences of the activity. Explain how the action could affect other people, such as family members, friends, classmates, or teachers, Include both direct and indirect effects of the action.
 - Going camping with friends for the weekend.
 - Going out for a school sport.
 - Picking up a part-time job after school.
- 15. Develop a collage of pictures illustrating the factors that make your life path different from others'. What factors contribute to the differences? Include a description of these factors. Choice: Write a paragraph in which you analyze your life and describe how it is similar to and different from others'.
- 16. Imagine your future and diagram what you hope will occur in your life path. Include the major events you want in your life. Describe three major decisions you must make in order to achieve your goals. Choice: Write a song or poem that depicts the three major decisions.
- Evaluate your present learning environment for factors that stimulate your growth. Consider all areas of growth, including physical, social, emotional, and intellectual. Identify the sights, sounds, smells, tastes, textures, and objects that stimulate your senses. Organize your findings in a graph or chart. Choice: Write a two-page paper explaining your findings.

Connect with Your Community

- Science. Investigate a career related to medical genetic research and describe the types of jobs available. What are the educational requirements and job potential for a job in this field? Choice: Talk with your family physician to find out which specialist you would see if you had health questions related to your genetic heritage.
- 19. Research. Interview someone who has experienced a hereditary disease. Include questions related to attitudes about the disease. how the disease affects the other family members, and fears about the disease affecting future generations. Consider how the disease impacts a person's ability to live alone or hold a job. Choice: Identify community resources available to help people with hereditary diseases. Group option: Work with a partner.
- 20. Reading, Writing, Read two news articles from vour local newspaper and identify how that information affects you directly or indirectly. Then respond to one article by writing a "Letter to the Editor," expressing your views on that topic, Be prepared to share with the class how your views could impact others in your community.
- Writing. Write a biography, poem, or song describing the life of a typical young person growing up in your community. Include a description of environmental factors that will influence the person's growth and development.

Use Technology

- 22. Use a computer drawing program to create a family tree that includes you, your parents, grandparents, and great-grandparents. Identify the physical traits you possess that can be traced to members included in your family tree. Choice: Determine the average number of years for a life span in your family.
- 23. Identify a change that a typical teen might expect to experience in the next year. Determine what he or she would need to know about this change. Identify two or more sources of this information, including at least one Internet site: gather information; and identify what skills could help a teen adjust to this change. Use the information to prepare a multimedia presentation and present your findings to the class. Group option: Work in a small group to prepare the presentation.
- 24. Science. Search the Internet to explore how technology has expanded the research on human genes and disease traits. Key search terms include human genome and biotechnology companies. Prepare a onepage report on one aspect of such technology. Present to the class an issue that the use of such technology could raise in the future.
- 25. Research. Develop a questionnaire you can use to survey others' feelings related to future life changes. Survey three classmates, three adults your parents' age, and three older adults. Categorize their responses into Changes That Are Feared and Changes That Are Anticipated. Using a computer and a graphing program, design a chart or graph showing each age group and the number of changes feared or anticipated. Compare your findings with others in the class. Group option: Work in a small group using the total responses of the group.