

Chapter 19**Vocabulary**

fertilization
implantation
embryo
fetus
amniotic sac
umbilical cord
placenta
labor

prenatal care
birthing center
fetal alcohol syndrome (FAS)
miscarriage
stillbirth
heredity
chromosomes
genes

DNA
genetic disorder
amniocentesis
CVS
gene therapy
developmental task
autonomy
scoliosis

Directions: Use the clues to solve the puzzle. Write one letter of each answer in the space provided. Then unscramble the letters in boxes to complete the sentence at the bottom of the page.

- Confidence that a person can control his or her own body, impulses, and environment
- The spontaneous expulsion of a fetus before the twentieth week of pregnancy
- The union of a male sperm cell and a female egg cell, also known as conception
- The passing of traits such as eye color from parents to children
- The name for an embryo after eight weeks of development
- An abnormal sideways curvature of the spine that may begin in childhood
- The thick, blood-rich tissue that lines the walls of the uterus during pregnancy and nourishes the embryo
- Inserting normal genes into cells to correct genetic disorders
- The zygote attaching to the uterine wall
- Most body cells contain 23 pairs of these threadlike structures that carry the genetic code
- Ropelike structure that connects the embryo and the mother's placenta
- Procedure in which a syringe is inserted into the amniotic fluid to test for genetic disorders

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

Regular examinations; proper nutrition; plenty of water; regular , moderate exercise; and avoidance of all harmful substances help ensure a(n) _____

Activity 69**Applying Health Skills**

FOR USE WITH CHAPTER 19, LESSON 1

It All Happens Before Birth

Directions: Read the following list of events in the stages of embryonic and fetal development. Then fill in the chart by placing each event in the trimester when it usually occurs.

1. Fetus may dream
2. Heart begins beating
3. Fingers and toes form
4. Weight increases rapidly
5. Embryo becomes fetus
6. Fetus can hear conversations
7. Fetus passes water from the bladder
8. Baby is ready to be born
9. Nervous system responds to stimuli
10. Fetus weighs 6 to 9 pounds
11. Fetus has regular sleep/wake cycle
12. Fetus uses all five senses
13. Fetus develops human profile
14. Limbs reach full proportion
15. Fetus can kick

First Trimester	1. _____ 2. _____ 3. _____ 4. _____ 5. _____
Second Trimester	1. _____ 2. _____ 3. _____ 4. _____ 5. _____
Third Trimester	1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Activity 70**Applying Health Skills**

FOR USE WITH CHAPTER 19, LESSON 2

Ask the Doctor

Directions: Dr. Maybelle writes a daily newspaper column and welcomes questions from her audience of readers. Using information from Lesson 2, help the doctor by responding to each writer.

1. Dear Dr. Maybelle:

Since I learned that I was pregnant, my husband has nagged me if I have a beer or a glass of wine. Why should I give up alcoholic drinks while I am pregnant? What is so urgent about that?

2. Dear Dr. Maybelle:

This is my first pregnancy and I am concerned about proper nutrition for me and the baby. Are there certain foods I should be eating or not eating?

3. Dear Dr. Maybelle:

Someone told me that now that I am pregnant, I have to be sure to eat plenty because, after all, I am eating for two people—me and my baby. Is this true? I don't want to be too fat after the baby is born.

Activity 71**Applying Health Skills**

FOR USE WITH CHAPTER 19, LESSON 3

Early Tests

I. Directions: It is important to diagnose genetic disorders early. Read the following scenarios and decide which genetic test, if any, would be appropriate.

1. Kaya is 27 years old. She is six weeks pregnant. Although she is perfectly healthy, she has just learned that she is a cystic fibrosis (CF) carrier and so is her husband. They want to test their baby for chromosome abnormalities as soon as possible.

2. Alison is 16 weeks pregnant. She is 42 years old and is concerned about chromosome abnormalities. Not only is her age an issue, but more important, she and her husband have four children, one with Down syndrome. They want to find out whether their next baby has Down syndrome.

3. Shani is 24 years old and is pregnant for the first time. Her mother wants to knit booties and hats and has to know whether the baby is a boy or a girl and needs an idea of size. Shani and her husband agree that buying clothes and decorating would be easier if they knew the baby's gender and size.

II. Directions: Some of the following statements are true. Some are false. In the space provided, indicate if the statement is true or false. If the statement is false, restate it to make it true.

1. Scientists have identified 2,000 human genetic disorders.

2. If a person has poor nutrition, none of the inherited traits will be affected.

Applying Health Skills, Activity 71 (Continued)

FOR USE WITH CHAPTER 19, LESSON 3

3. In humans, gender is determined by two pairs of chromosomes.

4. DNA is composed of chemical compounds called bases.

5. Genetic engineering is a well-established tool that is used by the medical profession.

6. All cells in the human body contain 23 pairs of chromosomes.

7. All human traits are determined by a single pair of genes.

8. Genetic disorders are always evident at birth.

9. The Human Genome Project is an international effort to map all the genes on the human chromosomes.

10. Cells in your body use your genetic code to build glucose molecules.

Activity 72**Applying Health Skills**

FOR USE WITH CHAPTER 19, LESSON 4

Growth Means Changes

Directions: Read the following descriptions of some developmental tasks. In the space provided, identify which stage of infancy and childhood is being described.

1. Damone is sorry that he lied to his mother. _____
2. Julia's mother is happy that Julia has developed self control.

3. Ceil has learned to control her emotions. _____
4. Jon depends on others for all his needs. _____
5. Ernesto is proud because he has learned to dress himself. _____
6. Jacob spends a lot of time working on his model airplane. _____
7. Brad starts talking in sentences. _____
8. Carlos has his own ideas about playing. He doesn't always want to do what Joey is doing. _____
9. Maria's weight has tripled. _____
10. Chun tells his uncle that his favorite subject in school is math.

11. Pam's mother says she has never known anyone who asks as many questions as Pam does. _____
12. Juyong develops a sense of trust in people. _____
13. Jose has learned to climb. _____
14. Susie's height has increased by 50 percent. _____
15. Rhondelle and her friends love to play make believe with their dolls.

16. Mike is especially pleased that his dad noticed the hard work he did to clean up the yard and put the fence back together after the storm.

Chapter 19**Study Guide**

- STUDY TIPS:**
- Read *You'll Learn To* for each lesson.
 - Look up the meaning of any unfamiliar vocabulary terms.
 - Read the questions below before you read the chapter.

Directions: As you read the chapter, answer the following questions. Later, you can use this guide to review the information in the chapter.

Lesson 1

1. Explain how a zygote is formed. _____

2. What is implantation? _____

3. What is an embryo? _____

4. What is a fetus? _____

5. What is the relationship of the amniotic sac and the umbilical cord to the developing embryo? _____

6. How are the usual nine months of pregnancy divided? _____

7. What is labor? _____

Lesson 2

8. Explain what prenatal care is. _____

9. What is involved during prenatal visits with an obstetrician or a certified nurse-midwife? _____

10. Explain fetal alcohol syndrome (FAS) and what causes it. _____

Study Guide, Chapter 19 (Continued)

11. How might the use of tobacco by a pregnant female affect her fetus and her child after birth? _____

12. What is the best policy for a pregnant female regarding medicines? _____

13. What are some possible effects if a pregnant female uses illegal drugs? _____

14. What are four environmental hazards that can affect a fetus? _____

15. Explain the difference between a miscarriage and a stillbirth. _____

16. What is an ectopic pregnancy? _____

17. What are symptoms of preeclampsia and why is it serious? _____

Lesson 3

18. Give three examples of hereditary traits in humans. _____

19. Explain the relationship between chromosomes and genes. _____

20. What is DNA? _____

Study Guide, Chapter 19 (Continued)

21. What happens to chromosomes as the zygote continues to divide? _____

22. What is the difference between dominant and recessive genes? _____

23. What determines the sex of an individual? _____

24. What are genetic disorders? _____

25. What are two common procedures used to test for genetic disorders? _____

26. What is the Human Genome Project? _____

27. Explain what gene therapy is. _____

Lesson 4

28. How many developmental stages do individuals pass through during a lifetime?

29. What are developmental tasks? _____

30. What are the first four stages of development? _____

31. Explain what autonomy means. _____
