

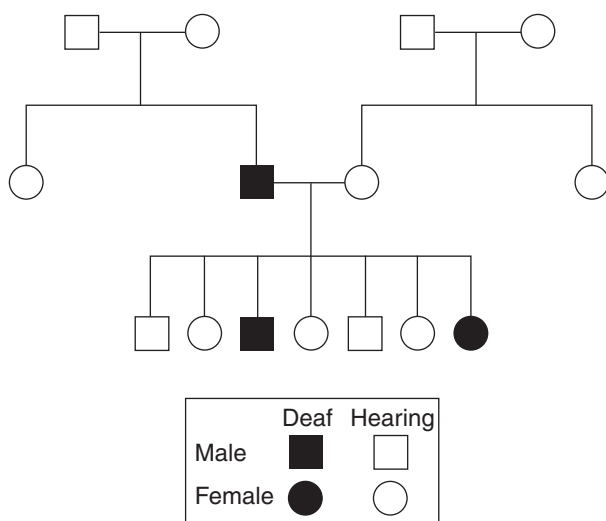
# Chapter 14 The Human Genome

# Chapter Vocabulary Review

**Completion** On the lines provided, complete the following sentences with one of the following terms:

**autosomes karyotype pedigree polygenic sex chromosomes**

1. A picture of chromosomes arranged in pairs is an example of a \_\_\_\_\_.
2. The X and Y chromosomes are called the \_\_\_\_\_.
3. The 44 chromosomes that are not involved in sex determination are the known as the \_\_\_\_\_.
4. The chart below, showing how a trait is passed from one generation to the next in a family, is called a \_\_\_\_\_.



5. Traits that are controlled by many genes are \_\_\_\_\_.

**Multiple Choice** On the lines provided, write the letter of the answer that best completes the sentence or answers the question.

- \_\_\_\_\_ 6. Genes located on X or Y chromosomes are called
  - a. sex organs.
  - b. autosomes.
  - c. a pedigree.
  - d. sex-linked.
- \_\_\_\_\_ 7. One example of a sex-linked disorder is
  - a. sickle cell disease.
  - b. hemophilia.
  - c. Down syndrome.
  - d. Tay-Sachs disease.
- \_\_\_\_\_ 8. Nondisjunction results in a(an)
  - a. abnormal number of traits.
  - b. abnormal number of chromosomes.
  - c. normal number of genes.
  - d. normal number of chromosomes.

- \_\_\_\_\_ 9. What happens when nondisjunction occurs?
- Chromosomes fail to separate.
  - Chromosomes separate normally.
  - The person develops colorblindness.
  - The number of sex chromosomes decreases.
- \_\_\_\_\_ 10. How is DNA fingerprinting commonly used?
- to convict criminals or overturn convictions
  - to sequence all human DNA
  - to rapidly sequence DNA with computers
  - to identify and locate human genes
- \_\_\_\_\_ 11. DNA samples for human DNA fingerprinting can be obtained from
- Escherichia coli*.
  - viruses.
  - Drosophila melanogaster*.
  - human blood.

**Short Answer** *On the lines provided, answer the following questions.*

12. What type of picture would a biologist look at to determine whether a fetus has Down syndrome?

---



---

13. Why are the X and Y chromosomes called sex chromosomes?

---



---

14. How many autosomes are found in a human diploid cell?

---



---

15. What type of chart would help a genetic counselor track the passage of a trait through the generations of a family?

---



---