

## Genetics

Name:

### Unraveling DNA

Period:

Use Chapter 7, Section 2 of your textbook to answer the questions below.

#### Section 2: How DNA Works (p.212)

- \_\_\_\_\_ 1. How much DNA does a human cell contain?  
a. less than 1 m      b. about 2 m      c. more than 10 m      d. about 30,000 m

#### Unraveling DNA (p.212)

2. \_\_\_\_\_ package DNA tightly into cells.
3. A \_\_\_\_\_ is made from the DNA molecule and the proteins it winds around.
4. In a eukaryotic cell, long strands of DNA and proteins are called \_\_\_\_\_ .
5. Before a eukaryotic cell \_\_\_\_\_, chromatin is bundled up into compact chromosomes.
6. The structure of DNA is what allows it to hold \_\_\_\_\_ .
7. In DNA, it is the order of \_\_\_\_\_ that make a code to carry information.
8. A string of nucleotides that tell the cell how to make a trait is called a \_\_\_\_\_ .
9. Look at Figure 1, part a. Where is the DNA found in the cells of the girl? \_\_\_\_\_
10. Look at Figure 1, part b. How is the chromatin bundled in the nucleus? \_\_\_\_\_
11. Look at Figure 1, part c. What is the DNA in the chromatin coiled around? \_\_\_\_\_
12. Look at Figure 1, part d. How many strands of DNA are connected in the middle? \_\_\_\_\_
13. Look at Figure 1, part e. What must a cell copy before it can divide? \_\_\_\_\_
14. Look at Figure 1, part e. What is formed by two identical chromatids? \_\_\_\_\_
15. Look at Figure 1, part f. How many chromosomes does each human cell have? \_\_\_\_\_

