

# Test: The Role of DNA

## Part I: Matching

**Directions:** Match the term in Column A with the correct definition in Column B. Write the letter on the line provided.

### Column A

- \_\_\_\_\_ 1. DNA
- \_\_\_\_\_ 2. Gene
- \_\_\_\_\_ 3. Chromosome
- \_\_\_\_\_ 4. Trait
- \_\_\_\_\_ 5. Nucleus
- \_\_\_\_\_ 6. Heredity
- \_\_\_\_\_ 7. Protein
- \_\_\_\_\_ 8. Cell
- \_\_\_\_\_ 9. Genetic Information
- \_\_\_\_\_ 10. Mutation

### Column B

- A. A change in DNA sequence
- B. The basic unit of life
- C. Instructions passed from parents to offspring
- D. A structure in the cell that contains DNA
- E. A section of DNA that controls a specific characteristic
- F. A molecule that carries genetic information
- G. A structure made of DNA and proteins
- H. A characteristic inherited from parents
- I. A large molecule built using DNA instructions
- J. The process by which traits are passed from one generation to the next

**Part II: Fill-in-the-Blank: Directions:** Use the words from the word bank to complete each sentence.

### Word Bank

DNA      genes      chromosomes      nucleus      traits  
heredity      proteins      mutation      cell      instructions

- 11. \_\_\_\_\_ carries the genetic information in living organisms.
- 12. Segments of DNA that control inherited characteristics are called \_\_\_\_\_.
- 13. DNA is organized into structures called \_\_\_\_\_.
- 14. In most cells, DNA is found in the \_\_\_\_\_.
- 15. Characteristics passed from parents to offspring are called \_\_\_\_\_.
- 16. The passing of traits from one generation to the next is known as \_\_\_\_\_.
- 17. DNA contains \_\_\_\_\_ for building molecules needed by the body.
- 18. DNA provides the code for making \_\_\_\_\_.
- 19. A change in the DNA sequence is called a \_\_\_\_\_.
- 20. The basic unit of life is the \_\_\_\_\_.

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### Part III: True or False

**Directions:** Write **T** for True or **F** for False.

21. \_\_\_\_\_ DNA contains the instructions needed for life.
  22. \_\_\_\_\_ Genes are found on chromosomes.
  23. \_\_\_\_\_ Traits cannot be inherited from parents.
  24. \_\_\_\_\_ The nucleus contains the cell's DNA.
  25. \_\_\_\_\_ Proteins are made using instructions found in DNA.
  26. \_\_\_\_\_ All living organisms contain cells.
  27. \_\_\_\_\_ A mutation is a change in DNA.
  28. \_\_\_\_\_ Chromosomes are made entirely of water.
  29. \_\_\_\_\_ Heredity explains how traits are passed from parents to offspring.
  30. \_\_\_\_\_ DNA plays no role in determining an organism's characteristics.
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