

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 _____.

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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