

# Quiz: Inheritance & Variations of Traits

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## Part I: Matching

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

### Column A

1. Trait
2. Gene
3. Allele
4. Inheritance
5. Variation
6. Dominant Trait
7. Recessive Trait
8. Chromosome
9. Heredity
10. DNA

### Column B

- A. Different forms of the same gene
  - B. A characteristic passed from parent to offspring
  - C. The passing of traits from parents to offspring
  - D. A segment of DNA that determines a trait
  - E. Differences in traits among individuals
  - F. Trait that is expressed only when two recessive alleles are present
  - G. Trait that masks another trait when present
  - H. Structure that carries genetic information
  - I. The transmission of genetic characteristics from parents to offspring
  - J. Molecule that contains genetic instructions
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## Part II: Multiple Choice: Directions: Circle the best answer.

11. What is a trait?
  - a. A type of cell
  - b. A characteristic of an organism
  - c. A chromosome
  - d. A protein
12. Which structure contains genes?
  - a. Ribosome
  - b. Chromosome
  - c. Cell membrane
  - d. Cytoplasm
13. What is heredity?
  - a. The study of rocks
  - b. The passing of traits from parents to offspring
  - c. A type of mutation
  - d. Cell division

14. Which molecule carries genetic information?
    - a. Water
    - b. Protein
    - c. DNA
    - d. Glucose
  15. What causes variation among individuals?
    - a. Differences in genes and environment
    - b. Identical DNA in all organisms
    - c. Lack of chromosomes
    - d. Cell size
  16. An allele is:
    - a. A type of cell
    - b. A form of a gene
    - c. A chromosome
    - d. A protein
  17. Which trait is expressed when at least one dominant allele is present?
    - a. Recessive trait
    - b. Inherited trait
    - c. Dominant trait
    - d. Environmental trait
  18. Why might siblings have different traits?
    - a. They inherit different combinations of alleles
    - b. They have different species of DNA
    - c. They do not inherit genes
    - d. They lack chromosomes
  19. Which of the following is an example of an inherited trait?
    - a. A scar
    - b. Hair color
    - c. A sunburn
    - d. A learned skill
  20. Variation within a population is important because it:
    - a. Prevents inheritance
    - b. Helps populations adapt to changing environments
    - c. Eliminates genes
    - d. Stops evolution
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