

Name \_\_\_\_\_

## Decoding the Genetic Blueprint: Understanding DNA Translation

### Multiple Choice Questions

1. What is DNA translation?
  - a) The process of making an exact copy of a DNA molecule.
  - b) The process of converting DNA into RNA.
  - c) The process of making proteins from DNA.
  - d) The process of breaking down DNA molecules.
  
2. Where does translation occur in eukaryotic cells?
  - a) Nucleus
  - b) Cytoplasm
  - c) Mitochondria
  - d) Cell membrane
  
3. What is the role of messenger RNA (mRNA) in translation?
  - a) Adding new nucleotides to the growing RNA strand
  - b) Unwinding and separating the two strands of the DNA
  - c) Carrying the genetic code from the nucleus to the ribosomes
  - d) Synthesizing a complementary RNA molecule
  
4. What is transfer RNA (tRNA)?
  - a) A type of protein
  - b) A double-stranded molecule
  - c) A single-stranded RNA molecule that carries the genetic instructions from DNA to the ribosomes
  - d) A molecule that transports specific amino acids to the ribosome
  
5. Why is understanding translation important?
  - a) It allows scientists to study how genes are expressed and regulated.
  - b) It helps scientists study the behavior of birds.
  - c) It helps scientists understand the weather patterns.
  - d) It helps scientists develop new types of cars.

