

Name \_\_\_\_\_

## Nitrogen Fixation: Nature's Nitrogen Miracle

### Multiple Choice Questions

1. What is the main enzyme involved in nitrogen fixation?
  - a) Nitrogenase
  - b) Photosynthesis
  - c) Nitrate reductase
  - d) Chlorophyll
  
2. Which type of bacteria form symbiotic relationships with certain plants for nitrogen fixation?
  - a) Decomposer bacteria
  - b) Nitrosifying bacteria
  - c) Nitrogen-fixing bacteria
  - d) Denitrifying bacteria
  
3. What is the primary form of nitrogen produced through biological nitrogen fixation?
  - a) Nitrogen gas ( $N_2$ )
  - b) Ammonia ( $NH_3$ )
  - c) Nitrate ( $NO_3^-$ )
  - d) Nitrite ( $NO_2^-$ )
  
4. How do free-living nitrogen-fixing bacteria contribute to nitrogen fixation?
  - a) By forming symbiotic relationships with plants
  - b) By converting atmospheric nitrogen into ammonia in root nodules
  - c) By existing independently in soil or aquatic environments
  - d) By fixing nitrogen abiotically through lightning strikes
  
5. Which industrial process artificially fixes nitrogen gas into ammonia?
  - a) Photosynthesis
  - b) Respiration
  - c) Denitrification
  - d) Haber-Bosch process

