

Name _____

Nitrogen in Flux: Human Impact on the Nitrogen Cycle

Open-Ended Response Questions

1. Investigate the role of nitrogen-fixing crops, such as soybeans and alfalfa, in reducing the need for synthetic fertilizers and mitigating nitrogen pollution in agricultural systems.
2. Explore the effectiveness of sustainable farming practices, such as cover cropping, crop rotation, and precision agriculture, in minimizing nitrogen runoff and preserving water quality in agricultural landscapes.
3. Discuss the challenges and opportunities associated with implementing policies and regulations to reduce nitrogen emissions from industrial sources and mitigate their impacts on human health and the environment.
4. Reflect on the interconnectedness of the nitrogen cycle with other biogeochemical cycles, such as the carbon and phosphorus cycles, in shaping ecosystem dynamics and resilience.

