

What Goes Around Comes Around

Name: _____

In this activity, you will take on the role of a nitrogen atom and experience how nitrogen cycles through the environment. Record each step of the journey in the chart below and assemble models out of gumdrops and toothpicks.

Station	Starting Location	Starting Form	Process	What Happened?	Ending Location	Ending Form	Atom, Compound, or Molecule?
Ex	Fertilizer	NO_3^-	Denitrification	Bacteria convert to nitrogen gas	Atmosphere	N_2	Molecule
1							
2							
3							
4							
5							
6							
7							

What Goes Around Comes Around *(continued)*

Think About It!

Complete all seven station rotations before answering the following questions.

1. How many different forms of nitrogen did you become in this cycle?

2. Explain how plants obtain nitrogen.

3. Explain how humans and animals obtain nitrogen.

4. Although you started as a single nitrogen atom (N) you never returned to a single nitrogen atom in this cycle. Why?

5. Explain the role of bacteria in the nitrogen cycle.

6. Predict what would happen if the bacteria population in an ecosystem decreased suddenly.

7. We know that matter cannot be destroyed. Hypothesize what happened to the atoms that were “lost” during some of the transformations.

8. How could human activity adversely or beneficially affect the natural cycling of nitrogen in the environment? Identify one realistic example and explain how the nitrogen cycle would be affected.
