The Nitrogen Cycle Game

Pre-Lab:

1. Where is nitrogen found on Earth?

2. Why is Nitrogen important in ecosystems?

The Activity:

1. You will be nitrogen atoms moving through the nitrogen cycle.
2. Nitrogen is found in reservoirs. The places are located around the room
3. You will be assigned to a station in the room to begin the activity.
4. Students should make a line and roll the die individually to follow the directions for movement from (or retention at) each station. Record your movements as a nitrogen atom on the data sheet. Be sure to describe how you got from one place to another.
5. Once the nitrogen atom (YOU) has had a chance to roll the die ten times, enter the amount of times you were at each station onto the running class tally (see board)

Data Table: _____

Stop #	Location of Stop	What happens?	Destination
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Data Analysis and Conclusions

1. **Draw a picture** of the nitrogen cycle (include: Live animals, ocean, soil, fertilizer, live plants, groundwater, rain water, surface water, atmosphere, dead plants/animals, animal waste). Use arrows to show the movement of Nitrogen.

2. What important organisms were missing from the model/game? _____

3. Will your journey ever really end? _____

4. Was anyone's journey the same? Why or why not?

5. Where was most of the Nitrogen "pooled" up? _____

6. What would happen to the nitrogen cycle if people used too much fertilizer on their lawns? (this would mean everyone would start from the fertilizer station at the same time).

7. What would happen to the nitrogen cycle if we have more deforestation?

8. Brainstorm: Can you think of any other ways that humans could influence the nitrogen cycle? Explain.