Name	Per

Instructions: print out and write your answers directly on this paper. Handwritten only.

## PART 3: APES CONTENT #1

## Crash Course: Nitrogen and Phosphorus Cycle Guided Viewing Worksheet

- 1. What percent of nitrogen and phosphorus are in an animal's body?
- 2. What do we need Nitrogen to make?
- 3. What do we need Phosphorus to make?

## The Nitrogen Cycle:

- 4. What percentage of the atmosphere is Nitrogen? What form is atmospheric Nitrogen in?
- 5. What is the chemical formula for Nitrate? \_\_\_ Nitrite? \_\_\_ Ammonium? \_\_\_
- 6. What is Nitrogen Fixation?
- 7. What are Nitrogen Fixing Bacteria?
- 8. What plants are in the Legumes Family? What does it mean that they form a symbiotic relationship?
- 9. What form of Nitrogen is usable by plants? What enzyme makes it useful?
- 10. What does Nitrifying bacteria do?
- 11. What other things can break Nitrogen molecules apart?
- 12. What is Denitrifying bacteria? Which enzyme does this?

## The Phosphorus Cycle

- 13. What is special about the Phosphorus Cycle?
- 14. What is the Lithosphere? What special type of rock is rich in Phosphorus?
- 15. What is a lithotroph?
- 16. How do Phosphates end up in the water? In the Soil?
- 17. A single Phosphorus atom can get trapped in a cycle for how long?
- 18. Diagram a real world example of the Phosphorus Cycle on the back side of this paper.
- 19. What are the main ingredients in fertilizers?
- 20. Why is too much of Nitrogen and Phosphorus bad for the environment?