Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Cycles Worksheet**

**Nitrogen Cycle:**

1. Draw the nitrogen cycle on this sheet.
2. Where can nitrogen exist on earth (atmosphere, land, water)?
3. Where is nitrogen used on land specifically?
4. Why is extra nitrogen in the water not a good thing?
5. What is nitrogen fixation? Where does it take place (soil, atmosphere…etc.)?
6. What is nitrification? Where does it take place (soil, atmosphere…etc.)?
7. What is assimilation? Where does the nitrogen for assimilation come from?
8. What is denitrification? Where does it take place (soil, atmosphere…etc.)?
9. What is ammonification? Where does the nitrogen for ammonification come from?

**Carbon Cycle**

1. Draw the carbon cycle on this sheet.
2. Where can carbon exist on earth (atmosphere, land, water)?
3. What are human causes for carbon entering the atmosphere?
4. How does carbon enter the ocean from the atmosphere and why?
5. How does carbon leave the ocean from the atmosphere and why?
6. How does carbon leave the land and go to the atmosphere and why?

**Phosphorus Cycle**

1. Draw the phosphorus cycle on this sheet.
2. Where can phosphorus exist on earth (atmosphere, land, water)?
3. What are human-caused contributors that take phosphorus from land and put phosphorus in water?
4. What are natural contributors that take phosphorus from land and put phosphorus in water?
5. Why is extra phosphorus in the water not a good thing?
6. How does phosphorus get back to the land? (hint: think about sedimentary rocks)

**Sulfur Cycle**

1. Draw the sulfur cycle on this sheet.
2. Where can sulfur exist on earth (atmosphere, land, water)?
3. What are natural ways for sulfur to get into the atmosphere?
4. What are human caused ways for sulfur to get into the atmosphere?
5. Why is too much sulfur in the atmosphere and bad thing?

**Short Answer on Quiz:**

Write down **two pieces of evidence on your opinion** from case study journal topics on the following:

1. Chasing Coral
2. Prayer for the Ganges
3. Ocean Acidification