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

 Ecology

Webquest- Part 2

**Biogeochemical Cycles**

***Carbon Cycle***

1. Why is carbon so significant?
2. How do plants use carbon dioxide?
3. How has burning fossil fuels changed the composition of the atmosphere?
4. Examine the picture of the carbon cycle and summarize how carbon flows through an ecosystem.

***Water Cycle***

1. How do plants and animals play a part in the water cycle?
2. What is the process of transpiration?
3. Examine the picture of the water cycle and summarize how water flows through an ecosystem.

***Nitrogen Cycle***

1. Where can nitrogen be found?
2. What role do nitrogen-fixing bacteria play in the nitrogen cycle?

1. What role do decomposers play in the nitrogen cycle?
2. Explain the process of denitrification.

***Phosphorus Cycle***

1. Why is phosphorus a concern in surface waters?
2. How does phosphorus reach surface waters?

Play Eco-Detectives to investigate The Peril River Problem & discover what Eutrophication & Biomagnification is. Click “Start a New Game”

**Eutrophication & Biomagnification**

1. What can you conclude about species abundance and diversity in the Peril River Watershed area?
2. What can you conclude about dissolved oxygen in the Peril River Watershed area?
3. How does dissolved oxygen affect living organisms in the river?
4. How effective has monitoring and regulating nitrate runoff been at addressing the problem of low species diversity and abundance?
5. Compared to the original condition of the river, how has monitoring and regulating nitrate fertilizer runoff affected water quality in the Peril River Watershed?
6. How effective has reducing DDT been at addressing the problem of low species diversity and abundance?
7. Compared to the original condition of the river, how has the reduction in DDT affected water quality in the Peril River Watershed?