**Intervention Cycling WebQuest**

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**Directions: Visit the following websites and answer the related questions. Your goal is to gain a**

**better understanding of the carbon, nitrogen and water cycle and to understand the common soil**

**profile.**

Background: In biogeochemical cycles (including carbon, water and nitrogen cycles), elements are

transported between the atmosphere, biosphere (living things), hydrosphere (water), and geosphere

(rocks, minerals, and soils). These cycles help us remember that Earth is a complex system.

Carbon Cycle**: Go to http://www.windows.ucar.edu/tour/link=/earth/Water/co2\_cycle.html and**

**Answer these questions:**

 1. Draw the carbon cycle:

2. How does carbon exist in the atmosphere?

 3. How are fossil fuels created?

 4. Describe two ways that carbon enters the atmosphere.

 5. How are the oceans involved in the carbon cycle?

 6. How is the temperature of the Earth partly controlled by carbon?

 7. What role do rocks have within the carbon cycle?

**Go to: http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/N/NitrogenCycle.html and answer these questions.**

20. What percentage of the air we breathe is nitrogen?

 21. Even though considerable nitrogen is available in the air, most plants do not use the nitrogen

(N2) found in the air. Why not?

 22. In what compounds can plants use nitrogen?

 23. How do animals get the nitrogen they need?

 24. Atmospheric nitrogen (N2) is pretty inert. This means that it does not easily break apart. When

molecules do not break apart easily, it is difficult to impossible for organisms to use them as a

nutrient source. As a result, **nitrogen fixation** is the term used to describe the process of

breaking up N2. What is biological fixation? (In your answer, describe the types of plants associated

with the symbiotic relationship.)