

Env. Science 120 – Home Learning week 3

Hey guys! Welcome to week 3 of Home Learning. Below is our next assignment. This might take some time, so I am giving two weeks for this assignment. So, no worries about getting it done by next Friday if you run out of time.

Email me your answers at Jessica.doucet@nbed.nb.ca if you would like some feedback 😊

Here is the outcome that this assignment covers:

- demonstrate an awareness and understanding of the concepts of energy flow, and chemical cycling (carbon, nitrogen, phosphorus, water, oxygen) that support ecological systems
- keep in mind that we are only looking at the carbon, nitrogen and water cycle in this assignment.

WebQuest: The Cycling of Materials – Carbon, Nitrogen, and Water

When scientists talk about cycles, they are talking about sequences of events that repeat themselves. In the biosphere, cycles can be very complex. There are many different types of elements and nutrients in each ecosystem. These elements cannot be made or destroyed, but they can change their location. In this way, elements cycle through the biosphere. These cycles are called **biogeochemical cycles**.

Go to: https://www.windows2universe.org/?page=/earth/climate/cycles_general.html and answer the following questions:

Click on the carbon cycle

Take note of the carbon cycle diagram.

1. What five things is the element carbon a part of?

2. How does carbon move from the atmosphere to plants?

3. How does carbon move from plants to an animal?

Click on the nitrogen cycle

Take note of the nitrogen cycle diagram.

1. Where is the most of earth's nitrogen located?
2. For what do plants and animals need nitrogen?
3. In what ways is nitrogen broken apart into usable components?
4. Where do plants get nitrogen?
5. Where do animals get nitrogen?
6. How does the nitrogen get into the soil?

7. What is the role of bacteria in the nitrogen cycle?
8. Name two things that increase the amount of nitrogen in the nitrogen cycle.
9. What is caused by the increased nitrate levels?

Click on the water cycle.

Take note of the water cycle diagram.

1. What are the states of matter water goes through during the water cycle?
2. How does water vapor get into the atmosphere?
3. What is transpiration?

4. What is condensation?

5. What are examples of precipitation?

6. How long can a drop of water spend in the ocean?