

Computers: Biogeochemical Cycles



Directions:

Go to the following websites and answer the questions below on your own paper. You will need a computer, your textbook, and colored pencils.

Phosphorus

Go to: <http://www.wwnorton.com/college/biology/discoverbio3/core/content/ch24/animations.asp>

Click on "Phosphorus Cycle"

Click on "step through"

1. Identify if the phosphorus cycle has a gaseous component.
2. List 3 ways humans have impacted the phosphorus cycle.
3. Explain the connection between phosphorus, fertilizers, and algae blooms

Click on "Intro"

Click on "Quiz"

4. Which type of global cycle characterizes the movements of phosphorous?
5. What is the main reservoir of phosphorous on Earth?

Go to page 68 of your textbook...

6. Sketch and Label the Phosphorus Cycle

Sulfur

Go to: <http://www.wwnorton.com/college/biology/discoverbio3/core/content/ch24/animations.asp> (same as above)

Click on "Sulfur Cycle"

7. How does Sulfur enter the atmosphere?
8. What occurs when too much sulfur dioxide enters the atmosphere?
9. How does Sulfur Dioxide harm the environment?

Click on "Intro"

Click on "Quiz"

10. Which type of global cycle characterizes the movements of Sulfur?
11. What is the main source of Sulfur in Acid Rain?

Go to page 69 of your textbook...

12. Sketch and label the Sulfur Cycle

Nitrogen

Go to: <http://bcs.whfreeman.com/thelifewire/content/chp58/5802004.html>

Click on "animation"

Click on "step through"



13. Explain the process of nitrogen fixation, and the role of nitrifying bacteria.

14. Define Ammonification and Denitrification.

15. Define Nitrification and Assimilation

Click on "conclusion"

16. How have humans interfered in the Nitrogen cycle?

Click on "Quiz"

17. What kind of organism converts atmospheric nitrogen into a form that other organisms can use?

18. Which type of molecule contains Nitrogen?

19. Which process refers to the conversion nitrates to nitrogen gas?

Go to: <http://water.epa.gov/type/watersheds/named/msbasin/hypoxia101.cfm>

20. Describe what is causing the Dead Zone in the Gulf of Mexico.

Go to page 67 of your textbook

21. Sketch and label the Nitrogen Cycle

Water

Go to: <http://bcs.whfreeman.com/thelifewire/content/chp58/5802001.html>

Click on "animation"

Click on "step through"

22. Where is most of the Earth's water contained?

23. What primarily drives the cycling of water?

Click on "conclusion" – read this

Click on "quiz"

24. Which event does NOT contribute significantly to the global hydrological cycle?

25. The hydrological cycle operates because...

26. Evaporation of water from leaves of plants is called...

Go to page 63 of your textbook

27. Sketch and label the Water Cycle