

Carbon Cycle Web quest

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.

Visit the website: http://www.windows.ucar.edu/tour/link=/earth/Water/co2_cycle.html

Review the carbon cycle diagram.

1. How does carbon exist in the atmosphere?
2. How are fossil fuels created?
3. Describe two ways that carbon enters the atmosphere.
4. How are the oceans involved in the carbon cycle?
5. How is the temperature of the Earth partly controlled by carbon?
6. What role do rocks have within the carbon cycle?

Click "Play the Carbon Cycle Game" or

Go to http://www.windows.ucar.edu/earth/climate/carbon_cycle.html to play the carbon cycle game.

You are a carbon atom!

7. Where are you starting within the carbon cycle?

"Click to begin your journey"

8. How much of the atmosphere is made of carbon dioxide (CO_2)?

9. By how much has CO_2 increased in the atmosphere during the past 150 years?

As you work through this game, take some notes about where you go as a carbon atom. Make sure you visit all reservoirs!

10. Next stop = _____
What did you learn?

11. Next stop = _____
What did you learn?

The deep ocean accounts for more than _____ % of the Earth's carbon.

How much carbon does the surface ocean absorb from the atmosphere each year?

True or False: When plants die and decay, they bring carbon into soil.

12. Next stop = _____
What did you learn?

13. Next stop = _____
What did you learn?

14. Next stop = _____
What did you learn?