

Name: _____

WEBQUEST - THE CARBON CYCLE

Directions: Visit the following websites and answer the related questions. Your goal is to gain a better understanding of the carbon cycle.

Task 1- 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?

Task 2- Go to <https://utah.pbslearningmedia.org/resource/b1943ed9-9781-4d75-872f-ee5b26fe28a6/the-roots-of-the-carbon-cycle/#.WNsm9BrJ0u> Launch the interactive and answer the following questions.

8. Is there more carbon in the soil or the atmosphere?
9. What is another word for plant matter?
10. List two ways carbon becomes part of the soil?
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11. How does the gaseous carbon get back in the atmosphere?
12. Pick 3 different combinations of soil structure, moisture and temperature and explain the effects they have on the carbon cycle.

Structure	Moisture	Temperature	Type of environment & effects of carbon

Task 3- Go to https://www.sciencelearn.org.nz/image_maps/3-carbon-cycle and answer the following questions.

13. List the 7 places that carbon is stored.

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14. List 5 ways carbon is added to the atmosphere.

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15. Click on “sediments & sedimentary rocks”. What types of sedimentary rocks store carbon?

16. Click on “atmosphere”. How much carbon is in the atmosphere?

17. Click on “ocean surface”. How much carbon is on the ocean surface?

18. Click on “deep ocean”. How much carbon is in the deep ocean?

19. Click on “burning.” What gas are we releasing into the atmosphere when we cut down and burn trees?

20. Click on “carbon dioxide exchange.” There is about ____ times as much carbon in the ocean as there is in the atmosphere.

21. Click on “phytoplankton”. Explain two things that can happen as the phytoplankton mature.

a.

b.

22. Click on “vegetation”. How much carbon is stored in vegetation?

23. Click on “respiration”. Carbon dioxide is a _____ product of respiration.

24. Click on “decay”. In the soil, _____ (such as microbes and soil animals) break down dead plant material. This process also releases _____ into the atmosphere.

25. Click on “coal, oil, gas”. How much carbon is stored in coal, oil and gas?