Carbon Cycle Notesheet C. Kohn, Waterford WI

Name: Hour Date:

Date Assignment is due: Why late? Score: + ✓ -
 Day of Week Date If your project was late, describe why**Directions**: Use the accompanying PowerPoint (*available online*) to complete this sheet. This sheet will be due upon the completion of the PowerPoint in class. These assignments are graded on a +/✓/- scale.

1. Carbon is an , or a
2. Atoms are
3. What does this mean?
4. What is a molecule?
5. How do we know that water is a molecule?
6. Draw each of the following below its name:

Oxygen Carbon Dioxide Water Methane
7. All living organisms are , meaning that
8. What are two reasons for why carbon is so widely-used among living organisms?

1

2
9. Carbon atoms are

as different organisms acquire the carbon they need to
10. What is the carbon cycle?
11. Draw the carbon cycle below. Be sure to include the following: a) CO2, b) green plants, c) animals, d) decomposing matter, e) combustion, f) arrows showing both how CO2 is absorbed and how CO2 is released.
12. The carbon cycle begins with in the .
13. What is carbon dioxide?
14. Plants absorb from the in order to make

 , the simplest
15. Plants rearrange ( ) from the and

( ) from the to make

( ) and ( ).
16. Draw photosynthesis below. Be sure to include the following: a) sunlight; b) CO2, c) water, d) a leaf, e) sugar, f) oxygen, and g) arrows showing what is absorbed and what is released.
17. What is photosynthesis?
18. What substances are absorbed during photosynthesis?
19. What substances are produced during photosynthesis?
20. Sugars, starches, and fiber are all called . What is a carbohydrate?
21. Can an animal get the energy it needs directly from the sun? Can a plant?
22. If neither plants nor animals can get the energy they need directly from the sun, how do these organisms acquire the energy they need?
23. Explain why plants are called producers and animals are called consumers:
24. Why do plants produce glucose? (Hint: it’s not produced for animals):
25. All carbohydrates consumed by animals are broken down into . The

cells of animals use this glucose to create

to .
26. The process in which plant and animal cells use and is

called . In respiration, what is taken into cells?

and . In respiration, what is released from cells? and
27. Do both plants AND animals release carbon dioxide during respiration? YES NO
28. What is an organic molecule?
29. What is an inorganic molecule?
30. Is an organic molecule the same kind of “organic” as organic food? YES NO
31. Organic carbon molecules that make up organisms are broken down by organisms called
32. Decomposers include (such as ),

and some animals such as .
33. Decomposers convert into

 . What would happen if there were no decomposers?
34. In order to function properly, the carbon cycle must be .
35. We cannot change the ; we can only

change the amount of in which
36. True or False: we can change the amount of carbon that exists.
37. True or False: we can change the amount of organic carbon molecules that exist.
38. For living organisms to function properly, the amount of released into

the by ,

and should roughly equal the amount of carbon dioxide
39. What process decreases the amount of carbon dioxide in the air?
40. What processes increase the amount of carbon dioxide in the air?
41. Carbon dioxide has that can hold
42. For this reason, carbon dioxide has an on the atmosphere.
43. The more in the , the

more that the atmosphere can hold. This means that air with more carbon dioxide

will than air with less carbon dioxide.
44. As CO2 levels increases, there will likely be flooding and droughts.
45. How does the production of food depend on the carbon cycle?
46. True or false: the carbon in our bodies, and the carbohydrates that help power our cells, comes from plants.
47. How could an imbalanced carbon cycle affect crop & animal production?
48. True or false: most evidence shows that the changes in climate today are due to natural causes.
49. The amount of carbon dioxide because of ,

 , and is greater than the carbon

dioxide through .
50. How does the rate of change of climate today compare to how quickly climate would normally change?
51. Evidence suggests that the extra carbon dioxide in the atmosphere is due to the use of
52. Burning fossil fuels quickly releases large amounts of and into the air.

Unit Wrap-up C. Kohn, Agricultural Sciences - Waterford WI

This page is designed to help raise your grade while enabling you to develop skills you will need for after high
school. You will need to complete every question and blank in order to receive full credit for your notes. Note: if you cannot come up with a strategy to remember a difficult concept on your own, see your instructor for help.

1. What is a topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:
2. What is a 2nd topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:
3. What is a 3rd topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:
4. Circle the most appropriate response. You will only be graded on whether or not you completed this section.

Circle one: *I used my notes outside of class to prepare for the quiz.* Definitely – Yes – Sort of - No

Circle one: *I took extra notes in the margins for very difficult concepts.* Definitely – Yes – Sort of - No

Circle one: *I created a personal strategy for at least three difficult items.* Definitely – Yes – Sort of - No

Circle one: *I was very involved and actively studying during the quiz review.* Definitely – Yes – Sort of - No

Circle one: *I think I will be satisfied with the quiz grade I received this week.* Definitely – Yes – Sort of - No

Circle one: *I might need to meet with the instructor outside of class.* Definitely – Yes – Sort of - No