Cell Biology Notesheets by 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

1. How is the flame of a candle not like something that is alive?

*Page through this notesheet. Then answer the questions below:*  
Circle one: *I need to review my notes & practice before the quiz.* Definitely – Yes – Sort of - No

Circle one: *I have never seen or heard of some of these concepts.* Definitely – Yes – Sort of - No

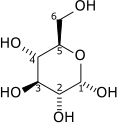
Circle one: *This may be a challenging unit for me personally.* Definitely – Yes – Sort of - No

Circle one: *I may need extra strategies for some topics/vocab.* Definitely – Yes – Sort of - No

1. What is a cell? What makes something a cell? List everything that is necessary:
2. How is the flame of a candle like something that is alive?
3. What is necessary for something to be alive? List everything required for life:

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**Directions**: Use the accompanying PowerPoint (<http://bit.ly/cellbiologynotes>) to complete this sheet. This is graded on a + ✓- scale.

1. What four things are necessary for something to be considered alive?  
     
   1   
     
   2   
     
   3   
     
   4
2. What is homeostasis?
3. The smallest \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ unit of matter is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. What are the three parts of the atom? List AND describe:  
     
   Part: Description:   
     
   Part: Description:   
     
   Part: Description:
5. What would happen to the charge of an atom if it lost an electron?
6. Opposite charges are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to each other; similar charges \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ each other
7. Atoms group together to form .
8. What is an example of a molecule?   
     
   Draw this molecule to the right 🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪
9. When atoms form molecular bonds, they usually
10. To break apart a molecule, you
11. What is a macromolecule?
12. What is a common example of a macromolecule?
13. At the molecular level, proteins are   
    1. Proteins are like
14. Cells are
15. What are cells made of?
16. What is an organelle?
17. List AND describe 5 organelles of a cell:  
      
    Organelle: Description:   
      
    Organelle: Description:   
      
    Organelle: Description:   
      
    Organelle: Description:   
      
    Organelle: Description:
18. What is a tissue?
19. What is an organ?
20. What is a system?
21. All living things require to be .
22. Cells need energy to such as   
      
    \_
23. What do all living cell use as their primary source of energy? What is ATP?   
      
    \_
24. ATP is sort of like a How so?   
      
    \_
25. List the 2 most important differences between ATP and ADP:   
      
    \_
26. How is uncharged ADP recharged back into ATP?   
      
    \_
27. What is the “charger” that turns ADP back into ATP?
28. What goes into ATP Synthase? What comes out of ATP Synthase?
29. Where is ATP Synthase mostly found? Where is it also found?
30. ATP Synthase is like a tiny . What happens every time this   
      
    “wheel” turns?
31. What turns the ‘wheel’ of ATP Synthase?   
      
    Where does this come from? \_
32. In the image to the right, circle what powers ATP Synthase 🡪 🡪 🡪 🡪 🡪 🡪 🡪
33. After it powers the wheel, each hydrogen atom must be   
    from the mitochondria.
34. What would happen if hydrogen was not continuously removed from the mitochondria?   
      
    \_
35. What removes the used hydrogen from the mitochondria?
36. What forms and is breathed out when oxygen binds to two hydrogen atoms?
37. What would happen if we stopped consuming foods that are rich in hydrogen?   
      
    \_ Why would this happen?   
      
    \_
38. What would happen if our mitochondria did not have access to oxygen?   
      
    \_ Why would this happen?   
      
    \_   
      
    \_

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, so be entirely honest with yourself when completing 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