

Name: _____ Date: _____ Period: _____

Cell Biology-Standards Based Worksheet – Chapters 8 and 9. Pages 200-239.

Answer the following standards-based questions in the space provided. You may attach additional paper if necessary.

1. What is the difference between an autotroph and a heterotroph? Give one example of each. (Page 201)

2. What is ATP? Draw the molecule and label its three parts.(Page 202-203)

3. Compare at least two differences between ATP and ADP. (Page 202-203)

ATP	ADP

4. Write the chemical equation for photosynthesis. Underneath the chemical equation write the word equation. (Pg. 206)

Chemical Equation	
Word Equation	

5. What is the light absorbing pigment found in the chloroplast called? What two colors does it absorb best? Fill in the blanks. (Page 207)

The light absorbing pigment is _____.

It absorbs the colors _____ and _____ best.

A) Predict how oxygen production by a plant would change if you placed it in permanent red or blue light. Why do you expect this to happen?

6. Draw the chloroplast and label the thylakoid and stroma. Include the name of the photosynthesis reaction that occurs in each. (Pg. 209)
7. Complete the chart comparing the light-dependent reaction and the Calvin cycle of photosynthesis. Include the location of the reaction, compounds present at the beginning, and compounds produced at the end. (Pgs. 210-213)

Name of PSN Phase	Location?	Starts with?	Ends with?

8. What is a calorie? (Page 221)

9. Write the chemical formula of respiration. Underneath the chemical formula, write the word equation for respiration. (Page 222)

Chemical Equation	
Word Equation	

10. What is lactic acid fermentation? Where and why does it occur? (Pg. 223-225)

What is lactic Acid Fermentation?
Where does it occur?
Why does it occur?

11. Compare the three stages of cellular respiration. Indicate the name of the respiration stage, where it occurs, its reactants, and its products. (Pg. 223, 226-229)

Respiration Stage			
Where?			
Reactants (starting material)?			
Products (end results)?			

12. How does a runner receive quick energy and long-term energy? (Page 230-231)

13. Compare photosynthesis to cellular respiration by completing the following chart. (Pg. 232)

	Photosynthesis	Respiration
Function		
Location		
Reactants		
Products		
Chemical Equation		

14. Complete the following Standardized Test Prep Questions: #1-10 on Page 219 and #1-10 on Page 239.

P. 219 Answer	Reason or Page Number	P. 229 Answer	Reason or Page Number
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	
7.		7.	
8.		8.	
9.		9.	
10.		10.	