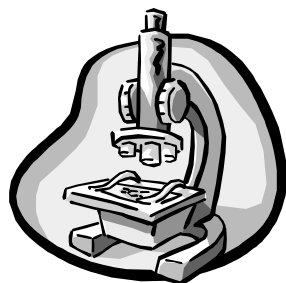




Science 10-Biology

Activity 7

Worksheet on Photosynthesis and Cellular Respiration



10

Name _____
Due Date _____
Show Me <input type="checkbox"/> Hand In <input type="checkbox"/>
Correct and Hand In Again By _____

NOTE: This worksheet is based on material from pages 341-343 in the Science Probe Textbook.

1. Give one example of an "energy rich" compound _____
2. *Photosynthesis* occurs in the _____ of the cell.
3. How do plants obtain their energy-rich compounds? _____

4. *Chloroplasts* contain a green substance called _____ which is used in the process of photosynthesis.
5. What is the main *energy source* for photosynthesis? _____
6. Write the *word equation* for photosynthesis.

7. Write the *balanced chemical equation* for photosynthesis.

8. Give the chemical formula for *glucose*. _____
9. Explain how cells can store the energy from glucose and get it back for later use.



10. Why can't *starch* molecules get through the cell membrane? _____

11. *Animals* cannot carry out photosynthesis. They obtain their energy-rich compounds by eating _____ or _____
12. Explain why leaves turn colour in the fall. (See bottom right margin of page 341.)

13. The term "respiration" in animals simply refers to _____.
Cellular respiration takes place in _____ cell of the body.
14. During cellular respiration, the energy stored in glucose during photosynthesis is _____.
15. Cellular respiration requires a *gas* called _____.
How does this gas get to every cell in the human body? (Recall Science 9!) _____

16. Write the simple ***word equation*** for *cellular respiration*.

17. Write the ***balanced chemical equation*** for *cellular respiration*.

18. The equations above summarize the process. Is the process actually more complex than this? _____
19. Most of the processes of cellular respiration take place in the _____ inside the cells.
20. Why are *mitochondria* found in both animal and plant cells? _____



21. Why are *chloroplasts* found only in plant cells and not in animal cells? _____

22. Cellular respiration requires *oxygen*. How was the oxygen on the earth produced? _____
23. Cellular respiration produces a gas called *carbon dioxide*. What process *uses* carbon dioxide? _____
24. What are some of the ways that humans are interfering with the balance of photosynthesis and cellular respiration? _____

25. Make a copy of the diagram in Figure 15.15 on the right side of page 343. Label it, colour it and make sure you understand how the two processes are related.