Test: Photosynthesis and Cellular Respiration

Part A: Multiple Choice: Choose the best answer.

1. What is the primary purpose of photosynthesis?
   a. To release energy from food
   b. To produce glucose using sunlight
   c. To break down glucose
   d. To absorb oxygen
2. Where does photosynthesis take place?
   a. Mitochondria
   b. Nucleus
   c. Chloroplasts
   d. Ribosomes
3. Which gas is absorbed by plants during photosynthesis?
   a. Oxygen
   b. Carbon dioxide
   c. Nitrogen
   d. Hydrogen
4. What is the main product of photosynthesis?
   a. Water
   b. Carbon dioxide
   c. Glucose
   d. Nitrogen
5. Cellular respiration occurs mainly in the:
   a. Chloroplasts
   b. Cell membrane
   c. Mitochondria
   d. Nucleus
6. Which gas is released during photosynthesis?
   a. Carbon dioxide
   b. Oxygen
   c. Nitrogen
   d. Hydrogen
7. What is the purpose of cellular respiration?
   a. To make glucose
   b. To store sunlight
   c. To release energy from food
   d. To absorb oxygen
8. Which of the following is a reactant of cellular respiration?
   a. Oxygen
   b. Water
   c. Carbon dioxide
   d. Sunlight
9. What type of energy do cells produce during respiration?
   a. ATP
   b. Glucose
   c. Sunlight
   d. Chlorophyll
10. Photosynthesis and cellular respiration are:
    a. Unrelated processes
    b. Opposite processes
    c. The same process
    d. Only found in animals

Part B: True or False: Write **T** or **F**

11. _____ Plants perform photosynthesis.
12. _____ Cellular respiration occurs only in plants.
13. _____ Photosynthesis requires sunlight.
14. _____ Oxygen is a product of photosynthesis.
15. _____ Glucose is used during cellular respiration.
16. _____ Mitochondria are known as the "powerhouses" of the cell.
17. _____ Cellular respiration releases energy.
18. _____ Carbon dioxide is produced during cellular respiration.
19. _____ Chlorophyll helps plants capture sunlight.
20. _____ Photosynthesis takes place in mitochondria.

LIVEWORKSHEETS

Part C: Fill in the Blank

Word Bank:

chloroplasts mitochondria oxygen carbon dioxide

glucose ATP sunlight respiration

21. Plants use _____ to power photosynthesis.

22. Photosynthesis occurs in the _____.

23. The sugar produced during photosynthesis is called _____.

24. During photosynthesis, plants take in _____.

25. During photosynthesis, plants release _____.

26. Cellular respiration occurs mainly in the _____.

27. The usable energy produced by cells is called _____.

28. Cellular _____ breaks down glucose to release energy.

Part D: Matching: Match the term with its description.

Term	Description
29. Photosynthesis	A. Energy molecule used by cells
30. Cellular Respiration	B. Process that releases energy from glucose
31. Chlorophyll	C. Green pigment that captures sunlight
32. ATP	D. Process that makes glucose using sunlight
33. Mitochondria	E. Organelle where respiration occurs

LIVEWORKSHEETS