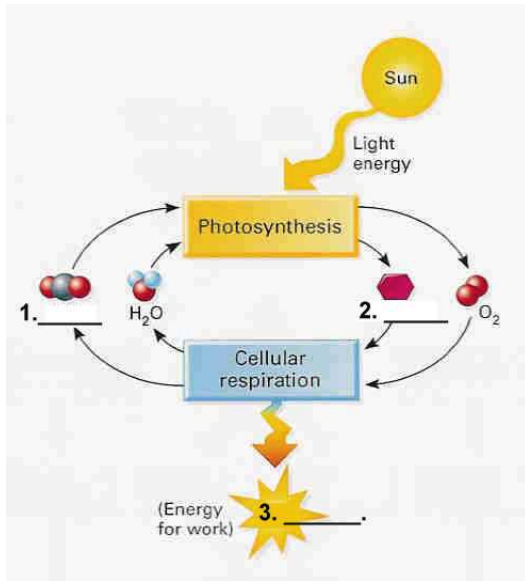


EL Cellular Respiration Pre/Post Test

For each question, pick the best answer or choose the term or phrase that best completes the sentence:



Use the letters from the following key to correctly complete the diagram above. Enter your answers in questions 1-3:

- a. carbon dioxide
- b. oxygen
- c. glucose
- d. ATP
- e. water

1. _____

2. _____

3. _____

4. The main function of photosynthesis is to

- a. create energy
- b. produce food for the human population
- c. convert light energy to the chemical energy stored in sugar
- d. release carbon dioxide to the atmosphere
- e. generate light

5. For ANY type of work to occur, there must be a source of

- a. sugar.
- b. sunlight.
- c. energy.
- d. ATP.
- e. oxygen.

6. To say that "a bowl of ice cream has a lot of calories" means that

- a. the ice cream is mostly water.
- b. the ice cream will generate a lot of heat as it melts.
- c. the ice cream is rich in molecules that store a lot of energy.
- d. the ice cream has frozen water crystals.
- e. a person eating the ice cream will use a lot of body heat to melt and digest the ice cream.

7. The main function of cellular respiration is to

- a. use the energy stored in food to generate ATP for cellular work.
- b. use sunlight to produce sugar.
- c. convert oxygen to water so that cells do not dry up.
- d. get rid of the carbon dioxide that builds up in working cells.
- e. break ATP down to ADP so that cells can perform work.

8. Which of the following statements about cellular respiration is INCORRECT?

- a. Cellular respiration occurs in animal cells but not in plant cells.
- b. Cellular respiration releases some heat.
- c. Cellular respiration releases energy from sugar in a series of steps rather than all at once.
- d. Cellular respiration breaks sugar down to carbon dioxide.
- e. Cellular respiration is an aerobic process.

9. Glycolysis occurs in the _____; whereas the Krebs cycle and electron transport chain occurs in the _____.

- a. nucleus, mitochondria
- b. cytosol, nucleus
- c. mitochondria, cell membrane
- d. cytosol, mitochondria
- e. mitochondria, cytosol

10. During vigorous exercise, human muscles begin to function under anaerobic conditions and accumulate the waste product

- a. ATP.
- b. NADH.
- c. carbon dioxide.
- d. ADP.
- e. lactic acid.

11. In humans and other mammals, breathing supports cellular respiration by

- a. providing glucose as fuel to cells.
- b. exchanging O₂ and CO₂ between the blood and the atmosphere.
- c. pumping blood to all the cells of the body.
- d. getting rid of the waste products of fermentation.
- e. storing calories that cells can use for ATP production and work.

12. Which equation below represents the process of cellular respiration?

- a. glucose + fructose → sucrose + water
- b. sucrose + water → glucose + fructose
- c. carbon dioxide + water + light energy → glucose + oxygen
- d. glucose + oxygen → carbon dioxide + water + ATP
- e. water → hydrogen + oxygen