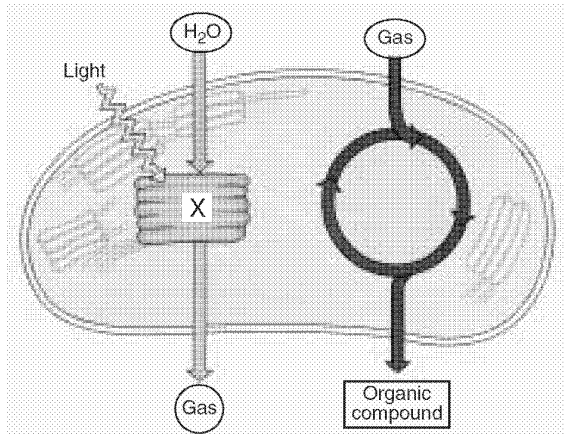


Photosynthesis Star 1

Name: _____

Date: _____

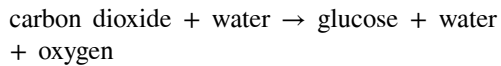
1. The accompanying diagram represents part of a life process in a leaf chloroplast.



If the process illustrated in the diagram is interrupted by a chemical at point X, there would be an immediate effect on the release of

- A. chlorophyll B. nitrogen
C. carbon dioxide D. oxygen

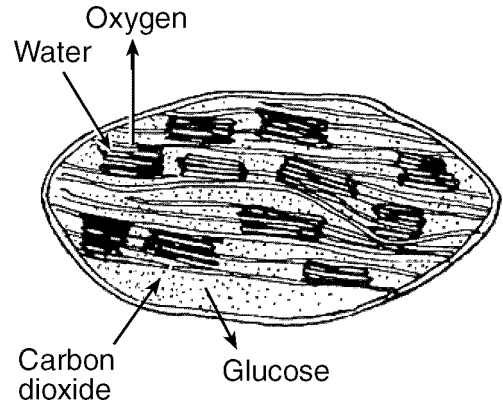
2. The equation below represents a summary of a biological process.



This process is completed in

- A. mitochondria B. ribosomes
C. cell membranes D. chloroplasts

3. The diagram below illustrates the movement of materials involved in a process that is vital for the energy needs of organisms.



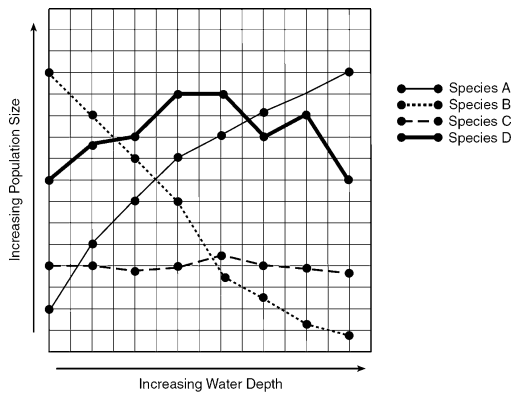
The process illustrated occurs within

- A. chloroplasts B. mitochondria
C. ribosomes D. vacuoles

4. Chlorophyll gives plants their green color. Chlorophyll is produced only when plants are exposed to light, so plants kept in darkness have no chlorophyll and appear white. The best explanation for this is that

- A. chlorophyll is not needed by green plants at night
B. darkness mutates the chlorophyll genes, causing them to produce a white color
C. light is required for chlorophyll genes to be expressed
D. genetic information in cells is not influenced by the outside environment

5. As the depth of the ocean increases, the amount of light that penetrates to that depth decreases. At about 200 meters, little, if any, light is present. The accompanying graph illustrates the population size of four different species at different water depths.



Which species most likely performs photosynthesis?

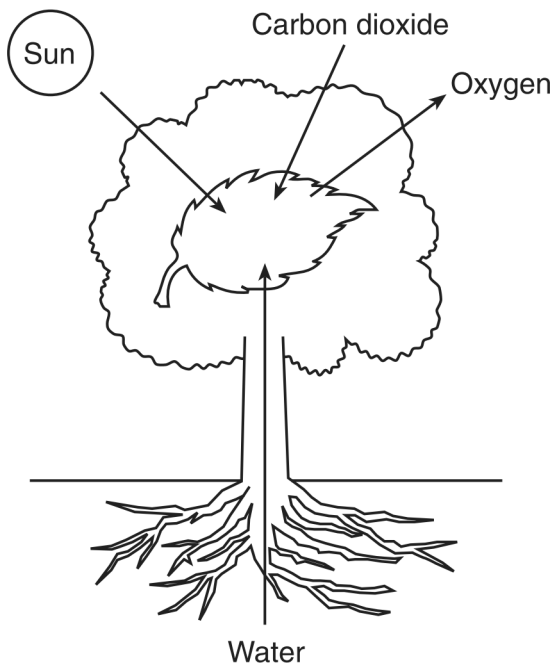
- A. A B. B C. C D. D

6. Which process is directly used by autotrophs to store energy in glucose?
- A. diffusion B. photosynthesis
C. respiration D. active transport
7. Which process initially provides the link between an abiotic factor and the energy needs of an entire ecosystem?
- A. respiration B. photosynthesis
C. decomposition D. predation

8. Carbon dioxide makes up less than 1 percent of Earth's atmosphere, and oxygen makes up about 20 percent. These percentages are maintained most directly by

- A. respiration and photosynthesis
B. the ozone shield
C. synthesis and digestion
D. energy recycling in ecosystems

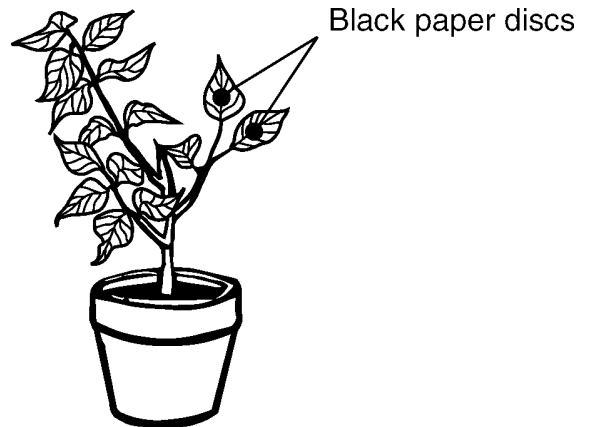
9. The diagram below represents events associated with a biochemical process that occurs in some organisms.



Which statement concerning this process is correct?

- A. The process represented is respiration and the primary source of energy for the process is the Sun.
- B. The process represented is photosynthesis and the primary source of energy for the process is the Sun.
- C. This process converts energy in organic compounds into solar energy which is released into the atmosphere.
- D. This process uses solar energy to convert oxygen into carbon dioxide.

10. The diagram below represents the setup for an experiment. Two black paper discs are opposite each other on both sides of each of two leaves.



This experimental setup would most likely be used to show that

- A. glucose is necessary for photosynthesis
- B. protein is a product of photosynthesis
- C. light is necessary for photosynthesis
- D. carbon dioxide is a product of photosynthesis

1.
Answer: D
2.
Answer: D
3.
Answer: A
4.
Answer: C
5.
Answer: B
6.
Answer: B
7.
Answer: B
8.
Answer: A
9.
Answer: B
10.
Answer: C