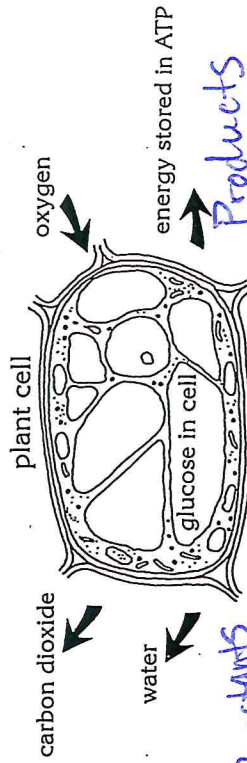


Respiration

Respiration is the process by which energy is released for cell use.



General Formula for Respiration



- Complete the comparison chart below by indicating the way each component listed is used or produced:

	Photosynthesis	Respiration
a. glucose	Produced	Used
b. oxygen	Produced	Used
c. carbon dioxide	Used	Produced
d. water	Used	Produced

- The energy for respiration comes from Glucose & Oxygen.
- What are the products of respiration? Carbon Dioxide, water, Energy

- In fermentation, glucose is broken down and carbon dioxide and alcohol are produced. Is fermentation a form of photosynthesis or respiration? Respiration

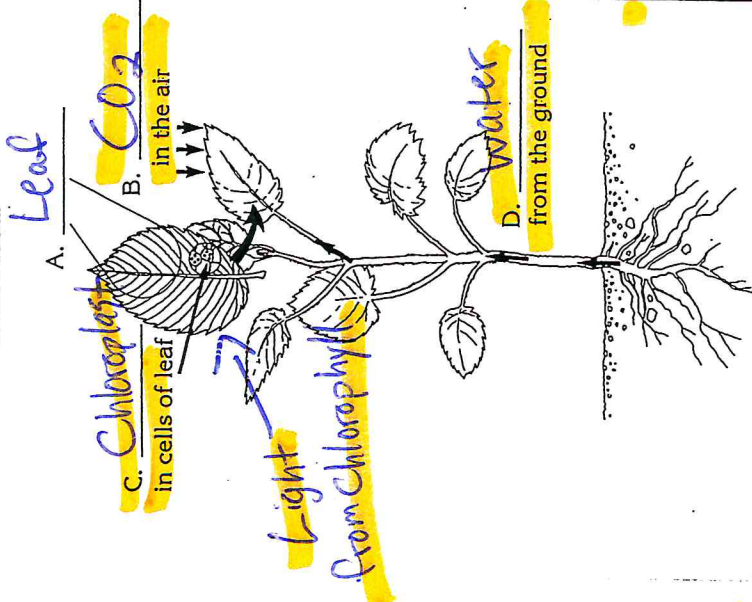
Explain your answer: _____

- Write photosynthesis or respiration before each statement.

- Respiration occurs day and night
- Both occurs in all living plant cells
- Respiration produces carbon dioxide gas
- Photosynthesis Glucose is formed.
- Photosynthesis Chlorophyll is energized.

Photosynthesis

Photosynthesis is the process by which green plants manufacture food.



sunlight



Chlorophyll absorbs sunlight energy; some is stored in the compound ATP.



Energy is released to split water molecule.



Hydrogen can combine with carbon dioxide.



Simple sugars (glucose) are formed.

General Formula for Photosynthesis
(in the presence of light energy)



Reactants: CO_2 , H_2O
Products: $\text{C}_6\text{H}_{12}\text{O}_6$, O_2

- On lines A-D, label the major components of photosynthesis.
- What compound serves to transfer and store energy for later use?

- What is the general chemical equation for photosynthesis?

- What gas is released into the air as a result of photosynthesis?

- What inorganic substances are necessary for photosynthesis?

- Could photosynthesis occur in a plant on a cloudy day? Explain your answer.