

Comparing Cellular Respiration to Photosynthesis

	Cellular respiration	Photosynthesis
<i>Location</i>		
<i>End Result</i>		

	Oxidative phosphorylation	Photophosphorylation
<i>Source of Electrons</i>		
<i>Direction of pumping of H⁺ ions for electrochemical gradient</i>		

Additional Comparison notes:

Photosynthesis vs. Aerobic Cellular Respiration

PHOTOSYNTHESIS	RESPIRATION
1. Stores energy in sugar molecules	1. Releases energy from sugar molecules
2. Uses carbon dioxide and water	2. Releases carbon dioxide and water
3. Increases weight	3. Decreases weight
4. Occurs only in light	4. Occurs in either light or darkness
5. Occurs only in cells containing chlorophyll	5. Occurs in all living cells
6. Produces oxygen in green organisms	6. Utilizes oxygen (aerobic respiration)
7. Produces ATP with light energy	7. Produces ATP with energy released from sugar

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Photosynthesis	Aerobic cellular respiration

Additional comparison of structures:

