

Metabolism:

1. What is the difference between anabolism and catabolism? Between photosynthesis and cellular respiration, which one is an example of which type of metabolism?
2. A. What is cellular respiration? B. Where does it occur? C. What is the general formula for cellular respiration? What does ATP have to do with cellular respiration?
3. Describe *in general terms* (6-8 steps) the process of cellular respiration from glycolysis to the ETC. Focus on the starting materials, the waste generated, the carrier molecules involved and the end products. Be sure to include what happens to glucose, pyruvate, NADH/FADH, H₂O, CO₂, Oxygen, ATP, electrons, H⁺ ions. (Tip: review what was described in class.)
4. What is fermentation? Under what conditions does it occur? What types of organisms do fermentation? Can humans do it?
5. 4. A. What is photosynthesis? B. Where does it occur? C. What is the general formula for photosynthesis? What types of organisms do photosynthesis? What special “equipment” is needed for photosynthesis?
6. Describe *in general terms* (five or six steps) the process of photosynthesis from the ETC to the Calvin Benson Cycle. Focus on the starting materials, the waste generated, the carrier molecules involved and the end products. Be sure to include what happens to sunlight, NADH/FADH, H₂O, CO₂, Oxygen, ATP, electrons, H⁺ ions.
7. What is the difference between the so-called “light reactions” and the “dark reactions” of photosynthesis?