

Cell Energy Review

Photosynthesis

1. What organelle and organism does photosynthesis? (5pts)
2. What is the equation for photosynthesis? (5pts)
3. Where does each part of photosynthesis take place? (Specific part of organelle) (6pts)
4. Why does the water split in the light reaction? Where does the O₂ go? (6pts)
5. What comes into the disks when the excited electron gets passed from protein to protein? (4pts)
6. What enzyme is used to make ATP? (4pts)
7. What are the 2 products of the light reaction that is then used up in the Calvin cycle? (6pts)
8. What combines with the 5 carbon molecule at the start of the Calvin cycle (came in from the atmosphere)? (4pts)
9. What is the main product at the end of the Calvin cycle? (6pts)
10. What are 3 things that can affect the rate of photosynthesis? (4pts)

Cell Respiration

1. What organelle and organism does cell respiration? (5pts)
2. What is the equation for cell respiration? (5pts)
3. What are the 2 types of fermentation and what molecule is NOT present in order to do fermentation? (6pts)
4. Where does each part of cell respiration take place in the cell? (6pts)
5. How much ATP is produced at each of the 3 steps of cell respiration? (6pts)
6. When glucose breaks down in Glycolysis, what molecule is made and what is the other small molecule released besides ATP? (4pts)
7. What 2 molecules get released at the start of the Krebs cycle when the 3-carbon molecule gets broken down into acetyl CoA? (4pts)
8. What products are made in the Krebs cycle? (6pts)
9. What is the final electron acceptor molecule in the electron transport chain? What molecule is made when it binds to hydrogen? (4pts)
10. What happens to the carrier molecules in the electron transport chain step? What is the name of the enzyme that makes the ATP in the electron transport chain? (4pts)