

PHOTOSYNTHESIS SUMMARY SHEET

Answer each of the questions to the best of your ability on a SEPARATE piece of paper.

1. Draw and label a molecule of ATP.
2. How is energy stored in and released from ATP?
3. What is the overall equation for cellular respiration?
4. Copy and complete the following table:

Process	In	Out	Purpose
Glycolysis			
Kreb Cycle			
ETC			

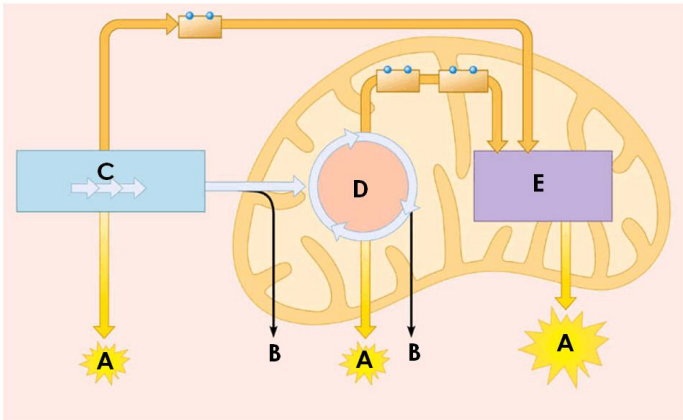
5. What is fermentation? Explain why a cell would perform fermentation instead of aerobic respiration?
6. How does the energy payout compare between anaerobic and aerobic respiration?
7. What is the overall equation for photosynthesis?
8. What would happen to a plant if it was only exposed to green light?
9. Copy and complete the following table:

Process	In	Out	Purpose
Light Reactions			
Calvin Cycle			

10. Draw a diagram describing how photosynthesis and cellular respiration are related to each other. In the diagram make sure to include (and label): mitochondria, chloroplast, cytoplasm, O_2 , CO_2 , H_2O , Glucose, sunlight, ATP, photosynthesis and cellular respiration.
11. Both cellular respiration and photosynthesis have an electron transport chain.
 - a. Make a Vein diagram comparing the two chains.
 - b. Why is the build-up of H^+ so important to the generation of ATP in the electron transport chain?
12. The Kreb Cycle (in cellular respiration) and the Calvin Cycle (in photosynthesis) are sort of opposites. Explain this statement - think about what goes in and what comes out.

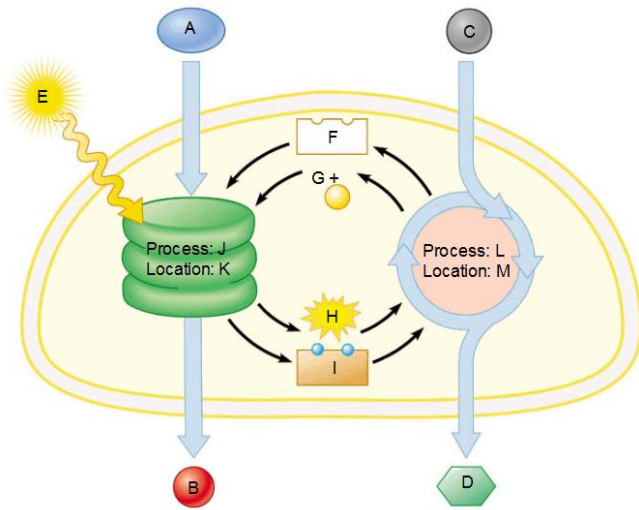
TURN OVER

13. Picture #2 – Cellular Respiration



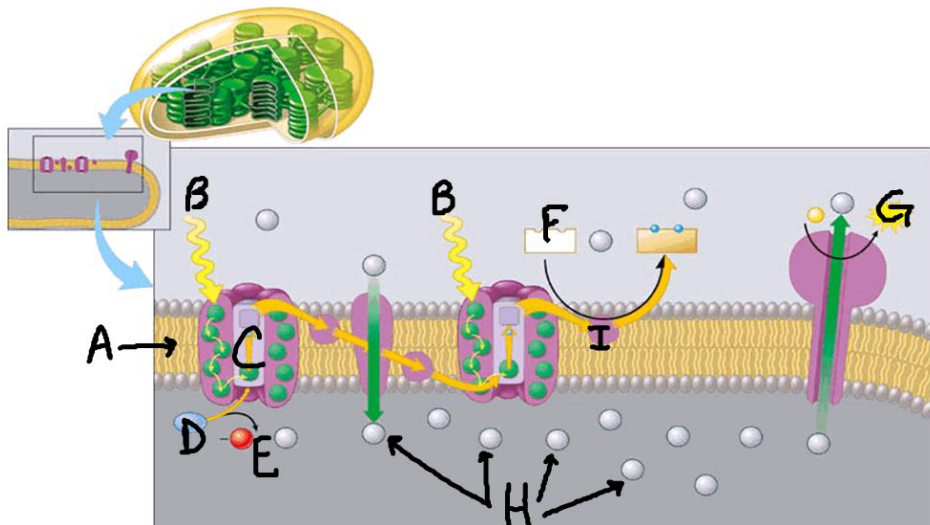
Write the letters a – e on your paper. Make a key to the picture below using the following terms: *ATP*, *CO₂*, *Glycolysis*, *Electron Transport Chain*, *Kreb Cycle*

14. Picture #3 – Photosynthesis



Write the letters a – m on your paper. Make a key to the picture below using the following terms: *Light*, *H₂O*, *Light Reactions*, *NADP*, *NADPH*, *ADP*, *ATP*, *O₂*, *CO₂*, *Calvin Cycle*, *Sugar*, *Thylakoid Membrane*, *Stroma*

15. Picture #4 – Photosynthesis – Light Reactions



Write the letters a – i on your paper. Make a key to the picture below using the following terms: *Light*, *H₂O*, *NADP*, *ATP*, *O₂*, *Thylakoid Membrane*, *NADP Reductase*, *Photosystem II*, *H⁺*