Cellular Respiration Worksheet

1. What are the 3 phases of the cellular respiration process?
2. Where in the cell does the glycolysis part of cellular respiration occur?
3. Where in the cell does the Krebs (Citric Acid) cycle part of cellular respiration occur?
4. Where in the cell does the electron transport part of cellular respiration occur?
5. How many ATP (net)are made in the glycolysis part of cellular respiration?
6. How many ATP are made in the Kreb’s cycle part of cellular respiration?
7. How many ATP are made in the electron transport part of cellular respiration?
8. In which phase of cellular respiration is carbon dioxide made?
9. In which phase of cellular respiration is water made?
10. In which phase of cellular respiration is oxygen a substrate?
11. In which phase of cellular respiration is glucose a substrate?
12. On average, how many ATP can be made from each NADH during the electron transport process?
13. On average, how many ATP can be made from each FADH2 during the electron transport process?
14. What would happen to the cellular respiration process if the enzyme for one step of the process were missing or defective?
15. What happens to the high-energy electrons (and hydrogen) held by NADH if there is no O2 present?
16. Explain why this happens.
17. Only a small part of the energy released from the glucose molecule during glycolysis is stored in ATP. How is the rest of the energy released? (HINT: It is a product in the overall reaction for cellular respiration.)

18. Label the following diagram, include net amounts of ATP produced and names of each part of cell respiration.

