ROSEDALE ACADEMY

SBI4U 2-2: Pyruvate Oxidation & Citric Acid Cycle Worksheet

1. Glycolysis occurs in the _____ of the cell.
2. Glycolysis **does/does not** (circle the correct choice) require the presence of oxygen to occur and is therefore considered an **aerobic/anaerobic** (circle the correct choice) process.
3. Glycolysis starts with a single molecule of:_____
4. The first 3 reactions of glycolysis require the input of a total of_____ molecules of ATP.
5. At the end of reaction 5 a total of _____ molecules of G3P have been produced.
6. Reactions 6-10 occur _____ times for each molecule of glucose.
7. Each molecule of G3P produces _____ NADH molecule(s) and _____ ATP molecule(s).
8. ATP molecules are produced by the _____ of ADP molecules.
9. The final product of glycolysis which go on to the next stage of cellular respiration are _____ ATP molecules, _____NADH and _____, which are used as the initial reactant of the next step in cellular respiration.

10. Write the net equation for glycolysis below:

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11. Complete the following table for the process of glycolysis:

Glycolysis Summary

ATP molecules produced	
ATP molecules consumed	
Net ATP produced (produced – consumed)	
NADH produced	
NADH consumed	
Net NADH produced (produced – consumed)	
Overall Energy Yield	ATP: NADH: