Describe the complete aerobic oxidation of glucose to CO2.

1. Describe **glycolysis** as the first step in cellular respiration. State the net yield of **ATP** and **NADH** from glycolysis.
2. Describe the conversion of **pyruvate** into the **Krebs cycle**?
3. Describe the generation of **ATP** by **chemiosmosis** in the **ETS**? Explain the role of **oxygen** as the terminal electron acceptor.

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| --- | --- | --- | --- |
| Target Vocabulary | Teacher: Q1 | Partner A: Q2 | Partner B: Q3 |
| Mitochondria |  |  |  |
| Cytoplasm |  |  |  |
| Matrix |  |  |  |
| NAD+/NADH |  |  |  |
| FAD+/FADH2 |  |  |  |
| Chemiosmosis |  |  |  |
| Oxidative phosphorylation |  |  |  |
| Substrate level phosphorylation |  |  |  |
| Pyruvate |  |  |  |
| Acetyl Co-enzyme A |  |  |  |
| ATP |  |  |  |
| Christae |  |  |  |
| ETS |  |  |  |
| Krebs Cycle |  |  |  |
| Oxygen |  |  |  |

FRQ: Cellular Respiration

Describe the complete aerobic oxidation of glucose to CO2.

Use the key vocabulary from your instructional conversation to write your response to the FRQ

Remember the sub- questions you answered or listened to during the instructional conversation – these can help you answer this question.