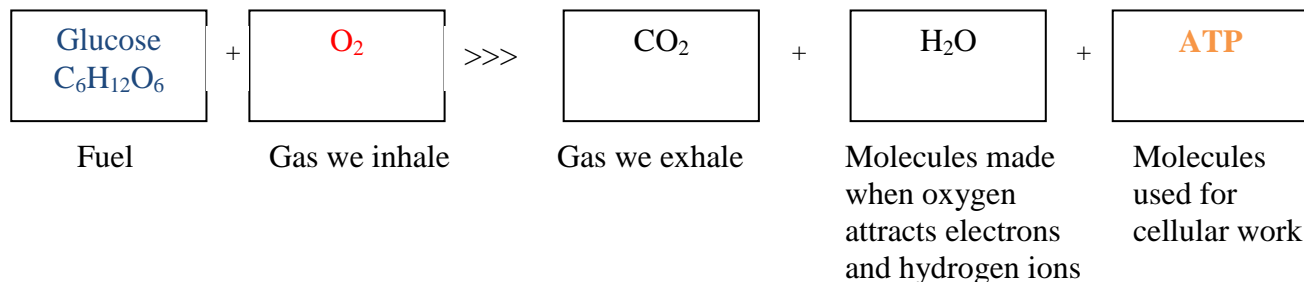


BioFlix Study Sheet for Cellular Respiration

1. Fill out the equation for cellular respiration



2. Complete the chart for the stages of cellular respiration

Stage of Cellular Respiration	Location in Cell	Starting Molecule(s)	Molecules Produced	Summary of Stage
Glycolysis	Cytosol	Glucose ($C_6H_{12}O_6$) 2 ATP	2 ATP (net) 2 Pyruvate 2 NADH	Breaks Glucose in half and extracts a little energy from Glucose
Acetyl CoA Formation (linking step)	Cytosol into Mitochondria	Pyruvate	Acetyl CoA NADH CO ₂	Changes Pyruvate to Acetyl CoA to get the starting molecule for the Krebs cycle
Krebs Citric Acid Cycle	Mitochondria	Acetyl CoA	Electron Carriers (6 NADH and 1 FADH ₂), 2 CO ₂ and 1 ATP	Spins 2x for each glucose. Oxaloacetate grabs Acetyl and spins the cycle. The main function of this step is to create the NADH and FADH ₂ that will be used in the next stage
Oxidative phosphorylation: (Electron Transport Chain and chemiosmosis)	Mitochondria	NADH FADH ₂ O₂	34 ATP H ₂ O	O₂ waits at the end of the ETC and helps to create the hydrogen gradient that will spin ATP synthase. This stage is where most of the ATP is produced

3. Overall, what does cellular respiration do? – Makes 36 to 38 **ATP**. **It creates cellular energy so that the cells can do work.**

4. On the back of this paper (or on a separate sheet of paper), draw a road map of cellular respiration.

Numbers are for 1 glucose going through cellular respiration.

