Using the following list of words, fill in the blanks with the correct term. Some terms may be used more than once.

Glycolysis, Krebs cycle, electron transport chain, pyruvate, ATP, NADH/H$^+$, cytoplasm, oxygen, carbon dioxide (CO_2), matrix of mitochondria, $FADH_2$, proton (H^+), gradient, mitochondria, inner membrane, electron carriers, proton (H^+) pumps, protons (H^+), intermembrane space, matrix, electron transport chain, glucose, ATP synthase, phosphate, ADP, greater, diffuse, electrons, chemiosmosis, water.

Aerobic cellular respiration is composed of three steps. The steps, in order, are _____, _____ and _____. During _____, some of the potential energy of a primary foodstuff, e.g., the sugar _____, is released during a series of chemical reactions that occur in the _____ of the cell. Glucose, a six-carbon sugar molecule, is converted to two molecules of _____, a three-carbon molecule. In addition, a small amount of the total energy in glucose is stored in a few molecules of _____, the energy carrier of the cell, and some high-energy, electron carriers _____. Glycolysis does not require _____ and does not generate the gas _____.

_____, the end product of glycolysis is converted to acetyl CoA, with the release of one molecule of carbon dioxide, for further processing by the _____ that occurs in the _____. In the Krebs cycle some high energy, electron carriers _____ and _____, and _____, energy carrier, are generated. Two _____ molecules are released for each cycle of the Krebs cycle.

Glycolysis and the Krebs cycle generate only a small amount of _____ – only 4 molecules per molecule of glucose. A large amount of the chemical energy from glucose is stored in the form of the electron carriers NADH/H$^+$ generated during _____ and _____ and $FADH_2$ generated **only** during the _____.