Biology Chapter 4 Section 6 – Fermentation

Key Concept: Fermentation allows the production of a small amount of __ATP_ without __oxygen__.

Glycolysis happens all of the time. If there is oxygen, the products of __glycolysis__ are used in cellular ___respiration__. If there is no oxygen, your cells keep producing __small __ _amounts__ of ATP through the __anaerobic__processes of glycolysis and __fermentation__.

The products of glycolysis are _pyruvate_(a 3-carbon molecule), ATP, and NADH.
During glycolysis NAD+ is turned into NADH (energy carrying molecule)
Fermentation provides a supply of ___NAD+__ that allows glycolysis to continue. It does not make __ATP__.

Lactic Acid Fermentation will take place if no __oxygen__ is available.
___Lactic__ ___Acid___ fermentation happens in your muscle cells, in the cells of other ___vertebrates__, and in some microorganisms. Lactic Acid makes your ___muscles__ __burn____ during hard exercise.

____Fermentation ___ helps produce certain foods.
Ex. cheese, bread, and yogurt
Alcoholic fermentation is used by many ____yeasts___, and some ___plants___. _____Carbon____ ___dioxide___ gas is released when sugar is broken down through _____glycolysis_____ and ___alcoholic___ ___fermentation___.

___Bacteria___ that use fermentation are important in the ____digestive___ systems of animals. These organisms are necessary to fully ____digest____ foods.