**Chemistry of Life (20 Terms) Biology Keystone Vocabulary**

**Activation Energy –** minimum amount of energy needed for a chemical reaction to take place

**Active Site –** place on an enzyme that the substrate attaches/bonds to

**Adhesion –** attraction between molecules of two **different** substances (ex. Capillary action)

**Carbohydrate –** macromolecule that contains atoms of C, H, and O in a 1:2:1 ratio

- Serves as a source of energy, ex. Sugars, starches, and cellulose

**Catalyst –** substance that helps a chemical reaction to go at a faster rate, is not changed by the reaction

**Cohesion** – attraction between molecules of the **same** substance (results in surface tension)

**Concentration –** measure of the amount of a given substance when combined with another substance

**Denature –** when an enzyme loses its shape because the hydrogen bonds holding it together break

**Deoxyribonucleic Acid (DNA) –** macromolecule that encodes genetic information for living organisms

**Enzyme** – protein that increases rates of a chemical reaction without being changed by a reaction (an organic catalyst)

**Freezing Point –** temperature at which a liquid changes state to a solid

**Lipids –** group of organic compounds made up mostly of C, H, and O

* Insoluble in water, source of stored energy, component of cell membranes, ex. fats and oils

**Macromolecule –** a large complex molecule (polymer) made up of monomers

**Monomer –** molecule of any compound that can react with other monomers to form a polymer

(macromolecule)

**Nucleic Acid –** macromolecule made up of C, H, N, O and P that carries genetic information

* Types: DNA or RNA

**Organic Molecule –** molecule containing carbon that is part of or is produced by living systems

**pH –** measure of how acidic or alkaline a solution is

**Protein –** macromolecule that contains C, H, O, and N

* Performs a variety of structural and regulatory functions for cells

**Specific Heat –** measure of the heat energy needed to increase the temperature of a certain quantity by a

certain temperature interval

**Substrate –** molecule that attaches to an enzyme that the enzyme acts upon