**Diffusion/Osmosis, Cell Membranes, Cell Structure, and Body Systems**

**Review Guide**

**Vocabulary:**

Concentration Nucleus

Diffusion Mitochondria

Hypotonic Ribosome

Isotonic Pseudopodia

Hypertonic Flagella

Passive transport Cilia

Active transport Vacuole

Facilitated diffusion Chloroplast

Ion Channel Cytoplasm

Cellulose Centriole

Hydrophobic Chlorophyll

Hydrophilic Cell wall

Phospholipid Cell membrane

Transmembrane protein Lysosomes

Cholesterol Homeostasis

Eukaryote Positive feedback

Prokaryote Negative feedback

Endocrine system Hormone

Insulin Glucagon

Nervous system Digestive system

Circulatory system Respiratory system

Excretory system Gland

Dynamic equilibrium

**You should be able to…**

* Determine relative concentration (i.e., decide which of two solutions is more or less concentrated)
* Explain diffusion
* Determine the direction of the net movement of water in osmosis
* Know the difference between isotonic, hypotonic, and hypertonic
* Know which molecules/substances can diffuse freely across the membrane and which need to cross via transmembrane proteins
* Differentiate between passive and active transport
* Draw and label a phospholipid
* Understand the roles of the structural components of the cell membrane (phospholipids, proteins, cholesterol)
* Recognize the differences between eukaryotic cells and prokaryotic cells
* Identify cells as eukaryotic or prokaryotic
* Know the function of the cell organelles and cell parts covered in the class notes
* Identify features that make mitochondria unique among cell organelles
* Explain homeostasis
* Differentiate between positive and negative feedback
* Understand the role of the endocrine system in maintaining homeostasis
* Identify the general function of the endocrine system, the nervous system, the circulatory system, the digestive system, the respiratory system, and the excretory system