**Main Lesson Book Check Guide for Wednesday, April 22nd 2015**

1. **The Practice of Anatomy and Physiology** 
   1. Describe the Purpose/focus of the disciplines of Anatomy and Physiology
   2. What are the differences between Microscopic Anatomy and Gross Anatomy? Histology and Cytology?
   3. What are some of the subdisciplines of Anatomy and their focuses?
   4. Explain and give examples for the Levels of Organization within the human body.
   5. The Language of Anatomy
      1. List and describe/define the terms we covered, give examples of their usage.
      2. Explain ***why*** we need a language for this discipline.
2. **The Characteristics of Life** 
   1. Describe the seven characteristics of life and give examples for each.
3. **The Mammalian Cardiovascular System** 
   1. Describe the system as a whole. What is the pathway of the blood through the heart and vascular pathways?
   2. Describe the anatomy of the heart, including the functions of each chamber and the different valves. Relate the structure of the different components of the system (atria, ventricle, valves, etc.) to their functions.
   3. Explain the cardiac cycle. How does the heart beat? Why is there a separation of contractions? How is this cycle coordinated?
4. **Lab # 1 – Human Body Proportions** 
   1. Remember RERUN!
   2. In your conclusion, make sure to report your data, highlighting any interesting trends or unusual/unexpected data points.
   3. Explain the significance of the results. Was your hypothesis supported or not? Why?
5. **Lab #2 – Blood Pressure and Heart Rate**
   1. Remember RERUN!
   2. We’ll collect the class data and average it on Monday, so leave room for this in your data section and conclusion.
   3. In your conclusion, make sure to report your data, highlighting any interesting trends or unusual/unexpected data points.
   4. Explain the significance of the results. Use the charts on the lab sheet to analyze your blood pressure.
   5. Make sure to explain ***why*** heart rate increases with activity. How is this coordinated with the two different aspects of the nervous system we talked about in class?
   6. Explain what blood pressure is. Why are there two different values? What do the terms systole and diastole refer to?
   7. Explain how/why the sphygmomanometer (blood pressure cuffs) works.
6. **Lab #3 – Activity 1: Mechanical Digestion/Surface Area to Volume Ratio** 
   1. In crafting a conclusion for this exercise (remember to use RERUN!) make sure to explain ***why*** the crushed tablet dissolved more quickly by fully explaining the surface area to volume ration concept.
   2. You ***do not*** need to answer questions #2 and #3 in the laboratory questions section.

**Quiz #1 Study Guide – Friday, April 15th**

What aspects of Biological study do each of the disciplines of Anatomy and Physiology deal with, respectively? Microscopic Anatomy versus Gross Anatomy? Histology and Cytology?

Name and characterize the Levels of Structural Organization within the Human Body.

Be able to explain and provide examples for the seven characteristics of life.

What are the 11 Organ Systems within the Human Body? (Bonus)

What is Anatomical Position? Why is it used?

Know the meaning of the following Anatomical Terms:

Anterior Cranial

Posterior Medial

Dorsal Lateral

Ventral Deep

Superior Superficial

Inferior Axial

Caudal Appendicular

Be able to describe the pathway of blood through the heart and the rest of the body. You may be asked to draw a diagram.

Characterize terms/states Systole and Diastole. How does a Syphgmomanometer work?

Have and understanding of the Powers of Ten and relative size

Meters

Centimeters

Millimeters

Micrometers

Nanometers

Picometers