Introduction:

Anatomy is the structure of an organism. It refers to the way that living things are built and how individual parts fit and work together. Physiology concentrates on the processes that occur in living organisms and the functions of the various parts of those living organisms. Anatomy refers to form and physiology refers to function.

During this rigorous class, you will study both how organisms are designed and how they function. We will concentrate on this aspect of human biology; however, this does not mean that you do not have to know what you previously learned in biology class. You will still need to understand the life processes, chemical reactions, energy transformations, and mechanisms of homeostasis in living organisms.

Purpose: The summer assignment for Anatomy and Physiology is designed to check your prior knowledge and to introduce you to the 10 major body systems that will be covered during the course of this class.

Scoring: This 3-part assignment will count for ONE TEST GRADE (105 points) in the first marking period.

**Part I – Review:** The first 60 questions are a review of the biology concepts with which you should already be familiar. This course is a second year course and you will be expected to know material that has previously been covered in a biology class. The 60 review questions will be worth 1 point each and therefore will be worth 60 total points of the summer assignment grade. You can expect an assessment on this content within the first few weeks of school that will require you to team teach the class your reasoning behind the answers to a set of 10 questions.

**Part II – Preview:** This portion of the summer assignment is designed to provide a preview of the 10 body systems that we will be covering during the year. Each body system will be worth 4 points and therefore will count for 40 total points of the summer assignment grade. (See below for instructions)
Part III – Reflection: How will I plan time in my schedule to study for this rigorous Honors Anatomy & Physiology class during the school year along with my other obligations? Type up your answer in 12 point font paragraph form and print it out. Reflection question will be 5 total points of the summer assignment grade.

Due Date: This entire assignment is due the first day the class meets. If you do not have your assignment on that day, it will be marked late and 20 points will be deducted from your grade. No excuses! You may have time in the beginning of class to transfer your multiple choice answers to a scantron.

Part II - Your Task:
You will make analogies for the ten major body systems that we will cover. This is designed to help you make connections to material that may initially seem abstract. It is important to understand structure and function on both the macro and micro levels. Your analogies should only focus on the macro level. Avoid too much detail. You should include basic information on structure and function and relate that information to a common topic with which you are familiar.

What should you include?

✓ A relation between both the structure and function of the body system to a common item or topic.

✓ A picture (cut and paste or hand-drawn) of your analogy. Make sure it is neat!

✓ An explanation of why you chose that analogy that demonstrates basic knowledge of the body system. Put some thought into this portion.

Format:

You may choose from a variety of formats:

⇒ Book format
⇒ Graphic organizer
⇒ Paragraphs with pictures
⇒ A PowerPoint presentation
⇒ Whatever you choose! If you are uncertain, email us: (jbrown@mtoliveboe.org)
                (smakala@mtoliveboe.org)
Example:

The **skeletal system** is like the framework for an automobile. The basic structure provides a support system for the other parts of the vehicle. Once the frame is in place, other parts can be secured in the proper positions. The framework protects the passengers just as the skeletal system protects vital organs. The framework of a vehicle is also designed to allow for motion. Without bones to support our bodies, we would not be able to move.

![Skeletal System Diagram](image)

**Body systems to be covered & described in your Part Two assignment:**

1. Integumentary  
2. Skeletal  
3. Muscular  
4. Nervous  
5. Endocrine  
6. Circulatory  
7. Immune  
8. Respiratory  
9. Digestive  
10. Urinary

![Body Systems Diagram](image)

**Tips for success in Anatomy & Physiology class:**

😊 Do not wait until the last minute.  
😊 Study at least 15-20 minutes a night for each new concept learned during class.  
😊 Always be prepared.  
😊 Be an active learner, be detailed in all of your responses, and give your best effort.  
😊 Ask for help when you need it!