Human Physiology (The Cardiovascular System):

Dear Students,

I hope you are all doing well, and that you and your family are safe and healthy. Before we left, we were learning about the components & functions of **Blood**. Our next unit is the **Cardiovascular System**, which corresponds with **Chapter 11** in the textbook. I have instructions for both textbook, and digital, options below. The lessons and weekly exercises (below) should take you around 2-2.5 hours per week (including reading, learning the material, answering HW questions, etc.).

The weekly lessons are broken up as follows:

Green= Content (<u>Lesson Notes</u>):

• You should learn & review the terms and definitions, up to the designated point (which will be specified for each week). Taking notes in your composition book is recommended, but not required. You may make flashcards for the terms, or do the Quizlets, to reinforce the content. We will have **quizzes**, as well as HW, based on the content. Make sure to check Edmodo daily for announcements, updates and modifications (if necessary).

Blue = Exercises & Questions (HW):

- You should complete the designated exercises for each week. These can all be submitted electronically. You should complete all assignments on Notebook Paper, and then send a (clear) photo via email to:
- Tfoster@tusd.net

Yellow = Supplemental Materials & Exercises for Practice

• These links, videos, and exercises are supplemental, and will help prepare you for quizzes and tests, in addition to learning the <u>Content</u>, and completing the <u>Exercises</u> (HW). These supplemental exercises are optional.

Week 1:

| | Textbook Version: | Online Version: |
|-----------------|---|--|
| Content & | Reading: P. 348-360 (Ch.11) | Reading: Slides 1-28 |
| Concepts: | Anatomical Structures of the Heart Pulmonary & Systemic Circulation Heart Physiology (Conduction) The Cardiac Cycle Cardiac Output Homeostatic Balance | https://www.slideshare.net/mskbio/cardiovascular-powerpoint • Same concepts |
| Exercises (HW): | Short Answer Questions to Answer: | Short Answer Questions to Answer: |
| | Draw and label the anatomical structures of the heart, including the internal chambers, valves, septum, layers of cardiac tissue, and the major blood vessels that connect with each chamber Describe the important functions of each anatomical structure in relation to the cardiac cycle. | • Same questions |

| 3) | Describe the difference between | |
|----|-----------------------------------|--|
| | Pulmonary & Systemic circulation. | |

- **4)** Describe the Intrinsic Conduction System of the Heart.
- **5)** Define Systole, Diastole, Stroke Volume, and Cardiac Cycle.
- 6) Describe factors that can alter your heart rate, and the homeostatic regulatory mechanisms that are involved.
- All exercises (HW) should be done on notebook paper.
- To <u>submit</u> your weekly assignments, you should:
 - <u>Take a (clear) photo</u> of your Paper (including your name, date, period, and all sides of the paper (if applicable)). Double-check to make sure the image is clear and legible.
 - o <u>Email your work to:</u> <u>tfoster@tusd.net</u>

Supplemental Notes & Links (Optional):

https://openstax.org/books/anatomy-and-physiology/pages/19-1-heart-anatomy

Videos:

https://www.youtube.com/watch?v=Sc3IN99sRrI (Heart Anatomy)

https://www.youtube.com/watch?v=X9ZZ6tcxArl (Crash Course)

https://www.youtube.com/watch?v=6Qm1fxePfAs (Sheep Heart Dissection)