Time Frame: Sept-June	Marieb's Anatomy & Physiology Chapters 1, 8 - 16	Course: Anatomy & Physiology II

Stage 1 - Desired Results

Established Goals

Content standards / habits of mind / cross disciplinary goal(s) (21st century skills, core competencies):

- ***Students will demonstrate the ability to make observations using the properties of structure and function in order to model fundamental biological systems.***
- ***Students will demonstrate the ability to investigate and analyze using properties of fundamental biological systems in order to explain increasing orders of complexity of systems.***
- ***Students will demonstrate the ability to analyze and summarize text and integrate knowledge to make meaning of discipline-specific materials.***
- ***Students will demonstrate the ability to produce coherent and supported writing in order to communicate effectively for a range of discipline-specific tasks, purposes, and audiences.***
- ***Students will demonstrate the ability to speak purposefully and effectively by strategically making decisions about content, language use, and style.***

Transfer

Students will be able to independently use their learning to ***apply the principles of homeostasis to their personal health and/or relate the principles to health issues of family and friends.***

Meaning

UNDERSTANDINGS

Students will understand that….

- Feedback (negative or positive) can stabilize or destabilize a system, yet the intent is to return the body to homeostasis and wellness if conditions allow.
- Investigating a new system (cell, tissue, organs, etc…) or structures within a system requires detailed examination of the properties of different materials, the structures of each component, and connections between the components to reveal function.

ESSENTIAL QUESTIONS

- *How is Anatomy distinct from Physiology?*
- *How would you make an argument for a particular organ system being the most vital for supporting life?*
- *In what ways do we see organ systems working cooperatively to maintain homeostasis ?*
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Acquisition

Content Standards: • HS-LS1-2. Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. • HS-LS1-3 Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.	**Students will know…** • systems of specialized cells within organisms help them perform the essential functions of life. • multicellular organisms have a hierarchical structural organization, in which any one system is made up of numerous parts and is itself a component of the next level. • feedback mechanisms maintain a living system's internal conditions within certain limits and mediate behaviors, allowing it to remain alive and functional even as external conditions change within some range. *Feedback mechanisms can encourage (through positive feedback) or discourage (negative feedback) what is going on inside the living system.* • the body is made up of specific chemical constituents that allow the systems to function properly. • body cells, tissues, organs and systems can be plagued by diseases that can compromise homeostasis.	Students will be skilled at… • *describing position and structure* • *developing and using models.* • *planning and conducting investigations.* • *making judgments and decisions* • *setting and achieving daily work goals* • *working creatively with others* • *communicating clearly in various media* • *collaborating with others*
	Students will know: ● Anatomical landmarks and directional terms ● Sense organ structure and function ● Endocrine glands and action of their hormones in keeping homeostasis ● Blood composition and human blood groups ● Heart structure and physiology ● Lymphatic system structure and types of immunity ● Respiratory structures and how they work together and with circulatory system for gas exchange ● Digestive structures and how they work sequentially ● Urinary organ structure and overall physiology ● Reproductive differences between males and females ● Survey contraceptive measures that target men vs women ● Sequence of events that lead to pregnancy and its	

	completion; being able to see where different methods interrupt the flow of events.	