

Time Frame: Sept-June	Marieb's Anatomy & Physiology Chapters 1, 8 - 16	Course: <u>Anatomy & Physiology II</u> <small>(Link to Scope&Sequence)</small> The insides of You	
Stage 1 - Desired Results			
Established Goals Content standards / habits of mind / cross disciplinary goal(s) (21st century skills, core competencies): <ul style="list-style-type: none"> • <i>Students will demonstrate the ability to make observations using the properties of structure and function in order to model fundamental biological systems.</i> • <i>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.</i> • <i>Students will demonstrate the ability to analyze and summarize text and integrate knowledge to make meaning of discipline-specific materials.</i> • <i>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.</i> • <i>Students will demonstrate the ability to speak purposefully and effectively by strategically making decisions about content, language use, and style.</i> 	Transfer		
	<i>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.</i>		
	Meaning		
	UNDERSTANDINGS <i>Students will understand that....</i> <ul style="list-style-type: none"> • 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 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 <ul style="list-style-type: none"> • <i>How would you make an argument for a particular organ system being the most vital for supporting life?</i> • <i>In what ways do we see organ systems working cooperatively to maintain homeostasis ?</i> • <i>How has h</i> 	

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.

Acquisition

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.