05. The Inflammatory Process - Rebalancing

Content Area: **Science**
Course(s):
Time Period: **Semester 1**
Length: **1 weeks**
Status: **Published**

Standards

HS-LS1	From Molecules to Organisms: Structures and Processes
HS-LS1-2	Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. Emphasis is on functions at the organism system level such as nutrient uptake, water delivery, and organism movement in response to neural stimuli. An example of an interacting system could be an artery depending on the proper function of elastic tissue and smooth muscle to regulate and deliver the proper amount of blood within the circulatory system.
HS-LS3	Heredity: Inheritance and Variation of Traits

Enduring Understandings

- The body utilizes homeostatic mechanisms to protect itself.
- Inflammation is not guaranteed to be effective.
- Protective (Homeostatic) processes can become problems if they become uncontrolled.

Essential Questions

- How does the process of inflammation conceptually align with homeostatic maintenance of the body?
- How do the changes that occur within Inflammation hierarchically fit together?
- Can modern (or not so modern) medicine intervene in cases when the body cannot heal itself?

Knowledge and Skills

NGSS Skills/Practices

- Asking Questions.
- Developing and Using Models.

- Constructing Explanations.
- Obtaining, Evaluating, and Communicating Information.

Knowledge:

- Describe the rationale, from a homeostatic perspective, as to why inflammation occurs.
- Identify the chemical (histamine) that directly causes inflammation, and how it prepares the site for further progression of the inflammatory process.
- Detail and describe the inflammatory process from an initial injury to a hypothetical conclusion.
- Describe unusual and heroic therapeutic interventions (maggot therapy) for when the inflammatory process does not "fix the boo-boo."

Assessments

https://docs.google.com/document/d/1wR7bQF-8AQoRrt0g4C3hKja0yjwDjC9_BiAmONWbTcI/edit?usp=sharing

Modifications

https://docs.google.com/document/d/1ODqaPP69YkcFiyG72flT8XsUIe3K1VSG7nxuc4CpCec/edit?usp=sharing