

Unit 02: Anatomy and Physiology Histology

Content Area: **Science**
Course(s): **Generic Course**
Time Period: **Marking Period 1**
Length: **3.5 weeks**
Status: **Published**

Standards

[LS1.A: Structure and Function](#) (pp. 143-145, NRC, 2012)

- [Systems of specialized cells within organisms help them perform the essential functions of life. \(HS-LS1-1\)](#)
- [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. \(HS-LS1-2\)](#)
- [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. \(HS-LS1-3\)](#)

SCI.9-12.HS-LS1-3	Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.
SCI.9-12.HS-LS1-2	Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
SCI.9-12.HS-LS1-1	Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins, which carry out the essential functions of life through systems of specialized cells.

Essential Questions

How are cells and tissues related and how do they relate to body systems?

How do multicellular body cells specialize to perform specific functions that help maintain homeostasis and benefit the body as a whole?

Content / Skills

- Describe the general characteristics and functions for each tissue type
- List the major cell types and fibers in connective tissue
- Differentiate between the structures of each tissue type in a lab practical
- Identify the cell and its structure of each tissue type in the lab practical
- Know the location and function of each type of tissue discussed in class

