Unit 10: Anatomy and Physiology Nervous System Brain

Content Area: **Science**
Course(s): **Generic Course**
Time Period: **Marking Period 4**
Length: **3 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-LS1-1	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.
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.

Essential Questions

What is the structure of the central nervous system and the functions assoiciated with its various organs?

Content / Skills

- Compare and contrast parasympathetic and sympathetic divisions of the nervous system
- Describe the function and structure of the cerebellum
- Describe the major regions of the brain
- Identify the major regions in the brainstem and the functions of each area
- List the major lobes, fissures and functional areas of the cerebral cortex
- Sheep brain dissection to identif brain structures