

Name _____

AP Biology

Chapter 49 - Nervous System

Guided Reading Assignment Campbell's 10th Edition

Essential Knowledge

3.E.2 Animals have nervous systems that detect external and internal signals, transmit and integrate information, and produce responses

LO 3.43 The student is able to construct an explanation, based on scientific theories and models, about how nervous systems detect external and internal signals, transmit and integrate information, and produce responses.

LO 3.44 The student is able to describe how nervous systems detect external and internal signals.

LO 3.45 The student is able to describe how nervous systems transmit information

LO 3.46 The student is able to describe how the vertebrate brain integrates information to produce a response.

LO 3.47 The student is able to create a visual representation of complex nervous systems to describe/explain how these systems detect external and internal signals, transmit and integrate information, and produce responses.

LO 3.49 The student is able to create a visual representation to describe how nervous systems transmit information.

LO 3.50 The student is able to create a visual representation to describe how the vertebrate brain integrates information to produce a response.

1. Compare and contrast the central and peripheral nervous systems.
2. How does the organization of the nervous system of a _____ compare with the organization of the nervous system of a _____?
 - a. Hydra and insect
 - b. Hydra and flatworm
 - c. Leech and salamander
3. Why are glial cells important?
4. What are astrocytes?

5. How does gray matter differ from white?
6. Contrast the core functions of the parasympathetic and sympathetic nervous system.
7. What are the three brain region during embryonic development?
8. What are the parts of the brainstem and what are its functions?
9. What are the core functions of the cerebellum
10. What are circadian rhythms?