

Learning Objectives - CH 2/4b

Chapter 2 - Biology and Behavior pp 49 - 66

After careful reading, study, completion of internet activities and discussion forums, students should be able to:

1. Name and describe the two major components of the central nervous system.
2. State why an intact spinal cord is important.
3. Describe some of the important functions controlled by structures in the brainstem.
4. State the primary functions of the cerebellum.
5. Describe the primary function of the thalamus.
6. Describe some of the processes regulated by the hypothalamus.
7. Name the two components of the peripheral nervous system and describe their functions.
8. Name the four lobes of the cortex and identify their location.
9. Describe the primary functions of the parietal lobe, occipital, temporal, and frontal lobes.
10. Describe the specialized functions of the left hemisphere.
11. Describe the specialized functions of the right hemisphere.
12. Describe the significance of the split-brain operations and explain what happens when the brain is split in two.
13. Describe the difference between EEG, CT scan, MRI and fMRI.
14. Name three types of brain wave patterns revealed by the EEG and the mental states associated with them.
15. Define a stroke and be able to predict the behaviors that would be affected depending upon the brain structure or brain region affected.
16. Describe the roles of the sympathetic and parasympathetic nervous systems.

Chapter 4 - states of consciousness pp 123 - 146

1. Define consciousness.
2. Define altered state of consciousness.

3. Discuss circadian rhythms including those rhythms most relevant to the study and description of sleep.
4. Discuss the problems encountered when sleep is disrupted.
5. Describe a night's sleep including the differences between REM and NREM sleep, the EEG patterns associated with each and how these patterns change over the life span.
6. Distinguish between the two main theories that attempt to explain the function of sleep.
7. Describe the symptoms of at least two sleep disorders and the sleep stage in which the disorder occurs.