Unit 6: Biological Psychology

Reading Guide Due: Monday, December 16th/ Quiz: 12/18 / Exam(notecards): 1/15/20?

*An effective introduction to the relationship between physiological processes and behavior — including the influence of neural function, the nervous system and the brain, and genetic contributions to behavior — is an important element in the AP course.*

**Learning Objectives**  **Notecard Terms**

|  |  |
| --- | --- |
| • Identify basic processes and systems in the biological bases of behavior,  including parts of the neuron and the process of transmission of a signal  between neurons.  • Discuss the influence of drugs on neurotransmitters (e.g., reuptake  mechanisms).  • Describe the nervous system and its subdivisions and functions:  — central and peripheral nervous systems;  • Describe the nervous system and its subdivisions and functions:  — major brain regions, lobes, and cortical areas;  — brain lateralization and hemispheric specialization.  • Recount historic and contemporary research strategies and technologies that  support research (e.g., case studies, split-brain research, imaging techniques).  • Identify key contributors (e.g., Paul Broca, Charles Darwin, Michael Gazzaniga,  Roger Sperry, Carl Wernicke).  • Discuss the effect of the endocrine system on behavior.  • Discuss psychology’s abiding interest in how heredity, environment, and  evolution work together to shape behavior.  • Predict how traits and behavior can be selected for their adaptive value. | 1. Twin Studies 2. Neuron 3. Dendrite 4. Soma 5. Axon 6. Terminal buttons 7. Neurotransmitter 8. Synapse 9. Resting potential 10. Action potential 11. Refractory period 12. All-or-none principle 13. Excitatory effect 14. Inhibitory effect 15. Sensory neurons (Afferent) 16. Motor neurons (Efferent) 17. Acetylcholine 18. Antagonist 19. Agonist 20. Dopamine 21. Serotonin 22. Central nervous system 23. Peripheral nervous system 24. Somatic nervous system 25. Autonomic nervous system 26. Sympathetic division 27. Parasympathetic division 28. electroencephalogram (EEG) 29. computerized axial tomography (CT or CAT) 30. magnetic resonance imaging (MRI) 31. positron emission tomography (PET) scan 32. hindbrain (include 3 parts and their functions) 33. midbrain (include reticular formation) 34. thalamus 35. hypothalamus 36. hippocampus 37. amygdala 38. limbic system 39. cerebral cortex 40. corpus callosum 41. split-brain research 42. Sperry & Gazzaniga 43. frontal lobes 44. Broca’s area 45. Wernicke’s area 46. motor cortex 47. parietal lobes 48. somatosensory cortex 49. occipital lobes 50. temporal lobes 51. brain plasticity 52. Endocrine system 53. Hormones 54. Pituitary gland 55. DNA 56. Monozygotic Twins 57. Dizygotic Twins 58. Turner Syndrome 59. Klinefelters Syndrome 60. PKU 61. Down Syndrome |