Unit 3: Biological Basis of Behavior

Content Area: **Template**
Course(s):
Time Period: **Marking Period 2**
Length: **7 Classes**
Status: **Published**

State Mandated Topics Addressed in this Unit

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N/A	N/A

Unit III: Biological Basis of Behavior

A. Physiological Techniques (e.g., imagining, surgical)
B. Neuroanatomy and Neural Transmission
C. Functional Organization of Nervous System
D. Endocrine System
E. Genetics

Learning Objectives

- Objective 1 - Define the structures of the brain (thalamus, cerebellum, limbic system, etc.) and their functions.
- Objective 10 - Identify the difference between left-hemisphere/right-hemisphere.
- Objective 2 - Identify the four lobes of the cerebral cortex and their functions
- Objective 3 - Discuss the association areas.
- Objective 4 - Explain the split-brain studies.
- Objective 5 - Describe the nature of the endocrine system and its interaction with the nervous system.
- Objective 6 - Define the structure of a neuron and explain neural impulses.
- Objective 7 - Identify major neurotransmitters and synaptic transmission.
- Objective 8 - Identify basic structure of the sympathetic and parasympathetic nervous systems.
- Objective 9 - Explain brain plasticity.

Essential Skills

- Essential Skill 1 - Copy and paste
- Essential Skill 10 - Copy and paste
- Essential Skill 2 - Copy and paste

- Essential Skill 3 - Copy and paste
- Essential Skill 4 - Copy and paste
- Essential Skill 5 - Copy and paste
- Essential Skill 6 - Copy and paste
- Essential Skill 7 - Copy and paste
- Essential Skill 8 - Copy and paste
- Essential Skill 9 - Copy and paste

Standards

SOC.9-12.2	Biological Bases of Behavior
SOC.9-12.2.1	Interaction of Heredity and Environment
SOC.9-12.2.A	Discuss psychology's abiding interest in how heredity, environment, and evolution work together to shape behavior.
SOC.9-12.2.B	Identify key research contributions of scientists in the area of heredity and environment.
SOC.9-12.2.B.1	Contributions of Charles Darwin, a key scientist in the area of heredity and environment
SOC.9-12.2.C	Predict how traits and behavior can be selected for their adaptive value.
SOC.9-12.2.2	The Endocrine System
SOC.9-12.2.D	Discuss the effect of the endocrine system on behavior.
SOC.9-12.2.3	Overview of the Nervous System and the Neuron
SOC.9-12.2.E	Describe the nervous system and its subdivisions and functions.
SOC.9-12.2.E.1	Central and peripheral nervous systems
SOC.9-12.2.F	Identify basic processes and systems in the biological bases of behavior, including parts of the neuron.
SOC.9-12.2.4	Neural Firing
SOC.9-12.2.G	Identify basic process of transmission of a signal between neurons.
SOC.9-12.2.5	Influence of Drugs on Neural Firing
SOC.9-12.2.H	Discuss the influence of drugs on neurotransmitters.
SOC.9-12.2.H.1	Reuptake mechanisms
SOC.9-12.2.H.2	Agonists
SOC.9-12.2.H.3	Antagonists
SOC.9-12.2.6	The Brain
SOC.9-12.2.I	Describe the nervous system and its subdivisions and functions in the brain.
SOC.9-12.2.I.1	Major brain regions
SOC.9-12.2.I.2	Lobes
SOC.9-12.2.I.3	Cortical areas
SOC.9-12.2.I.4	Brain lateralization and hemispheric specialization
SOC.9-12.2.J	Identify the contributions of key researchers to the study of the brain.
SOC.9-12.2.J.1	Contributions of Paul Broca
SOC.9-12.2.J.2	Contributions of Carl Wernicke

SOC.9-12.2.7	Tools for Examining Brain Structure and Function
SOC.9-12.2.K	Recount historic and contemporary research strategies and technologies that support research.
SOC.9-12.2.K.1	Research tool: case studies
SOC.9-12.2.K.2	Research tool: split-brain research
SOC.9-12.2.K.3	Research tool: imaging techniques
SOC.9-12.2.K.4	Research tool: lesioning
SOC.9-12.2.K.5	Research tool: autopsy
SOC.9-12.2.L	Identify the contributions of key researchers to the development of tools for examining the brain.
SOC.9-12.2.L.1	Contributions of Roger Sperry
SOC.9-12.2.8	The Adaptable Brain
SOC.9-12.2.M	Discuss the role of neuroplasticity in traumatic brain injury.
SOC.9-12.2.N	Identify the contributions of key researchers to the study of neuroplasticity.
SOC.9-12.2.N.1	Contributions of Michael Gazzaniga
SOC.9-12.2.O	Describe various states of consciousness and their impact on behavior.
SOC.9-12.2.P	Identify the major psychoactive drug categories and classify specific drugs, including their psychological and physiological effects.
SOC.9-12.2.P.1	Depressants
SOC.9-12.2.P.2	Stimulants
SOC.9-12.2.P.3	Hallucinogens
SOC.9-12.2.Q	Discuss drug dependence, addiction, tolerance, and withdrawal.
SOC.9-12.2.R	Identify the contributions of major figures in consciousness research.
SOC.9-12.2.R.1	Contributions of William James, major figure in consciousness research
SOC.9-12.2.R.2	Contributions of Sigmund Freud, major figure in consciousness research
SOC.9-12.2.9	Sleeping and Dreaming
SOC.9-12.2.S	Discuss aspects of sleep and dreaming.
SOC.9-12.2.S.1	Neural and behavioral characteristics of the stages of the sleep cycle
SOC.9-12.2.S.2	Theories of sleep and dreaming
SOC.9-12.2.S.4	Symptoms and treatments of sleep disorders

Instructional Tasks/Activities

- Activity 1
- Activity 10
- Activity 2
- Activity 3
- Activity 4
- Activity 5
- Activity 6

- Activity 7
- Activity 8
- Activity 9

Assessment Procedure

- Classroom Total Participation Technique
- Classwork
- DBQ
- Essay
- Exit Ticket/Entrance Ticket/Do Now
- Journal / Student Reflection
- Kahoot
- Other named in lesson
- Peer Review
- Performance
- Problem Correction
- Project
- Quiz
- Rubric
- Teacher Collected Data
- Test
- Worksheet

Recommended Technology Activities

- Appropriate Content Specific Online Resource
- Chromebook
- Copy/Paste Content Specific Link Here
- Copy/Paste Content Specific Link Here
- Copy/Paste Content Specific Link Here
- Gimkit
- GoGuardian
- Google Classroom
- Google Docs
- Google Forms
- Google Slides
- Kahoot
- MagicSchool AI

- Other- Specified in Lesson
- Quiziz
- Screencastify

Accommodations & Modifications & Differentiation

Accommodations and Modifications should be used to meet individual needs. Their IEP and 504 plans should be used in addition to the following suggestions.

Gifted and Talented

- Compare & Contrast
- Conferencing
- Debates
- Jigsaw
- Peer Partner Learning
- Problem Solving
- Structured Controversy
- Think, Pair, Share
- Tutorial Groups

Instruction/Materials

- alter format of materials (type/highlight, etc.)
- color code materials
- eliminate answers
- extended time
- extended time
- large print
- modified quiz
- modified test
- Modify Assignments as Needed
- Modify/Repeat/Model directions
- necessary assignments only
- Other (specify in plans)
- other- named in lesson
- provide assistance and cues for transitions
- provide daily assignment list

- read class materials orally
- reduce work load
- shorten assignments
- study guide/outline
- utilize multi-sensory modes to reinforce instruction

Environment

- alter physical room environment
- assign peer tutors/work buddies/note takers
- assign preferential seating
- individualized instruction/small group
- modify student schedule (Describe)
- other- please specify in plans
- provide desktop list/formula

Honors Modifications

Resources

- Resource 1
- Resource 2
- Resource 3
- Resource 4
- Resource 5