

**AP Biology**  
**Student Learning Plan**  
**Animal Behavior Unit 1 - 10 Days**  
**Math skill: chi square**

Day/Date	Topic/Objectives	Support
Day 1	<b>Learning and Conditioning</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe how organisms get innate behaviors</li> <li><input type="checkbox"/> Explain how learning occurs</li> <li><input type="checkbox"/> Explain how living organisms regulate behavior</li> <li><input type="checkbox"/> Analyze how environmental factors can affect behavior</li> <li><input type="checkbox"/> Explain how genetics can influence behavior</li> <li><input type="checkbox"/> Describe how organisms learn</li> </ul>	TB 51.2
Day 2	<b>Regulation</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> How do animals regulate temperature?</li> <li><input type="checkbox"/> How do animals use taxis and kinesis?</li> </ul>	TB 51.1 <b>Animal Behavior Lab</b>
Day 3	<b>Group Behaviors (Pheromones)</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> How do animals use migration and hibernation to adapt to seasonal changes?</li> <li><input type="checkbox"/> How do plants use coloration as a signal behavior?</li> <li><input type="checkbox"/> Analyze data, describe and explain how organisms exchange information in response to internal changes and external cues</li> </ul>	TB 51.3-4
Day 4	<b>Senses</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe how nervous systems detect external and internal signals</li> </ul>	TB 50.1-4
Day 5	<b>Responses</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the data that could be collected to learn more about how animals respond to their environments</li> <li><input type="checkbox"/> Explain how animals use taxis and kinesis to respond to changes in their environment</li> <li><input type="checkbox"/> Describe how an organisms response to information affects natural selection</li> </ul>	TB 51.3
Day 6	<b>Neurons</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe how nervous systems transmit information.</li> <li><input type="checkbox"/> What is the function and location of the following parts of a neuron: cell body, axon, and dendrite?</li> <li><input type="checkbox"/> What is the benefit of the myelin sheath?</li> <li><input type="checkbox"/> How does the Schwann cell improve signal propagation?</li> </ul>	TB 48

	<input type="checkbox"/> What are the three main functions of the neuron? <input type="checkbox"/> How are neurons polarized? <input type="checkbox"/> How do neurons become depolarized? <input type="checkbox"/> How is energy used to move sodium and potassium in order to maintain membrane potential? <input type="checkbox"/> What is the significance of the synapse in nerve signal propagation? <input type="checkbox"/> How are epinephrine and norepinephrine used in signal propagation? <input type="checkbox"/> What is the final result of nerve cell signal transmission? <input type="checkbox"/> How can neurons be used to stimulate? <input type="checkbox"/> How can neurons be used to inhibit?	
Day 7	<b>Nervous System</b> <input type="checkbox"/> What is the significance of the regions of the vertebrate brain? <input type="checkbox"/> How does the brain control muscle movement? <input type="checkbox"/> Describe and explain how the nervous system detects internal and external signals <input type="checkbox"/> Describe how an organism can detect internal and external signals	TB 49.1-3
Day 8	<b>Vertebrate Brain</b> <input type="checkbox"/> Describe how the vertebrate brain integrates information to produce a response <input type="checkbox"/> Different regions of the vertebrate brain have different functions, compare and contrast the functions of the forebrain, midbrain and hindbrain	TB 49.4-5
Day 9	<b>Review</b>	
Day 10	<b>Test Unit 1</b>	

Vocabulary:

1. action potential
2. altruism
3. amygdala
4. axon
5. classical conditioning
6. critical period
7. dendrite
8. depolarization
9. fitness
10. fixed action pattern
11. habituation
12. ion channel
13. kinesis
14. migration
15. myelin sheath
16. neurotransmitter
17. node of Ranvier
18. operant conditioning
19. parasympathetic
20. pheromone
21. resting potential
22. Schwann cell
23. sexual dimorphism
24. sympathetic
25. synapse
26. taxis
27. threshold
28. vesicle