Subject: Science Grade: Eighth

Standard: #5 The Human Organism

Key Concept: Some animal species are limited to a repertoire of genetically determined behaviors; others have more complex brains and can learn a wide variety of behaviors. All behavior is affected by both inheritance and experience.

Generalization: Regulation of an organism's internal environment and adaptation of behavior enables organisms to survive.

Background:

Students are studying a unit on regulation and behavior. They have learned the systems involved in regulation and behavior, how the systems maintain internal stability, and what may happen in times of stress.

This lesson involves learning about animal behavior by studying the lives of three female behavioral scientists and completing activities that relate to their work. The activities are from Women Life Scientists: Past, Present, and Future, ISBN 1-890251-00-3, published by the American Physiological Society, APS Publication Number ED97-1. Each activity includes a brief biography of the female science role model, a hands-on, inquiry-approach activity which is related to her work, suggestions for student assessment, and a resource list. Complete directions and a materials list is included with the activity in the book.

This lesson is tiered in ***content*** according to ***interest.***

Tier I: ***Jennifer Clarke***

This group will complete Activity #2, "Observing Siamese Fighting Fish."

Tier II: ***Deborah Gordon***

This group will complete Activity #1, “Getting Antsy.”

Tier III: ***Dian Fossey***

This group will complete Activity #1 & Activity #2, “Analyzing a Mountain Gorilla Family Tree,” and “Analyzing the Vocalizations of Mountain Gorillas.”

Assessment:

Teacher observation and student interviews during the investigation will serve as formative assessments. Laboratory reports and completed products may be assessed with a rubric. The students should share their activities and results with the rest of the class during a whole class discussion. The teacher should probe the students’ understanding of animal behavior and regulation from the activities. Students should be encouraged to relate their new knowledge to human behavior and regulation.