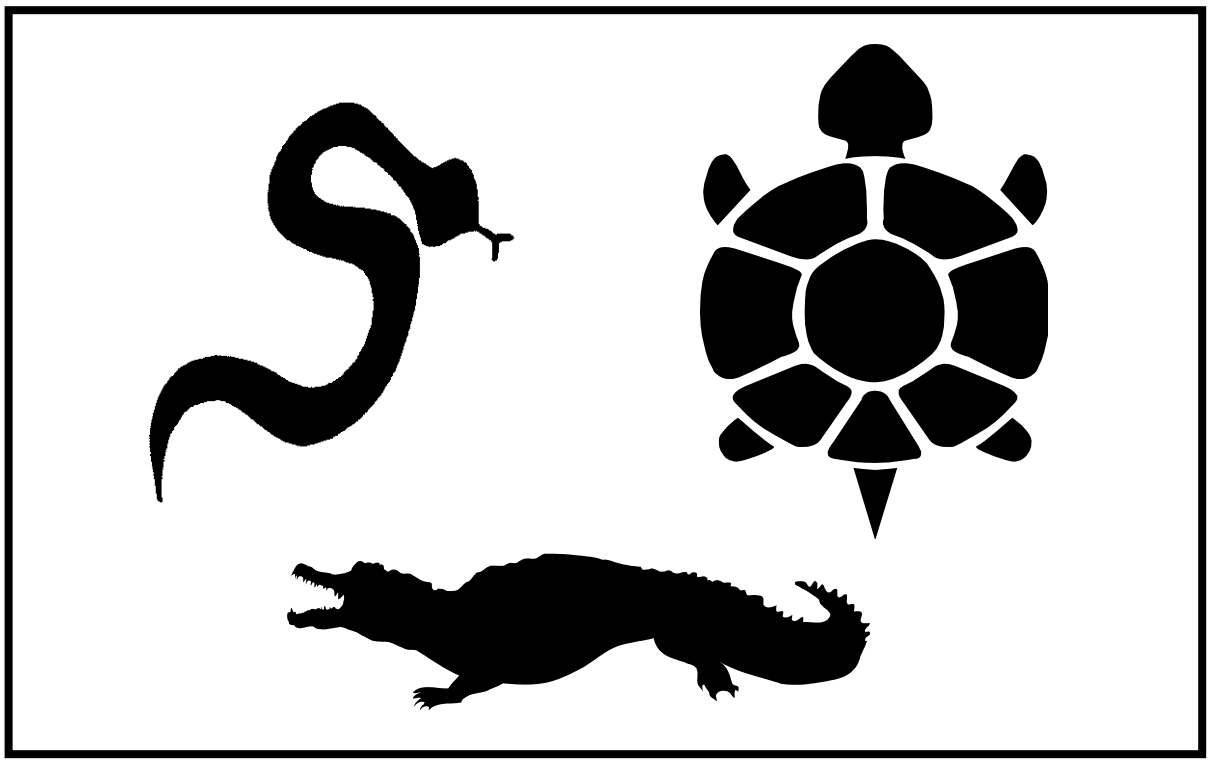
GATOR TALES

2018 – Driftwood Education Center



Class Description:
By holding snakes, touching alligators, and exploring our turtle enclosures, students will learn about these modern organisms with amazing adaptations. We will identify different species through the discovery process. Discussions and handling of these reptiles will lead students to identify and understand Georgia's indigenous species.

Appropriate for all grade levels
Can tailor all classes to High School Students

Driftwood Education Center
Po Box 20712 St. Simons Island, GA 31522
Phone: 912.638.3849 Fax: 912.634.0642
www.driftwoodee.org

Table of contents and outline:

I. Pre-class set-up **(10-15 minutes)**
   1. Arrange class spaces being used, make sure they're clean, and move animals.
   2. Have students wash hands BEFORE class.

II. Introduction, overview, and assessment **(10 minutes)**
   1. Give students 5 minutes to look around the room.
   2. Give the students a brief overview of the class.
   3. Assess what students already know about reptiles and then introduce reptile characteristics.
   Concept 1 and 2 – Outcome 1 and 2

III. Turtles **(20 minutes) – All Concepts and Outcomes**
   1. Discuss aquatic vs. terrestrial adaptations.
   2. Discover adaptations and conservation concerns of specific species of turtles as you touch them.

IV. Alligators (**15 minutes**) - **All Concepts and Outcomes**
   1. Alligators vs. Crocodiles
   2. Discover adaptations and conservation concerns of the American Alligator.

V. Snakes (**25-30 minutes**) – **All Concepts and Outcomes**
   1. Venomous vs. Nonvenomous vs. Poisonous
   2. Discover adaptations and conservation concerns of specific species of snakes as you handle them.

VI. Venn Diagram **(15-20 minutes) All Concepts and Outcomes 1-3**

VII. Conclusions and Wrap-up **(5 minutes)**
   1. Review of what students learned.
   2. Answer any questions.
   3. Remind student why reptiles are important.

VIII. Safety and Handling Protocol

IX. Additional Information

X. Species Specific Information

Florida Standards met:

SC.4.L.17.2 Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them.
SC.5.L.14.2 Compare and contrast the function of organs and other physical structures of plants and animals, including humans, for example: some animals have skeletons for support -- some with internal skeletons others with exoskeletons -- while some plants have stems for support.
SC.5.L.15.1 Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.
SC.5.L.17.1 Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.
SC.912.L.15.6 Discuss distinguishing characteristics of the domains and kingdoms of living organisms.
SC.912.L.15.7 Discuss distinguishing characteristics of vertebrate and representative invertebrate phyla, and chordate classes using typical examples.

Concepts:

Focal points of this class are:
1. Scientists compare and contrast living organisms' adaptations and body structures to classify them.
2. Animals have behavioral and physical adaptations that help them to be successful in their environment.
3. Reptiles are an important part of their ecosystems, and humans impact these ecosystems in various ways.

Outcomes:

Upon completion of this class, students will be able to:
1. List what characteristics reptiles all share and how they're similar or different to other animals.
2. Identify and understand the physical and behavioral adaptations of reptiles, especially focusing on indigenous reptiles.
3. Learn how reptiles are interconnected with their environments and how humans impact these environments as well.
4. Touch and hold several types of reptiles.

S. Carolina Standards met

4.L.5: The student will demonstrate an understanding of how the structural characteristics and traits of plants and animals allow them to survive, grow, and reproduce.
5.E.3: The student will demonstrate an understanding of how natural processes and human activities affect the features of Earth's landforms and oceans.
5.L.4: The student will demonstrate an understanding of relationships among biotic and abiotic factors within terrestrial and aquatic ecosystems.
6.L.4: The student will demonstrate an understanding of how scientists classify organisms and how the structures, processes, behaviors, and adaptations of animals allow them to survive.
7.EC.5: The student will demonstrate an understanding of how organisms interact with and respond to the biotic and abiotic components of their environments.
8.E.6: The student will demonstrate an understanding of Earth's geologic history and its diversity of life over time.

Next Generation Science Standards met:

4-LS1-2 Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways
5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.
MS-LS1-4Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively
MS-LS1-8Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.
MS-LS2-1Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem
MS-LS2-2Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
MS-LS2-5Evaluate competing design solutions for maintaining biodiversity and ecosystem services.
MS-LS4-2Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships

Georgia Performance Standards met:

S4L1. Obtain, evaluate, and communicate information about the roles of organisms and the flow of energy within an ecosystem.
S5L2. Obtain, evaluate, and communicate information showing that some characteristics of organisms are inherited and other characteristics are acquired.
S5L1. Obtain, evaluate, and communicate information to group organisms using scientific classification procedures.
S7L1. Obtain, evaluate, and communicate information to investigate the diversity of living organisms and how they can be compared scientifically
S7L4. Obtain, evaluate, and communicate information to examine the interdependence of organisms with one another and their environments.
S7L5. Obtain, evaluate, and communicate information from multiple sources to explain the theory of evolution of living organisms through inherited characteristics.