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COURSE: ABCS205

DAY: TUESDAY GROUP

DATE: 17TH NOVEMBER, 2023

1. Reptiles are cold-blooded vertebrates characterized by scales, laying shelled eggs, and having a waterproof skin. Examples include snakes, lizards, turtles, and crocodiles.

2.West African Gaboon Viper (*Bitis gabonica*)

• Pancake Tortoise (*Malacochersus tornieri*)

• African Softshell Turtle (*Trionyx triunguis*)

• Black-necked Spitting Cobra (*Naja nigricollis*)

• Common Snapping Turtle (*Chelydra serpentina*)

• Savannah Monitor Lizard (*Varanus exanthematicus*)

• Jackson's Chameleon (*Trioceros jacksonii*)

• Ghana Tiger Snake (*Telescopus semiannulatus*)

• Olive Ridley Sea Turtle (*Lepidochelys olivacea*)

• Giant Plated Lizard (*Gerrhosaurus major*)

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3. i.Snakes and lizards are both reptiles, but snakes lack limbs and eyelids, and their bodies are elongated for slithering. Lizards typically have limbs, movable eyelids, and external ear openings.

ii.Crocodiles and alligators share similarities, but differentiable features include snout shape and habitat. Crocodiles typically have V-shaped snouts, suited for catching prey in open water, while alligators have U-shaped snouts, ideal for gripping and ambushing prey in swampy environments. Additionally, crocodiles are found in saltwater habitats, while alligators inhabit freshwater environments.

iii.Fish scales are typically thin, overlapping plates composed of bone or cartilage, providing flexibility and reducing drag in water. They serve as protection against predators and environmental abrasions. In contrast, reptile scales are thicker, keratinized structures covering the skin. They provide a more rigid defense against predators and help prevent water loss.

iv .Amphibians generally have a three-chambered heart, consisting of two atria and one ventricle. This allows some mixing of oxygenated and deoxygenated blood. In contrast, reptiles typically have a more evolved heart with a partially divided ventricle, resulting in better separation of oxygenated and deoxygenated blood.

v. The pit organ in snakes is a heat-sensitive structure located between the eye and nostril, helping them detect infrared radiation emitted by warm-blooded prey. On the other hand, Jacobson's organ, or the vomeronasal organ, is involved in chemical sensing, detecting pheromones and aiding in chemical communication.

vi. Tortoises are primarily land-dwelling reptiles, adapted for a terrestrial lifestyle. They have sturdy, column-like legs with heavy, blunt feet, suitable for walking on land. Tortoises also typically have a more dome-shaped carapace (upper shell) and are herbivores.

On the other hand, turtles are a more diverse group that includes both terrestrial and aquatic species. Turtles generally have flatter, streamlined shells, webbed feet, and are well-adapted for life in the water. Aquatic turtles often have a more hydrodynamic shape, allowing them to move efficiently in aquatic environments. Turtles can be herbivores, omnivores, or carnivores, depending on the species

Vii. Tuataras, native to New Zealand, are unique reptiles that have a third eye on the top of their heads, known as the parietal eye. This eye aids in regulating circadian rhythm.

Lizards, on the other hand, are a diverse group of reptiles with over 6,000 species. One differentiable feature is that lizards typically lack the parietal eye found in tuataras. Lizards also exhibit a wide range of adaptations, including limb reduction in some species and the ability to autotomize (self-amputate) their tails as a defense mechanism. Meanwhile, tuataras are characterized by a more primitive, less specialized morphology compared to many lizards.