

1. F: Iguanidae G: *Sauromalus ater* (common chuckwalla) 2 pts
2. Chuckwallas will flee from predators to the safety of rock crevices. When in crevices, they will inflate their lungs with a gular pump to distend their bellies and wedge themselves between the rocks. 2 pts
3. Brumation is similar to a hibernation period. The processes differ in the metabolic processes involved. During brumation, reptiles often “wake” to drink water before returning to rest. 2 pts (tie break depending on detail)
4. F: Emydidae G: *Emydoidea blandingii* (Blanding’s turtle) 2 pts
5. The Blanding’s turtle is considered to be endangered in most of its range. These nomadic turtles are often killed along roadways. Targeting of wetlands for development has also limited their habitat. More than many turtles, Blanding’s turtles take a long time to reach sexual maturity, limiting their capabilities of propagation. Like many turtles, live collection as pets also threatens their populations. 3 pts (tie-break depending on detail)
6. Image A features the plastron of this turtle. In male turtles, the plastron tends to be slightly concave. This shape allows them to mount female turtles without falling off. 3 pts (tie-break depending on detail)
7. F: Viperidae G: *Agkistrodon piscivorus* (cottonmouth) 2 pts
8. When threatened, cottonmouths will coil up and expose their fangs. The white color of their inner mouth tissue resembles cotton. 2 pts
9. Pit vipers are often oviparous, they will retain the egg clutches in their body, releasing the fully developed babies upon their development. Cottonmouths and copperheads have also been known to exhibit parthenogenesis (“virgin” birth of young without males) in the wild. 4 pts (tie-break depending on detail)
10. F: Hylidae G: *Acris crepitans* (Northern cricket frog) 2 pts
11. The Northern cricket frog inhabits moist habitats near water sources. It is on the ground despite being a “true” tree frog. 2 pts
12. Northern cricket frogs will attach a single egg to underwater vegetation at a time. 2 pts
13. F: Plethodontidae G: *Eurycea spelaea* (grotto salamander, Ozark blind cave salamander) 2 pts
14. Grotto salamanders lose their gills as adults. There is also a partial or full fusion of the eyelids. Larval grotto salamanders also display more pigment than the adults. 2 pts (tie-break depending on detail)
15. White-nose syndrome has impacted the populations of bat species. Grotto salamanders have been known to supplement their diets by eating bat guano. The success of the grotto salamander appears to be tied to the success of bat species in their caves. 2 pts
16. F: Plethodontidae G: *Desmognathus eschscholtzii* (“ring” species) 2 pts
17. The *Desmognathus* genus is a species complex that encircles Californian mountains in a horseshoe like pattern. They are considered to be a “ring species”. Each population of *Desmognathus* can interbreed except for the two subspecies on the two ends of their range. This is thought to show speciation. 3 pts (tie-break depending on detail)
18. F: Colubridae G: *Tantilla relicta* (Florida crowned snake) 2 pts

19. Crowned snakes spend the majority of their time underground, and are rarely seen. 2 pts
20. This small, underground species feeds mostly on beetle larvae, but can also eat centipedes, snails, or other insects. 2 pts (tie-break depending on detail)
21. F: Anguidae G: *Ophisaurus ventralis* (Eastern glass lizard) 2 pts
22. Glass lizards get their name from their ability to drop their tails when threatened. They can constrict blood vessels at the base of their tail, dropping it while nerves spasm, drawing the predator's attention. Since a large portion of the lizard's body is tail, early biologists referred to it as a "glass snake" due to its fragility. 2 pts (tie-break depending on detail)
23. Glass lizards resemble snakes, but differ in many regards. Lizards have eyelids, external earholes, and lack the highly mobile jaws of snakes. Similar niches in similar habitats have led to the evolution of a similar body type in both snakes and glass lizards.
24. F: Emydidae G: *Pseudemys alabamensis* (Alabama red-bellied cooter/turtle) 2 pts
25. Alabama red-bellied turtles prefer backwater in rivers, bays, or bayous. They can often be found in soft bottomed, brackish bodies of water. 2 pts
26. These turtles feed on aquatic macrophyte vegetation in brackish waters. Especially hydrilla, pondweed, eel-grass, and arrowhead. 2 pts
27. F: Salamandridae G: None needed (*Notophthalmus viridescens* red-spotted newt) 2 pts (tie-break if proper genus given)
28. Pictured is the red eft juvenile form of the red-spotted newt. This is a terrestrial form that can last for up to two years. It is preceded by an aquatic larval form and followed by an aquatic adult form. 3 pts
29. Red-spotted newts have a tetrodotoxin that is unpalatable to most fish and wards them off. 2 pts
30. F: Phrynosomatidae G: *Sceloporus woodi* (Florida scrub lizard) 2 pts
31. Florida scrub lizards exhibit sexual dimorphism. The males develop distinct black and blue markings under their bellies and cheek regions. 2 pts
32. Many Floridian scrublands have been cleared out for citrus groves or farms. 2 pts
33. F: Colubridae G: *Storeria dekayi* (Northern brown snake, De Kay's snake) 2 pts
34. De Kay's brown snake does quite well in human habitation, often called the "city snake". They can be found amongst debris in urban areas. 2 pts (tie-break depending on detail)
35. F: Hylidae G: *Hyla cinerea* (American green tree frog) F: Hylidae G: *Acris blanchardi* (Blanchard's cricket frog)

Team Name _____ Team # _____

Student Names _____

TIE-BREAKERS!!!!!!

Only complete these if you are done with the rest of the test! **You may answer directly on this page.**
Identify the FAMILY and GENUS (if required) of each species pictured below:



F: Scincidae
G: *Plestiodon (Eumeces) anthracinus*
(coal skink)



F: Emydidae
G: *Glyptemys insculpta* (wood turtle)



F: Ranidae
G: Not needed *Rana sylvatica*
(wood frog)



F: Plethodontidae
G: *Desmognathus organi* (Northern pygmy salamander)



F: Colubridae
G: *Heterodon nasicus* (Plains hognose snake)



F: Polychridae
G: *Anolis equestris* (knight anole)