|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | | **Amphibians** | | | | |
| |  | | --- | | Quiz Directions  You may take this once. If you need to retake it, come see me and you can take it on paper for half credit. The answers to the quiz will be exposed after the due date. |  |  |  |  | | --- | --- | --- | | Directions: |  |  | | 1. Answer the questions below by clicking the button next to the best answer choice or typing your correct answer. Each question's answers are in grey. | 2. At the end of every page click the next button to move forward to the next page.  DO NOT HIT THE BROWSER'S BACK BUTTON! | 3. On the last page of the Quiz you will be able to see which questions are unanswered, are answered and have been flagged. |  |  |  |  | | --- | --- | --- | | questions: | | | |  | | | |  |  | | | **1.** *1 pts.* | Which of the following is NOT a characteristic of a caecilian? | | |  | A. | possess reduced tails | |  | B. | reduced eyes | |  | C. | smooth skin with large scales | |  | D. | powerful heads for burrowing | |  | E. | acute olfactory systems | |  |  | | | **2.** *1 pts.* | Which of the following is an anuran? | | |  | A. | newt | |  | B. | salamander | |  | C. | toad | |  | D. | siren | |  |  | | | **3.** *1 pts.* | The term caudata originates from the latin word for | | |  | A. | tail | |  | B. | scales | |  | C. | four legs | |  | D. | long hind limbs | |  |  | | | **4.** *1 pts.* | There are mudpuppies that vocalize like a dog. | | |  | True | | |  | False | | |  |  | |  |  |  |  | | --- | --- | --- | |  |  | | | **5.** *1 pts.* | The largest caudate group is the hellbenders. | | |  | True | | |  | False | | |  |  | | | **6.** *1 pts.* | Which of the following is a characteristic of caudates? | | |  | A. | they have an obvious tail | |  | B. | posses longer hind limbs | |  | C. | leap to move | |  | D. | burrow into the sand | |  |  | | | **7.** *1 pts.* | Some amphibians are \_\_\_\_\_\_\_\_, which means they produce fully formed miniature adults, as opposed to eggs. | | |  | A. | oviparous | |  | B. | vivoparous | |  | C. | placental | |  | D. | viviparous | |  |  | | | **8.** *1 pts.* | All amphibians deposit their eggs in water. | | |  | True | | |  | False | | |  |  | | | **9.** *1 pts.* | All amphibians deposit their eggs in water. | | |  | True | | |  | False | | |  |  | |  |  |  |  | | --- | --- | --- | |  |  | | | **10.** *1 pts.* | How are toads and frogs different? | | |  | A. | frogs are a type of toad | |  | B. | toads have especially granulous skin, letting them live in drier areas | |  | C. | toads leap rather than walk | |  | D. | toads have a short tail unlike frogs |  |  |  |  | | --- | --- | --- | |  |  | | | **11.** *1 pts.* | Toads do not undergo metamorphosis like frogs. | | |  | True | | |  | False | | |  |  | | | **12.** *1 pts.* | Many frogs are endangered to become extinct. | | |  | True | | |  | False | | |  |  | | | **13.** *1 pts.* | Which is the best explanation as to why are frogs good environmental indicators? | | |  | A. | they have sensitive lungs that are good indicators of environmental chemicals | |  | B. | they rely on the invertebrates that are very sensitive | |  | C. | they live live in water and on land and are cutaneous breathers | |  | D. | they have sensitive skin | |  |  | | | **14.** *1 pts.* | Without frogs rivers and streams typically run clearer and are left without algae needed for invertebrates and other river animals. (think about their role in the river) | | |  | True | | |  | False | | |  |  | |  |  |  | | --- | --- | |  |  | | **15.** *1 pts.* | Amphibians are cold blooded. | |  | True | |  | False | |  |  |  |  | | --- | |  | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | | **Bony Fish** | | | | |
| |  | | --- | | Quiz Directions  You may take this quiz once. |  |  |  |  | | --- | --- | --- | | Directions: |  |  | | 1. Answer the questions below by clicking the button next to the best answer choice or typing your correct answer. Each question's answers are in grey. | 2. At the end of every page click the next button to move forward to the next page.  DO NOT HIT THE BROWSER'S BACK BUTTON! | 3. On the last page of the Quiz you will be able to see which questions are unanswered, are answered and have been flagged. |  |  | | --- | | questions: | |  |      |  |  | | --- | --- | |  |  | | **1.** *1 pts.* | Scientists have observed fish using tools, building complex nests and exhibiting long-term memories. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **2.** *1 pts.* | Most of all the fishes are members of the osteichthyes group (bony fish). | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **3.** *1 pts.* | Fish have a complex nervous, circulatory and excretory system. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **4.** *1 pts.* | Some fish have the ability to give off light (through photophores or via the presence of bioluminescent bacteria). | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **5.** *1 pts.* | There are some fish that can "fly" for seconds in the air. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **6.** *1 pts.* | Fish do not have a swim bladder. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **7.** *1 pts.* | Members of osteichthyes are known for their oily liver. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **8.** *1 pts.* | Bony fish have an inefficient system for extracting oxygen from water. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **9.** *1 pts.* | Countershading in fish helps them to blend in with the seafloor and sea surface. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **10.** *1 pts.* | The cryptic coloration of some fish help them to blend in with sediment. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **11.** *1 pts.* | Schooling gives fish a disadvantage against predators. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **12.** *1 pts.* | There are some fish that can live some time out of water. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **13.** *1 pts.* | Salmon are anadromous fish. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **14.** *1 pts.* | The macula is the flexible plate that protects the gills of bony fish. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **15.** *1 pts.* | Bottom feeding fish tend to have mouths that angle upwards. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **16.** *1 pts.* | An eel displays a "elongated" type of body. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **17.** *1 pts.* | Fish with rounded fins tend to be the fastest swimmers. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **18.** *1 pts.* | In the video shown in class, people were swallowing fish alive because they believe it helps to cure heart disease. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | | **Fish I** | | | | |
| |  | | --- | | Quiz Directions  If you don't do well on this quiz, feel free to come see me and to make quiz corrections for credit. |  |  |  |  | | --- | --- | --- | | Directions: |  |  | | 1. Answer the questions below by clicking the button next to the best answer choice or typing your correct answer. Each question's answers are in grey. | 2. At the end of every page click the next button to move forward to the next page.  DO NOT HIT THE BROWSER'S BACK BUTTON! | 3. On the last page of the Quiz you will be able to see which questions are unanswered, are answered and have been flagged. |  |  | | --- | | questions: | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **1.** *1 pts.* | Which of the following is not a defining characteristic of fish? | | |  | A. | gills | |  | B. | fins if present | |  | C. | jaws | |  | D. | scales |      |  |  |  | | --- | --- | --- | |  |  | | | **2.** *1 pts.* | Look at the cladogram on the first slide of the powerpoint presentation. Which is a monphyletic group? | | |  | A. | agnathans and ray-finned fish | |  | B. | frogs and lungfish | |  | C. | mammals | |  | D. | reptiles and birds | |  |  | | | **3.** *1 pts.* | How do protochordates differ from vertebrates? | | |  | A. | they don't have a backbone | |  | B. | they have a backbone | |  | C. | they don't have a hollow dorsal nerve cord | |  | D. | they have a hollow dorsal nerve cord |      |  |  |  | | --- | --- | --- | |  |  | | | **4.** *1 pts.* | \_\_\_\_\_\_\_\_\_\_\_\_ is a superclass of jawless fish. | | |  | A. | myxini | |  | B. | hyperotreti | |  | C. | agnatha | |  | D. | petromyzontidae | |  |  | | | **5.** *1 pts.* | The \_\_\_\_\_\_\_\_\_\_\_\_\_\_ belong to the family Myxinidae. | | |  | A. | jawless fish | |  | B. | lamprey | |  | C. | chordates | |  | D. | bony fish | |  | E. | hagfish | |  |  | | | **6.** *1 pts.* | Which of the following is a characteristic of the hagfishes? | | |  | A. | 3 accessory hearts | |  | B. | a large cerebrum | |  | C. | jaws | |  | D. | large stomach | |  | E. | nematocysts | |  |  | | | **7.** *1 pts.* | Hagfish are great predators with keen eyesight. | | |  | True | | |  | False | |      |  |  |  | | --- | --- | --- | |  |  | | | **8.** *1 pts.* | Which of the following is a characteristic of the hagfishes? | | |  | A. | 3 accessory hearts | |  | B. | a large cerebrum | |  | C. | jaws | |  | D. | large stomach | |  | E. | nematocysts | |  |  | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **9.** *1 pts.* | Which of the following is a characteristic of the hagfishes? | | |  | A. | 3 accessory hearts | |  | B. | a large cerebrum | |  | C. | jaws | |  | D. | large stomach | |  | E. | nematocysts | |  |  | | | **10.** *1 pts.* | Hagfish have two pairs of rasping tooth like organs that can pinch together to bite their prey. | | |  | True | | |  | False | | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **11.** *1 pts.* | Hagfish undergo direct development. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **12.** *1 pts.* | Hagfish are monoecious. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **13.** *1 pts.* | Agnatha is an example of a paraphyletic group. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **14.** *1 pts.* | Lampreys are like hagfish in that they are also jawless. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **15.** *1 pts.* | Lamprey have large circular mouthes adapted for sucking. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **16.** *1 pts.* | Lampreys have all of the following except | | |  | A. | circular mouth | |  | B. | scales | |  | C. | cartilage skeleton | |  | D. | eel-like body | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **17.** *1 pts.* | to be anadromous means | | |  | A. | migrating back and forth between fresh and sea water | |  | B. | having two sexes | |  | C. | having one sex | |  | D. | migrating from the sea to fresh water to spawn | |  | E. | having a larval form | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **18.** *1 pts.* | Gnathostomata include animals that | | |  | A. | have four limbs | |  | B. | have jaws | |  | C. | have lungs | |  | D. | have a four chambered heart | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **19.** *1 pts.* | Sharks, skates, rays and chimeras all have ventral mouths and are able to replace their teeth. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  |  | | --- | --- | |  |  | | **20.** *1 pts.* | Skates lack whip-like tails and stingers. They lay eggs that look like "horns". | |  | True | |  | False | |  |  | | **21.** *1 pts.* | Carchardon charcharias, also known as the Great White Shark is the world's largest predatory fish. | |  | True | |  | False |      |  |  |  | | --- | --- | --- | |  |  | | | **22.** *1 pts.* | Which is not a characteristic that both Skates and Rays share? | | |  | A. | flattened bodies | |  | B. | bottom dwellers | |  | C. | venomous spines with serrated barbs | |  | D. | wing-like pectoral fins, fused with head | |  | E. | gill slits on underside | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | | **Animal Evolution Timeline** | | | | |
| |  | | --- | | Quiz Directions |  |  |  |  | | --- | --- | --- | | Directions: |  |  | | 1. Answer the questions below by clicking the button next to the best answer choice or typing your correct answer. Each question's answers are in grey. | 2. At the end of every page click the next button to move forward to the next page.  DO NOT HIT THE BROWSER'S BACK BUTTON! | 3. On the last page of the Quiz you will be able to see which questions are unanswered, are answered and have been flagged. |  |  | | --- | | questions: | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **1.** *1 pts.* | Which best describes the Permian period? | | |  | A. | Fish, terrestrial plants, 370 mya | |  | B. | Forested banks, dinosaurs, flat flood plains, shallow lakes and conifers | |  | C. | Mild winters and rarely below zero, grass shrubs, trees and deep rivers; 10 mya | |  | D. | Eryops, croc like predators, a rich aquatic environment | |  | E. | Ice age vegetation, willows, live oaks, pines; mammoths, wolves and cats | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **2.** *1 pts.* | Which best describes the Pleistocene period? | | |  | A. | Ice age vegetation, willows, live oaks, pines; mammoths, wolves and cats | |  | B. | Mild winters and rarely below zero, grass shrubs, trees and deep rivers; 10 mya | |  | C. | Forested banks, dinosaurs, flat flood plains, shallow lakes and conifers | |  | D. | Fish, terrestrial plants, 370 mya | |  | E. | Eryops, croc like predators, a rich aquatic environment | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **3.** *1 pts.* | A \_\_\_\_\_\_\_\_\_\_ is a visual reconstruction of evolutionary history. | | |  | A. | advanced feature | |  | B. | dichotomous key | |  | C. | cladogram | |  | D. | synapomorphy | |  | E. | reconstruction | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **4.** *1 pts.* | The best way to reconstruct evolutionary history is by looking at | | |  | A. | reaquired characteristics | |  | B. | shared features among organisms | |  | C. | how organisms develop | |  | D. | reconstructed evolutionary events | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **5.** *1 pts.* | Looking at the cladogram you received in class. Which animals do NOT have four limbs? | | |  | A. | jawless fish | |  | B. | edentates | |  | C. | artiodactyls | |  | D. | ungulates | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **6.** *1 pts.* | The following animals: cetaceans, artiodactyls, ungulates and sirenians all have \_\_\_\_. | | |  | A. | holes in their hip socket | |  | B. | hooves | |  | C. | uneven covering of enamel on their teeth | |  | D. | 3 fingered hands | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **7.** *1 pts.* | Montremes, marsupials and triconodonts all have \_\_. | | |  | A. | stirrup shaped stapes | |  | B. | 3 middle ear bones | |  | C. | palatal openings | |  | D. | a placenta | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **8.** *1 pts.* | Which of the following is probably going to be the next animal we learn about (hint: think of evolutionary order)? | | |  | A. | jawless fish | |  | B. | monotremes | |  | C. | dinosaurs | |  | D. | marsupials | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **9.** *1 pts.* | All of the animals on the cladogram have some sort of a backbone. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **10.** *1 pts.* | Carnosaurs are extinct. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | | **Copy of Science Daily Article: Invasive Tunicates** | | | | |
| |  | | --- | | Quiz Directions  Please read the article entitled "invasive tunicate appears in oregons coastal waters" and respond to the questions below. You may only take this quiz ONCE. You have 30 minutes to take this quiz. |  |  |  |  | | --- | --- | --- | | Directions: |  |  | | 1. Answer the questions below by clicking the button next to the best answer choice or typing your correct answer. Each question's answers are in grey. | 2. At the end of every page click the next button to move forward to the next page.  DO NOT HIT THE BROWSER'S BACK BUTTON! | 3. On the last page of the Quiz you will be able to see which questions are unanswered, are answered and have been flagged. |  |  | | --- | | questions: | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **1.** *1 pts.* | What state is the tunicate invasion affecting? | | |  | A. | alaska | |  | B. | massachusetts | |  | C. | oregon | |  | D. | california | |  | E. | michigan | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **2.** *1 pts.* | Which of the following describes a problem that the tunicates are posing in the bay area? | | |  | A. | the tunicates are providing more food sources for the fish there causing the fish population to rise | |  | B. | the tunicates are providing more food sources for the echinoderms there causing the echinoderm population to rise | |  | C. | the tunicates are smothering the beds of organisms like clams and mussels | |  | D. | the tunicates are making the surface of docks slippery and hard to walk on | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **3.** *1 pts.* | Which best describes the lifestyle of a tunicate? | | |  | A. | sessile and live in colonies | |  | B. | free swimming adults | |  | C. | benthic predators of small fish | |  | D. | free living aquatic invertebrates that float | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **4.** *1 pts.* | What is the genus name of this tunicate? | | |  | A. | vexillum | |  | B. | Didemnum | |  | C. | Tunicata | |  | D. | uchordata | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  |  | | --- | --- | --- | |  |  | | | **5.** *1 pts.* | Which of the following is NOT one of the solutions proposed in the article? | | |  | A. | smoothering colonies | |  | B. | physical removal | |  | C. | vinegar application | |  | D. | introduction of a predator species | |  | check the box to the left to flag this question Flag this question for later review | |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **6.** *1 pts.* | Tunicates are also currently being studied for biomedical application. | |  | True | |  | False | |  | check the box to the left to flag this question Flag this question for later review |  |  | | --- | |  | |  |      |  |  | | --- | --- | |  |  | | **7.** *1 pts.* | Tunicates are native to this bay area. | |  | True | |  | False | |

THIN GREEN LINE ONLINE QUIZ

|  |  |
| --- | --- |
|  |  |
| **1.** *1 pts.* | Summarize what you have seen thus far in the video "The Thin Green Line". Make sure to us the following in your answer: chytrid, america, medicine, human influence, algae, double life, permeable skin and "bellwethers". |