

Multiple choice: circle the letter of the ONE best answer:

1. In the evolution of vertebrate animals, which came FIRST?

- A. Backbones and ribs B. Legs C. Lungs D. Living on land not in sea

2. We think that the first vertebrate animals to come out onto the land (tetrapods) did so because:

- A. They were seeking perfection as air breathers
 B. There was no food left in the ocean, they had to seek land plants
 C. They were just trying to get from one tide pool to another
 D. They wanted to climb trees
 E. They had to lay their eggs on land

3. Which is TRUE about the geology of the earth?

- A. The earth started out ice cold and has gradually warmed up over billions of years
 B. The earth is roughly 5 million years old (5,000,000)
 C. Continental drift is called PLATE TECTONICS, as the sliding plates carry continents.
 D. Multicellular organisms appeared before sexual reproduction did.
 E. All of these are true.

4. In an adaptive radiation, where one species becomes two or more species, there must be:

- A. A geographical/genetic isolation that stops gene flow between different populations of the species
 B. Anagenesis and microevolution
 C. A geographical/genetic isolation that stops mutations within the species
 D. Continental drift
 E. All of the above must happen

5. The theory called punctuated equilibrium stresses that:

- A. Species have long periods of little change; natural selection maintains adaptations to local environments
 B. Most evolutionary change occurs in bursts when small populations become isolated
 C. Random genetic drift may be more important than scientists thought
 D. All of these are stressed.

3 POINTS Match one to one:

Homology

Analogy

Tetrapod

Cladistics

Microevolution

Macroevolution

_____ a shared derived anatomical characteristic; one that two species have because they both inherited it from a common ancestor.

_____ characteristics found in two different species that seem similar because they have a similar function, but evolved separately.

_____ ancestor of all birds, mammals, reptiles, and amphibians

_____ classification of species by homologies

_____ slow gradual accumulation of small changes

_____ the evolution of new kinds of organisms, like new genera and new families and new orders.

9/10. Two point Essay: describe the evolution of any ONE of these:

- A. First legs**
B. First lungs
C. First fish with vertebrae

WRITE YOUR ESSAY ON THE BACK

PRINT YOUR FIRST NAME _____

LAST NAME _____

BONUS QUESTION: From the "Salamander's Tale": what is a "ring species"?