

Evolution Test Review

<p>1. Which of the following is NOT a feature of Darwin's theory of Natural Selection?</p> <p>a) Variation of traits within a species b) Inheritance of acquired traits c) Survival of the Fittest d) Competition for Resources and Mates</p>	<p>6. All bananas sold today are from cuttings from a single plant, so they are all genetically identical. Why is this bad?</p> <p>a) Genetically similar plants aren't as tasty as genetically different plants b) Clones are sterile and don't produce seeds c) Natural selection will kill them. d) A single disease could wipe out the entire population</p>	<p>11. Which was a famous transitional fossil found in Canada?</p> <p>a) Homo habilis b) Homo sapien c) Tiktaalik d) Ichthyosaur</p>
<p>2. Which of the following are examples of homologous structures?</p> <p>a) A bear paw and a monkey hand b) A human arm and a squid tentacle c) A horse jaw and an elephant trunk d) A Bat wing and a insect wing</p>	<p>7. An example of speciation would be...</p> <p>a) The peppered moth population changing from light and dark moths to all dark moths b) An isolated group of lizards that can no longer breed with the original population c) A mule being created by mating a donkey and a horse d) A bacteria becoming immune to an antibiotic</p>	<p>12. Sharks allowing cleaner wrasse (fish) to clean their teeth is an example of...</p> <p>a) Physiological adaptation b) Behavioural adaptation c) Physical adaptation d) Competition</p>
<p>3. The origin of variation is a result of...</p> <p>a) Mutation b) Mutualism c) Natural Selection d) Overproduction</p>	<p>8. What does the layer of the earth a fossil was found in tell us?</p> <p>a) The deeper the fossil the older the organism b) The organism died due to mutation c) The organism did not survive because it was not fit d) The more fossils the bigger the population</p>	<p>13. A population of butterflies show colour variation from yellow to green. Climate change led to a drought in the butterflies environment causing the green grass to die and turn yellow. What type of selection could we see occurring in the butterflies population?</p> <p>a) Disruptive Selection b) Directional Selection c) Stabilizing Selection d) Artificial Selection</p>
<p>4. Which is an example of divergent evolution?</p> <p>a) Tasmanian tigers evolved from Australian marsupials and Bengal tigers evolved from placental mammals b) Polar bear in Canada and a</p>	<p>9. Which is true about transitional fossils?</p> <p>a) They are organisms that show a positive adaptation b) They are individual fossils of organisms living today c) They are intermediate species between two living organisms</p>	<p>14. Which is an example of convergent evolution?</p> <p>a) Tasmanian tigers evolved from Australian marsupials and Bengal tigers evolved from placental mammals b) Polar bear in Canada and a</p>

Black Bear in Asia c) Dolphins and sharks having similar body plans	d) They can only be found in the newest rock layers	Black Bear in Asia c) Dolphins and sharks having similar body plans
5. Which is not considered macroevolution? a) Speciation b) Convergent evolution c) Divergent evolution d) Mutation	10. If there is a gap in the lineage and a fossil is not present in the fossil record, then... a) The fossil record is inconclusive and cannot be used to track evolutionary lineages b) It did not fossilize or has not been found yet c) The fossil layer does not exist d) That species could not have existed	15. Biological fitness is defined as... a) How much you can bench b) Ability to survive and reproduce c) Ability to avoid natural selection d) Amount of variation through mutation in a population

MC: Answers: b, a, a, b, d, d, b, a, c, b, c, b, b, c, b

2. What evolutionary advancements needed to evolve for vertebrates to adapt to land? (Origin of tetrapods – choose *three points* are say what changed and why it was needed).

3. Draw a diagram showing divergent evolution and convergent evolution and provide a vertebrate example of each.

4. Define homologous structure. How does this differ to analogous structures?

a. Draw a diagram to show your understanding of this idea.

b. How is this evidence of evolution?

6. During a cave expedition in Northern British Columbia a scientist discovered a previously unidentified species of fish living within the pitch blackness of the cave. After dissection and study, the scientists determined that the fish was blind, but the fish had reduced eye tissue underneath a layer of skin. This is an example of what type of structure? What can this tell us about the fish's ancestor?

7. The four key points to natural selection are: variation, overproduction, survival of the fittest, and competition. Create a scenario (with real or fake animals) that can demonstrate the process of natural selection through each of the four points.

