

CHAPTER 22: Evidence for Evolution and Phylogeny

1. For each of the following, indicate how it is used as evidence of evolution by natural selection or shown as an evolutionary trend:

a. Paleontology - _____

b. Homologous structures - _____

c. Analogous traits - _____

d. Convergent evolution - _____

e. Parallel evolution - _____

f. Co-evolution - _____

g. Vestigial organs - _____

h. Embryology - _____

i. Biochemical similarities - _____

2. What does the comparison of the cytochrome c gene over many species show?

Name: _____

Question Set 41

3. What are the mechanisms of molecular evolution?

4. What is a genome?

5. What does the studies of gene families show?

6. What is a phylogenetic tree?

7. How does the "tree analogy" represent the evolutionary relationships of creatures?

8. Why might it be said that the above "tree" is more like a "bush"?

9. What is a clade?

Name: _____

Question Set 41

10. What is Occam's razor?

11. What is binomial nomenclature?

12. What are the seven classification subgroups below domain in order of most general to most specific?

13. Describe the difference between the following:

a. monophyletic - _____

b. polyphyletic - _____

c. paraphyletic - _____
