

NAME \_\_\_\_\_ PER \_\_\_\_\_ DATE \_\_\_\_\_

**STUDY GUIDE  
DUE ON MARCH 4**

**EVOLUTION TEST 14, 15, 16**

1. Explain how a gene mutation could have “adaptive value.”
2. How does “adaptive radiation” explain the diversity of finch species found on the Galapagos Islands?
3. Where are the Galapagos Islands?
4. What is embryology?
5. How did embryology support Darwin’s concept of “Descent with modification?”

6. Define “natural selection”
7. Describe Steno’s Law of Superposition
8. Explain how “peppered moths” vs. “white moths” demonstrated natural selection
9. What is camouflage?
10. What is an antibiotic?

11. How can antibiotics (or antibiotic soaps and hand creams) cause antibiotic resistance?

12. What is the relationship between penicillin and staphylococcus bacteria?

13. Describe geographic isolation

14. According to Darwin, what is survival of the fittest? (Do not use the word, 'fit' or 'fittest' in your answer)

15. Who was Thomas Malthus and how did he influence Darwin's thinking?

16. Describe the difference between divergent and convergent evolution

17. Define: extinction

18. Define: sterility

19. Define: gene pool

20. What is the difference between migration and emigration?

21. How does migration affect a change in the gene pool?

22. Do organisms tend towards random or non-random mating?

23. Describe the affects of DDT on insects

24. What will happen to a trait that has high survival value in a population? Will this trait be inherited? Will it increase or decrease in frequency?

25. In a population of mice, 70% have black coats and 30% have white coats. If the climate of the mice habitat changes so that there is a lot of snow throughout the year, how might the percentages of black and white mice change over time?

26. What is the difference between an unstable environment and a stable environment? Is a stable environment realistic?

27. How does genetic variation help organisms to survive in an unstable environment?