STUDY GUIDE CHAPTERS 13 & 14

LOT OF WRITING AND EXPLAINING ON THIS QUIZ. WARNING: THERE IS A

- 1. There will be 15 multiple choice questions based on the following topics:
 - Hardy-Weinberg equilibium, Darwin, LaMarck, homologous structures
 - types of evolution (see # 8 and 9)
 - types of barriers to reproduction (see # 10 and 11)
- 2. Know what *fitness* is. Why is it so important?
- 3. Know how GENETICS and the ENVIRONMENT are important to evolution.
- 4. Know the 3 parts to Lamarck's theory. List and describe each part. Know examples of his theory.
- 5. Be able to solve Hardy-Weinberg equilibrium problems.
- 6. List the 5 steps to Darwin's theory of natural selection. Explain each part.
- Be able to discuss examples of evolution using the 5 steps. For example, know 7. how to explain each of these:
 - Darwin's finches
 - drug resistant bacteria
 - giraffe height
 - rabbits and myxomatosis
 - peppered moth
- 8. Know the 3 types of evolution without natural selection: bottleneck effect, founder effect, and artificial selection
- 9. Know the 3 modes of natural selection: direction, stabilizing, and diversifying
- 10. Know the difference between a pre-zygotic barrier and a post-zygotic barrier.
- 11. Know the PRE-zygotic and POST-zygotic barriers to reproduction: habitat isolation, temporal isolation, behavioral isolation, mechanical isolation, gametic isolation, reduced hybrid viability, reduced hybrid fertility, hybrid breakdown
- 12. What is a species?
- 13. Be able to read and interpret an evolutionary tree, similar to the one in the slideshow.