

## ENVIRONMENTAL SCIENCE

### Ch 5. Study Guide

Mrs. Roberts

Use this **study guide**, your **skill worksheets** and the **textbook** to study for the Chapter 5 test. Good Luck!!

1. What is an organism's habitat?
2. In what ways do organisms adapt to their habitat?
3. What is a niche? What types of things help determine an organism's niche?
4. What biotic factors help define a niche?
5. What abiotic factors help define a niche?
6. Can two species have the exact same niche?
7. Give an example of how two species can have very similar niches (hint: Anolis lizards)
8. What will happen if two species try to have the exact same niche?
9. What is competitive exclusion? What causes it? What happens to the species that "loses"?
10. What is the difference between a fundamental niche and a realized niche?
11. What is niche diversity? What kinds of things contribute to niche diversity?
12. What is a predator? A prey? A keystone predator?
13. Explain how predators increase niche diversity. Ex: sea stars and mussels studied by Robert Paine
14. What is evolution? Explain how evolution occurs.
15. What are adaptations?
16. How does evolution reduce competition between species? Ex: tree warblers
17. What is the difference between specialized species and generalized species? Give examples of each.
18. Why do generalized species survive changes better than specialized species?
19. What is convergent evolution? Give 2 examples of convergent evolution.
20. What is coevolution? Give 2 examples of coevolution.
21. How has the coevolution of acacia trees and stinging ants benefited the trees and the ants?
22. What are populations controlled by?
23. What did Thomas Malthus observe?
24. What did Charles Darwin state about the amount of offspring produced by organisms? How did this effect competition and natural selection?
25. What is natural selection? How does it happen?
26. Explain how exponential growth occurs. Why don't populations grow exponentially? What are populations limited by?
27. What is a carrying capacity?