

## Chapter 52 Review: Population Ecology

1. What types of processes influence population density, dispersion, and demography? Give examples.
2. Draw the 3 patterns of dispersion.
3. Do questions 1-3 on pg. 1141.
4. Describe, with examples, the difference between semelparity and iteroparity.
5. Connect life history with natural selection. What are the "trade-offs"? Give examples!
6. Do #1 on pg. 1143.
7. Discuss the formulas introduced to you for general growth and exponential growth on pgs. 1143 & 1144. What does exponential growth represent in a population (think ideal!) Why is this growth not typically seen?
8. Do #s 1 & 2 on pg. 1145.
9. Compare and contrast exponential to logistic growth. What are the changes to the formulas and conditions required for logistic growth?
10. Connect logistic growth to real populations and life histories.
11. Describe, with examples, how populations are regulated by the INTERACTION of biotic and abiotic factors. Use graphs to help support your descriptions. (Include density dependent factors, density independent factors, population dynamics and population cycles.)
12. Do # 1 on pg. 1152.
13. Graph a sketch of the human population growth over the past 2 centuries or so. What type of growth is this? What has changed? Why? (Be sure to discuss demographic transition carrying capacity, life expectancy, ecological capacity).
14. Draw and explain the 3 types of age-structure pyramids on pg. 1154.