A. Top "10" — If you learned anything from this unit, you should have learned:

1. Populations
- group of individuals of same species living in same area (size, density, distribution/dispersion)
- habitat (type of area organism lives) vs. niche (role in ecosystem)
- competition
  - a. survivorship curves
    - Type 1 = most live long life = K-selected = humans, large mammals
    - Type 2 = constant death rate = hydra, small mammals
    - Type 3 = most die young = r-selected opportunists = fish, shellfish
  - b. age structure (rapid growth vs. declining vs. stable populations)
  - c. population growth
    - biotic potential (max. growth rate under ideal conditions)
  - – age at reproductive maturity, clutch size, frequency of reproduction, reproductive
    - o lifetime, survivorship of offspring
  - – bacteria vs. elephant
    - limiting factors –
      - o density dependent (competition for resources, parasites & diseases, waste
      - o products, stress, predation)
      - o density independent (climate = temperature & rainfall, natural disaster)
    - exponential growth (J-shaped, unlimited) vs. logistic growth curve (S-shaped, limited)
    - carrying capacity = maximum population supported by habitat
    - population cycles
  - d. human population growth
    - exponential = habitat expansion, increase in food supply, advances in medicine, waste treatment reduces hazard