

## Evolution Study – Concept map

Use all the following terms and concepts:

1. micro-evolution
2. natural selection
  - i. variation – sexual reproduction and mutation
  - ii. selective pressures
  - iii. survival of the fittest
  - iv. reproduction
3. example of natural selection (peppered moths or other)
4. biodiversity and gene pool
5. abiotic and biotic selective pressures
6. adaptations (structural, physiological, and behavioral)
7. sexual selection
  - i. secondary sex traits
  - ii. example
8. artificial selection, directional selection, disruptive selection and stabilizing selection
9. co-evolution
10. predator/prey adaptations
  - i. mimicry
  - ii. social hunting
  - iii. altruism and kin selection
  - iv. decoy
  - v. group hunting
11. prey defense adaptations
  - i. flocks
  - ii. startle display
  - iii. warning coloration
  - iv. mimicry
12. intra-specific and inter-specific competition
  - i. competitive exclusion
  - ii. zonation (niche separation) → Link to adaptive radiation
13. genetic drift
  - i. allele frequency
  - ii. genotype vs. phenotype
  - iii. founder effect, gene flow, bottleneck
14. macro-evolution
15. species and speciation
16. speciation through adaptive radiation example
  - i. isolation
  - ii. different selective pressures
  - iii. adaptation to unique selective pressure
  - iv. new species created
17. speciation through punctuated equilibrium
18. evidence for evolution (need 3)
  - i. fossil record
  - ii. continental drift
  - iii. homologous structures
  - iv. vestigial structures
  - v. embryology
  - vi. cellular comparisons