

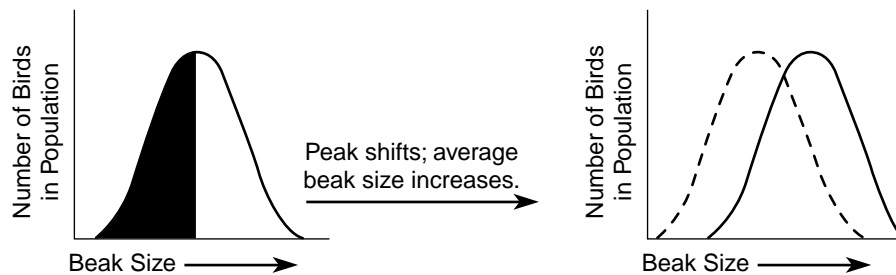
**Chapter 16 Evolution of Populations Chapter Vocabulary Review**

**Completion** *On the lines provided, complete the following sentences.*

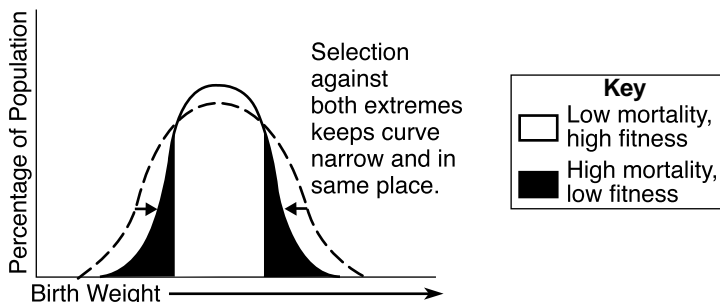
1. The combined genetic information of all members of a particular population is called a(an) \_\_\_\_\_.
2. The \_\_\_\_\_ of an allele is the number of times that the allele occurs in a gene pool, compared with the number of times other alleles occur.
3. A(an) \_\_\_\_\_ is a trait controlled by a single gene.
4. \_\_\_\_\_ are controlled by two or more genes.
5. The \_\_\_\_\_ of an allele in a population is often represented by a percentage.

**Multiple Choice** *On the line provided, write the letter of the answer that best completes the sentence or answers the question.*

- \_\_\_\_\_ 6. For most genes, a gene pool typically contains  
 a. no alleles. c. one allele.  
 b. two or more alleles. d. no more than two alleles.
- \_\_\_\_\_ 7. The graphs below show changes in the distribution of beak size in Galápagos finches during a period when food was scarce. What type of natural selection do the graphs show?  
 a. directional selection c. stabilizing selection  
 b. destabilizing selection d. disruptive selection



- \_\_\_\_\_ 8. The graph below shows the distribution of human birth weights. What type of selection keeps this curve narrow and in the same place?  
 a. directional selection c. stabilizing selection  
 b. destabilizing selection d. disruptive selection



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- \_\_\_\_\_ 9. What type of natural selection takes place when individuals at the upper and lower ends of the curve have higher fitness than individuals near the middle?
- directional selection
  - destabilizing selection
  - stabilizing selection
  - disruptive selection
- \_\_\_\_\_ 10. A random change in allele frequency is called
- fitness.
  - genetic drift.
  - speciation.
  - the founder effect.
- \_\_\_\_\_ 11. Genetic drift is more likely to occur in
- large populations.
  - medium-sized populations.
  - small populations.
  - a single individual.
- \_\_\_\_\_ 12. What occurs when allele frequencies change as a result of the migration of a small subgroup of a population?
- directional selection
  - the founder effect
  - speciation
  - genetic equilibrium
- \_\_\_\_\_ 13. What principle states that the frequency of an allele in a population will remain constant unless one or more factors cause that frequency to change?
- the speciation principle
  - the genetic equilibrium principle
  - the Hardy-Weinberg principle
  - the genetic-drift principle
- \_\_\_\_\_ 14. The situation in which allele frequencies do not change is called
- genetic equilibrium.
  - stabilizing equilibrium.
  - behavioral equilibrium.
  - directional selection.
- \_\_\_\_\_ 15. Which of the following is required to maintain genetic equilibrium?
- The population must be small.
  - No mutations occur.
  - Individuals move between populations.
  - Natural selection occurs.
- \_\_\_\_\_ 16. What is the formation of a new species called?
- directional selection
  - speciation
  - founder effect
  - temporal isolation
- \_\_\_\_\_ 17. What situation occurs when members of two different species cannot interbreed and produce fertile offspring?
- reproductive isolation
  - genetic equilibrium
  - genetic drift
  - natural selection
- \_\_\_\_\_ 18. What kind of isolation occurs when two populations are capable of interbreeding but have differences in courtship rituals or other types of behavior?
- courtship isolation
  - behavioral isolation
  - geographic isolation
  - temporal isolation
- \_\_\_\_\_ 19. Two populations kept separate by a river are characterized by
- genetic drift.
  - disruptive selection.
  - geographic isolation.
  - temporal isolation.
- \_\_\_\_\_ 20. What situation occurs when two or more species reproduce at different times?
- stabilizing selection
  - behavioral isolation
  - geographic isolation
  - temporal isolation