

CHAPTER 21.2: Mechanisms of Evolution

1. Why is genetic variation important to evolution?

2. How does each of the following break Hardy-Weinberg assumptions?

a. mutation: _____

b. gene flow: _____

c. genetic drift: _____

d. nonrandom mating: _____

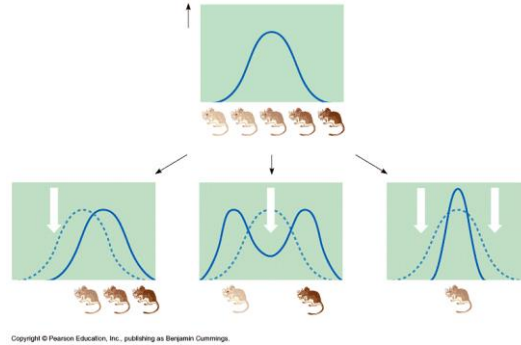
3. How does genetic drift apply to each of the following? Give an example of each.

a. Founder Effect: _____

b. Bottleneck Effect: _____

4. Define fitness (as it is used in evolutionary biology).

5. Distinguish between the three types of selection illustrated in these graphs of the distribution of coat color in mice.



6. Describe two examples of documented cases of selection in natural populations which have resulted in evolutionary change of a population.

a. _____

b. _____

7. For each of the following, give an example or describe what is meant by the statement.

a. Natural selection cannot fashion perfect organisms: _____

b. Not all evolution is adaptive: _____

c. Selection can only edit existing variations: _____
