SECTION

OTHER MECHANISMS OF EVOLUTION

11.3 Study Guide

KEY CONCEPT

Natural selection is not the only mechanism through which populations evolve.

VOCABULARY		
gene flow	bottleneck effect	sexual selection
genetic drift	founder effect	

MAIN IDEA: Gene flow is the movement of alleles between populations.

Fill in the word or phrase that best completes each statement.

- **1.** When an individual ______ from its population, its alleles are no longer part of that population's gene pool.
- **2.** When an individual ______ into a new population, the genetic diversity of this new population increases.
- **3.** Gene flow among neighboring populations helps to keep the ______ of these populations similar.

MAIN IDEA: Genetic drift can occur in small populations.

4. How is genetic drift different from natural selection?

Use Y-notes to compare and contrast the bottleneck effect and the founder effect.

Bottleneck effect		Founder effect
\	Both	

STUDY GUIDE, CONTINUED

5. Why is genetic drift more likely to occur in smaller populations?

6. What are some problems that can result from genetic drift?

MAIN IDEA: Sexual selection is a source of evolutionary change.

7. Why is the cost of reproduction different for males and females?

8. What is sexual selection?

CHAPTER 11The Evolution of Populations

9. ______ selection involves fighting among males for a female,

whereas ______ selection involves males displaying traits

to impress females.

Vocabulary Check

In the spaces provided below, draw pictures that help you to remember the definitions of the vocabulary words.

Gene Flow

Bottleneck Effect

Founder Effect