



Name \_\_\_\_\_

Period \_\_\_\_\_

Date \_\_\_\_\_

**SECTION**  
**11.5**

SPECIATION THROUGH ISOLATION

**Study Guide**

**KEY CONCEPT**

**New species can arise when populations are isolated.**

**VOCABULARY**

reproductive isolation	geographic isolation
speciation	temporal isolation
behavioral isolation	

**MAIN IDEA: The isolation of populations can lead to speciation.**

Fill in the term from the box that best completes each statement.

speciation	gene flow	species	gene pools
environments	mutation	mate	genetic drift

- Two populations are said to be isolated if there is no longer any \_\_\_\_\_ between them.
- Over generations, the \_\_\_\_\_ of isolated populations may become more and more different.
- Isolated populations may become genetically different as they adapt to new \_\_\_\_\_, or through random processes such as mutation and \_\_\_\_\_.
- When members of two isolated populations can no longer \_\_\_\_\_ successfully, the populations are said to be reproductively isolated.
- Reproductive isolation is the final step of \_\_\_\_\_, which is the rise of new \_\_\_\_\_.
- The experiment illustrated in Figure 11.12 shows how just one \_\_\_\_\_ can provide enough genetic difference to result in reproductive isolation.

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## STUDY GUIDE, CONTINUED

**MAIN IDEA:** Populations can become isolated in several ways.

7. Name the three types of barriers that can isolate populations.

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8. In the chart below, take notes about the three ways in which populations can become isolated, leading to reproductive isolation.

Type of Isolation	How It Works	Example
behavioral isolation		
geographic isolation		
temporal isolation		

### Vocabulary Check

9. What is speciation?

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10. Which type of isolation involves factors of time?

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11. Which type of isolation can involve mating or courtship rituals?

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12. Which type of isolation can involve physical barriers?

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