

# Evolution

## Section 3 Shaping Evolutionary Theory

### Main Idea

### Details

**Scan** Section 3 of the chapter. Write two facts that you discover.

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_

### Review Vocabulary

Use your book or dictionary to define allele.

*allele*

\_\_\_\_\_  
\_\_\_\_\_

### New Vocabulary

Write the correct vocabulary term in the left column for each definition below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- allele frequencies remain the same unless acted upon by a factor
- random evolution that occurs in a small, separate subpopulation
- process of a large population declining in number then rebounding to a large number again
- mechanism that operates before fertilization occurs
- change in the allele frequencies in a population by chance
- selection which removes organisms with extreme expressions of a trait
- mechanism that operates after fertilization occurs to ensure that resulting hybrid remains infertile
- selection which shifts a population toward an extreme trait
- selection which removes individuals with average traits
- change in a trait based on competition for mates
- speciation in the presence of a barrier
- speciation without any barriers

**Section 3 Shaping Evolutionary Theory** (continued)

**Main Idea** \_\_\_\_\_

**Details** \_\_\_\_\_

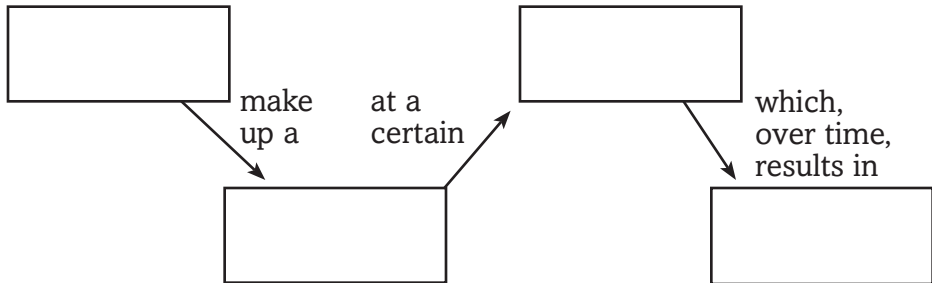
**Mechanisms of Evolution**

*I found this information on page \_\_\_\_\_.*

**Reproductive Isolation**

*I found this information on page \_\_\_\_\_.*

**Sequence** *the steps associated with genetic equilibrium by completing the graphic organizer below.*



**Identify** *three ways that genetic equilibrium can be disrupted.*

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**Contrast** *geographic isolation and reproductive isolation.*

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Compare** *natural selection and sexual selection by completing the table.*

	<b>Species Changes Based on</b>	<b>Increases Fitness?</b>
Natural selection		
Sexual selection		

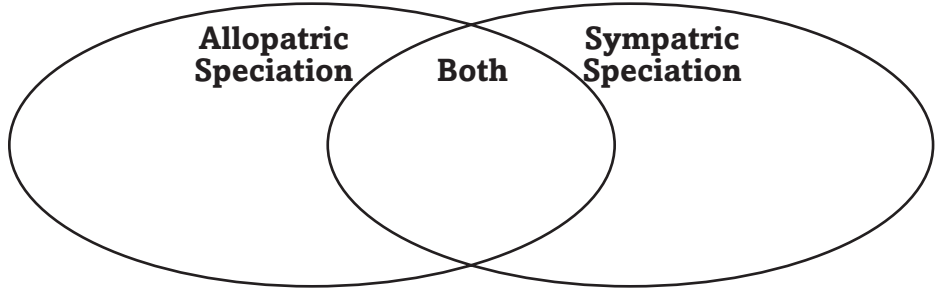
**Section 3 Shaping Evolutionary Theory** (continued)

**Main Idea** \_\_\_\_\_ **Details** \_\_\_\_\_

**Speciation**

I found this information on page \_\_\_\_\_.

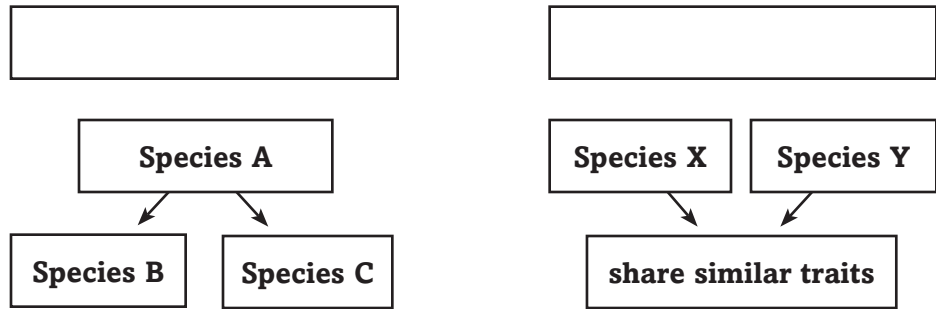
**Compare** *allopatric speciation and sympatric speciation by writing one fact in each segment of the Venn diagram below.*



**Speciation and Patterns of Evolution**

I found this information on page \_\_\_\_\_.

**Label** *each model as representing divergent evolution or convergent evolution.*



**Summarize** *the current thoughts about the rate of speciation by completing the table below.*

Gradualism	Punctuated Equilibrium

**SUMMARIZE**

List three possible patterns of evolution and an example of each.

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