

## Chapter 22

Use with Section 2

## ENRICHMENT

## • Unity of Life

## Natural Selection in Action

Read the following information. Then answer the questions.

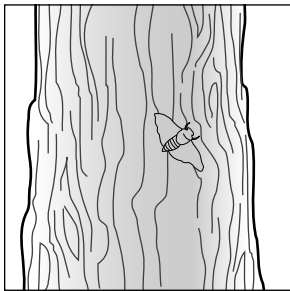
In the text, you read about adaptation through natural selection. You read that thousands of years usually pass before species adapt to changes in their environments. Sometimes adaptations occur more quickly, with a little help from humans.

## The Peppered Moth

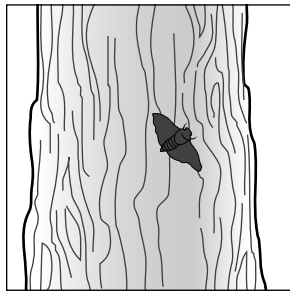
At the beginning of the 1800s, most of England's peppered moths were light gray. Insect collectors sometimes found rare black peppered moths. But during the Industrial Revolution, factories were built all over England, especially in the cities. Soot from these factories made the sky above the cities dark, and polluted the surrounding countryside.

Previously, gray peppered moths had a natural camouflage. Birds that eat moths had trouble seeing gray peppered moths against the light bark and leaves of trees. But during the Industrial Revolution, soot from factories turned the leaves and trunks of trees a darker color. Birds found it easier to spot and eat gray peppered moths. The black moths were camouflaged against the soot-covered trees. After a few decades—by the 1840s—there were more black than gray peppered moths around England's cities.

Before the Industrial Revolution

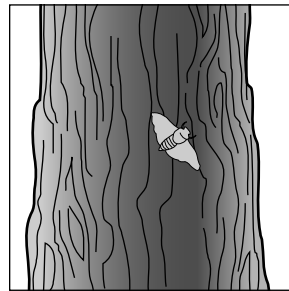


A gray peppered moth

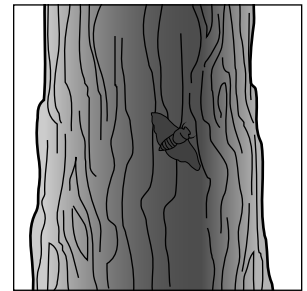


A black peppered moth

After the Industrial Revolution



A gray peppered moth



A black peppered moth

1. Did the peppered moth undergo natural selection in England in the 1800s? How?

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2. How would less pollution affect the numbers of gray and black peppered moths?

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