

## GUIDED PRACTICE

**PRACTICE** Read the following passage from beginning to end. Then, read and answer the questions in the strategies column.

### STRATEGIES

## Living Together

1. A text's overall main idea is often stated at the end of the introduction. What main idea is stated here? Underline it.
  2. The heading tells you that this section is about mutualism. Which sentence states the main idea? Underline it. (WATCH OUT! It is not the first sentence.)
  3. Remember to look for details that support main ideas. What example explains commensalism? Underline it.
- 1 It's an odd sight. As a rhinoceros ambles along an African plain looking for vegetation to munch on, a bird lands on its back—and stays there. It's not just any bird. It's an oxpecker, a kind of bird that lives with rhinos. The rhino doesn't mind if the oxpecker hitches a ride. The bird eats ticks that attach themselves to the rhino and suck its blood. So while the oxpecker gets a free lunch, the rhino gets free pest control. This interaction is an example of *symbiosis*. The word comes from Greek roots that mean "living" and "together." As the roots suggest, symbiosis refers to interactions between different species that live together. Symbiotic relationships can be divided into three categories: mutualism, commensalism, and parasitism.
  - 2 **Mutualism**  
The relationship between the rhinoceros and the oxpecker illustrates *mutualism*—interactions between two different species that benefit both species. In mutualistic relationships, each species provides a benefit to the other that helps both species' chances of survival. The relationship between sea anemones and clownfish is another example of mutualism. Sea anemones look something like plants. They are, however, animals that live on the sea floor. They often attach themselves to rocks and remain stationary for long periods of time. To catch prey, they use their tentacles, which have stingers that inject a deadly poison. Most fish and other animals stay away, but not the clownfish. It is not hurt by the anemone's sting. In fact, the clownfish lives with the anemone, lingering among its tentacles. The tentacles protect the clownfish from animals that want to eat it. In return, the clownfish chases away butterfly fish, which eat anemones.
  - 3 **Commensalism**  
*Commensalism* is a symbiotic relationship in which one species benefits while the other species is unaffected. Cattle and the cattle egret, a type of bird, have this kind of relationship. As cattle graze, they inadvertently stir up insects in the grass. Cattle egrets eat insects. Because the cattle make insects easier to spot and catch, cattle egrets live near cattle. The birds benefit. The cattle do not, but they are not harmed, either.



#### 4 Parasitism

*Parasitism* is a symbiotic relationship in which one species benefits while the other species is harmed. The relationship between the tick and the rhinoceros is an example. Ticks attach themselves to rhinos to feed on rhino blood. The painful bites, which can become infected, do not benefit the rhinos in any way. In fact, the bites are harmful. The ticks, on the other hand, receive vital nutrition from rhino blood. Parasitism is very common. If you have ever been bitten by a tick or a mosquito, you know firsthand what parasitism is!



**GED PRACTICE** Write each bulleted supporting detail in the box of the symbiotic relationship it explains.

- Mosquitoes bite people and drink their blood, creating itchy bites.
- Anemone tentacles protect clownfish; clownfish chase away butterfly fish, which eat anemones.
- Cattle stir up insects; cattle egrets eat the insects without bothering the cattle.

1. Mutualism	2. Commensalism	3. Parasitism

**Answers and explanations start on page 74.**

4. Remember to use headings to find main ideas. Which sentence states the main idea about parasitism? Underline this topic sentence. Which sentence gives a supporting example? Underline it.

# GED APPLICATION

**PRACTICE** Read the passage. Answer the questions that follow.

## An Ongoing Global Issue

- 1 In the 1930s, a terrible drought struck the Great Plains in the central United States. This region is naturally semi-arid, so it rarely gets plenty of rain. But in the 1930s, the dryness was severe. Strong winds picked up the dry soil and blew it hundreds of miles away. Many farmers left, abandoning their homes and giving up their farms. What happened to the land is known as *desertification*, the process by which semi-arid land changes into a desert. Desertification can occur naturally as the climate gradually changes and areas become drier. However, it can also occur when human activities put too much stress on the land. Today, as during the 1930s, desertification has devastated the lives of many people, and people themselves are partly to blame.
- 2 The problem in the Great Plains started in the 1920s, when new types of farm machinery allowed farmers to plant larger crops more quickly. Farmers used the machinery to cultivate many more acres of land than they had previously—about 5 million acres more. Much of that land had been covered with a drought-resistant grass native to the region. Farmers plowed the land, killed the grass, and planted wheat, which is not resistant to drought.
- 3 As long as there was enough rainfall, the wheat grew. But a long drought struck during the 1930s. The region usually survives dry periods, but in this case, people made the situation worse. Even as the drought deepened, farmers kept plowing and planting. Without water, the wheat did not grow. The soil was exposed to the sun and wind, and desertification occurred.
- 4 Today, the Great Plains area has recovered from the desertification of the 1930s. It is once again a productive farming region. And farmers today follow better agricultural practices. But desertification has continued to threaten other places around the world. A case in point is the Sahel, a region of West Africa. In 1968,



a terrible drought struck there. Like the Great Plains, the Sahel is semi-arid. Also like the Great Plains, the land was overused. Large herds of cattle roamed the land. They trampled the soil, overgrazed the sparse vegetation, and left the land exposed to the sun and wind. The drought lasted for years. By 1973, 100,000 people and 12 million cattle had died.

- 5 Desertification remains a threat in parts of Africa and other places in the world. To help solve the problem, the United Nations has spearheaded educational programs to teach people about wise land use. As Luc Gnacadja, executive secretary of the UN Counsel to Combat Desertification (UNCCD), pointed out, "[Solving the problem of] desertification is first and foremost avoiding the misuse of land."



**GED PRACTICE** Circle the letter of the option that correctly answers each question.

1. What is the passage's main idea?
  - A. Desertification is the process by which semi-arid land becomes desert.
  - B. Drought made the 1930s a devastating time for Great Plains farmers.
  - C. The Sahel is similar to the Great Plains because it often has droughts.
  - D. Desertification is a continuing problem that is partially caused by people.
2. Which heading would best sum up the main idea of paragraphs 2–3?
  - A. The Dreadful Drought
  - B. Plant Grass, Not Wheat
  - C. Faulty Farming Practices
  - D. New Machines, New Problems
3. Why does the author give the example of desertification in the Sahel?
  - A. to prove that African farmers need financial aid
  - B. to show that desertification is a global issue
  - C. to contrast farming methods in the United States and in Africa
  - D. to compare drought conditions in the United States and in Africa

*Answers and explanations start on page 74.*