

GUIDED PRACTICE

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

STRATEGIES

1. After reading this paragraph, which do you think this passage will mainly explore? (Check ✓ one.)

- ☐ Cause
☐ Effects

Underline the sentence that tells you so.

2. This paragraph describes a causal chain. Fill in the missing link in the chain.

warming trend



melting of ice caps



3. Which word signals a cause-and-effect relationship between warmer weather and the time that a seed has to grow and mature? Underline the word.

Heat Wave

1 Scientists estimate that the Earth's temperature is about 5° to 9° F warmer now than it was 10,000 years ago. A change in climate is not unheard of; the Earth's climate has changed many times during its long history. However, the rate at which the climate is changing now is unusually fast, and that has scientists worried. Earth's average temperature has increased by about a degree over the last 100 years. But half of this change has taken place in just the last 25 years. Moreover, the rate of warming is increasing. Scientists at the U.S. Environmental Protection Agency (EPA) have estimated that if the trend continues the world's temperature will increase at least 1° and maybe up to 11° F by the end of the century. Warmer temperatures could trigger a number of far-reaching effects.

2 One is the melting of the polar ice caps. Pictures taken by the National Aeronautics and Space Administration (NASA) show that the ice covering the North Polar Region is rapidly shrinking. In fact, the polar ice caps have melted faster in the last 20 years than in the last 10,000. If the trend continues, the Arctic will contain no ice during summer by mid-century. Melting ice caps could, in turn, have a dramatic effect on sea levels. A comprehensive satellite study confirms that the melting ice caps are raising sea levels at an accelerating rate. Levels have risen between four and eight inches in the past century alone, and the EPA estimates that they could rise as much as another two feet in the next 100 years. In the U.S., this change will be felt most strongly by coastal cities such as San Diego, Galveston, Miami, and New York. Such low-lying cities could experience massive flooding.

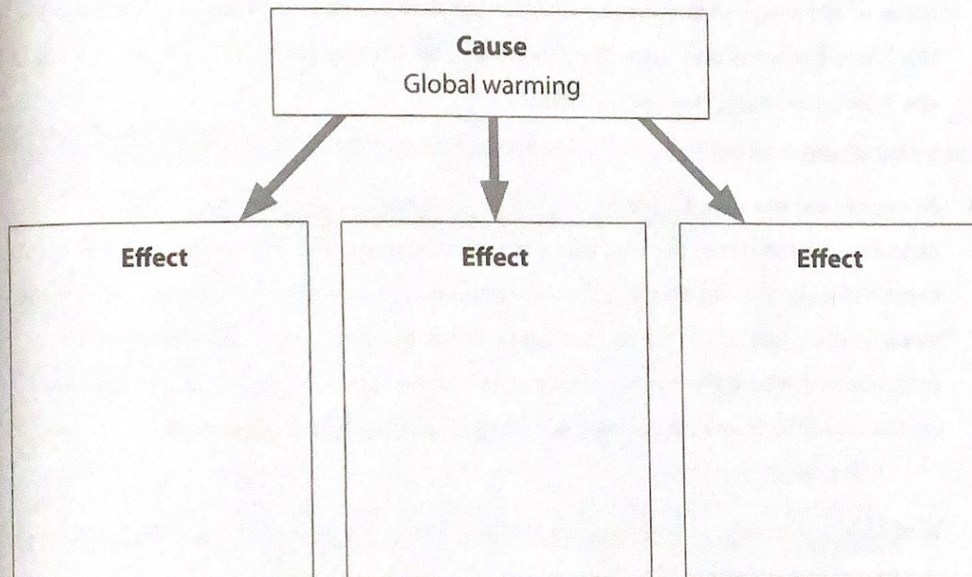
3 Major changes in climate could also affect agriculture. For instance, in the U.S. Midwest, which grows much of the country's grain, warmer weather may cause smaller crop yields. That would mean that the amount of grain harvested per acre of land would decrease. Grains grow more quickly in warmer weather; consequently, seeds have less time to grow, mature, and produce large, strong plants. Warming trends could also increase the incidence of extreme weather, such as severe storms and drought. This would have a negative impact on crops too.

4 Although the Earth's climate has always been in a state of change, the rate of change has accelerated because of the actions of human beings. Earth is getting warmer because people are adding heat-trapping gases to the atmosphere, mainly by burning fossil fuels such as coal, gasoline, and natural gas.

5 No one knows exactly how these changes will affect Earth. It depends partly on how the Earth responds to the pollutants that are already in the air and partly on whether people around the world choose to make lifestyle changes. We can cut back on our use of fossil fuels, or we can ignore the warning signs and go on living as we have been, gambling on what will happen. Either way, changes are taking place.



GED PRACTICE Fill in each empty box with an effect of global warming described in the passage.



Answers and explanations start on page 76.

4. Is this paragraph mainly about an effect or a cause of global warming? (Check ✓ one.)

- ☐ Cause
☐ Effect

Underline the signal word that tells you so.

GED APPLICATION

PRACTICE Read the passage. Answer the questions that follow.

Ecology of the Redwood Forest

- 1 The redwood trees that grow along the coast of northern California and southern Oregon are the tallest trees in the world. They grow up to 360 feet tall—as tall as a 35-story building. These trees also grow old. In fact, scientists think the oldest trees we know about have lived more than 2,000 years. While the size and age of these trees make them intriguing, the ecology of the ancient redwoods is also fascinating.
- 2 The redwoods grow in a unique environment along the coast. It is characterized by frequent, dense fog. This fog helps create conditions that make it possible for the giant trees to survive and to grow large and old. When the fog moves into the forest, it condenses, or collects, on the foliage of the redwoods. The trees absorb some of the water through their needle-like leaves. The rest of the water drips onto the lower branches and onto the ground below. The fog provides up to 45 percent of the water used each year by the trees.
- 3 Summers are the driest time of the year in this region. Because the redwoods capture moisture from the fog, other plants and animals thrive in the area. Moisture captured from the fog by the redwoods supplies two-thirds of the water used by the trees, bushes, and other plants that grow below the huge trees. The fog creates an environment where the redwood trees can survive, and the trees, in turn, improve on the conditions, making it possible for other living things to survive too.
- 4 Within this special environment, something else is happening high in the canopies, or tops, of the redwoods. The trees lose about a third of their foliage each year. Some of that discarded foliage falls on lower branches, where it collects. Slowly, the foliage rots, creating rich soil. Plants called epiphytes grow in this soil. Epiphytes are plants that grow on other plants rather than on the ground. Because redwoods live so long and get so large, they provide soil for large communities of plants that live hundreds of feet up in the canopy. Among these plants are various kinds of ferns and fungi. Even some bushes and trees grow up there.

- 5 These large plant communities create an environment for certain animals as well. Beetles, crickets, earthworms, and millipedes make their homes in the soil and on the plants in the canopy. Even amphibians, such as newts and salamanders, live and breed in the trees. Rodents, bats, and other mammals live there too. Of course, there are also many birds in the canopy, including hawks, owls, bald eagles, egrets, and great blue herons.
- 6 In the mid-1800s, redwood forests covered about two million acres in Oregon and California. Then, timber companies discovered the trees and logged them extensively. Today, only four percent of the original redwood forests remain. Some forests are growing back. However, the young trees in these forests are not big enough or old enough to create the special environment found among older trees. As a result, the land has changed. The soil is drier and the streams carry less water. So plants and animals that thrive in old redwood forests do not do as well in the new ones.



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

1. Which is a cause of the unusual growth of the redwoods?
 - A. dry summers
 - B. frequent fog
 - C. falling foliage
 - D. dense canopy
2. Which explains why redwoods can support epiphytes?
 - A. Foliage from the trees falls on the tree branches and rots, producing soil.
 - B. Various kinds of ferns and fungi grow, creating canopies in the treetops.
 - C. Beetles and earthworms enrich the soil, making it conducive to plant life.
 - D. The thick foliage filters the sunlight, protecting plants from intense heat.
3. Which are effects of the loss of old redwood trees?
 - A. There are more animals but fewer plants.
 - B. Newts and salamanders now live on the ground.
 - C. There are no canopies, so birds have left the forest.
 - D. The soil is drier, and the streams carry less water.

Answers and explanations start on page 76.