

Active Reading

Section 2: Urban Land Use

Read the passage below and answer the questions that follow.

Environmental conditions in the center of a city are different from those of the surrounding countryside. Cities both generate and trap more heat. The increased temperature in the city is called a **heat island**. Heat is generated by the infrastructure that makes a city run. Roads and buildings absorb more heat than vegetation does. They also retain heat longer. Atlanta, Georgia, is an example of a city that has a significant heat island.

Scientists are beginning to see that heat islands can affect local weather patterns. Hot air rises over a city, cooling as it rises, and eventually produces rain clouds. In Atlanta and many other cities, increased rainfall is a side effect of the heat island. The heat island effect may be moderated by planting trees for shade and by installing rooftops that reflect rather than retain heat.

IDENTIFYING MAIN IDEAS

One reading skill is the ability to identify the main idea of a passage. The main idea is the main focus or key idea. Frequently, a main idea is accompanied by supporting information that offers detailed facts about the main idea.

Read each question and write the answer in the space provided.

1. Authors often include a main idea in one sentence of a passage. In the space below, write the sentence that you think best summarizes the main idea of this passage.

2. Why does the author mention Atlanta, Georgia?

3. Scientists use conditional words such as *many*, *sometimes*, *could*, and *might* when they are writing a statement of probability rather than of fact. What conditional word does this author use? Which sentence is it in?

4. What does this conditional word suggest about the statement in which it is used?

VOCABULARY DEVELOPMENT

Read each question and write the answer in the space provided.

5. What is the condition that causes increased temperatures in a city called?

6. The prefix *infra-* means “within” or “below.” A *structure* is something that is built. Use this information to define the *infrastructure* of a city.

RECOGNIZING SIMILARITIES AND DIFFERENCES

One reading skill is the ability to recognize similarities and differences between two phrases, ideas, or things. This is sometimes known as comparing and contrasting.

Read each question and write the answer in the space provided.

7. How is temperature in urban areas different from temperature in surrounding rural areas?

8. How might the weather be different in the city than it is in the surrounding countryside?

RECOGNIZING CAUSE AND EFFECT

One reading skill is the ability to recognize cause and effect.

Read each question and write the answer in the space provided.

9. What is the result of increased temperature in a city?

10. Explain how heat can affect a city’s weather.

11. What can city dwellers do to counteract the heat-island effect?
