Cooling the City

Study how an informative text develops and organizes a topic.

CCSS.ELA-Literacy.W.7.2 "Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the main idea in each paragraph. Circle the details that explain or support it, then number the paragraphs 1, 2, and 3 to show the order of ideas.

Why Cities Feel Hotter

1 On a sunny day, a city block can feel much hotter than a nearby park. This difference is called the urban heat island effect. Dark roofs and paved streets absorb sunlight, then release stored heat slowly. Buildings can also block breezes that would carry warm air away. Because many people, cars, and air conditioners add heat, temperatures in crowded neighborhoods may stay higher after sunset. The effect can make hot weather more dangerous, especially for people without cool places to rest.

2 Cities can reduce this extra heat by changing surfaces and adding plants. A cool roof is painted or covered with material that reflects more sunlight than a dark roof. Trees shade sidewalks and cool the air as water evaporates from their leaves. In Los Angeles, the city has tested light-colored pavement coatings on some streets. These choices do not stop heat waves, but they can lower surface temperatures and make outdoor spaces safer. They may also reduce the electricity needed for air conditioning.

3 Choosing where to place these improvements requires careful planning. City workers can use temperature maps to find blocks that are hotter than nearby areas. They can compare those maps with information about tree cover, bus stops, homes, and schools. A neighborhood with few trees and many people waiting for buses may need shade first. Residents should also help identify places where heat affects daily life. By using evidence instead of guessing, a city can spend limited money on projects that protect more people.

2 ANSWER WITH EVIDENCE

Use the passage

1. What is the main idea of the first paragraph? Include the topic and its important effect.

2. Name two details from paragraph 2 that support the idea that cities can reduce extra heat.

3. How does paragraph 3 organize its information? Describe the steps or ideas in order.

4. How does paragraph 2 connect to paragraph 1?

3 YOUR TURN

Your own words

Write an 80-100 word explanatory paragraph that proposes one way your school could make an outdoor area safer during hot weather. Begin with a clear topic sentence, include at least three relevant details, and explain how the details support your solution.

ANSWER KEY

Cooling the City

GRADE 7 · W.7.2

PART 1 · READ AND MARK

Underline the main idea in each paragraph. Circle the details that explain or support it, then number the paragraphs 1, 2, and 3 to show the order of ideas. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What is the main idea of the first paragraph? Include the topic and its important effect.	**The urban heat island effect makes crowded city neighborhoods hotter than nearby parks and can make hot weather more dangerous.**
2	Name two details from paragraph 2 that support the idea that cities can reduce extra heat.	**Cool roofs reflect more sunlight than dark roofs, and trees shade sidewalks and cool the air as water evaporates from their leaves.**
3	How does paragraph 3 organize its information? Describe the steps or ideas in order.	**It explains that workers first find hot blocks with maps, compare map information with local features, identify places that need help most, include residents, and use evidence to choose projects.**
4	How does paragraph 2 connect to paragraph 1?	**Paragraph 1 explains the causes and dangers of extra city heat, while paragraph 2 presents ways to reduce that heat and make spaces safer.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Installing shade sails over the school's blacktop would make recess safer during hot weather. The fabric would block direct sunlight above the play area, so students would have a cooler place to line up or rest. Posts could hold the sails high enough for air to move underneath. Benches placed in the shade would give students a place to sit, and a nearby water fountain would help them replace fluids. By focusing on the busiest part of the blacktop, the school could protect many students each day.

Accept answers that accurately identify the passage's central ideas, relevant supporting details, and paragraph-to-paragraph organization. For the writing task, accept varied practical solutions if the response stays within 80-100 words and clearly explains at least three relevant details.