

Cooling City Blocks

Analyze how an explanatory text develops a solution.

8W2 "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 each paragraph's key idea, circle the facts or examples that support it, and number the paragraphs 1 to 3 to show how the explanation is organized.

How Trees Cool Neighborhoods

- ① On a hot summer day, a neighborhood with few trees can feel much warmer than a nearby park. This difference is part of the urban heat island effect, which occurs when streets, roofs, and parking lots absorb the Sun's energy. City planners study this effect because extra heat can raise air-conditioning costs and make heat waves more dangerous. Planting and protecting trees is one practical way communities can reduce the problem for residents during summer.
- ② Trees cool an area in two connected ways. First, their leaves block some sunlight before it reaches pavement and building walls. Shaded surfaces absorb less energy, so they release less heat later in the day. Second, trees move water from the soil through their leaves. As that water evaporates, it uses heat from the surrounding air. Together, shade and evaporation explain why a tree-lined sidewalk can be cooler than an unshaded one on hot days.
- ③ Tree planting works best when it is planned carefully. Young trees need water and protection while their roots grow, and a species that thrives in one climate may struggle in another. Planners can focus on places where people walk, wait for buses, or live far from green space. In this way, tree programs do more than change a neighborhood's appearance. They use evidence about heat, location, and maintenance to improve daily conditions for residents there.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What problem does paragraph 1 introduce, and what solution does it name?

2 How does paragraph 2 organize its explanation of tree cooling? Name both ways trees cool an area.

3 Why does paragraph 3 include details about young trees, climate, and locations where people walk or wait for buses?

4 How does the final sentence connect the earlier details to the passage's main idea?

3 YOUR TURN _____ Your own words

Write a six-sentence informative paragraph explaining how refill water stations can reduce plastic bottle waste at a school. Begin with a clear topic sentence, include two relevant supporting details with explanations, and end with a conclusion.

PART 1 • READ AND MARK

Underline each paragraph's key idea, circle the facts or examples that support it, and number the paragraphs 1 to 3 to show how the explanation is organized. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What problem does paragraph 1 introduce, and what solution does it name?	Neighborhoods with few trees can become especially hot because paved surfaces absorb the Sun's energy. The passage names planting and protecting trees as a solution.
2	How does paragraph 2 organize its explanation of tree cooling? Name both ways trees cool an area.	It explains two connected methods in order. Trees provide shade that blocks sunlight, and water evaporating from leaves uses heat from the surrounding air.
3	Why does paragraph 3 include details about young trees, climate, and locations where people walk or wait for buses?	These details show that planting trees requires planning. They explain that trees need appropriate care, species, and locations to improve conditions for people.
4	How does the final sentence connect the earlier details to the passage's main idea?	It explains that evidence about heat, location, and maintenance helps tree programs improve daily conditions, supporting the idea that careful tree planting can reduce neighborhood heat.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Refill stations can help a school reduce plastic bottle waste. Students can fill reusable bottles during the day instead of buying a new drink in a disposable container. Because one bottle can be used many times, fewer empty bottles may enter classroom and hallway trash cans. Stations also make water easy to get without carrying cases of bottled water to school. This convenience can make reusable bottles a practical choice for more students. By providing a simple alternative, refill stations can cut waste while helping students stay hydrated.

Accept answers that accurately identify the passage's central idea, relevant supporting details, and organization. For the paragraph, accept varied reasonable details if the response has six sentences, a clear explanation, connected support, and a conclusion.