Shade by Design

Analyze how an informational article uses evidence and structure.

7.T.T.2.a "Analyze expository techniques used to present and design content, including main ideas, facts, statistics, key details, information from text features, and a sense of closure. (I)"

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the main idea in each paragraph, circle facts or statistics, and box the Data Snapshot. These marks will help you notice how the article presents its ideas and evidence.

Cooling the Schoolyard

On a hot afternoon, a schoolyard can feel much warmer than a nearby park. Asphalt and dark roofs absorb sunlight, then release heat slowly. This effect is called an urban heat island. Trees, grass, and shade structures can lower surface temperatures by blocking sunlight and cooling the air around them. For students, a cooler outdoor space can make recess and walking between classes more comfortable. Planning shade is not only about appearance, it is a practical response to rising heat.

Data snapshot

EPA reports that shaded surfaces can be 20–45°F cooler than the peak temperatures of unshaded materials. This compares surface temperatures, not a 20–45°F decrease in neighborhood air temperature. Source: U.S. EPA, Using Trees and Vegetation to Reduce Heat Islands.

Small changes can build a cooler schoolyard over time. First, a school community can map the places where students wait, eat, or play in direct sun. Then, planners can protect existing trees and add shade where it will help most. These steps connect the article's problem, evidence, and solution. A cooler schoolyard will not remove every hot day, but it can reduce heat exposure and make outdoor time more comfortable for students each school day in summer.

2 ANSWER WITH EVIDENCE

Use the passage

1. What is the main idea of the first paragraph? Explain how two details support it.

2. What information does the Data Snapshot give? How does its label help the reader?

3. What distinction does the Data snapshot make between surface and air temperatures? Why is that distinction important when explaining the evidence?

4. How does the final paragraph create a sense of closure? Use one action and one outcome from the paragraph in your answer.

3 YOUR TURN

Your own words

Write a 60-80-word mini article that proposes one improvement for your school. Include a clear main idea, one accurate fact or statistic inside a labeled text feature, one key detail, and an ending that shows why the improvement matters.

ANSWER KEY # Shade by Design

PART 1 · READ AND MARK

Underline the main idea in each paragraph, circle facts or statistics, and box the Data Snapshot. These marks will help you notice how the article presents its ideas and evidence. 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? Explain how two details support it.	**Schoolyards can become very hot, and adding shade is a practical solution. Asphalt and dark roofs absorb and release heat, while trees and shade structures block sunlight and cool the area.**
2	What information does the Data Snapshot give? How does its label help the reader?	**The panel reports an EPA comparison of shaded surface temperatures with peak temperatures of unshaded materials: 20–45°F cooler. Its label and box isolate the evidence so readers can find it.**
3	What distinction does the Data snapshot make between surface and air temperatures? Why is that distinction important when explaining the evidence?	**It compares surface temperatures, not a 20–45°F change in neighborhood air. Keeping the measures distinct prevents an exaggerated claim about how much the air cools.**
4	How does the final paragraph create a sense of closure? Use one action and one outcome from the paragraph in your answer.	**It ends with actions such as mapping sunny areas and adding shade, then explains the outcome that outdoor time can become more comfortable and reduce heat exposure.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Hallway Water Stations Installing water refill stations could help students get water between classes without visiting a distant fountain. Data Note: One liter equals 1,000 milliliters, so a station that measures liters can show how much water it provides. Placing stations near busy hallways would make them easy to use. This change would give students a practical way to refill bottles during the school day.

Accept equivalent statements of the passage's main ideas and reasonable explanations of how the article's design helps readers. For Part 3, check for all required elements, factual accuracy, and a conclusion that connects to the proposed improvement. The EPA comparison is shaded surface temperature versus peak temperature of unshaded material, not a measured air-temperature reduction.