Reading Heat Across Riverton

Build background knowledge across related texts, then use it to interpret a proposal.

11.DSR.D "Regularly engage in reading a series of conceptually related texts organized around topics of study to build knowledge and vocabulary (These texts should be at a range of complexity levels so students can read the texts independently..."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Circle heat-related vocabulary that appears in more than one text. Underline two details in Texts 1 or 2 that help explain the council proposal in Text 3, then write 1 or 2 beside the related idea in Text 3.

Three Views of City Heat

1. Text 1, Neighborhood Measurements On a July afternoon, volunteers used infrared thermometers to compare surfaces in Riverton. At 3:00 p.m., the blacktop beside a bus stop measured 136°F, while grass in a nearby park measured 92°F. The air temperature was 88°F at both sites. Volunteers also noted that the bus stop had no trees or shelter, whereas the park path ran beneath mature oaks. These readings do not show every street in the city, but they illustrate a heat island pattern: pavement and roofs absorb solar energy and can remain warmer than vegetated areas.

2. Text 2, Planning Brief A municipal heat map combines satellite estimates of land-surface temperature with neighborhood features such as tree canopy and pavement. Planners use these maps to identify places where cooling investments may matter most. In Riverton, the hottest blocks cluster near warehouses, wide roads, and large parking lots. Many residents there wait outdoors for buses or walk to work. A map cannot determine any individual's health outcome, since age, housing, work, and access to cooling also matter. Still, it can reveal patterns that ordinary air-temperature reports hide and can guide tree planting, shade structures, cool roofs, or changes to street design.

3. Text 3, Council Proposal The city council is considering a rule requiring bus shelters to include a roof and, where space permits, nearby shade from trees or structures. Some speakers argue that the rule is merely an amenity because weather reports give one temperature for the entire city. The earlier measurements and map complicate that claim. A single air reading can miss much hotter surfaces and the conditions faced by people waiting on exposed pavement. The proposal would not erase Riverton's heat island, and young trees would not cool a stop immediately. Yet targeted shade could reduce direct solar exposure while longer-term canopy and street changes address the broader pattern.

2 ANSWER WITH EVIDENCE

Use the passage

1. What does the comparison in Text 1 show about why a citywide air-temperature report cannot fully describe conditions at a bus stop?

2. Using Text 1, explain what Text 2 means by land-surface temperature.

3. Which two ideas from Texts 1 and 2 most directly challenge the claim that bus-shelter shade is merely an amenity? Explain.

4. How does Text 3 distinguish between the proposal's immediate impact and its long-term impact?

3 YOUR TURN

Your own words

Imagine that Easton is planning improvements near transit stops. Write a 75 to 90 word advisory that recommends one action, uses one detail from Text 1 and one detail from Text 2, and acknowledges one limitation or longer-term need from Text 3.

ANSWER KEY

Reading Heat Across Riverton

GRADE 11 · 11.DSR.D

PART 1 · READ AND MARK

Circle heat-related vocabulary that appears in more than one text. Underline two details in Texts 1 or 2 that help explain the council proposal in Text 3, then write 1 or 2 beside the related idea in Text 3. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What does the comparison in Text 1 show about why a citywide air-temperature report cannot fully describe conditions at a bus stop?	**The same 88°F air temperature occurred at both sites, but the exposed blacktop was 136°F while park grass was 92°F. Air temperature alone does not show how hot surfaces at a bus stop can become.**
2	Using Text 1, explain what Text 2 means by land-surface temperature.	**Land-surface temperature is the temperature of physical surfaces, such as blacktop or grass, rather than the temperature of the air.**
3	Which two ideas from Texts 1 and 2 most directly challenge the claim that bus-shelter shade is merely an amenity? Explain.	**Text 1 shows that exposed pavement can be much hotter than the air or grass. Text 2 shows that hotter blocks include places where residents wait outside for buses, so shade can address a practical heat exposure.**
4	How does Text 3 distinguish between the proposal's immediate impact and its long-term impact?	**Shelters could reduce direct solar exposure immediately, while young trees would take time to contribute to canopy. Broader street and canopy changes would address the larger heat island pattern over time.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Easton should first map land-surface temperatures near transit stops, then prioritize shade at stops beside extensive pavement. Riverton's blacktop reading was far higher than its grass reading, and its map showed that warehouses and parking lots clustered in hotter areas. Easton should not assume that every resident faces the same risk, because health outcomes also depend on housing, work, and access to cooling. Shelters can reduce direct sun now, while trees provide longer-term benefits over time.

Accept equivalent explanations that connect evidence across at least two texts, rather than treating each text separately. For the open response, check for 75 to 90 words, a specific recommendation, accurate use of details from Texts 1 and 2, and a valid limitation or long-term need from Text 3.