Heat, Shade, Health

Build knowledge by connecting ideas across a focused text set.

12.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 Underline one sentence in each text that states its central point, then circle words or phrases that connect two or more texts. Use your marks to track how each text adds to the topic.

Three Texts on Urban Heat

1. Text 1, City Temperature Map: On a July afternoon, pavement in the Riverside commercial district reached 128°F, while a nearby shaded park path measured 89°F. City planners call this difference part of the urban heat island effect, in which buildings, roads, and sparse vegetation make developed areas warmer than surrounding land. Dark surfaces absorb solar energy, then release heat slowly after sunset. The map also showed that blocks with broader tree canopies were generally cooler. Planners use such maps to identify neighborhoods where heat exposure may be greatest, especially for people walking, waiting for buses, or living without reliable air conditioning.

2. Text 2, Health Department Brief: During a week of extreme heat, the county health department extended library hours and opened cooling centers. Its brief explains that heat illness occurs when the body cannot cool itself effectively. Older adults, infants, outdoor workers, and people with some medical conditions face elevated risk, but anyone can be affected. The brief advises residents to drink water, limit strenuous activity during the hottest hours, and check on neighbors. It also notes that cooling centers address immediate danger, whereas long-term changes, such as shade trees and reflective roofs, can reduce exposure before a heat emergency begins.

3. Text 3, Arborist Interview: An urban forester explains that planting trees is not a quick substitute for emergency services. Young trees provide limited shade, and their survival depends on watering, soil space, and maintenance. Still, mature canopies can lower surface and air temperatures, intercept rainfall, and make walking more comfortable. The forester argues that cities should prioritize planting where canopy is scarce and residents face high heat exposure. This approach treats tree planting as climate adaptation and as an equity issue, because neighborhoods with fewer trees often have fewer resources for coping with dangerous heat.

2 ANSWER WITH EVIDENCE

Use the passage

1. How does Text 1 provide context for the planting priority proposed in Text 3?

2. According to Text 2, what is the difference between a cooling center and long-term changes such as shade trees?

3. What shared idea about tree canopies appears in Texts 1 and 3? Give one detail from each text.

4. Using all three texts, explain why a city may need both emergency heat services and long-term neighborhood improvements.

3 YOUR TURN

Your own words

Write a four-sentence city action plan that uses a specific detail from each of the three texts. Include at least two of these terms: heat exposure, cooling centers, tree canopy, climate adaptation, equity.

ANSWER KEY

Heat, Shade, Health

GRADE 12 · 12.DSR.D

PART 1 · READ AND MARK

Underline one sentence in each text that states its central point, then circle words or phrases that connect two or more texts. Use your marks to track how each text adds to the topic. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How does Text 1 provide context for the planting priority proposed in Text 3?	**Text 1 shows that areas with broader tree canopies are generally cooler and helps identify neighborhoods with high heat exposure. Text 3 uses those conditions to argue for planting where canopy is scarce and exposure is high.**
2	According to Text 2, what is the difference between a cooling center and long-term changes such as shade trees?	**Cooling centers address immediate danger during a heat emergency. Shade trees and other long-term changes can reduce heat exposure before an emergency begins.**
3	What shared idea about tree canopies appears in Texts 1 and 3? Give one detail from each text.	**Both texts connect tree canopies to cooler conditions. Text 1 reports that blocks with broader canopies were generally cooler, and Text 3 says mature canopies can lower surface and air temperatures.**
4	Using all three texts, explain why a city may need both emergency heat services and long-term neighborhood improvements.	**The map identifies places with high heat exposure, the health brief explains the need for immediate protection during extreme heat, and the arborist explains that mature trees can reduce exposure over time. Both responses are needed because tree planting does not provide instant shade.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The city should use temperature maps to identify neighborhoods with high heat exposure and limited tree canopy. During extreme heat, it should extend library hours and operate cooling centers for immediate protection. It should also plant and maintain trees where canopy is scarce, because mature trees can lower temperatures over time. This climate adaptation plan supports equity by directing resources toward residents with fewer ways to cope with dangerous heat.

Accept answers that accurately connect evidence across the three texts, rather than treating each text as an isolated source. For the open task, accept varied action plans if they include a specific detail from every text, use at least two listed terms correctly, and contain exactly four sentences.