

Heat Clues

Link words, a table, and a map to explain a local heat pattern.

CCSS.ELA-Literacy.RI.6.7 "Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Circle the three surface temperatures in the table. Then draw a line from each site in the table to the same-colored area on the map, so you can compare the words, numbers, and visual.

Why Some City Places Feel Hotter

- ① On a hot July afternoon, cities can feel warmer than nearby rural areas because dark roofs and pavement absorb sunlight, while trees cool the air through shade and water vapor. This pattern is called an urban heat island. In Riverton, a student science team compared three places at 3:00 p.m. on the same clear July day: a treeless parking lot, a neighborhood street with young trees, and Maple Park. They used the same thermometer at each location and kept it shaded from direct sun.
- ② Their results are shown in the table below. The parking lot had the warmest air and surface. Its asphalt surface was 18°F warmer than the grass in Maple Park. Air temperatures differed less than surface temperatures, but the parking lot air was still 7°F warmer than the park air. The tree-lined street fell between the other two sites. Its surface was cooler than asphalt, yet warmer than grass.
 Site | Air temperature | Surface temperature
 Parking lot | 96°F | 131°F
 Tree-lined street | 92°F | 121°F
 Maple Park | 89°F | 113°F
- ③ To understand where heat was strongest, the team made a color-coded map. The map marked the parking lot red, the tree-lined street orange, and Maple Park green. Together, the map and table show that places with more pavement and fewer trees had hotter surfaces. The team suggested planting shade trees near large paved areas. Map key: [RED] 125°F or higher | [ORANGE] 115°F to 124°F | [GREEN] below 115°F
 Area map: [RED Parking Lot] [ORANGE Tree-Lined Street] [GREEN Maple Park]

2 ANSWER WITH EVIDENCE _____ Use the passage

1 How do the written explanation and the table show that the parking lot was hotter than Maple Park? Use one air-temperature detail and one surface-temperature detail.

2 Which area should have the coolest surface, based on both the map and the table? Give its map color and surface temperature.

3 The tree-lined street is orange on the map. Which table measurement places it in the orange range, and what does this show about what the map colors represent?

4 Why does planting shade trees near paved areas make sense? Use one detail from the table or map and one detail from the written explanation.

3 YOUR TURN _____ Your own words

Write exactly two sentences, 35 to 50 words. Recommend one action for Riverton and explain it with one number from the table and one map color.

PART 1 • READ AND MARK

Circle the three surface temperatures in the table. Then draw a line from each site in the table to the same-colored area on the map, so you can compare the words, numbers, and visual. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	How do the written explanation and the table show that the parking lot was hotter than Maple Park? Use one air-temperature detail and one surface-temperature detail.	The parking lot had 96°F air and a 131°F asphalt surface, while Maple Park had 89°F air and 113°F grass. The words explain that pavement absorbs sunlight and trees help cool an area.
2	Which area should have the coolest surface, based on both the map and the table? Give its map color and surface temperature.	Maple Park, shown in green, had the coolest surface temperature at 113°F.
3	The tree-lined street is orange on the map. Which table measurement places it in the orange range, and what does this show about what the map colors represent?	Its 121°F surface temperature is in the orange range of 115°F to 124°F. The map colors represent surface temperatures, not air temperatures.
4	Why does planting shade trees near paved areas make sense? Use one detail from the table or map and one detail from the written explanation.	The parking lot was hottest, with a 131°F surface and a red map color. The written explanation says pavement absorbs sunlight, while trees cool areas through shade and water vapor.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Riverton should add shade trees beside its parking lot. The lot's 131°F asphalt and red map color show the greatest surface heat, while Maple Park's 113°F grass and green area show how cooler ground cover can reduce heat.

Accept answers that correctly connect information from at least two formats. For the open task, accept reasonable actions when the response has exactly two sentences, 35 to 50 words, one accurate table number, and one accurate map color.