Shade by Numbers

Use a data table to understand a playground report.

RI.4.7 "Interpret information presented in print and non-print formats and explain how the information contributes to an understanding of the text in which it appears."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the club's question, then circle a sunny reading and a shaded reading for the same ground material in the table and connect them with a line.

How Hot Is the Playground?

1. At noon on a warm day, a school science club visited the playground. Some students said the blacktop felt hotter than the sidewalk. Others asked, "Would shade change the ground's temperature?" The club decided to test two kinds of ground in both sunny and shaded spots. They planned to use measurements, not just how each place felt.

2. Students measured the temperature of the ground at each spot with a surface thermometer. They recorded every reading at noon, then placed the results in the table below. Readers can use the rows to compare places tested at the same time. All four readings came from this one playground on this one day.

PLAYGROUND SURFACE TEMPERATURES AT NOON

Ground	Light	Temperature
Sidewalk	Sun	105°F
Sidewalk	Shade	82°F
Blacktop	Sun	120°F
Blacktop	Shade	87°F

3. The club wanted to share its findings with students who play outside at lunch. A place that feels fine in the morning might be much warmer by noon. The club also knew its readings could change on another day. Clouds, wind, and the time of day can change the temperature of outdoor surfaces.

2 ANSWER WITH EVIDENCE

Use the passage

1. How does comparing the two sidewalk rows help answer the club's question? Include both temperatures.

2. How do the blacktop readings add to what the sidewalk readings show about shade?

3. A student says blacktop is always hotter than sidewalk. Which readings support a narrower claim about this playground at noon, and why can't the club say “always”?

4. What does the table add to the report's statement that students used measurements, not just how each place felt? Give one example.

3 YOUR TURN

Your own words

Write a three-sentence note for someone planning a game on this playground. Choose a spot for players to wait, use two readings from the table to support your choice, and explain how the table helps you decide.

ANSWER KEY

Shade by Numbers

GRADE 4 · RI.4.7

PART 1 · READ AND MARK

Underline the club's question, then circle a sunny reading and a shaded reading for the same ground material in the table and connect them with a line. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How does comparing the two sidewalk rows help answer the club's question? Include both temperatures.	**The sunny sidewalk measured 105°F, while the shaded sidewalk measured 82°F. Shade was linked to a lower sidewalk temperature at noon.**
2	How do the blacktop readings add to what the sidewalk readings show about shade?	**The blacktop was also cooler in shade: 87°F instead of 120°F in sun. The table shows the same pattern for both kinds of ground.**
3	A student says blacktop is always hotter than sidewalk. Which readings support a narrower claim about this playground at noon, and why can't the club say “always”?	**Sunny blacktop measured 120°F versus 105°F for sunny sidewalk, and shaded blacktop measured 87°F versus 82°F for shaded sidewalk. The club measured only one playground on one day, so it cannot say this is always true.**
4	What does the table add to the report's statement that students used measurements, not just how each place felt? Give one example.	**The table gives exact readings. For example, it shows that the sunny blacktop measured 120°F, a detail the paragraphs do not give.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I would have players wait on the shaded sidewalk. It measured 82°F, while the sunny blacktop measured 120°F. Those exact readings help me choose a cooler spot instead of guessing from how the ground feels.

Accept comparisons that use the correct readings and explain what they show about the report. For the note, accept any spot choice supported by two accurate readings and a clear explanation of how the table helps.