Use Visual Information

Grade 5 Reading Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

READ THIS FIRST

Where Should the Weather Station Go?

Ms. Haddad's fifth-grade class at Linden Grove Elementary won a grant for a weather station. The station measures temperature, rainfall, and wind, then sends its readings to a classroom computer. The students will share their data with a national network of school weather stations. First, though, they had to decide where to put it.

The class read guidelines from weather scientists. A good station measures the air, not the ground or nearby objects. So it should stand over grass, away from pavement, which soaks up sunlight and gives off heat. It should not sit under trees or beside tall buildings, because shade and blocked wind would change the readings. The station also needs a Wi-Fi signal to send its data. The school's router reaches about 200 feet from the building.

Kai, Esperanza, and Tomasz drew a map grid of the school grounds. Each square on the grid stands for 100 feet. The class picked four possible sites: the parking lot, the soccer field, the hilltop, and the pine grove. The parking lot was left off the grid because it sits right beside the front doors.

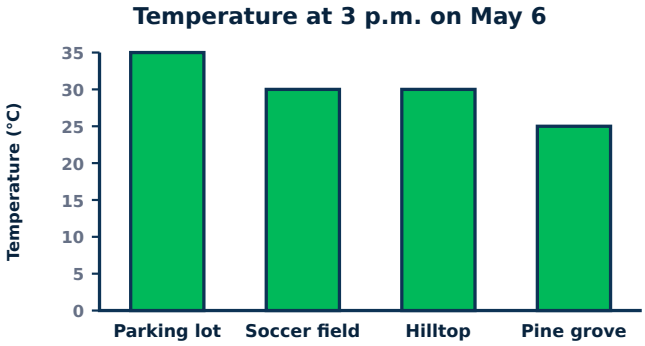
To test the sites, the class borrowed four identical thermometers. On a sunny afternoon in May, they placed one at each site, inside the same kind of white box, three feet above the ground. At 3 p.m., they read all four at once. Weather scientists use degrees Celsius, so the class did too. Esperanza graphed the results.

The readings surprised some students. Tomasz had expected all four numbers to match, since the sites are so close together. Instead, the parking lot was ten degrees warmer than the pine grove. Ms. Haddad pointed out that two of the sites gave matching readings. Both were open, grassy places with full sun and wind. The class decided those two readings were closest to the true air temperature.

That left two choices. The hilltop had a wide view of the sky and steady wind, and several students voted for it. Kai counted squares on the grid, however, and found a problem. The station would be too far from the school for the Wi-Fi to reach. Running a cable up the hill would cost more than the grant allowed.

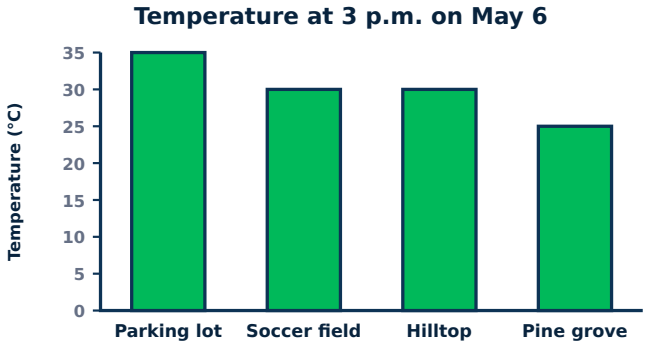
The soccer field was within range. The coach worried that stray balls might hit the station, so the class chose a spot behind the fence at the end of the field. In June, a parent volunteer helped bolt the station to a post.

Now the station sends a reading every ten minutes. The class checks the data each morning and compares it with other schools in the network. Last month, the students noticed that their rainfall total was much lower than that of a school two miles away. They are investigating whether leaves have been clogging the rain gauge.



1. Use the graph. How much warmer was the parking lot than the soccer field?
   35 degrees 10 degrees 30 degrees 5 degrees

2. Which two sites gave the matching readings that Ms. Haddad pointed out?



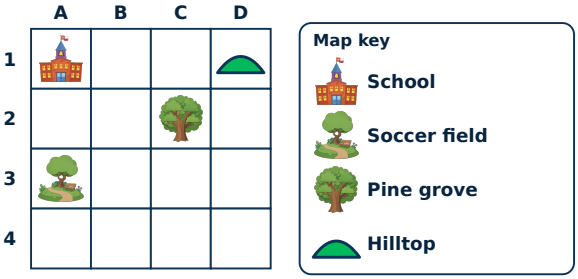
the parking lot and the pine grove
the parking lot and the soccer field
the soccer field and the hilltop
the hilltop and the pine grove

3. The text says pavement gives off heat. Which bar supports this?
the hilltop's bar the soccer field's bar the pine grove's bar the parking lot's bar

4. Why was the pine grove's reading the lowest on the graph?
Trees shaded the thermometer there.
The grove is far from the school.
The grove sits over pavement.
That thermometer was read last.

5. What does the graph show about Tomasz's prediction?
The readings were up to 35 degrees apart.
The readings were up to 10 degrees apart.
All four readings were exactly the same.
Only the hilltop's reading was different.

6. Look at the map grid. In which square is the hilltop?



A3 D1 C2 D4

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Answer Key - Grade 5 Reading Worksheet - Challenge Me

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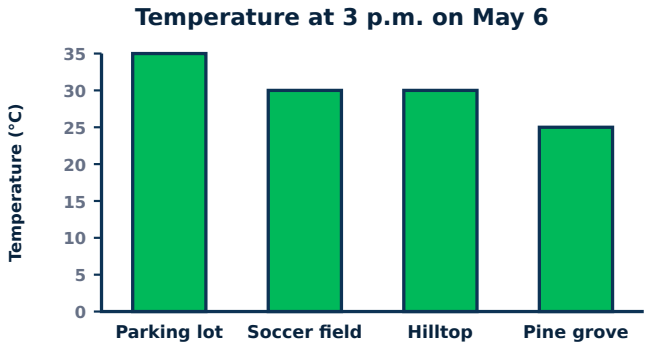
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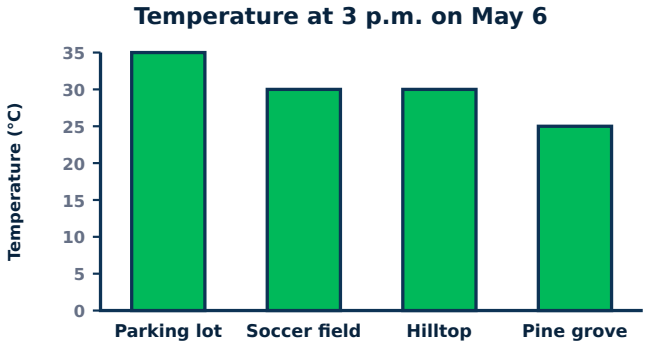
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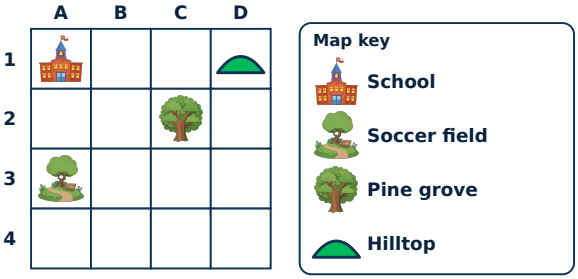
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