

Shade Detectives

Track how evidence changes a reader's thinking.

6.5 "Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts..."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline two details that support the class's final conclusion. Circle the detail that caused Maya to change her prediction, so you can see how evidence shapes understanding.

Mapping City Shade

- ① On a July morning, sixth graders in Phoenix used infrared thermometers to compare two sidewalks. The pavement beside a shopping center measured 141 degrees Fahrenheit. A shaded path under mesquite trees measured 98 degrees. Their teacher explained that dark pavement absorbs sunlight and releases heat slowly. Trees block some sunlight, and water leaving their leaves can cool the nearby air. The class wondered why some neighborhoods had far fewer trees than others, especially along busy streets.
- ② Before studying the map, Maya predicted that every neighborhood would have similar tree cover because the city receives the same sun. The map showed otherwise. Older neighborhoods with wide streets and larger yards had more tree canopy, while areas near warehouses and major roads had less. A city heat report also showed that places with less shade often had hotter surface temperatures. Maya crossed out part of her prediction and wrote a new question: How do land use and money for planting affect shade?
- ③ At the next city council meeting, the students shared photographs, temperature readings, and the map. They did not claim that trees alone would solve extreme heat. Instead, they proposed planting and caring for trees at bus stops, playgrounds, and other unshaded public places. They also noted that young trees need water and several years of care before they provide broad shade. By combining measurements with the map, the class concluded that tree planting could help most when it is planned for the hottest, least shaded areas.

2 ANSWER WITH EVIDENCE Use the passage

1 What was Maya's first prediction, and what map finding caused her to correct it?

2 Why did the students propose planting trees at bus stops, playgrounds, and other public places? Use two details from the passage.

3 What is the class's final conclusion about where tree planting could help most?

4 What question did Maya write after she changed her prediction, and what earlier idea did she replace?

3 YOUR TURN Your own words

Imagine you will read a new article about a city plan to reduce heat. Write a purpose for reading, a prediction you could make before reading, and a question you would ask during reading that could help you revise your prediction.

PART 1 • READ AND MARK

Underline two details that support the class's final conclusion. Circle the detail that caused Maya to change her prediction, so you can see how evidence shapes understanding. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What was Maya's first prediction, and what map finding caused her to correct it?	Maya predicted that every neighborhood would have similar tree cover. The map showed that older neighborhoods had more tree canopy, while areas near warehouses and major roads had less.
2	Why did the students propose planting trees at bus stops, playgrounds, and other public places? Use two details from the passage.	These places were unshaded, and the heat report showed that places with less shade often had hotter surface temperatures. Trees also block sunlight and can cool nearby air.
3	What is the class's final conclusion about where tree planting could help most?	Tree planting could help most when it is planned for the hottest, least shaded areas.
4	What question did Maya write after she changed her prediction, and what earlier idea did she replace?	She asked, "How do land use and money for planting affect shade?" She replaced her idea that every neighborhood would have similar tree cover.

PART 3 • YOUR TURN (SAMPLE ANSWER)

My purpose is to learn whether cool roofs can reduce heat in city buildings. Before reading an article called "Cool Roofs for City Buildings," I predict that light-colored roofs lower temperatures by reflecting sunlight, and I would ask how long the coating lasts because that detail could change my prediction.

Accept purposeful predictions and questions that connect to a possible article topic and show that new evidence could change the student's thinking. For passage questions, require accurate evidence from the text, especially when students explain an inference.