City Heat Detectives

Use context clues and word parts to unlock new vocabulary.

7.P.EICC.3.g "Determine the meanings of unfamiliar words and concepts by applying knowledge of context and of academic vocabulary and word parts. (I)"

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each word or concept you could define from nearby clues, circle the clue words, and box any helpful prefix. These marks will help you explain how you figured out each meaning.

Why Some City Blocks Feel Hotter

1 On a sunny afternoon, Maya noticed that the blacktop near her bus stop felt hotter than the grass in a nearby park. Her science club investigated this difference. They learned about an urban heat island, an area of a city that stays warmer than nearby rural land. Dark roofs, roads, and parking lots absorb sunlight and release heat slowly. Trees and soil, in contrast, provide shade and cool the air as water evaporates from leaves. The group wondered how heat affected people waiting outside.

2 To gather evidence, the club used thermometers at noon and again after sunset. Their data showed that paved places remained warm longer. The students proposed a mitigation plan, a plan meant to lessen a harmful problem. They suggested planting shade trees, painting some roofs lighter colors, and adding gardens beside sidewalks. These changes would not eliminate hot days, but they could reduce the temperature around buildings. The principal asked the club to explain which ideas were practical, meaning possible to carry out with the school's time, space, and money.

3 Later, Maya read that some neighborhoods have a microclimate, the weather conditions in one small area. The prefix micro- means small, so the word points to a small area's climate. A tree-lined block may be cooler than an open block only a few streets away. This local difference can influence health. During extreme heat, people who cannot easily reach air-conditioned spaces face a greater risk of heat illness. By comparing temperatures and listening to residents, city planners can prioritize places where cooling projects are most needed.

2 ANSWER WITH EVIDENCE

Use the passage

1. What does urban heat island mean in paragraph 1? Use the surrounding details to explain it.

2. What does mitigation mean in paragraph 2? Which nearby words give you the clue?

3. Use the prefix and context in paragraph 3 to determine the meaning of microclimate.

4. What does practical mean in paragraph 2? What details help you determine its meaning?

3 YOUR TURN

Your own words

Write two sentences. In sentence 1, use an unfamiliar academic word with a helpful prefix, root, or suffix and include context clues. In sentence 2, state the word's meaning and identify the helpful word part.

ANSWER KEY

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GRADE 7 · 7.P.EICC.3.g

PART 1 · READ AND MARK

Underline each word or concept you could define from nearby clues, circle the clue words, and box any helpful prefix. These marks will help you explain how you figured out each meaning. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What does urban heat island mean in paragraph 1? Use the surrounding details to explain it.	**An area in a city that stays warmer than nearby rural land.**
2	What does mitigation mean in paragraph 2? Which nearby words give you the clue?	**Mitigation means lessening a harmful problem. The clue is "a plan meant to lessen a harmful problem."**
3	Use the prefix and context in paragraph 3 to determine the meaning of microclimate.	**The weather conditions in one small, local area. The prefix micro- means small.**
4	What does practical mean in paragraph 2? What details help you determine its meaning?	**Practical means possible to carry out. The passage explains that an idea must fit the school's time, space, and money.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The class chose biodegradable cups, which soil organisms can break down naturally after the cups are thrown away. Biodegradable means able to be broken down by living things, and bio- means life.

Accept reasonable meanings supported by context clues and accurate word-part explanations. For Part 3, accept varied words if the first sentence provides usable clues and the second sentence correctly explains the meaning and word part.