Reef Words at Work

Analyze how precise and vivid language shapes an informational text.

CCSS.ELA-Literacy.RI.8.4 "Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone..."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Circle two technical terms, underline one comparison, and number two words whose connotations help create the passage's tone.

Rebuilding a Reef

1 At dawn, a small boat carried marine biologist Lena Ortiz to a damaged coral reef off the Florida Keys. Years of heat stress had left broad sections pale and broken. Ortiz and her team checked nursery frames, underwater structures where young corals grow before being moved. They measured each fragment with calipers and recorded its color, branch length, and survival. Below the surface, the reef looked less like a garden and more like a city after a storm, with empty spaces between the remaining towers.

2 To attach the fragments, divers used epoxy, then secured them to stable rock with plastic ties. The work required patience: a careless fin stroke could snap a new branch. Ortiz called the fragments "tiny tenants" while checking their places on the reef. Nearby, parrotfish scraped algae from rock, a natural process that can leave room for corals to grow. Each diver moved slowly so stirred sand would not cover the newly placed corals. The team returned weekly to check survival.

3 Several months later, restoration did not erase the larger danger. If ocean temperatures stay high, corals may bleach, losing the algae that provide much of their food. Ortiz compared rebuilding a reef to repairing a roof during a rainstorm: necessary, but not enough to stop the weather. Still, she described each surviving colony as a foothold. Their records would help them decide which corals might withstand future heat. For Ortiz, the slow work was neither a miracle nor a defeat.

2 ANSWER WITH EVIDENCE

Use the passage

1. What does the technical term “calipers” most likely mean in paragraph 1? Which details in the paragraph support your meaning?

2. How does comparing the reef to “a city after a storm” affect the reader's image of the reef and the tone of paragraph 1?

3. What does the phrase “tiny tenants” suggest about the coral fragments? How is its effect different from simply calling them fragments?

4. Explain what Ortiz means by comparing reef restoration to “repairing a roof during a rainstorm.” How does this analogy affect the tone of paragraph 3?

3 YOUR TURN

Your own words

Write three sentences about a team restoring a damaged city park. Use one technical term correctly and one comparison. In the third sentence, explain how one word or phrase you chose shapes the tone.

ANSWER KEY

Reef Words at Work

GRADE 8 · RI.8.4

PART 1 · READ AND MARK

Circle two technical terms, underline one comparison, and number two words whose connotations help create the passage's tone. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What does the technical term "calipers" most likely mean in paragraph 1? Which details in the paragraph support your meaning?	**Calipers are tools used to measure an object's size or dimensions. The team used them to measure coral fragments and recorded branch length.**
2	How does comparing the reef to "a city after a storm" affect the reader's image of the reef and the tone of paragraph 1?	**The comparison makes the reef seem damaged, disrupted, and full of empty spaces. It creates a somber tone.**
3	What does the phrase "tiny tenants" suggest about the coral fragments? How is its effect different from simply calling them fragments?	**It suggests that the corals need a place and continued care. The phrase creates a more personal, caring effect than the more scientific word "fragments."**
4	Explain what Ortiz means by comparing reef restoration to "repairing a roof during a rainstorm." How does this analogy affect the tone of paragraph 3?	**Restoration is necessary, but it cannot fully protect reefs if high ocean temperatures continue. The analogy creates a cautious, realistic tone about the limits of the work.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Workers installed permeable pavement, a surface that lets rainwater soak into the ground, along the flooded park path. The new path was a sponge after a storm, pulling water away from the playground. The word "sponge" creates a hopeful, practical tone by showing how the path can help.

Accept reasonable meanings and tone descriptions when students support them with details from the passage. For Part 3, check that the technical term is used accurately, the comparison is clear, and the explanation connects a word or phrase to tone.