Reef Words Work

See how precise language clarifies a complex environmental topic.

CCSS.ELA-Literacy.W.11-12.2d "Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline at least five domain-specific words or phrases, and circle each comparison that helps explain how reef restoration works.

Rebuilding a Reef

1. Along Florida's coast, coral nurseries raise fragments of staghorn and elkhorn coral before divers attach them to damaged reefs. These corals are not plants. They are colonies of tiny animals, called polyps, that build calcium carbonate skeletons. When heat stress causes bleaching, polyps expel the algae that supply much of their energy. A bleached reef can look like a bone-white city, but its pale color signals a disrupted partnership, not an empty habitat.

2. Restoration teams select fragments from genetically diverse parent colonies, then fasten them to nursery trees or reef rock with marine epoxy. The goal is not simply to cover bare seafloor. Teams track survival, growth, disease, and genetic diversity because a reef functions as a living neighborhood: many species need its crevices, branches, and food webs. A single fast-growing coral may fill space quickly, yet a varied population is more likely to withstand future heat waves and outbreaks.

3. Scientists also monitor water temperature, sediment, and herbivorous fish, which graze on algae that can smother young corals. This monitoring turns restoration into an experiment rather than a rescue photograph. If sediment clouds the water, less sunlight reaches the corals' algal partners. If parrotfish decline, algae can spread across open surfaces like a heavy curtain. Precise records help teams decide whether to move fragments, reduce local pollution, or protect grazing fish before the next bleaching event.

2 ANSWER WITH EVIDENCE

Use the passage

1. Name two domain-specific terms from the passage. What does each term identify or describe?

2. What analogy describes a reef's role for other species? What does the analogy show?

3. Identify the simile about algae. What effect does it help the reader picture?

4. Why does the writer call monitoring "an experiment rather than a rescue photograph"?

3 YOUR TURN

Your own words

Write a 45-55 word explanatory paragraph about improving a local ecosystem challenge, such as urban heat or stream erosion. Use at least two domain-specific terms and one metaphor, simile, or analogy to explain how a solution works.

ANSWER KEY

Reef Words Work

PART 1 · READ AND MARK

Underline at least five domain-specific words or phrases, and circle each comparison that helps explain how reef restoration works. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Name two domain-specific terms from the passage. What does each term identify or describe?	**Answers may include polyps, tiny animals that form coral colonies; calcium carbonate skeletons, structures built by polyps; bleaching, the loss of algae during heat stress; or herbivorous fish, fish that eat algae.**
2	What analogy describes a reef's role for other species? What does the analogy show?	**A reef is compared to a living neighborhood. The comparison shows that many species depend on its spaces and food webs.**
3	Identify the simile about algae. What effect does it help the reader picture?	**"Like a heavy curtain." It helps the reader picture algae spreading across and covering open reef surfaces.**
4	Why does the writer call monitoring "an experiment rather than a rescue photograph"?	**The phrase emphasizes that restoration depends on collecting evidence and making informed decisions, not only creating a visible result.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

To reduce urban heat, planners expand tree canopy along paved streets. Leaves cool nearby air through transpiration, while roots absorb stormwater that would otherwise rush into drains. A shaded block works like a natural air conditioner, but planners must select drought-tolerant species and protect young trees from compacted soil.

Accept accurately identified scientific vocabulary and reasonable explanations of the comparisons. For Part 3, accept varied topics if the response meets the word count and uses precise terms plus a meaningful comparison.