Clues in the Marsh

Use context and word parts to decode scientific language.

12.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 four academic words or concepts, circle nearby words that reveal each meaning, and box a useful prefix, root, or suffix when one appears. Use your marks to show how the passage helps you figure out unfamiliar language.

Rebuilding a Coastal Marsh

1. Along Louisiana's coast, engineers and ecologists are rebuilding wetlands that buffer communities from storm surge. A wetland is not simply soggy ground. Its grasses, roots, and shallow channels slow moving water, allowing sediment from the river to settle onto low land. This process can raise low land over time. In one restoration project, workers cut openings in a levee so that river water could enter a damaged marsh. The project's goal was to reestablish a natural supply of mud and freshwater without sending so much water that nearby homes or oyster beds would be harmed.

2. Before construction, researchers measured turbidity at several sites. When a sample had high turbidity, it looked cloudier because suspended material scattered the sensor's light. After heavy rain, the river's turbidity increased, so the team expected more sediment to reach the marsh. They also monitored salinity. Freshwater lowered salinity in the estuary, a coastal water body where river water mixes with seawater. If the water became too fresh, species adapted to saltier conditions could decline. The researchers therefore adjusted the openings gradually, collecting data before making the next change.

3. The project also required mitigation, actions meant to reduce an unwanted effect. Crews planted native grasses along newly formed banks, where their roots could limit erosion, the wearing away of soil by water or wind. They did not claim that one project could halt coastal land loss. Instead, they treated the marsh as an interconnected system. Changes to water flow could affect fishers, birds, farms, and towns beyond the construction site. By comparing water measurements, wildlife observations, and residents' reports, planners could revise their approach when results differed from their predictions.

2 ANSWER WITH EVIDENCE

Use the passage

1. In paragraph 1, what does the prefix re- suggest in reestablish? What does reestablish mean in this project?

2. What is sediment most likely to be in paragraph 1? Give two details from the paragraph that support your meaning.

3. Use paragraph 2 to define turbidity. Which details in the paragraph help you infer its meaning?

4. What does interconnected mean in paragraph 3? Use the prefix inter- and the passage details to explain the concept.

3 YOUR TURN

Your own words

Write a three-sentence field note of 45 to 60 words about a restoration project. Include an unfamiliar academic word with a recognizable prefix, root, or suffix, give context that makes its meaning clear, and state the inferred meaning, one context clue, and the useful word part in your third sentence.

ANSWER KEY

Clues in the Marsh

GRADE 12 · 12.P.EICC.3.g

PART 1 · READ AND MARK

Underline four academic words or concepts, circle nearby words that reveal each meaning, and box a useful prefix, root, or suffix when one appears. Use your marks to show how the passage helps you figure out unfamiliar language. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	In paragraph 1, what does the prefix re- suggest in reestablish? What does reestablish mean in this project?	**The prefix re- means again. Reestablish means restore or create again the marsh's natural supply of mud and freshwater.**
2	What is sediment most likely to be in paragraph 1? Give two details from the paragraph that support your meaning.	**Sediment is river-carried mud or small soil particles. It settles onto low land, and the project seeks to restore a supply of mud.**
3	Use paragraph 2 to define turbidity. Which details in the paragraph help you infer its meaning?	**Turbidity is the cloudiness of water caused by suspended material. High turbidity made samples look cloudier, and it increased after heavy rain when more sediment was expected.**
4	What does interconnected mean in paragraph 3? Use the prefix inter- and the passage details to explain the concept.	**Inter- means among or between. Interconnected means the marsh's parts and people are linked, so changes in water flow can affect fishers, birds, farms, and towns.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The crew began revegetation on a bare riverbank, planting willows and grasses where floodwater had stripped away plants. Within two seasons, green roots held the soil in place, and insects returned to the new cover. Revegetation means planting vegetation again, shown by the return of plants and the prefix re-, meaning again.

Accept equivalent meanings when students use accurate contextual evidence and word-part reasoning. For the open task, check for three sentences, 45 to 60 words, an inferable academic word, and a final sentence that identifies its meaning, a context clue, and a word part.